

**3rd
International
Scientific
Conference**

**31 May - 2 June, 2018
Vrnjačka Banja, Serbia**

**20
18**

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TRADING IN BITCOIN AND OTHER CRYPTOCURRENCIES – A RISKY BUT LUCRATIVE BUSINESS FOR NOW

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Abstract

Cryptocurrencies have made a big impact on the world financial scene. Today, there are over two thousand different cryptocurrencies in use. The most well-known of all is certainly bitcoin, which we will dedicate most of our attention to in this paper. Although to the wider community, the emergence of this virtual currency represented a risky, unreliable and fleeting innovation, for now it continues to secure extra income for its owners. There is little doubt that cryptocurrencies, and in particular bitcoin as the strongest currency among them, have drawn great attention from all international and national financial institutions. Although experience in the application of bitcoin and other cryptocurrencies is divided, experts estimate that bitcoin, as well as some other cryptocurrencies, will continue to record a growth. For this reason, an increasing number of countries is seriously considering its legalization and inclusion in regular financial flows. The aim of this paper is to, through an analysis of past experiences, draw attention to some important characteristics of cryptocurrencies, in particular bitcoin, and its treatment in modern financial flows.

Key Words: *cryptocurrencies, bitcoin, ethereum, electronic money, mining, digital wallet.*

JEL classification: *G15*

Introduction

In recent years, the world has become increasingly aware of new types of currencies that are making a very intriguing entrance onto the global financial stage, attracting the attention of, not only, financial experts, but also the wider population. What is in question are various types of cryptocurrencies, whose numbers are increasing by the day, and which

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are becoming more and more popular among the Internet and technology proponents and various adventurers. Previous experience in understanding, accepting and applying bitcoin and other cryptocurrencies gives rise to serious dilemmas and controversies, and even divided opinions, which makes their future rather debatable. In addition, this currency is being seriously looked at by the authorities of the world's most powerful countries, and the FBI and some other security structures warn of potential crime-related misconduct, especially money laundering. For instance, certain cases have been recorded when bitcoins were used to purchase drugs on the Internet (Manchin.senate.gov, 2011).

Despite the high volatility, many world financial experts estimate that existing currencies will be replaced by various cryptocurrencies in the following decades. Cryptocurrencies, also called electronic money, digital money, digital cryptocurrencies, etc., are something we know little of in our country. Of the many types of cryptocurrencies, the public is most familiar with bitcoin, which is the most popular and most talked about cryptocurrency, especially in financial and banking circles.

However, it is less known that bitcoin is just one of over 1,000 different cryptocurrencies that can be read about on the Internet. That which most cryptocurrencies have in common is that they are obtained by so-called "mining" or "digging", and that there is a limited series of units (coins) whose value in time jumps or falls (Ivković, 2017).

However, experts still estimate that bitcoin, as well as some other cryptocurrencies, will continue to record growth in the future, which is why more and more countries are seriously considering the possibility of their legalization and inclusion into regular financial flows. What specifically promotes them is the fact that they enable direct transactions, the purchase of goods and services, and the exchange of money without banks, credit cards and third parties. For these reasons even criminals have begun to use some of these currencies, above all bitcoins.

Although bitcoin is the most talked, currently 1,337 different cryptocurrencies are traded all over the world, some of which such as "litecoin", "ethereum", "zcash", "monero", "dash", "ripple", have reached values of several hundred dollars. A number of cryptocurrencies are directly connected to bitcoin, but there are those created in completely separate and independent systems. Almost all of these currencies are merged by cryptocurrency exchanges, where their comparative value, and

an exchange course for conventional currencies, is listed. For a particular fee, all types of transactions and exchanges can be made, and there are currently over 7,200 of these websites on the Internet.

According to data from the coinmarketcap.com website, the daily volume of transactions in cryptocurrencies is about \$30 billion, of which 60 percent, or \$16.9 billion is conducted in bitcoins, and the remainder in the other cryptocurrencies. What speaks to the sheer volume of money being trade is the fact that more banks are opening bitcoin accounts, regardless of opposition from the world banking lobby, the biggest opponent of cryptocurrencies.

Although the bitcoin system is still largely outside existing financial and legal frameworks, it is possible to buy virtually anything you want with it, from computer equipment to real estate, while most of the big Internet shops have long been quoting in bitcoins (Perković, 2017).

The most important present-day cryptocurrencies

Bitcoin is by far the most famous cryptocurrency of today, created in 2009 as a form of unregulated digital money that is neither issued nor guaranteed by a central bank. Bitcoin is a decentralized cryptocurrency not managed by any country in the world. It is created by a special process in which hundreds of computers "mine" bitcoin, taking several months to create one bitcoin. Bitcoin does not exist in physical form, regardless of which it can be used as real money².

The trust in bitcoins depends on the fair functioning of most mining computers in the network (Barber et al., 2012). Foreign exchange rate of bitcoins, just like in the case of any other currency, is determined at the stock exchange, based on the supply and demand of the concerned currency (Dinić, 2014).

The idea behind Bitcoin was developed in 2009 by someone using the pseudonym *Satoshi Nakamoto*, with the publishing of a document explaining how this virtual currency would function. Thus far, various versions have become public about the mysterious author of this cryptocurrency. At the beginning of March 2014, a man named *Dorian*

² When bitcoin is written in capital letters, it refers to software or network, and when it is written with a small initial letter it refers to the digital currency.

Prentis Satoshi Nakamoto (64) was discovered, but according to *Newsweek*, he has denied being the creator of the digital currency bitcoin. In an exclusive interview with *The Associated Press*, *Nakamoto*, originally from Beppu, Japan and now living in the United States, denied having anything to do with the digital currency).

In early May 2016, Australian entrepreneur *Craig Wright* publicly declared himself to be the inventor of Bitcoin. *Wright* reinforced his claim by using coins known to be owned by the digital money's creator. The distinguished members of the Bitcoin Association also confirmed his claim. His identity was revealed to three media houses: *the BBC*, *the Economist* and *GQ* (B. M, 2016). However, some time later, *Craig Wright* personally denied being the creator of bitcoin.

In the third version, in November 2017, *Sahil Gupta*, a former employee of *SpaceX* wrote a blog in which he claims that *Elon Musk* is probably the inventor of the cryptocurrency bitcoin. *Gupta*, a former intern at Musk's company, claims that *Musk* was probably behind that digital currency because he "has a deep understanding of economics and cryptography." Although *Gupta* provided some evidence on bitcoin's creator, *Musk* denied the allegations.

The price of one bitcoin varies and depends on demand, but in the last few months of 2017, with occasional falls, it has recorded unexpected growth (Bitkoin,2017). It is very difficult to say how many people in the world possess bitcoins, mostly due to the very complicated technology. Bitcoin, as the most famous cryptocurrency, experienced a real explosion at the end of 2017 when it over exceeded even the greatest expectations of an unimaginable limit of nearly \$20,000. Although there were occasional short-term falls in the previous year, bitcoin mainly recorded a growth in the previous year. All indicators more than obviously indicate that the Bitcoin monetary system will continue to develop despite attempts to suppress or even ban it (Perković, 2017).

These statements dominated up until the end of 2017; however, this year the situation significantly changed for bitcoin, in a negative sense. After all, the author of this paper finds it very difficult to give judgment and draw any high-quality conclusions, since this cryptocurrency has exhibited great instability during 2018. Namely, at the time of abstract submission, there was a completely different situation than the one that will be presented in the final version of this paper. This year saw the

collapse of this cryptocurrency. On January 8, 2018, bitcoin was traded at \$15,370, and at the end of January, its value fell below \$12,000, while on February 6, it was worth just \$6,320. Interestingly enough, on February 16, after almost two months, the cryptocurrency experienced a serious rise, as its value jumped to \$10,044 for one bitcoin. This will be the last value that the author will present in this paper, however its instability is expected, according to the "up and down" system, in the coming period. According to some opinions, the expansionary monetary policy of many central banks after 2008 with a view to mitigating the adverse effects of the crisis and the fear of inflation was one of the most significant factors impacting the relatively high demand for bitcoins (Christin, Moore, 2013).

At the beginning of August 2017, Bitcoin software was split to create a clone of this virtual currency, called "*bitcoin cash*". The initiative was launched by a small group of so-called "bitcoin miners", mainly from China, who were paid in this currency for contributing to the digital power of the Bitcoin network and who were not satisfied with the proposed improvements in the technology behind the currency. The group launched a so-called "fork", where the blockchain, the public register of all bitcoin transactions, is divided into two potential paths. It is said that "forking" can create a new competitor for bitcoin, which still remains the oldest and most valuable digital currency. If this happens, all those who owned bitcoins before the forking will have access to the same amount of "bitcoin cash" for free, and they will be able to change it for other digital currencies (M.I.M, 2017).

Ether or ethereum, like bitcoin, is a blockchain platform on which applications and programs are made. The cryptocurrency used on this blockchain system is the ether. It was created in 2013 by Russian information genius *Vitalik Buterin*, by upgrading the way bitcoin originated. Buterin raised \$18 million through "crowdfunding", which is the public presentation of the project and ideas with the aim of raising funds and began to develop this "blockchains". As Ethereum is a new platform for program running, many companies have begun to run pilot projects in this system. Even Microsoft introduced three Ethereum projects. The basis of the "blockchain" infrastructure is a database with a unique feature. Once data is entered it cannot be deleted. Existing databases are protected by access codes in order to control entry, in the meantime the "blockchain" database is public - anyone can access it but no one can change data once it has been entered. Once every participant in

the system has a copy of the database, it is extremely difficult to destroy the data. This kind of infrastructure could be applied in many spheres of society - monetary transactions, cadastral records, individual medical records, but also the exercise of copyrights in the music or video industry (Ivković, 2017).

At the beginning of May 2016, the cryptocurrency ether had a value of \$100 and has continued to record a serious increase. It is used only to run applications and programs, and you arrive at it in several ways. The easiest way to get the cryptocurrency ether is to buy it on online stock exchanges. If one wants to be a "digger" in the Ethereum network and invests in the right hardware, he/she can always connect and start earning money from ether (Ivković, 2017). According to some estimates from mid-2017, ethereum could exceed bitcoin in value by the end of 2018. It is a cryptocurrency spreading faster than bitcoin, as of late. Some large industries, such as financial and health institutions, have shown an interest in ethereum, and its advocates consider that in the future ethereum could become the main means of payment, as its technology allows for more complex transactions than bitcoin. Although the value of ethereum is only one-tenth of that of bitcoin, it has taken a quarter of the cryptocurrency market over the past year with bitcoin's share dropping from 90 percent down to just over 50 percent (Čizmić, 2017). Ethereum co-founder, Charles Hoskinson, believes the cryptocurrency market will undergo a catastrophe, but that it will stabilize. In the first week of January 2018, this digital currency crossed the \$1,000 limit for the first time in history.

Litecoin is technically very similar to bitcoin, and as is the case with ripple, provides transactions at almost no additional costs. Litecoin is believed to be the fourth largest cryptocurrency, and it was launched in 2011 by a former Google employee Charlie Lee. In May 2017, one litecoin cost about \$10, which is not the highest value it has achieved. Like other cryptocurrencies, it has also had its ups and downs, its maximum price rising to \$29.7 (Ivković, 2017).

Ripple is both the name and the cryptocurrency for an open payment network for that currency. The goal and motive for its creation is to "break down networks", like financial institutions, that charge fees for transactions and foreign exchange transactions. The idea of *ripple coin*'s founder was for "money to flow freely". As in the case of bitcoin, there is a limited number of units of this currency. In May of last year, its value

was about \$ 0.1, but its growth has been predicted. Ripple differs significantly from bitcoin, both philosophically and structurally. If bitcoin is described as a decentralized P2P (peer to peer) network developed to serve as an alternative financial system, *ripple* can be explained as a protocol structured to improve the current global financial system. This is where the company that created ripple comes in and which, in partnership with big banks, simplifies and secures the system (Ivković, 2017).

Dash is an open network offering instant and private transactions, launched in 2014, with a total emission of an estimated 19 million coins. As with bitcoin and other currencies, it is obtained by "mining", that is by executing extremely complex mathematical operations, and if the solution is correct, a "blockchain" is added and in turn you get a "dash". It can also be purchased on online stock exchanges, and one dash in May 2017 cost about \$100 (in July 2016 it was \$10) (Ivković, 2017).

Monero is the sixth largest cryptocurrency launched in 2014 as a bitmonero. Its main emission was 18.4 million coins which will be "dug" up until 2022. As its privacy improved so did its number of users, growing 40 times in 2016. In July 2016 it was worth \$1.47, in October \$13, and by October 2017 it was worth \$30.91 (Ivković, 2017).

According to some new predictions, *metronome* is the new digital currency threatening to take bitcoin's glory. Namely, metronome is the first cryptocurrency which can be used between multiple blockchains, thus solving the problem of users who want to move from one blockchain (say bitcoin) to another. *Jeff Garzik*, one of the few key developers who helped build Bitcoin's basic software, known as blockchain, saw its shortcomings and decided to make a better digital currency. And so metronome was created which *Garzik* says is going to be the first digital currency to be used between several blockchains. Mobility indicates the possibility that if a blockchain "dies out", as a result of a conflict between programmers or poor use, the owners of metronomes can move their warehouse to another location. It should help digital currency maintain its value and ensure its longevity (Bloomberg, 2017).

Dogecoin is a cryptocurrency that first appeared in 2013, as a joke created out of a joke, and its value has been rising ever since. As of January 7, 2018, it's worth nearly \$2 billion, although on January 5, 2018 it was worth \$1.1 billion. What is interesting is that its founder, Jackson Palmer, is one of the few out of that sphere openly showing skepticism. He wrote

on his Twitter account that he thinks that the current value of the cryptocurrency is a bubble, although it is difficult to predict how much it will inflate before the inevitable burst. Dogecoin is a cryptocurrency created out of an Internet meme with a picture of the Shiba Inu dog breed. Although the current value of this joke cryptocurrency is nothing compared to how much bitcoin is worth, it is being talked about more since many have recently been using it to give so-called "Internet tips"

The movement of bitcoin prices - its ups and downs

Up until the present, bitcoin has experienced serious instability, from incredible growth to a dramatic plummet. As incredible as it may sound, from January 3, 2009, when the Bitcoin system was launched, all the way until 2011, the price of bitcoin remained below one dollar. Throughout 2012 and during the first half of 2013, the price rose to \$300 dollars, ballooning to a record \$1,240 in November 2013. The following year there was a drop in the price of bitcoin which in mid-2014 sold for about \$600, dropping to a mere \$266 in January 2015. For the next year and a half, it remained stable at around \$400. While 2017 has proven to be the most fruitful year for the value of bitcoin.

In early 2017, the value of bitcoin once again started to increase reaching a new record of \$1,270, and in March 2017 it had, for the first time, exceeded the value for one ounce of gold. On March 03, 2017, one bitcoin was worth \$1,268 while an ounce of gold was \$1,233. This was largely fueled by China's growing demand for bitcoin, whose authorities warned that the digital currency was being used to withdraw money from the country. On June 6, 2017, bitcoin reached a value of \$2,911 (Bitcoin, 2017).

Out of all the other cryptocurrencies, bitcoin today records the fastest and highest growth. Although it has experienced occasional sudden drops, more frequent are incredible rises, within very short periods of time. For example, in November 2016, this currency was worth \$726 dollars, by the beginning of May 2017, in just a few months, its value had ballooned 100%. In October 2017, bitcoin broke the \$6,000 (Ivković, 2017), on November 1, it had grown 3.7% to \$6,616 in London trading, and as early as November 17, 2017, the value of bitcoin reached the limit of \$8,000 for a new record to be reached on November 25, 2017 when its value was \$8,500, a boost of 850%.

However, despite public criticism from important figures, bitcoin has kept growing at an unprecedented pace in the last few weeks, at such a rate that it has surprised even the greatest optimists. On Friday, December 1, 2017 it was at \$10,700, on Tuesday, December 5, it exceeded \$11,500, and on December 6, 2017 it exceeded, for the first time, the value of \$12,500, reaching the price of \$12,600.

The increase in the value of bitcoin was most likely caused by an increase in buyers' activity due to holiday discount season which was slowly starting to pick up pace. The highest value it has attained thus far happened on December 17, when it was worth \$19,783.

However, this year witnessed a collapse of this cryptocurrency. On January 8, 2018, bitcoin was being traded at \$15,370, and at the end of January, its value had fallen to below \$12,000, on February 6, it was worth just \$6,320. Interestingly enough, on February 16, after almost two months, the cryptocurrency experienced a more serious growth when its value jumped to \$10,044 per bitcoin. This will be the last value that the author will record in this paper, its instability being expected in the upcoming period as well, according to the "up and down" system.

Advantages and risks of using bitcoin

Regarding the acceptance or non-acceptance of cryptocurrencies for financial trading, there is no uniform, globally-accepted practice. The attitude of countries towards cryptocurrencies could be divided into three groups:

1. Countries that have, in a manner of speaking, legally and officially accepted bitcoin as a legal means of payment. In many countries such as the United States, Australia, Austria, Canada, Japan, Switzerland, Great Britain, Germany, Sweden, Greece, Latvia, China, India, *etc.*, bitcoin is legally and officially accepted.

Countries in which bitcoin is officially banned as a means of payment, such as Bangladesh, Bolivia, Ecuador, Israel, South Korea, *etc.*

Countries that are considering introducing their own cryptocurrencies, such as Russia, Venezuela, Ecuador, the UAE, for example.

Bitcoin has many advantages over traditional payment methods and following is a list of the most important ones (Skakavac, 2017).

1. *Transaction speed.* Bitcoin transactions are fast, that is, instantaneous, versus banking, which takes some time. For example,

paying a check through a bank can take a day or more. Also, international transfers through banks require some time.

Minimal fee. Bitcoin transactions are conducted for a minimal fee, or even without a fee, which makes it cheap in contrast to banking products where a significant amount is paid on behalf of a fee.

Decentralized currency and impossibility of confiscation. Central authorities cannot take away bitcoin with their instruments, which is not the case with money. Let's recall March 2013, when the Central Bank of Cyprus wanted to take all uninsured deposits exceeding \$100,000 in order to increase its share capital, which undermined confidence in the Greek banking system. Such a possibility does not exist with bitcoin because it is a decentralized currency and no central government controls it.

Anonymity given to transactional actors, which supposedly raises its value.

Market transparency and bitcoin transactions. Bitcoin proponents, unlike their opponents, think that the market and transactions are actually transparent, that market analysis clearly shows what is being paid with bitcoins and that the abuse is much higher with transactions involving traditional currency (Perković, 2017).

Reliability and security of the cryptocurrency itself. Bitcoin has met the highest standards on this plan, due to complicated confirmation procedures that a certain bitcoin is really what it is, it is practically impossible to forge it, and there has never been a case of forging, with the current technology in place.

Inability to deceive. Once a bitcoin has been sent, there are no more. The sender of the bitcoin cannot return it without the recipient's consent. Although there have been attempts, this feature makes it difficult for various scams, common with credit cards, for example.

They do not require secret user data. They are safer for this reason, unlike credit cards where this data is required. In online credit card trade, their numbers are stolen in order to misuse them.

Resistance to inflation. As opposed to traditional currencies, bitcoin is resistant to inflation. The number of bitcoins is limited and is created at 21 million. A government's traditional currency can be printed as much as they like, and they do it often for the purpose of covering the national debt, which leads to inflation.

The bitcoin user adjusts privacy control to his/her own discretion. Namely, bitcoin has as much privacy as his/her user desires.

Its user can respect his or her desire so that others don't know what's been purchased. In addition, it is not known who holds a specific

bitcoin address. This means that everyone can look at it without knowing whose it is.

It does not require anybody's trust. As bitcoin is decentralized, it is not necessary to trust anyone while using it. The trader does not have to know who the user is, unless the user wants to tell him/her. On the contrary, we must believe the traditional banking system will manage our money in a worthwhile manner.

Ineligibility of ownership. Own ownership of bitcoins with a private code and a public key that makes the bitcoin address, is inalienable and no one can take it unless the user loses it. All other forms of the electronic cash system have an account owned by someone else.

Possibility to print your own money. It's possible to print your own money with bitcoins. Namely, bitcoins can be bought over a free market, but it is possible to "mine" your own with a lot of computer power. After a reimbursement of the initial investment (equipment and electricity costs), bitcoin mining is simply leaving a computer turned on and the software running.

Trading usability on specialized stock exchanges. Therefore, bitcoin is also useful for trading on specialized stock exchanges, which allows additional earnings on the sales difference (Skakavac, 2017).

In addition to the aforementioned advantages over traditional payment methods, there are certain risks and shortcomings in its use. The specifics of the bitcoin present a major challenge for detecting and preventing illegal activities. As bitcoin does not have a central institution that controls it and reports on suspicious activities in the field of money laundering prevention, it is suitable for illegal activities. Thus, the FBI (2014), as major shortcomings to a decentralized payment system, point to the following (Skakavac, 2017)

1. Lack of software to identify suspicious templates that occur during money laundering;

Lack of data on real account owners and their locations;

Lack of records and transaction history with real participants in transactions;

Difficulty in identifying payment sources in relation to other types of online money.

In addition, the following features are also mentioned to boost unpopularity in this currency and its weaknesses (Skakavac, 2017).

1. Instability of the price of bitcoin.
2. Requires an enviable level of computer knowledge and Internet use;

3. Legal uncertainty;
4. Anonymity provided to transaction participants;
5. Unreliable, non-transparent, subject to speculation and illegal activities;
6. Does not have the support of significant countries and global financial institutions.

Conclusion

In recent years, a number of cryptocurrencies have emerged on the global financial scene, causing great attention from financial experts and experts of various profiles. Among these cryptocurrencies, the most famous at the moment is bitcoin, which shook the world financial scene at the end of 2017, primarily because of its dizzying growth.

However, it has experienced serious oscillations in its development so far, from a steep rise to a steep decline, with oscillations, occurring even in a single day. Although no central bank stands behind it, it is still present, with a serious tendency to increase in value. It has a number of advantages over conventional means of payment, but there are certain risks and shortcomings in its use. Its current specificities are a major challenge for detecting and preventing illegal activities.

As bitcoin does not have a central institution that controls it and reports on suspicious activities in the field of money laundering prevention, it is suitable for illegal activities. Experts believe that bitcoin will not only be a transient phenomenon and will be accepted on the Internet as a regular means of payment. With its further development and the growing interest in its use, it is certain that the problems and risks associated with it will be eliminated in the future.

Despite all the criticisms and controversies that accompany bitcoin, it is clear that its appearance and the nine years it has managed to last on the market are the beginning of a new chapter in the digital and financial world.

The National Bank of Serbia states that virtual currencies are not regulated in Serbia and are not a means of payment. The attitude of our relevant financial institutions is that trading in these currencies is the same as the trade of any other goods, but that it certainly is not a foreign exchange transaction. The National Bank of Serbia does not issue a

license for trading in virtual currencies, nor for setting up devices for trading and selling. The National Bank of Serbia also states that it will consider some kind of regulatory framework for this field.

References

1. Barber, S., Boyen X., Shi E., Uzun E., (2012). Bitter to Better - How to Make Bitcoin a Better Currency, *Financial Cryptography*, Volume 7397 of Lecture Notes in Computer Science, p. 399-414. <http://crypto.stanford.edu/~xb/fc12/bitcoin.pdf>, (January 10, 2018).
2. Ba. I., *Braća Winklevoss su među prvim svjetskim bitcoin milijarderima*, <https://www.tportal.hr/biznis/clanak/braca-winklevoss-su-medu-prvim-svjetskim-bitcoin-milijarderima-foto-20171205>, (December 07, 2017).
3. *Bitcoin prvi put vredniji od zlata*, <http://www.blic.rs/vesti/ekonomija/bitcoin-prvi-put-vredniji-od-zlata/mmmzkmv> (April 04, 2017)
4. *Bitcoin je na skoro 8.000 dolara, ali su investitori nepoverljivi prema njemu*, <http://www.blic.rs/vesti/ekonomija/bitcoin-je-na-skoro-8000-dolara-ali-su-investitori-nepoverljivi-prema-njemu/9v83dr5> November 20, 2017).
5. Blomberg, Ekonomski online, *Metronom nova digitalna valuta koja prijete da pomuti slavu bitcoina*, <http://www.bankar.me/2017/10/25/metronom-nova-digitalna-valuta-koja-prijete-da-pomuti-slavu-bitcoina/> (October 29, 2017)
6. Christin N., Moore T., (2013). Beware the Middleman: Empirical Analysis of Bitcoin Exchange Risk, *Financial Cryptography*, Volume 7859 of Lecture Notes in Computer Science, p. 25-33. <https://www.andrew.cmu.edu/user/nicolasc/publications/MC-FC13.pdf>, (07.01.2018).
7. Čizmić, 2017, *Bitcoin je popularan ali ethereum bi mogao biti prava zvijezda*, <https://zimo.dnevnik.hr/clanak/bitcoin-je-popularan-ali-ethereum-bi-mogao-biti-prava-zvijezda---478804.html> (October 29, 2017)

8. Dinić, V., (2014). Bitkojn kao decentralizovana valuta, (Title in English: Bitcoin as a Decentralized Currency) , *Bankarstvo* No. 2/2014, p. 108-136.
9. Internet, tips, https://www.b92.net/biz/vesti/svet.php?yyyy=2018&mm=01&dd=09&nav_id=1345023 (January 09, 2018)
10. *Izraelska banka tvrdi bitkoin je aktiva nije stvarna valuta*, <http://www.novosti.rs/vesti/naslovna/tehnologije/aktuelno.236.html:705144-Izraelska-banka-tvrdi-bitkoin-je-aktiva-nije-stvarna-valuta> (January 09, 2018)
11. Ivković, D., *Ove valute će zameniti evro dolar i dinar*, <http://www.blic.rs/vesti/ekonomija/ove-valute-ce-zameniti-evro-dolar-i-dinar-ko-je-prvi-ulozio-u-njih-visestruko-mu-se/dj8bc6e> (October 21, 2017)
12. M.B., BBC, *Otkriven identitet pravog izumitelja bitkoina*, <http://www.blic.rs/vesti/svet/otkriven-identitet-pravog-izumitelja-bitkoina/d919tc2> (November 06, 2016)
13. Manchin, U. (2011). *Federal Law Enforcement to Shut Down Online Black Market for Illegal Drugs*, <http://www.manchin.senate.gov/public/index.cfm/press-releases?ID=284ae54a-acf1-4258-be1c-7acee1f7e8b3>, (25.01.2018).
14. *Nakamoto negira da je tvorac bitkoina*, <http://www.blic.rs/it/nakamoto-negira-da-je-tvorac-bitkoina/6nn02fm> (October 21, 2017)
15. Novi rekord bitkoina, jedan vredi 6.616 dolara, <http://www.blic.rs/vesti/ekonomija/novi-rekord-bitkoina-jedan-vredi-6616-dolara/2tgbrcv> (November 02, 2017)
16. Perković, N., *Bitcoin preti monetarnom sistemu*, <https://www.dnevnik.rs/index.php/ekonomija/naslovi/bitkoin-preti-monetarnom-sistemu-10-12-2017> (December 10, 2017)
17. *Satoši Nakamoto je Ilon Musk*, http://www.b92.net/biz/vesti/svet.php?yyyy=2017&mm=11&dd=29&nav_id=1330641 (November 30, 2017)

18. Skakavac, A. (2017) Bitkoin – kontroverze i dileme (Title in English: Bitcoin - Controversies and Dilemmas). “*Scientific Conference on Economics and Management*”, EMAN 2017, Ljubljana, Slovenija, p. 240-254.
19. Skakavac, A. (2017). Bitcoin – aktuelnost i perspective (Title in English: *Bitcoin - Current Trends and Perspectives*). Collection of works, 5, *Međunarodni naučni skup: “Nauka i praksa poslovnih studija”*, University of Business Studies, Banja Luka, p. 362-371.
20. Internet, tips, https://www.b92.net/biz/vesti/svet.php?yyyy=2018&mm=01&dd=09&nav_id=1345023 (January 09, 2018)
21. *Vrednost-bitkoina-premasila-8500-dolara*, <http://www.blic.rs/vesti/ekonomija/vrednost-bitkoina-premasila-8500-dolara/krhny0h> (November 26, 2017).