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Digital Currency Market Research: The Example of Ukraine

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Abstract: The article examines the theory and mechanisms of the functioning of the digital currency (cryptocurrency) market, reviews the latest publications of international scientists and experts, analyzes the digital currency market and its impact on both global and Ukrainian economy and financial system, the formation of trends and perceptions of circulation currencies, separation and connection with the real economy, defines methods of evaluating the effectiveness of investing in cryptocurrency assets on the global financial market, as well as opportunities and risks related to the use of cryptocurrency in the digital economy. Outlines of the Ukrainian digital currency market development, overcoming problems, ways of their solving, and certain conclusions are made. The article uses informational, comparative, institutional, complex approaches, and also adheres to the principles of objectivity, specificity, and systematicity, which give opportunity for a detailed and comprehensive study of the digital currency market. In the long term, the global digital economic development of each country may depend to a large extent on how well it adapts to the digital currency market. The analysis of the global cryptocurrency market reveals that the growing need for transparency and operational efficiency of financial payment systems, growing demand for remittances in developing countries, increasing market capitalization and strengthening data security are the main factors contributing to the development of the digital currency market. It was investigated that digital currencies as a means of payment are not yet sufficiently widespread in Ukraine due to the uncertain position of state authorities. The development of digital currencies in the country is mainly related to the investment activity of representatives of the IT sector in this financial instrument. It is assumed that by increasing consumer confidence, promoting it with the help of marketing techniques and tools, strengthening the security of this entire system and clarifying its legal status, it will gradually be integrated into the overall national and global financial system.

Keywords: digital currency, cryptocurrency, volatility, virtual currency, investment, benefits, risks, real economy.



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Introduction

Virtual economy based on the circulation of digital currencies is extensively developing in the context of global digital technologies development and innovations, along with real economy. The maturing of financial relations in the process of digitization contributed to the evolution of cryptology, its synthesis with economic research and the formation of new forms of financial instruments, namely financial exchanges - cryptocurrencies.

Currently, digital currencies do not have a significant impact on the functioning of traditional currencies, this situation is expected to change in the future. Banks and private companies have great interest in their use, and the number of legal entities which accept digital currencies as a means of payment for services is constantly increasing, as well as the number of transactions. At the same time, it should be pointed out that digital currencies are unique and special in terms of their potential as financial investments, i.e. assets. According to Bobby Lee, the founder of Litecoin, "cryptocurrency can completely change the world of money. It can make money more accessible to everyone and reduce the influence of centralized banks on businesses and people in general" (*Sergeenkov, 2023*). John Carney, former chairman of the US Federal Reserve System adds: "cryptocurrency has the potential to significantly affect the world economy, both positively and negatively. On the one hand, it can decentralize the financial system, make financial services more accessible and transparent, lead to the growth of international trade, economic growth, and greater competition. On the other hand, cryptocurrency can be used to finance the shadow economy and circumvent government sanctions. It could have serious implications for international security and the economy" (*Brown, 2018*). Regarding international security, Christine Lagarde noted: "many cryptocurrencies are too opaque for regulators, some are vulnerable to hacker attacks, but much of this is due to technical issues that can be resolved over time" (*Lagarde, 2017*).

However, unlike fiat currencies, cryptocurrencies do not have stable purchasing power in the long term. In an interview with The New York Times in 2018, Bill Gates said: "Cryptocurrency is a very interesting technology, but it's still at an early stage of development. I don't think it's ready to replace traditional currencies right now, but it has the potential to change the way we make payments" (*Gates, 2018*).

Besides the abovementioned, the holders cryptocurrencies cannot carry out a series of payouts to their, unlike other investment instruments such as real estate, stocks and bonds. On the other hand, digital currency can provide investors with income through changes in market value. This factor is one of the main drivers of market demand for certain digital currencies, but there are also certain risks associated with its use in the digital currency market.

The current geopolitical situation (the war between Russia and Ukraine), according to Larry Fink (the head of Black Rock, one of the largest investment companies in the world in terms of manageable assets (more than \$10 trillion), can have a positive effect on digital currencies, as it "forces countries to reassess its currency dependence, namely: a thoughtfully designed global digital payment system can improve the settlement of international transactions, reducing the risks of money laundering, corruption and the costs of cross-border payments" (*Kulishov et al., 2023*).

Regarding the development and legalization of cryptocurrency in Ukraine, according to Mykhailo Fedorov, Minister of Digital Transformation of Ukraine: "we want to create the most favorable conditions for the development of crypto-business in Ukraine, so that global crypto companies could enter Ukraine legally and conduct business using the banking system, and Ukrainians - declare and protect their income in virtual assets" (*Chainalysis Team, 2022*).

The introduction of the cryptocurrency market in Ukraine opens a completely new stage in the development of fintech innovations in the country and secures its status as one of the key European drivers of the latest financial technologies and services, is on the threshold of the transformation of the global financial system into "Money 3.0", and cryptocurrencies CBDC, NFT and other digital

assets will become a new stage in the evolution of finance, replacing fiat (*Kulishov et al., 2023*).

The review of scientific publications shows the relevance of the digital currency market research in the conditions of the digital economy.

Materials and Methods

The principle of systematicity is crucial in the research. Besides, the following general scientific methods were used during the research: content analysis, induction and deduction, descriptive, retrospective, comparative, generalization and grouping. The classification method was applied in the analysis of sources and literature, as well as for theoretical and methodological analysis in determining the essential characteristics of the key concepts of digital currency research. The method of content analysis was applied to the analysis of official documents, and the method of analysis and synthesis was used during the processing of existing literature. The complex use of various methods and approaches in the work contributed to a more objective study of the topic.

Research information base: data from international statistics, official resources of Knoema, Statista, scientific publications and materials of international congresses and conferences on the subject under study, reference and information publications, official websites about cryptocurrencies and other materials.

Results

Analysis of the global and Ukrainian cryptocurrency markets

The growth of the number of different digital currencies in the world shows the natural interest and relevance of the cryptocurrency market as a whole. By the beginning of 2022, there were more than 10,000 cryptocurrencies in the world, while nine years ago this number had been about 150 times smaller. At the same time, not all cryptocurrencies can be called successful projects, since only 20 cryptocurrencies provide 90% of the market capitalization of all cryptocurrencies (*Statista, 2023*). It should also be emphasized that the index is not cumulative, but reflects the number of active market offers traded on exchanges. In April 2022, the total market capitalization of all cryptocurrencies amounted approximately to 2 trillion USD, of which 700 billion USD accounted for Bitcoin (*Morris, 2022*).

Great Britain (18%), the United States (12%), Canada and Japan (6% each) account for the largest share of cryptocurrency exchange operations. The United States (34%), Great Britain (15%), Germany, Switzerland and China (6% each) are ahead of the number of cryptocurrency wallets. In China, the development of the cryptocurrency market does not depend on the activities of financial institutions, which are prohibited from conducting transactions with such instruments. The USA and Great Britain lead the ranking by the number of payment transactions (15% each), followed by South Korea (10%), China, Australia, Mexico and Argentina (4% each) (*Scheifler, Gostrik, 2020*).

In developing countries, a relatively large share of the population owns cryptocurrencies, which is shown in table 1.

Regarding the development of the Ukrainian cryptocurrency market as an integral part of the international cryptocurrency market, it is worth mentioning that the use of digital currencies in Ukraine has almost reached the level of the USA, Western Europe and Southeast Asia. According to experts, more than 5.5 million people, or 12.7% of the Ukrainian population currently own cryptocurrencies, and we are among the top three in terms of the number of users of various electronic wallets. For example, the Ukrainian cryptocurrency exchange Kuna reported that SMEs can rotate up to USD 5 million worth of cryptocurrency per week, while the volume of retail cryptocurrency trading is about USD 800,000 per day (*TripleA Global Digital, 2022*), and according to the Office of Effective Regulation (Better Regulation Delivery Office) research, Ukraine has entered the top ten countries in terms of the number of cryptocurrency users, the amount of funds raised through the ICO has reached 100 million US dollars (*Plachevskiy, 2018*).

Table 1. Cryptocurrency Ownership Data

Country	Number of people owning cryptocurrency	Percentage of population owning cryptocurrency, %
1	2	3
Ukraine	5 565 881	12,73
Venezuela	2 941 502	10,34
Singapore	549 903	9,40
Kenya	4 580 760	8,52
USA	27 491 810	8,31
India	100 740 320	7,30
South Africa	4 215 944	7,11
Nigeria	13 016 341	6,31
Colombia	3 122 449	6,14
Vietnam	5 961 684	6,12
Thailand	3 629 713	5,20
United Kingdom	3 360 591	4,95
Brazil	10 373 187	4,88
Pakistan	9 051 827	4,10
Philippines	4 360 579	3,98
South Korea	1 942 933	3,79
Peru	1 233 892	3,74
Australia	857 553	3,36

Note: Source was developed using (*TripleA Global Digital, 2023*).

The importance of the cryptocurrency market for Ukraine is also reflected in the assessment of the company Chainanalysis, which is engaged in blockchain analysis. According to the estimates, Ukraine is among the 10 countries where miners were able to earn more than 400 million US dollars and 10 billion hryvnias from the sale of bitcoin coins (*Cherkashyn, 2021*). In the US, miners earned \$4 billion from the sale of Bitcoin coins, while in China - only \$1.1 billion (*Sereda, 2021*). As a percentage of GDP, the share of profit from the sale of Bitcoin in Ukraine is significant and amount to about a quarter. In the US, this figure is about 0.02% ($4 / 20937 \times 100\% = 0.019\%$), and in China, the share of profits from the sale of Bitcoin in GDP is less than one hundredth ($1.1 / 14723 \times 100\% = 0.007\%$). However, Chinese miners account for approximately 65.08% of the global production of the Bitcoin cryptocurrency (*Kaloudis, 2021*). Thus, in Ukraine, the share of profit to GDP from the sale of Bitcoin is high, more than 10 times as high as the absolute and relative indicators of the main economically developed countries, which indicates the effectiveness of mining in our country.

The volume of bitcoin cryptocurrency in the cryptocurrency market as of the end of 2021 was 43.63% (*Bitcoin Rich List, 2023*), therefore, we are considering the characteristics of crypto wallets for this cryptocurrency and the distribution of Bitcoin cryptocurrency owners addresses and coins in Ukraine in table 2.

Table 2. Distribution of Bitcoin owners addresses and coins in Ukraine

Balance, BTC	Addresses	Percentage of addresses (total), %	Coins	USD	Percentage of coins (total), %
(0 - 0,001)	21003672	51,81 % (100 %)	4309 Bitcoin	174 949 994	0,02% (100 %)
[0,001 - 0,01)	10071550	24,84 % (48,19 %)	38 069 Bitcoin	1 545 580 196	0,2 % (99,98 %)
[0,01 - 0,1)	6156834	15,19 % (23,34 %)	198 946 Bitcoin	8 077 197 876	1,05 % (99,78 %)
[0,1 - 1)	2495548	6,16 % (8,16 %)	774 197 Bitcoin	31 432 284 174	4,09 % (98,73 %)

[1 - 10)	664793	1,64 % (2 %)	1 692 011 Bitcoin	68 695 427 628	8,93 % (94,64 %)
[10 - 100)	130122	0,32 % (0,36 %)	4 253 529 Bitcoin	172 692 755 511	22,45 % (85,71 %)
[100 - 1000)	13567	0,03 % (0,04 %)	3 892 931 Bitcoin	158 052 530 721	20,55 % (63,26 %)
[1 000 - 10 000)	2039	0,01 % (0,01 %)	5 259 606 Bitcoin	213 539 361 602	27,76 % (42,71 %)
[10 000 - 100 000)	81	0 % (0 %)	2 168 178 Bitcoin	88 027 747 037	11,44 % (14,95 %)
[100 000 - 1 000 000)	4	0 % (0 %)	664 320 Bitcoin	26 971 307 678	3,51 % (3,51 %)

Note: Source was developed using (*Bitcoin Rich List, 2023*)

Table 2 reveals that 2% of addresses control 94.6% of all Bitcoin coins. Taking into consideration that Bitcoin addresses are not "accounts" and that a single user can own multiple addresses, the concentration of Bitcoin cryptocurrency in the hands of a limited number of people could even be higher.

Traditional stock prices and total asset value reflect the overall health of a company is quite well. In the case of cryptocurrencies, this relationship is more ambiguous. Cryptocurrencies have no liquid and tangible assets. Besides, very limited intangible assets that can support and justify their current share price and market capitalization (Figure 1).

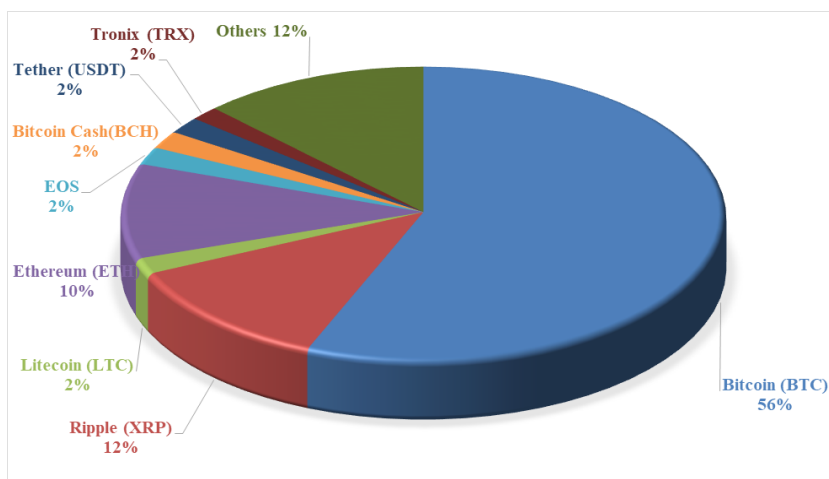


Figure 1. The global cryptocurrency market structure by capitalization as of 2021

Note: Source was developed using (*Review 2023 from Binance Academy, 2023*).

Therefore, in the conditions of digitalization in the financial markets, a wide range of digital currencies is offered, which are of great interest both to the general public and to investors who wish to invest in the rapidly developing market segment.

Methods of evaluating the effectiveness of investing in cryptocurrency assets in the global financial market

Digital currency is a new and unusual asset class with unique characteristics which requires a special approach when investing in it. However, in addition to the risks described below, the high volatility of this asset class and the excessive use of cryptocurrencies for speculative purposes immediately attracted attention, which became the main driver of the aforementioned volatility. Due to the weak regulation, trust was also low in this market (*Sheets, Wang, 2019*).

The price of cryptocurrencies on exchanges depends on supply and demand and can increase or decrease at any time due to a decrease or increase in demand. It can also change dynamically due to social or political factors. Indicators of different levels of profitability and risk in certain investment

time horizons are analyzed in the table. 3.

Table 3. The maximum, minimum and average monthly returns of Bitcoin at each point in time, as well as an indicator of the risk degree

Investment horizon	Maximum monthly yield, %	Minimum monthly yield, %	Average monthly yield, %	Risk, %
1 month	591,79	-88,46	31,55	95,39
3 months	634,24	-28,33	38,96	92,75
6 months	1022,22	-11,33	60,04	169,26
9 months	737,34	-7,52	48,63	104,73
1 year	1021,40	-4,67	69,09	158,94
1 year 3. months	1114,46	-2,42	87,02	179,23
1 year 6 months	1089,13	-2,37	114,88	205,96
1 year 9 months	1001,01	-1,92	141,37	232,99
2 years	1410,26	-0,79	171,84	260,83
2 years 3. months	4030,59	-0,90	286,18	591,43
2 years 6 months	9317,06	1,85	394,85	1286,98
2 years 9 months	3442,24	1,93	375,09	706,22
3 years	12624,85	2,83	744,84	2152,05
3 years 3 months	9003,42	3,54	687,33	1652,71
3 years 6 months	10157,74	8,58	790,81	1960,82
3 years 9 months	7849,77	8,10	689,78	1436,61
4 years	6464,36	18,88	760,96	1243,50
4 years 3 months	8088,96	32,42	943,28	1551,37
4 years 6 months	4825,64	154,66	1038,70	1044,72
4 years 9 months	4762,06	154,51	1413,12	1105,72
5 years	7541,36	181,45	1803,38	1758,20

Note: Source was developed using (*Performance of Bitcoin, 2023*).

The maximum monthly return is 12624.85%, which is extremely high. In their turn, the risk indicators of Bitcoin are also hundreds of times as high as those of other investment assets. At the same time, the uncommon behavior is that, unlike other assets, the risk increases significantly during longer investment periods (*Zakharkin et al., 2017*).

The dangers of cryptocurrency markets are mainly related to threats to financial markets, namely:

- lack of any regulation of the cryptocurrency market by financial regulators, as they are deprived of a real opportunity to influence the virtual sources of cryptocurrency formation effectively;

- complex nature of cryptocurrencies makes it impossible to recognize them as money, currency or monetary value, electronic money, securities or monetary surrogates, which is the basis for claims by financial regulators in a number of countries, including Ukraine;

- extremely large number of various cryptocurrencies (over 2,500) with very different technical and financial characteristics; unpredictability, extreme dynamism and high volatility of cryptocurrency rates (especially those which are in the greatest demand);

- the fact that cryptocurrencies are not considered to be bank deposits guaranteed by the state deposit guarantee fund, and therefore, the return of funds invested in cryptocurrencies cannot be guaranteed;

- the need for technical prerequisites for organizing the circulation of cryptocurrencies and, accordingly, related technical risks;

- the possibility of using cryptocurrencies to finance criminal or terrorist activities, money laundering or financial pyramids (*Zymovets, 2017*).

However, there are other types of investments related to cryptocurrencies. For example, many modern exchanges such as Binance also offer cryptocurrency deposits. These types of investments provide investors with income in the form of interest on invested funds. exchanges and corresponding ratios of cryptocurrency assets available to investors are listed in the table 4.

Table 4. Deposit rates on international exchanges

Exchange name	Interest rate, %
1	2
Aquu.io	7%
Crypto.com	14.5% - on ordinary cryptocurrencies 10% - on stablecoins
Nexo.io	16%
Binance.com	5-20% - depending on the cryptocurrency

Note: Source was developed using (*Performance of Bitcoin, 2023*).

Exchanges guarantee the payment of interest when concluding a deposit agreement, this does not mean that cryptocurrency deposits are risk-free. The main risk is that investors open deposits in cryptocurrencies, which are highly volatile currencies. Interest payments are guaranteed by the exchange, but there is no guarantee that the value of the cryptocurrency in which the investor opens a deposit will not change.

Therefore, according to the level of risk that the investor is ready to take, cryptocurrency exchanges offer various deposits, and depending on the possibility of early termination of the deposit agreement, they distinguish between flexible and closed deposits:

- flexible deposits offer investors a lower interest rate, which allows them to withdraw their funds earlier;
- closed deposits offer higher interest rates, but do not allow early withdrawal.

Some cryptocurrencies are divided into high-risk and low-risk deposits. Cryptocurrencies with high volatility, new or low trading volumes have higher interest rates and shorter minimum holding periods, but are considered riskier because they are more prone to price fluctuations. Cryptocurrencies with low volatility and high trading volume, which are tied to fiat money or more stable cryptocurrencies, also have their own deposits, which offer investors lower interest rates and longer minimum deposit terms, and are compensated by being more protected from price fluctuations (*Grechany, 2022*).

Many Ukrainian experts advise to consider cryptocurrencies as part of the investment portfolio (5-10%) and to assume that this asset is a high-risk one, being very unpredictable. One more tip is to invest in any high-risk asset only that amount that investors which you are ready to lose. That is why experts are still cautious about this investment tool.

The best strategy for investors is to stop looking at traditional investments as "the only option worth considering" and build a portfolio of alternative investments. Alternative investments are investments in products and markets created by decentralized financial protocols, as well as in digital currencies themselves.

Advantages and issues of using digital currency in Ukraine

The undoubted advantage of digital currencies is the flexibility of payments, since transactions can be made anywhere in the world at any time. Transactions in cryptocurrencies do not require the opening or maintenance of a bank account and are characterized by low maintenance costs. The advantages and disadvantages of using cryptocurrencies in the world are listed in the table. 5

Table 5. Advantages and disadvantages of using cryptocurrencies in the world

№	Advantages	Disadvantages
1	High level of security - cryptocurrencies cannot be forged due to the blockchain security system. Technical difficulty of mining - the currency can be used only if it is acceptable and technically adequate.	Technical difficulty of mining- the currency can be used only if it is acceptable and technically adequate.
2	Decentralization - it is affected by the absence of an emission center. Exchange rates are not influenced by anyone and are determined by the conditions of supply and demand. Investments are unreliable due to large and rapid exchange rate fluctuations.	Unreliable investments due to large and rapid exchange rate fluctuations.
3	Transparency - all transactions with electronic money are stored in the database for an indefinite period, so all network users have the opportunity to check the balance of their cryptowallet. Cryptocurrencies are new opportunities and tools for tax evasion, new money laundering schemes.	New opportunities and tools for tax evasion, new money laundering schemes.
4	Speed and convenience - opening a bank account is much more difficult than an electronic wallet. On the other hand, the speed of transactions with cryptocurrencies is much higher and the fees are lower. There is no way to suspend or cancel transactions.	There is no way to suspend or cancel transactions.
5	BTC is used to buy and sell goods and services, as well as to pay dividends. The risk of high volatility turns Bitcoin into a highly volatile asset from an economic point of view	The risk of high volatility turns Bitcoin into a highly volatile asset from an economic point of view.

Note: Source was developed using (*Molchanova, 2014*)

It should be emphasised that as far as digital currencies in Ukraine are there is an imbalance between the economic realities of the market and the legislation, which complicates the creation of formal institutional rules that regulate the procedures of issuance and circulation of cryptocurrencies, and increases possible risks at the macro and micro levels (*Ludvig, 2023*). The National Bank of Ukraine initially equated cryptocurrencies with monetary surrogates that have no real value and prohibited their use by individuals and legal entities. However, after extensive consultations with the Bitcoin community, in 2016 Ukraine signed a memorandum of understanding to launch a system of decentralized online auctions in public institutions at the municipal and local levels for the privatization, leasing and licensing of state property. The concept of the E-Ukraine e-governance portal aimed at interaction between citizens, business and the state was also presented (*Memorandum on the implementation of the "E-Auction 3.0" system, 2016*), and the Ukrainian Stock Exchange became the world's first platform for trading cryptocurrency futures (*Bitcoin futures trading started at the Ukrainian Stock Exchange, 2016*).

Currently, there are also a number of real estate sellers in Ukraine who offer to pay in cryptocurrency. However, due to the low level of regulation of cryptocurrency transactions at the legislative level, both sellers and buyers have valid concerns about the risks. Some law firms believe that exchange agreements where cryptocurrency is the currency can be easily challenged in court (*Zavalniuk, 2021*).

The emergence of cryptocurrencies in the economy of Ukraine and their use by market participants has its own characteristics, which are displayed in table 6.

Table 6. Advantages and disadvantages of using cryptocurrency in Ukraine

Advantages of using cryptocurrency	Disadvantages of using cryptocurrency
Freedom from government interference	Absence of legislative restrictions on the status or cryptocurrencies circulation
Anonymity	The risk of being involved in illegal activity at the cryptocurrency

	market.
Protection of personal data	Uncertainty as for the possibility of legal rights protection regarding cryptocurrencies
Freedom in payment	Non-recognition of validity of smart contracts executed in electronic form.
Investment tool	Hacker attacks
Low maintenance cost	Loss of passwords and access to electronic wallets can result in complete loss of cryptocurrency
Reduction of corruption risks	No opportunity to contribute cryptocurrency to the authorized capital of legal entities
Speed	Risk of emission decentralization
Reliability	Issues in using for some non-professional users
No necessity to open or maintain a bank account for transactions.	High volatility of the exchange rate
Portability	Opportunities for financing of illegal activities

Note. Source was developed using (*Vasylchak, 2017; Samokhodskyi, Shelest, 2018*)

The only means of exchanging cryptocurrency into other values should be cryptocurrency exchanges, which procedure should be determined by the National Bank of Ukraine. Before the adoption of this draft law, any activity using cryptocurrencies in Ukraine is considered illegal. The bill also requires cryptocurrency exchanges to identify each entity that conducts transactions with cryptocurrency through its intermediaries (*Andrushchenko, 2021*).

The issue of cryptocurrencies taxation in Ukraine is a crucial one. On the one hand, the cryptocurrency tax has the right to exist, but on the other hand, it is unclear what it can be. You can, definitely, take 20% for the benefit of the state from each transaction related to cryptocurrency, but under such conditions, no one will use it. The introduction of a clear and transparent regulatory mechanism solves many difficulties, but it also creates new ones.

Another problem with the legal regulation of cryptocurrencies in Ukraine is its ambiguity in the whole world. Countries with strong economies and currencies are adopting cryptocurrencies as a means of payment and a financial asset. Countries with weak economies and unstable currencies seek to support their currencies by restricting cryptocurrencies as a means of payment and allowing them only as a medium of exchange.

For example, in some US states, cryptocurrencies are recognized as money transfers in payment systems. In Germany, bitcoin is acknowledged as a unit of account, while in Japan it is accepted as legal tender. In Europe, cryptocurrencies are mostly equated with electronic money, but are considered to be a means of exchange not a legal tender. In China, Bitcoin transactions are prohibited for banks, but allowed for private individuals. Bitcoin is a form of payment in Canada. In Spain, the Bitcoin system is recognized as an official payment system. Bolivia, Ecuador, Thailand and Vietnam have banned the use of cryptocurrencies directly.

Such ambiguity in the approach to cryptocurrencies in different world countries creates additional problems in determining their legal status. It means necessity for Ukraine to develop its own approach to the legal regulation of cryptocurrencies and give them a special legal status based on the current state of the country's legislative and economic development (*Nakonechny, 2017*).

As for the political, economic, humanitarian and legal advantages, it becomes clear that cryptocurrencies and blockchain technology are turning into a breakthrough innovation that can fundamentally change most aspects in life of Ukrainian communities. And if that happens, we'll have full control over our finances and be free to choose who we send money to for minimal fees.

Digital currencies are showing a steady increase in investment, capital and interest in the industry in general. The best way for any country, including Ukraine, to become part of such relations, regardless of the political situation, is to create the following:

- an arbitration body, to be regulated at a fairly liberal level;
- a fair tax system not subjected to pressure;
- a monetary system which is practically impossible to manipulate and introduction of a free

market.

The use of digital currencies in online payments is becoming more and more popular both in the world and in Ukraine. Despite this fact, there are still a number of obstacles that delay the integration of digital currencies into existing payment systems.

Conclusions

In addition, characterizing Ukraine as a country where the digital currencies are spreading broadly, it should be emphasized that Ukraine has the potential to become a global cryptocurrency "hub" for startups and international technology companies. Such a scenario would definitely be a great driver for the growth of the country's economy and the digital sector development. However, it is of paramount importance for national regulators in this sector to provide analytical infrastructure for protecting consumer rights and preventing fraud.

To sum up, digital currencies and assets play an important role in the era of digitization and the development of Internet technologies, as more and more transactions go digital, opening up new opportunities and advantages in the global financial system, the real digital economy and society in general. They could form the backbone of a highly efficient new digital payment system by enabling broad access, and they may also help to provide strong data governance and privacy standards.

Conflicts of interest

The authors declare no conflict of interest.

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Authors contribution

Conceptualization, H. S. and B.O.; methodology, M. I.; analis data, P H.; project administration, K. V. All authors have read and agreed to the published version of the manuscript.

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