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ANATOMY OF CRYPTOCURRENCIES

ŞİFRELİ PARALARIN ANATOMİSİ

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Abstract: Cryptocracy is an exchange and payment platform created and stored on the internet through encryption methods of virtual/digital currencies by using the blockchain technology. Cryptocurrencies, which are increasing in popularity in the world and whose academic literature is rapidly developing, are considered "quasi-money" because they do not perform all the functions of money. The production and access of cryptocurrencies like Bitcoin (BTC) through blockchain technology represents the pinnacle of innovation in financial technology. BTC dominates the cryptocurrency market with the highest share, which does not yet have a physical form and any central authority or mediator controlling it. The key to a digital money transfer system that is independent of a central authority and trust is cryptographic mechanisms. Since BTC enables fast money transfer, it is included in wallets by the IMF, the World Bank and some central banks. The cryptocurrency system has divided the Islamic world, like the Western world, into two or even three fronts. This study aims to draw a framework for some strong (S), weak (W), opportunistic (O) and threatening (T) aspects of cryptocurrencies.

Key Words: Cryptocracy, Cryptocurrencies, Bitcoin, SWOT Analysis

Öz: Şifreli para düzeni, sanal / dijital para birimlerinin internette şifreleme yöntemleriyle blok zincir teknolojisi kullanılarak oluşturulup saklandığı bir değişim ve ödeme zeminidir. Dünyada tanınırlılığı artan ve akademik alanyazını hızla gelişen şifreli paralar, paranın tüm işlevlerini yerine getirmediği için "para benzeri" sayılmaktadır. Blok ağ teknolojisi ile Bitkoin (BTK) gibi şifreli para üretimi ve erişimi, mali teknolojide yenilikçiliğin zirvesini temsil etmektedir. Henüz fiziksel bir biçimi ve onu denetleyen herhangi bir merkezi yetki ya da arabulucunun olmadığı şifreli paralar pazarına en yüksek payla BTK egemendir. Merkezi bir resmi kurumdan ve güvenden bağımsız bir dijital para aktarım düzeninin anahtarı şifreli parasal mekanizmalardır. BTK hızlı para gönderimini sağladığı için IMF, Dünya Bankası ve bazı merkez bankaları tarafından cüzdanlara dâhil edilmektedir. Şifreli para düzeni, Batı dünyası gibi İslam dünyasını da iki ve hatta üç cepheye bölmüş durumdadır. Bu çalışma, şifreli paraların bir takım güçlü (G), zayıf (Z), fırsatçı (F) ve tehditkâr (T) yönleri için bir çerçeve çizmeyi amaçlamaktadır.

Anahtar Kelimeler: Şifreli Para Düzeni, Şifreli Paralar, Bitkoin, GZFT Çözümlemesi

1. Introduction

In terms of banking technique, what makes an object money is that the public accepts it as money with the support of a central authority. Cryptocurrencies, whose popularity has increased with Bitcoin (BTC) and Ethereum (ETH)[*] and whose virtual value fluctuates, are not money if they do not fulfill any of the four basic functions of money (means of payment - transaction, unit of account, means of savings, economic policy tool), has the *"quasi-money"* (or "money-like") feature. In this case, commercial banks, whose job is to transfer the savings collected from people and businesses to them as loans, approach with hesitation.

[*] Although mining (production) is based on the same technology and logic Central Processing Unit (CPU) in BTC and the Graphics Processing Unit (GPU) in ETH are used for software when creating the blockchain. The inventor of BTC is Craig Wright, an Austrian entrepreneur who uses the pseudonym Satoshi Nakamoto. He and a group of others have written theoretical and applied articles on the cryptocurrency scheme since 2008. (For an example, see Nakamoto, 2008.) Other cryptocurrency protocols came into play after that. The founder of ETH (2014), which is close to the popularity of BTC and ranks 2nd in transaction volume, is Vitalik Buterin (Russian-Canadian), who complained that cryptocurrency trading was done for bad purposes and even attracted attention in international diplomacy. He is among Fortune's top 40 most influential people in the world in 2016. He also entered Bloomberg's top 50 list in 2017.

While the production and access of cryptocurrencies such as BTC with blockchain technology represents the pinnacle of innovation in financial technology, it also appears to be a serious failure of economic globalization because it accepts no borders. It is debated whether national cryptocurrencies will be produced in the next few years. One end of this debate is based on the financial sector in general, which is naturally affected by the cryptocurrency economy at different levels, and traditional banks and participation banks in particular.

Cryptocurrency system, also known as "cryptocracy", which expresses an opposition and deviation from the traditional banknote system, is an exchange and payment basis that is created and stored on the internet in the blockchain through encryption techniques of virtual/digital currencies. BTC dominates the cryptocurrency market with the highest share, which does not yet have a physical form and any central authority or mediator controlling it. BTC is a virtual/digital currency that enables payments in an independent peer-to-peer (P2P) network validated by the collaboration of its users.

Some of the key developments regarding cryptocurrency production, trading and value are as follows (McKenzie, 2017; Rochard, 2013):

- Cryptocurrency production is done with digital blockchain technology; Since it is kept in a ledger/wallet with no central link or control, it is considered the real money of the people, not the state.
- The production of each encrypted currency is limited. For example, the supply of BTC has been determined in advance (21 million units) and as it is produced, its supply will approach zero. This indicates that they cannot be printed indefinitely and used for payments like paper money.
- Although its existence was known before and in a narrow circle, the users and consumers of BTC, the first thing that comes to mind when it comes to cryptocurrencies, which emerged as a reaction to the global financial crisis in 2008, do not act with a concern such as inflation, and even if it turns into a bubble and bursts, they can make speculative profits. It is very attractive to post-modern players who want to play.
- As interest in cryptocurrencies increases, the latest financial technology (fin-tech) and the highest quality encryption scheme are being put into use by miners.
- Cryptocurrency production by independent software experts called "miners" requires high levels of energy consumption.* The millennium goal of "sustainable growth", based on the United Nations' nature-industry-next

* In direct proportion to the demand for BTC, the energy demand for the production of virtual currency called "mining" increases. "Currency mining" requires computer hardware (large numbers of computers, powerful graphics cards, special layouts), which also requires high electricity consumption. Jezard (2017) provides striking data on this subject: i-The electricity used for a single BTC transaction is close to the monthly consumption of a house. ii-One BTC production process consumes the electricity that Denmark consumes in a year (33 TWh). iii-The power required for the BTC transaction made in November 2017 is equal to the annual electricity use of 5850 Americans. According to the warning, *"The use of energy-consuming algorithms for the BTC mining process means that we burn fossils to make the transactions happen. And that's not good for our planet or our health."*

generation friendship, may be disrupted by "unsustainable money mining" due to excessive electricity waste.

- Hacked computer and smartphone accounts for cryptocurrency mining are increasing rapidly.
- According to Interpol and Europol records; gambling, arms smuggling, etc. black money worth billions of dollars/euro is laundered with encrypted money, making it difficult to monitor and arrest gangs.
- The price of cryptocurrencies may fluctuate with the statements made by the government and the private sector.
- BTC is included in wallets by the IMF, the World Bank and some central banks because it enables fast money transfer.
- However, on the grounds that there is no basis behind it, warnings are made that it may be used in areas such as "terrorist financing/money laundering".
- BTC owns the "BTC network" which will be called the "Bitcoin Central Bank" (BCB). It issues a currency called "bitcoins" and processes BTC transfers between accounts. It can fulfill a function in the BCB's rule-based monetary policy formation.

In the reports prepared by many global investment companies such as Goldman Sachs, it is stated that BTC is traded at the "bubble" level, exceeding its real value due to the rapid increase in its price. It is pointed out that this rapid increase in the price of BTC leaves behind the "internet bubble" in the USA between 1997-2001 and the "tulip mania" in the Netherlands between 1634-1637.

In short, the first aim of this study is to make a brief SWOT analysis in the light of the conceptual and qualitative elements of the cryptocurrency order, while the second aim is to try to reveal the world's excitement and concerns about this order.

2. Literature

Cryptocurrencies and their effects on the economy have become one of the current research topics of economists. This subject, which has a rich printed archive in English, is still considered new in Turkey.

Marian (2016) defines cryptocurrencies as a subcategory of virtual currencies, stating that they may replace tax havens as the route of choice for tax evaders: The first process is the increasing popularity of cryptocurrencies, the most recognized and prominent of which is BTC. Unlike other virtual currencies, cryptocurrencies, which are not limited to a virtual volume based on the in-game economy and operate in the real economy, serve as a unique currency with a floating exchange rate of their own. In the secondary universal process, governments began, for the first time, to successfully partner with their foreign allies in the war on overseas tax evasion. In this context, instead of targeting tax haven regions that host financial instruments, they focused on financial instruments in which tax evaders traditionally conduct transactions. Earnings in cryptocurrencies are not eligible for taxation and the anonymity of taxpayers is

also protected. On the other hand, cryptocurrencies also have added value and their functionality does not depend on the existence of financial institutions.

Jessop (2017) focused on the global value of BTC: 2017 was a record year for cryptocurrencies, with the value of BTC exceeding $10 thousand. When BTC gained so much value and popularity, other competitors entered the market. Advances in blockchain technology are facilitating the creation of the market and supplying large amounts of it online. What is certain is that this technological application has been distilled into the world as a source and has opened the "Pandora's Box" in a way that can no longer be restored.

Ahmed (2016) says that the world is moving towards becoming cashless and benefiting from cryptocurrency: The size of the Islamic finance has exceeded $3 trillion, with the prediction that Dubai, Bangladesh, India and other countries will become "cashless societies" in the next 2-4 years. So far there has been no "Shariah Certified Cryptocurrency" in the "700+" cryptocurrencies. But new cryptocurrencies help maintain the security and stability of cryptocracy.

Krawisz (2014) establishes a relationship between a high degree of *"BTCization"* (hyperbitcoinization) and high (hyper) inflation: First of all, we refer to the phenomenon of demonetization, which refers to a process in which people stop using a monetary unit as a currency, and the government rapidly devaluing the currency. It can be pointed out that when it inflates, it creates hyperinflation, which is considered a kind of 'demonitization'. There are two main differences between hyperinflation and hyperBTCization: i-A currency causes hyperinflation due to its limited competition against other currencies, and on the other hand, hyperBTCization due to its open competition with BTC. This is because BTC can easily compete across borders, as capital controls are much more effective on other fiat currencies ($, €, £, ¥, etc.) than on BTC. ii-In a hyperinflation, as the government expands the money supply (Ms) in excess of people's inflation expectations (Π), demonetization occurs as a result of the destructive interactions between these two variables. However, hyperBTCization is not accompanied by any change in Ms.

According to Askar (2018), the emergence of cryptocurrency and blockchain technologies will radically shake many sectors of the economy. This innovation, called blockchain, will also affect the Islamic financial sector (banking, insurance, investment, etc.). Being open to the digital revolution currently taking place will increase the competitive advantage for the Islamic financial sector. The establishment of blockchain in Islamic banking can primarily facilitate payment, remittances and buying and selling transactions. Renewing legal documents through the implementation of smart contracts significantly reduces transaction time, reduces costs for providers and transaction fees for consumers, reduces the need for centralized regulation, eliminates the risk of errors and duplication, reduces fraud, manages counterparty risk, etc. According to him, although Islamic financial technology was at the forefront of innovation in the past -for example,

the invention of the check in the 9th century- it has not been dynamic at all in recent times. According to consultancy, Accenture, just 1% of the $50 billion in global "fin-tech" investment since 2010 has gone to the Middle East and North Africa (MENA).

Mohamed (2016) emphasizes that the blockchain is a technology that will make the trust mechanism functional as it progresses from personal to impersonal change due to globalization: This technological backbone is a technology that will make the trust mechanism functional through cryptocurrencies, smart contracts, full reserve lending platforms, multi-currency transfers, etc. It will become widespread within 6-8 years. Using blockchain technology, fin-tech will transform finance that shapes and supports Islamic values (justice, equality and efficiency) and religious spirit.

Khan (2017) brings a theoretical approach to the cryptocurrency system according to Islamic principles, primarily reminding three different views: i-Encrypted money sharing is not "goods" (wealth) but is completely speculative and is not an investment in accordance with Islam. ii-Cryptocurrency exchange is a digital asset, but not a currency. iii-Cryptocurrency is a certain type of currency. Crypto may appear to be worth other currencies as an attractive means of payment, albeit within a narrow circle, but this is an illusion. If many people see BTC as valuable, then it is valuable! However, a currency that is prone to collapse, fluctuates excessively, and whose transaction does not last very long cannot be an effective means of payment. However, if an encryption state exits the current phase, it gains identity and acceptance. Because it is safe, fast, low in terms of transaction costs and then becomes a highly accepted currency, then there is no reason why it cannot take its place next to fiat money (banknotes).

To understand whether Islam allows the use of BTC, Hasan (2017) evaluates it from four aspects such as currency value, payment network method, uncertainty (gharar) concept and serving the real economy. Islam determines three criteria for money: goods (wealth), legal value and monetary use. BTC is acceptable as it tends to have characteristics of commodity and legal value, excluding monetary use. Unlike modern money, BTC is not based on debt but on proof of payment. It carries elements of uncertainty over volatility, which has led to price speculation in the past and does not have an authoritarian central structure. This contradicts one of the fundamental pillars of Islam. Therefore, for BTC to be halal, investors and users must understand the risks before purchasing and create an action plan against BTC negativities. For example, the Jeddah-based Islamic Development Bank (IDB) aims to promote development and financial inclusion in its member countries by using a blockchain-based financial instrument. IDB creates a use case using blockchain smart contracts to create Muslim-friendly financial products. Dubai has begun the process of developing its own encrypted digital currency for implementation nationwide, outside of Saudi Arabia. Although the Central Bank of the UAE has in the past warned against the use of BTC due to lack of regulation,

it appreciates the convenience and urgent need of the digital economy. Currently, there is no consensus among Islamic scholars on whether "cryptocracy" and peer-to-peer (P2P) payment systems such as BTC are compatible with religious rules.

Javed (2014) states that J. Bergstra, a Dutch computer scientist who directs Islamic finance, classified BTC as "a money-like informational commodity" (MLIC) and that the concept is an innovation that contributes to the understanding of money; He makes an interesting point that due to BTC's open and decentralized nature, its ownership and access as an MLIC can be easily identified and accessed. Looking at the BTC mining (production) mechanism, it is similar to a lottery where whoever has the most resources has the highest probability of winning, which cannot find a place in Islam. As Javed says, when examining the Islamic finance archive, the referenced Islamic law is a process rather than a strict code. This process should be used to solve the compatibility problem of cryptocurrencies and Islamic markets in the light of modern conditions, rather than obstructing progress.

According to Lea (2016), who puts forward a striking idea about this harmony, having asset-based BTC and cryptocurrencies is in good harmony with Islamic finance principles, as there is no debt relationship and it does not pay interest (riba). If the value of cryptocurrencies is increasing at a speculative level and making some unjustly rich, this is due to the recent harmful global problems (terrorism, oil wars, etc.), and this is no less true for $ and €. In fact, various Islamic scholars argue that BTC is more halal than the fiat money used today (e.g. $) and should be allowed. For example, in Islamic finance, the principle that money has intrinsic value applies to BTC, but not to current paper money. Because its value derives from the proof of transaction protocol and is supported by the use of electricity needed to reach the required mining difficulty level (or generate a BTC by solving the cryptographic puzzle).

Finally, Derman (2015) shares the optimistic thoughts of Vigna and Casey, who wrote the book "Cryptocurrency Age", about the future of BTC: One should be optimistic, because entrepreneurs and some venture capital companies are creating virtual wallets that allow easy spending and contain BTC. They started to finance the applications. The fact that some governments ban virtual currencies such as BTC does not prevent the arrival of easy electronic payment methods. Competition is expected to be between anonymized and decentralized currencies and traditional and centralized schemes, as the anarcho-liberals want, and currencies such as BTC will strain national borders and threaten capital controls. Although it is not known whether BTC will truly bring happiness and freedom, considering the irrepressible pleasure of capitalism, it is not difficult to predict that if BTC is successful, some companies will make a lot of money as usual.

3. A SWOT Analysis for Cryptocurrencies

Cryptocurrency is a digital value that enables cryptographically secure transactions through internet and the supply of additional virtual money.[*] BTC,[†] the largest and the first to enter the market among the cryptocurrencies that started to challenge the global economy based on fiat-national currencies, has the highest transaction volume, the most expensive and the most popular. It is produced by the encryption method within the blockchain network on computers with high processing power and is released by software developers - called miners - who solve independent and special algorithmic problems by competing, so it has an anonymous feature, is not affiliated with any central bank or official institution, cannot be controlled by the government, and is unintermediary. The number of cryptocurrencies that can be purchased, converted into foreign currency, stored in an electronic wallet, exchanged and transferred via computer or smartphone without paying commission or transaction fees has exceeded 5 thousand -in 2018 alone.[‡]

The key to a digital money transfer system that is independent of a central authority and trust is cryptographic mechanisms. The concept of digital money was first proposed by D. Chaum in 1982, when its foundations were laid using cryptographic building blocks, to be managed centrally. However, in the following years, transactions within a peer-to-peer (P2P) network began to be carried out jointly by the participants and were to be modeled with distributed systems without a central structure. An attempt was made to model it with distributed layouts. BTC, the first distributed model to achieve this, was proposed by S. Nakamoto in 2008 as an innovative payment system and a new digital currency (Khalilov, Gündebahar, Kurtulmuşlar, 2017).

Digital and virtual currencies, other than BTC and its derivatives, are not currencies in themselves, but they are based on the national currency of the country they represent and can be regulated and supervised by the central authorities of that country. It is the first implementation of the BTC transaction protocol, decentralized network and distributed transaction innovations. It is also the digital gold standard for other cryptocurrencies. BTC is simply an option against the fiat money order (national currencies of countries), that is, a new digital monetary order. Other features of BTC are as follows (Çarkacıoğlu, 2016: 13-14):

[*] According to the European Central Bank, virtual currency is *"… an unregulated form of digital money that is issued and controlled by its developers and accepted and used among members of a specific virtual community."* According to the Financial Action Task Force, it is *"a digital representation of value that can be exchanged digitally and can serve as a medium of exchange, unit of account and/or store of value, but does not have any legal provider ownership status if subject to jurisdiction."* However, digital money can be used as a digital representation of both virtual money and fiat money (Dulupçu et al., 2017, 2242)

[†] BTC is divisible by up to 8 digits, so it is possible to make a transaction of "0.00000001" BTC. The smallest unit (penny) is called "Satoshi". (100 Million Satoshi = 1 BTC)

[‡] Among the cryptocurrencies expected to increase in value the most in 2018 after BTC are ETH, BTC Cash, Ripple, Litecoin, Dash, Neo, Iota, Monero, Nem, etc. is located.

- The maximum number of BTC is limited to 21 million. No one, no authority, can supply money to the BTC system from outside. However, fiat money in the form of paper banknotes is printed by central authorities and additional money supply is provided when requested.
- BTC scheme is defined so that a total of 21 million BTC can be produced. As of December 1, 2016, 16.018.575 BTC is in circulation. Until 2140, 4.981.425 BTC will be given to miners in return for new block production by miners.
- Cumulatively supplied BTCs can be seen. Since BTC supply continues to decrease and there will be no BTC supply after 2140, BTC may have a tendency to become a deflationary currency. Since there is not enough BTC, if the demand for BTC increases, it could become overvalued.
- All transfer transactions carried out since 2009 are kept in a global ledger called blockchain. Block-Chain enables value to be produced, transferred and stored without a central recording and control mechanism.
- Anyone who wishes can keep and examine this ledger and verify the accuracy of the transactions. Miners write records in this ledger, meaning they ensure the security of the BTC network. Blockchain is a distributed, open and trustworthy consensus system.

Like every e-innovation, cryptocurrencies have some strengths (S), weaknesses (W), opportunistic (O) and threatening (T) aspects (see Table 1).

Table 1. *SWOT Analysis of Cryptocurrencies*

Dimension / constraint	**S** (++)	**W** (-)	**O** (+)	**T** (--)
Innovation	++Crypto-currencies are the newest development in the monetary history since the invention of paper money.	- Passwords can be cracked and BTC accounts or information can be stolen. Cryptocurrency technology is thought to be powerless against such theft.	+ Each country dominates the market and may try to regulate it by creating new crypto-currencies that identify with it. There is no obstacle to this for now.	-- The blockchain network is still not fully developed, so a transaction entered into the chain cannot be deleted and reversed, and incorrect payments cannot be refunded.
Emission	++ Algorithm-ists with powerful computer operating systems and	- Due to technical errors and viruses, the blockchain may be corrupted and	+ Countries can declare themselves rich by mining virtual currency, just	-- The strongest crypto, for example BTC, could become a monopolist

	superior software techniques can produce encrypted money on the blockchain basis cheaper and easier than paper money.	the cryptocurrencies produced may evaporate.	like becoming rich in banknotes in exchange for real production.	with the highest mining share in the entire cryptocurrency market.*
Means of payment	++ It can eliminate cash payments based on banknotes and/or credit cards.	- It is not possible to track, tax and supply virtual currencies. The biggest problem is that the use of these currencies is prohibited by states because they are open to black money transactions. - Virtual currencies that are difficult to confiscate can suddenly lose a lot of value.	+ Payments with BTC have also started. + Some states are planning to produce cryptocurrencies through their own central banks, rather than banning them. + Trans-actions started on the stock exchange with BTC.†	-- Its production requires a lot of electricity consumption. -- Expensive servers used in virtual currency mining are open to fraudsters and thieves. -- Counter-feiting may increase. -- Crypto-currency mining is under cyber threats.
Unit of account	++ Some companies around the	- Value can evaporate due to user errors.	+ It allows arbitrage.‡	-- Crypto-currencies can be decrypted

* Due to the "encryption" feature inherent in cryptocurrencies, in addition to transaction and monopolist risks, there are also security, data, liquidity, technological, intermediation, regulatory, scalability and structural deflation risks (Adam, 2017: 34-40).

† Chicago Board Options Exchange (CBOE) became the first exchange in the world to trade BTC futures. The processing of BTC by the CBOE exchange was interpreted as the first step towards the legitimacy of the virtual currency. BTC-ATMs were also opened in Hong Kong.

‡ It may not always be possible. For example, an evidence of the widening of the gap between South Korea (SK) and global markets in cryptocurrencies is that while the BTC price was traded at $ 13,775 at the beginning of 2018, it simultaneously found buyers in SK for over $ 20 thousand. The difference is called *"kimchi prim"* – named after the traditional Korean dish. Regulations regarding virtual currencies and foreign exchange transfer in SK make it difficult for investors to engage in arbitrage. The pressure to avoid arbitrage has made BTC prices in SK dependent on the wishes of individual investors in the country. "Coinmarketcap", the most common data provider on digital currencies, recently removed SK from its calculations,

	world have started to pay salaries in BTC as an option.			(hacked) between hostile countries and trigger hacking.
Saving motive	++ Its value is constantly increasing due to the increase in demand, and making investors happy. ++ Ideal for investors who love risk and expect high returns.	- According to religious (Islamic) sensitivities and existing fatwas, it is not right to save money with virtual currencies.	+ It can even be used as the subject of entertaining comedy movies, of which there are examples.	-- As a result of sharp and continuous declines in the exchange of crypto-currencies, BTC scandals and Bitcoin victims may arise that will occupy the economic agenda and security in society. -- Its value may be extremely volatile due to unstable conjuncture and media news.
Monetary policy dimension	++ While the Central Bank (CB) prints (emits) mutual/non-mutual paper money according to the liquidity needs of the economy, it can be relieved of a burden equal to the	-While the CB gives up an emission equivalent to the crypto-currency in circulation, it also gives up seigniorage, which is called emission income.	+ At a later stage, if crypto mining is carried out in a different manner in the CBs, with a remote possibility, a more flexible and complemen-tary structure can be	-- Its sustainability is at stake. --It's becoming a matter of ballooning, and the bubble may burst at any time or once in a while.

which was stated to create imbalance in the market. The reason for the decision was given that *"they differ excessively from other world countries in terms of prices and offer limited arbitrage opportunities"* (Dünya, 10/01/2018).

	crypto money put into circulation.	- Central governments and regulators are not guarantors of crypto-currencies.	introduced to the central banknote issue and liquidity need.	

Source: Author.

4.The World's Approach to Cryptocurrencies

The cryptocurrency system has divided the Islamic world, like the Western world, into two or even three fronts: Those who absolutely reject it with various regulations (-), those who do not impose harsh restrictions on crypto miners and/or discourage market entrepreneurs although they have not taken an official decision on the transition (+), and Those who are still undecided regarding developments (±). Gulf countries are in the 1st group with their fatwas, those who are multicultural and close to the West are in the 2nd group, and countries such as Turkey are in the 3rd group. There are many countries in the world that stand out with their attitudes towards cryptocurrencies in general and BTC in particular. (See Table 2 for an example.)

Table 2. *Attitudes of Selected World Countries Towards Cryptocurrencies (or BTC)*

Germany: In 2013, while the world was still trying to understand what BTC was, this country viewed BTC with curiosity and skepticism, even though it accepted it as a "special currency".	*Russia:* Sometimes it prohibits BTC transactions, sometimes it liberalizes them. BTC is likened to Russian winters: "Hard to deal with, but inevitable."	*China:* As in almost every field, it is in a dilemma by trying to be the leader in BTC mining and at the same time restricting its production and trade.	*Canada:* BTC transactions are quite free.	*USA:* BTC is defined as a commodity, payments can be made with it in many companies, but it is stated that strict measures will be taken against all kinds of fraud and deception.
United Kingdom: While crypto-currencies are taxed under the sale of goods and services, stricter controls and bans are planned for BTC in the future,	*Japan:* It accepts BTC as a legal form of payment. The central bank also finds the increase in BTC prices abnormal and states that it is for investment	*Asian Countries* (Singapore, India, S. Korea, N. Zealand, Australia, etc.): They are worried that BTC is a bubble and this bubble will burst sooner or later.	*Venezuela:* Under the leadership of President N. Maduro, a crypto currency called "Petro" was used to issue debt through oil-	*Turkey:* There is no legal basis yet, but although "Turcoin" has entered the global cryptocurrency market, it has been declared by the CBRT

including credit card transactions.	or speculative purposes.		backed digital networks against the financial sanctions of the USA. According to some, this money plays the role of a "stunt".	that crypto-currencies cannot be used in payments. Moreover, political proposals were even made to create a legal and national digital currency with the support of the Turkey Wealth Fund, at the expense of disrupting the established financial pyramid.
Islamic countries (MENA, Gulf region, Indonesia, Malaysia, etc.): They reject and prohibit the production and trade of cryptocurrencies through fatwas as speculative and of uncertain value.*				

Source: Compilation made by the author from economic news of newspapers.

5. Conclusion

With the "inflate and deflate" transactions carried out in the crypto currencies market, including BTC and altcoins, a predetermined cryptocurrency is purchased by a large number of users and its price is increased, and then, a profit is made by selling it at the new rising value (NTV, 10/1/2018).

While BTC fatigue has set in, extreme expectations and determinations should be avoided: For example; Saying "BTC is the work of the devil, a bubble that will burst soon" is not a rational approach in this internet ("industry 4.0") age, as is saying "BTC is a great cryptographic achievement, it is the new dollar." On the one hand, there is a virtual-digital money sector trying to establish itself, on the other hand, there are governments that have not yet fully used the regulation weapon and a society that is confused between the two. Mutual bargaining and negotiation may begin between the leading miners and governments, which are at the center

* For example, in the UAE, a Gulf country, the central bank rejected proposals to issue licenses for virtual currency trading in the country and blocked crypto exchanges from offering their services locally (Froelings, 2017). Whereas in Malaysia, a company called HelloGold has launched a Shariah-compliant online platform that uses blockchain, providing more direct transactions and lower costs for millions of Muslim customers in the region to access the company. In Indonesia, fin-tech startup Blossom Finance uses BTC for Muslim entrepreneurs and small businesses by providing micro-financial services. Blossom Finance raises capital from global investors and provides funds for investments in micro-financial institutions through BTC transactions that save on expenses and distributes company earnings to investors after an annual cycle (FC, 2017).

of BTC production. However, if powerful states allow it and are accepted in major economies, cryptocurrencies all over the world can enter wallets (portfolios) like national and global currencies and currencies. The financial sector, and therefore participation banks also, must be adequately prepared against this innovative and surprising encrypted money system.

The future will show how much global finance (finance-capital) will include cryptocurrency, which means encrypted money technology, within its own democracy. However, no matter where the general financial sector and participation banks are in the relationship between economic democracy and cryptocurrency, they should not deviate from justice and be a part of monetary exploitation and artificial enrichment.

While the nature of money is complex enough, the production, distribution and subject of a pyramid scheme of cryptocurrencies, which are controversial whether they are money or money-like or what kind of money they are, pushes the limits of logic. If technology acrobats attempt to produce money with 3-D technology for the public good and manage to hide themselves with superior encryption, the financial sovereignty of the state may be shaken.

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EXTENDED ABSTRACT: Cryptocracy is a basis of exchange and payment where virtual/digital currencies are created and stored on the internet through the blockchain technology by using encryption methods. Cryptocurrencies, which are increasing in popularity in the world and whose academic literature is rapidly developing, are considered "money-like" because they do not perform all the functions of money. The generation and access of cryptocurrencies like Bitcoin (BTC) through blockchain technology represents the pinnacle of innovation in financial technology. BTC dominates the cryptocurrency market with the highest share, which does not yet have a physical form and any central authority or mediator controlling it. Known to be highly susceptible to speculative gains and financial crises, BTC is a virtual/digital currency that allows its users to make payments in an independent peer-to-peer (P2P) network approved by cooperation and collaboration. The inventor of BTC is Craig Wright, an Austrian entrepreneur who uses the pseudonym Satoshi Nakamoto. The key to a digital money transfer system that is independent of a central authority and trust is cryptographic mechanisms. There are some fundamental developments regarding the production, trade and value of cryptocurrency. For example, cryptocurrency production is done with digital blockchain technology and is considered as the real money of the people, not the state, since it is kept in a ledger/wallet that has no central connection or control. In addition, cryptocurrency production by independent software experts called "miners" requires high levels of energy consumption, which contradicts sustainable growth and creates the risk of unsustainable currency mining. Another important development is that BTC is included in wallets by the IMF, the World Bank and some central banks, as it enables fast money transfer. The relationship between high degree of BTC (hyperbitcoinization) and high (hyper) inflation should also be closely monitored. The cryptocurrency system has divided the Islamic world, like the Western world, into two or even three fronts: This study aims to draw a framework for some strong (S), weak (W), opportunistic (O) and threatening (T) aspects of cryptocurrencies. . According to the SWOT analysis, the following examples can be taken into account: It can eliminate cash payment based on banknotes and/or credit cards (S). Passwords can be cracked and BTC accounts or information can be stolen (W). Countries can declare themselves rich by mining virtual currency, just as they can by becoming rich in banknotes

in exchange for real production (O). The expensive server used in virtual currency mining may further encourage fraudsters and thieves (T).

GENİŞLETİLMİŞ ÖZET: Şifreli para düzeni, sanal / dijital para birimlerinin şifreleme yöntemleri kullanılarak blok zincir teknolojisiyle internet ortamında oluşturulup saklandığı bir değişim ve ödeme zeminidir. Dünyada tanınırlılığı artan ve akademik alanyazını hızla gelişen şifreli paralar, paranın tüm işlevlerini yerine getirmediği için "para-benzeri" sayılmaktadır. Blok zincir teknolojisi ile Bitkoin (BTK) gibi şifreli para üretimi ve erişimi, mali teknolojide yenilikçiliğin zirvesini temsil etmektedir. Henüz fiziksel bir biçimi ve onu denetleyen herhangi bir merkezi yetki ya da arabulucunun olmadığı şifreli paralar pazarına en yüksek payla BTK egemendir. Vurgun amaçlı kazançlara ve mali krizlere oldukça açık olduğu bilinen BTK, kullanıcılarının iş ve güç birliğiyle onaylanmış bağımsız eşler arası (P2P) bir ağda ödeme yapılmasını sağlayan sanal/dijital bir para birimidir. BTK'nin mucidi Satoshi Nakamoto takma adını kullanan Avusturyalı bir girişimci olan Craig Wright'tır. Merkezi resmi bir kurumdan ve güvenden bağımsız bir dijital para transfer düzeninin anahtarı şifreli parasal mekanizmalardır. Şifreli para üretimi, ticareti ve değeri ile ilgili bazı temel gelişmeler sözkonusudur. Örneğin, şifreli para üretimi, dijital blok zincir teknolojisiyle yapılmakta olup merkezi bağı ve denetimi olmayan bir defterde/cüzdanda tutulduğu için devletin değil halkın gerçek parası olarak kabul edilmektedir. Ayrıca, "madenci" denilen bağımsız yazılım uzmanları eliyle yapılan şifreli para üretimi yüksek düzeyde enerji tüketimini gerektirmekte ve bu da sürdürülebilir büyüme ile çelişerek sürdürülemez para madenciliği riski doğurmaktadır. Bir önemli gelişme de, BTK'nin hızlı para gönderimini sağladığı için IMF, Dünya Bankası ve bazı merkez bankaları tarafından cüzdanlara dâhil edilmesidir. Yüksek derecede BTK'leş(tir)me (hyperbitcoinization) ile yüksek enflasyon arasında ilişki de yakından izlenmelidir. Şifreli para düzeni, Batı dünyası gibi İslam dünyasını da iki ve hatta üç cepheye bölmüş durumdadır: Bu çalışma, şifreli paraların bir takım güçlü (G), zayıf (Z), fırsatçı (F) ve tehditkâr (T) yönleri için bir çerçeve çizmeyi amaçlamaktadır. GFZT çözümlemesine göre şu örnekler dikkate alınabilir: Banknota ve/ya kredi kartına dayalı nakit ödemeyi ortadan kaldırabilir (G). Şifreler kırılabilir ve BTK hesapları ya da bilgileri çalınabilir (Z). Ülkeler gerçek üretim karşılığında banknot zengini olmak gibi, sanal para madenciliği yoluyla da kendini zengin ilan edebilir (F). Sanal para madenciliğinde kullanılan ve pahalı olan hizmet vericilikte dolandırıcı ve hırsızları daha da teşvik edebilir (T).