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Cryptocurrency Perception Within Countries: A Comparative Analysis

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Abstract:

Purpose: *The paper explores the differences between countries concerning perception and use of traditional and virtual money. We try to answer the question who uses virtual money for investment and building assets and who uses it just for Internet payments. The background of the analysis are significant changes that have taken place in the virtual money market in recent years in relation to changes in the global financial market.*
Design/methodology/approach: *A pilot study was conducted in Poland, the Russian Federation, and China, which is supposed to be an introduction to the bigger and wider survey. It was conducted within December 2019 and January 2020 with 81 surveyed persons. These were students of financial studies in the chosen countries. The paper questionnaire used in the survey consisted of 26 questions connected to virtual money plus 5 demographic questions. It was provided personally by teachers in class.*
Findings: *The findings indicated that there are differences between countries in perception and the use of traditional and virtual money. These discrepancies can have cultural or historical background.*
Practical Implications: *The practical usefulness of the whole study is that gathered information will permit to examine the economic and financial literacy of the respondents and their preferences for the use of innovative financial instruments.*
Originality/value: *The study is related to the very current issue – virtual money as alternative to the currently functioning fiduciary money. The result of the research as one of the first indicated that a different perception of traditional and virtual money among different countries exist. This statement might be a huge contribution to the analysis of the current and further financial system.*

Keywords: *Virtual money, cryptocurrency, financial literacy.*

JEL Codes: *G10, G15, G40.*

Paper type: *Research article.*

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1. Introduction

Money has been and still is an object of interest, as well as an object of research in many disciplines of science, such as economics, finance, psychology, sociology, and others. Despite this extremely high interest for money, it seems surprising that there is such a state of affairs in which money, despite accompanying almost every sphere of human activity for many millennia, has unfortunately not come up with a uniform definition, generally and widely accepted in the world (Andreeva *et al.*, 2018). As it is often the case with concepts and phenomena of fundamental significance, they are usually taken as obvious that there is no clear need for their precise systematization. However, the definition of money has changed constantly due to the intensification of trade, technological development, changes in the paradigm of the economic model functioning, and (or perhaps above all) changes in the types of goods that play the role of money (Thalassinos *et al.*, 2015; Hicks, 1979).

The Britannica Encyclopedia defines money as *"a commodity accepted by general consensus as a means of economic exchange. It is a medium in which prices and values are expressed; as a currency it circulates anonymously from person to person and from one country to another, thus facilitating trade, it is also a basic measure of wealth"* (Encyclopedia Britannica). The cited definition of money clearly defines it as a commodity (so-called commodity money), which fulfills specific functions, has specific properties and it is possible, by generally accepted consensus, to exist it as money. This definition shows that the only possibility of fulfilling specific, clearly defined functions predisposes a particular good to achieving a broad consensus, enabling it to be placed in social consciousness as money. It is one of the basic measures of wealth or the heart of financial system of the global economy. In social consciousness, money is often identified as a synonym of wealth, while wealth is a much broader concept because it includes many more of other assets, such as securities, real estate, works of art, furniture, jewels, cars, etc. Equally often, money is confused with income, but income is also a broader concept because it is a stream of money in a specific period of time and money, unlike income, is a specific resource - a certain amount of money available at given time.

Contemporary considerations regarding money focus not so much on the search for the most accurate (optimal) definition of the essence of this phenomenon as a fundamental economic category, but rather go in a more practical direction, one could say more useful, i.e., identifying the forms it can take and the functions it performs or should perform (Jędrzejowska-Schiffauer, *et al.*, 2019; Grima and Thalassinos, 2020).

Money is usually defined in terms of its functions in a market economy. It is primarily about fulfilling the functions of an exchange medium, enabling, through its intermediation, the implementation of transactions in the exchange of goods and services in the economy. Money is also a measure of value, enabling comparisons of the value of one good with another. In addition, it also serves as a means of

thesaurisation, or accumulation of wealth because it can be used for future purchases and will continue to represent its original purchasing power (Sloman and Garrat, 2016).

The paper seeks the answer to the question if there are any differences between countries concerning perception and the use of traditional and virtual money and what significant changes within recent years have taken place in the virtual money market in relation to changes in the global financial market. The paper also reflects on significant changes within recent years have taken place in the virtual money market in relation to changes in the global financial market. This article includes details, results and analysis of the data collected via questionnaires. The study enabled to present descriptive statistics about the use of virtual money and its perception. It also enabled to make a preliminary verification of research questions and their utility. The practical usefulness of the whole study is that gathered information will permit to examine the economic and financial literacy of the respondents and their preferences for the use of innovative financial instruments.

2. Cryptocurrencies as the Next Stage in Money Evolution

Looking through the prism of history, it is obvious that the most known form of money was metallic money, based largely on rare metals - gold and silver, from which coins were minted. This system has evolved towards paper money, which at first had full, but later only partial coverage of gold. This state of affairs operated until World War II. In 1944, on the basis of the post-war order in Bretton Woods, a new monetary system was established. Under the new system the US dollar was at the center and was fixed into gold at the existing parity of USD 35 per ounce of gold. At that time, the US dollar (USD) was the only currency in the world which was freely convertible into gold, and thus it served as the world's main reserve currency.

However, the world monetary order of Bretton Woods did not stand the test of time and collapsed on August 15, 1971, when the President of the United States Richard Nixon gave the famous television speech in which he announced that the US is closing the so-called *"golden window"*, which broke the convertibility of the US dollar to physical gold. This decision was made as a result of a real threat of a total exhaustion of the huge American gold reserves (22,000 tons) accumulated during World War II. This was also caused by the constantly growing trade deficit of the United States, which in turn was responsible for huge expenditure on armaments, associated with the need to bear the burden of financing the Vietnam War. By making this one-sided and a surprising decision the US authorities confirmed that they were not able to control the internal crisis caused by the domestic trade deficit.

Since the United States closed the aforementioned *"golden window"*, the historical era of gold-bearing money (1 oz gold = 35 USD) has ended and a completely new era has begun, namely the era of fiat money, based only on public trust in the

solvency of state institutions and the stability of the entire financial system. The consequence of this was that modern money has acquired the character of only symbolic money. In the current financial system, in addition to paper money, there is also non-cash (intangible) money in the form of electronic money.

The fact that money had completely abandoned the gold standard has caused changes consisting in the loosening of mutual relations between the financial sphere and the real world economy. The effect of this was the emergence of unrestrained creation of money by the banking system, the emergence of innovative but also risky financial engineering products in the form of complex derivative instruments, the abolition of control of capital flows, the globalization of corporate operations and the shareholder's pressure to maximize stock market capitalization and return on capital transnational corporations (Polyakova *et al.,* 2015. This enabled an explosive increase in the value of global financial assets in relation to non-financial assets, manifested in a dynamic increase in the share of global GDP. This initiated significant and irreversible changes in the global economy (Rupeika-Apoga *et al.,* 2014; Thalassinos and Kiriazidis, 2013).

For some countries (the USA, the UK, Switzerland), the financial sector has become the main engine of the economic growth (Dembinski, 2009). The financial sector itself has evolved from a model of a system based on banks towards a model of a system based on financial markets. The unrestrained development of the latter combined with the constantly present (and abused) moral hazard in the global financial system, caused a dramatic drop in trust not only in financial markets, but also in the very essence of money. It was one of the many serious consequences of a global financial crisis that broke out in 2008. Despite the enormous crisis of trust in the ubiquitous fiat currency, the system did not return to the gold standard known for centuries, and there was a revolution not so much in the system itself, but in peripheries. It resulted in the creation of cryptocurrencies - completely independent from the main system, and at the same time completely uncontrollable from the outside, based on a block chain technology. It has revolutionized financial market and pushed its development in a completely new, unpredictable direction. It caused digitization of money and it has become completely private virtual (digital) money independent on central banks.

Until the establishment of the most important virtual type of money in the world – Bitcoin, the world did not widely known the concept of cryptocurrency. It was a typical niche phenomenon, known only to a narrow group of interested people. On the basis of spectacular increases in value, the concept of bitcoin and cryptocurrency has entered the mainstream. Bitcoin was first defined by its anonymous creator (s) - Satoshi Nakamoto in 2008. He described it as a *"full-fledged version of electronic money, based on peer-to-peer network communication models, allowing to send online payments from one entity to another without the need for transactions to flow through financial institutions"* (Nakamoto, 2008). In other words, the Bitcoin network has properties that allow it to function without the need for any

intermediaries. The lack of the need for transactions to be carried out by financial institutions enables the use of the network and making transactions 24 hours a day, seven days a week, 365 days a year, and in principle anywhere in the world, even where there is no Internet – a transaction data can also be transmitted via satellites.

The first official definition of virtual money - cryptocurrency, appeared four years later in the report of the European Central Bank, published in October 2012 entitled Virtual Currency Schemes. Virtual money is defined in it as: *"a type of non-regulated digital money that is issued and usually controlled by its creators and used and accepted by members of a specific virtual community"* (Virtual Currency Schemes, p. 13). Such money has no physical (material) representation, it only functions in the digital universe.

A slightly different definition of digital currencies was presented by the European Banking Authority (EBA). Under this definition, virtual currencies are: *"a digital representation of value, not issued by a central bank or public body, not necessarily linked to the currency of a particular country but recognized by natural and legal persons as a means of payment that can be transferred, stored or subject to electronic commerce"* (Communique of the National Bank of Poland and the Polish Financial Supervision Authority regarding Virtual "currencies" 2017).

A very interesting approach to capturing the essence of virtual currencies (cryptocurrencies) has been presented in Poland in the Act of 1 March 2018 on counteracting money laundering and terrorist financing. According to this Act, a virtual currency means *"digital representation of values that is not: a) legal means issued by the NBP, foreign central banks or other public administration bodies; b) an international unit of account established by an international organization and accepted by individual countries belonging to or cooperating with that organization; c) electronic money within the meaning of the Act of 19 August 2011 on payment services; d) a financial instrument within the meaning of the Act of 29 July 2005 on trading in financial instruments; e) promissory note or check - and is convertible in business transactions for legal means of payment and accepted as a medium of exchange and may also be electronically stored or transferred or may be the subject of electronic commerce"* (Act of 1 March 2018 on anti-laundring money and terrorism financing; Foley *et al.*, 2018; See Cipher Trace, Cryptocurrency anti-money laundering report, Q3 2018).

In this definition, a great caution emerges, which is shown by the central body constituting the generally applicable national law against a decentralized, unregulated or manually controlled system based on blockchain technology, giving the possibility of *"digital mapping of values"*. The name of the Act itself suggests rather the lack of support from the Polish government for a new revolutionary technology, which is an emanation of the already set global trend, which may in the near future be a competition and a serious threat not only to central banks, but also to the entire global banking system.

All definitions cited in this text, especially those published by systemically important institutions in the world of finance and bodies which constitute by a local law, testify that bitcoin and other cryptocurrencies have ceased to be at the time of their publication, a niche phenomenon, and it was impossible to ignore this innovative worldwide trend by pretending that it simply does not exist. This entity had to be somehow systematized, specified, adapted and positioned against the background of contemporary understanding of the phenomenon of money. Many central banks of the world's leading economies and international commercial banks as well as international corporations have started working not only on implementing their own applications of blockchain technology, but also on their own cryptocurrency - CDBC (Central Digital Bank Currency) (Bech *et al.,* 2017; Committee on Payments and Market Infrastructures and Markets Committee, 2018) or Libra (Facebook currency). Since then, the name blockchain, bitcoin and other leading currencies, such as Ethereum, Ripple, began to appear in the official documents of the Bank for International Settlements (called the central bank of central banks) and the International Monetary Fund (*Virtual Currencies and Beyond: Initial Considerations,* 2016), the World Bank (Rotman, 2014), dealing with the challenges of the future of the global financial system (Carstens, 2018; 2019; Claeys *et al.,* 2018; Dabrowski *et al.,* 2018).

3. How Do People Perceive Money?

Various studies on money perception show that, in contrary to what economists think, money is not a neutral transaction tool, but an object of various emotions (Tang, 1992). It turns out that people who earn more often feel positive emotions, assess their competences higher and are more optimistic (Argyle, 2004). With regard to money, the law of diminishing marginal utility is also confirmed, because the utility of money in making us happy is high at the beginning, but each subsequent unit makes less and less happy. It turns out that more money means more fear of losing it, stress, worse social relations, worse family relationships. And as shown by a study by Brickman *et al.* (1978) conducted among the winners of large amounts on lotteries, these people were just a little happier than other people (4.0 vs. 3.8 on a 5-point scale). Smith and Razzell (1975) stated that people who became rich and quit their jobs, broke off social relations, had a sense of social exclusion and were under severe pressure because family and friends expected them to share money (Frey and Stutzer, 2002).

These studies seem to indicate that money and people's attitude towards money is not only an economic but also a psychological problem (Belk and Wallendorf, 1990). How people approach money, how they assess their value, what criteria they follow then, is an important practical indicator for entities deciding on any changes in the monetary system. The perception of money is a very individual matter. Every person feels the need to have money in different ways and on a different scale (Goldberg and Lewis, 2000). Although in economics money is treated as a tool to meet needs, it seems that nowadays it sometimes becomes an aim itself. In this

approach, the need for money can be placed even before biological needs, which are perceived as basic ones. Nowadays, in order to be able to satisfy them, a person must have adequate resources. This approach explains the commonly observed *"rush to money"*.

However, one cannot ignore the fact that sometimes this aspiration is associated with anomalies, including excessive sentiment to possessed money, avoidance of spending it, or on the contrary - excessive spending, or using money as an attribute of power (Crump, 1992; Furnham, 1984; Furnham and Argyle, 1998). Under the typical circumstances and in the vast majority of cases, however, money is treated as a tool to meet needs. As a part of research on human behaviour, several elements shaping attitudes towards money were identified (Furnham and Okamura, 2000). The results of these studies, although differing from each other, can be ordered according to three criteria (approaches) (Tang, 1995; Tang, Tang and Luna-Arocas, 2005):

- an emotional approach in which money perception depends on highly subjective beliefs, experiences, traditions or habits;
- an active approach, in which having money is the result of actions taken by people;
- functional approach, under which having money is associated with the privilege of performing specific functions in society, both in a formal and informal sense.

4. Methodology

Authors have conducted a pilot study in Poland, the Russian Federation, and China, which was supposed to be an introduction to the bigger and wider survey. It was done within December 2019 and January 2020 with 81 surveyed persons. These were students of financial studies in three chosen countries. Such a group was chosen for a few reasons. Firstly, as young persons are thought to be more open to new technologies and thus more likely to use virtual money. Secondly, students of financial fields are even more likely to be prepared for using new forms of money. Thirdly they were supposed to be a group that has some professional background and easily understands questions. The paper questionnaire used in the survey consisted of 26 questions connected with virtual money plus 5 demographic questions. It was provided personally by teachers during the classes. This article includes details, results and analysis of the data collected via questionnaires. A pilot study also enabled to make a preliminary verification of questions and their utility. Research questions stated at the beginning of study were:

Q1: Are there any differences between countries concerning perception and use of virtual money?
Q2: What are the differences in using virtual money by respondents from different countries?

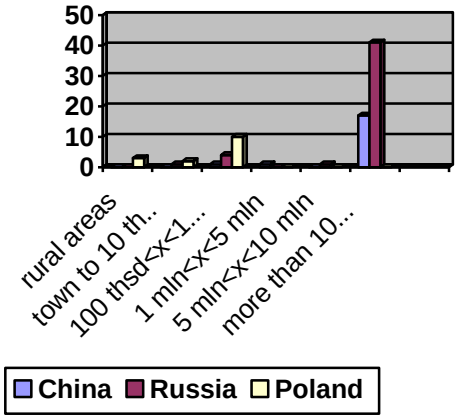
As answers for these questions the following hypotheses stated:

H1: There are differences between countries in perception and use of virtual money.
H2: There are differences in using virtual money for payment and for savings within countries.

5. Characteristics of Sample

A first group of questions was a demographic one. According to them the structure of respondents looks like in Figure1.

Figure 1. *Respondents structure according to a place of residence*



Source: *Own elaboration*

The biggest group of respondents was from Russia (N=47), but the most significant thing is that people from China (N=19) and Russia stem from the huge cities while in Poland (N=15) are rather from the small ones and from rural areas. Age structure shows that the majority of respondents were very young (16-18 – 1,2% and 19-24 years – 92,6%) and rather young (25-30 years – 6,2%). This structure is an effect of methodological assumptions. Gender analysis shows that 60,5% are women, 38,3% men and 1 person didn't match any answer (1,2%). All persons marked higher level of education.

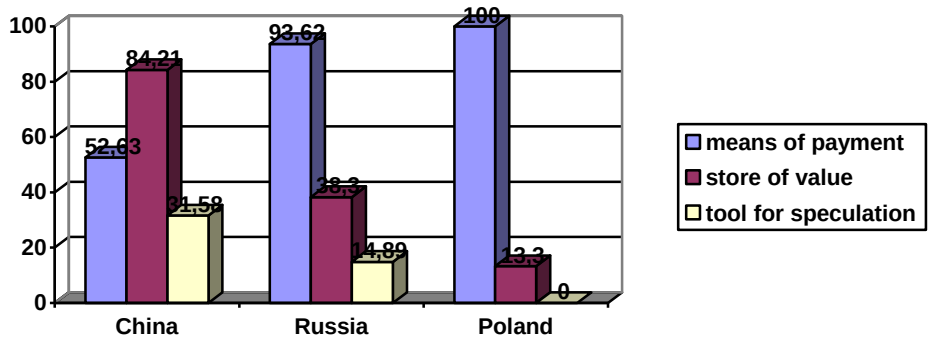
6. Results of Survey

Main questions concerned different issues. The first question was connected with general confidence of surveyed persons of traditional financial system. This was a Likert scale where 1 meant lack of trust and 10 total trust. Simple average for all respondents was 7,47 (d = 1,62; Min = 3; Max = 10; N=80). For chosen countries these values were:

- China – x = 8,0, d = 1,20
- Poland – x = 7,4, d = 1,40
- Russia – x = 7,28, d = 1,81

This shows that persons from China declare that they know more about traditional financial system than persons from Poland, and even more than those from Russia. The second question about the way of treating traditional money issued by the central bank shows that people think that money is rather means of payment (85,2%) than store of value (43,21%) or tool for speculation (16,05%). It is quite fascinating, because all these answers should correspond with functions of money and from theoretical point of view all three functions should be treated equally. It is even more fascinating when comparing between countries (Figure 2). Russia and Poland are quite similar when treating traditional money as a means of payment rather than store of value, and almost not a tool for speculation at all. In China traditional money is rather a store of value than means of payment and much more as a toll for speculation than it is thought in Poland and Russia. This may be due to the fact that respondents in Poland and Russia know from parents or grandparents of inflation in the 1980s and 1990s practically depriving their savings.

Figure 2. *Answers to question 2: How do you treat traditional money issued by the central bank?*



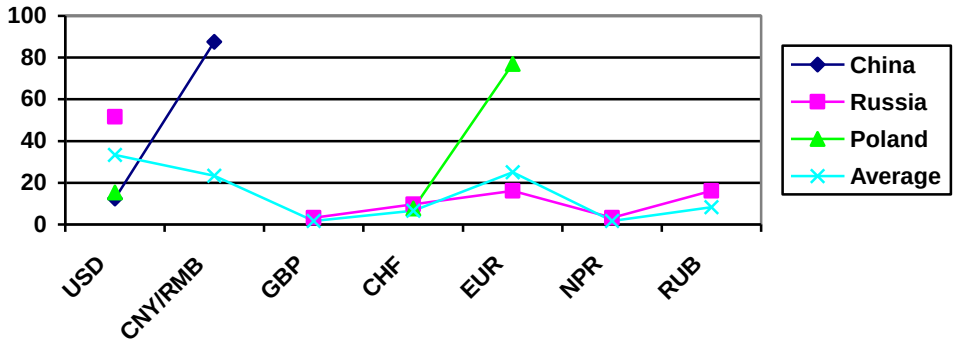
Source: *Own elaboration.*

Next question concerning the trust to different currencies. In general USD is the most trusted currency, but in different countries it looks differently. The fascination with USD in China can be explained by a huge trade with the USA, for which they receive USDs and PBoCh investments in USD treasures. Similarly Russia as a hydrocarbon exporting country, has settled it in USD. In Poland, it is primarily EUR due to the trade (mainly from Germany) and imports from the euro zone, holidays spent in the eurozone, but also because of transfers from work abroad. CHF is treated in Poland as a save heaven and USD as something historical from the communism, where all major private transactions were settled in USD and parents and grandparents saved in USD.

Question 4 was about a preferred form of payment and it seems that online bank transfers are the most popular among respondents (84,72%), much more than cash (9,73%). There were almost no differences between countries in this field.

Next group of questions concerns cryptocurrencies as a financial tool. Fifth question regards knowledge about cryptocurrencies. Average knowledge is assessed on 4,28 (d = 2,0, Min = 1, Max = 8, N = 81), while in China it equals 3,73, in Russia 4,51 and in Poland 4,27.

Figure 3. *Answers to question 3: What traditional currency issued by the central bank do you trust the most?*



Source: *Own elaboration.*

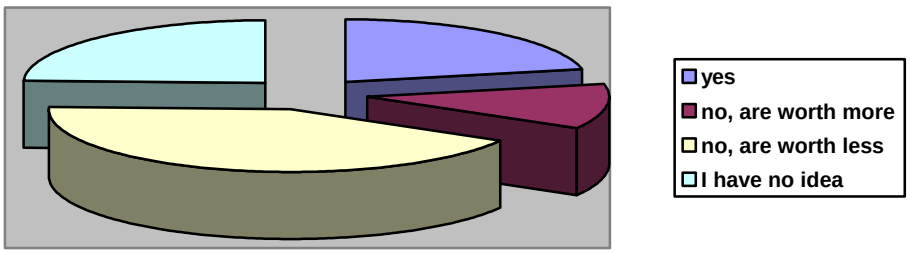
It sounds that Russian students are the most convinced of their knowledge about cryptocurrencies, while Chinese – the least. In general, average knowledge about cryptocurrencies is lower than about a traditional financial system, which is not that surprising. But notably Chinese respondents, who declared the highest confidence in how traditional financial system works, at the same time were the least persuaded with new tools in a financial system. The reason for this may be sanctions imposed on Russia after the war in Donbas and Crimea. The attack on the RUB caused its huge depreciation and increase in interest rates as well as inflation, which caused an increase in interest in cryptocurrencies as means of storing value and escaping from inflation. Similar observations can be noticed in Venezuela and Argentina.

The sixth question provided some characteristics of cryptocurrencies to be chosen. It appeared that a digital asset and medium of exchange were the most often selected. Some persons decided that all characteristics are adequate. Generally, answers were diffused which suggests that respondents are not sure about the specifics of cryptocurrencies. The same conclusions can be drawn from the next question about characteristics of a blockchain technology. Majority of respondents think that a blockchain is a distributed database (66,23%), then, that the cryptographic algorithms are necessary and a blockchain cannot be manipulated (48,05%), each

participant can read all data stored in the blockchain (37,66%) and finally that a consense mechanism is necessary that the blockchain cannot be manipulated (23,38%). However, retail knowledge of the technology is not necessary to use it, as it is in case of the Internet, email, mobile phone, etc.

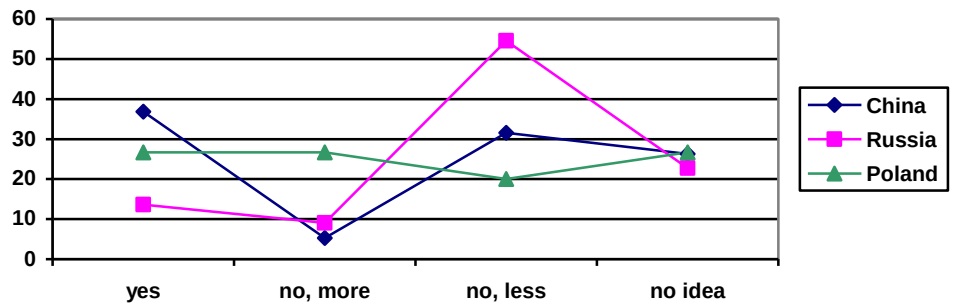
The eight question was supposed to verify how respondents perceive the value of cryptocurrencies in comparison with traditional money. It sounds as if people think that cryptocurrencies are not equal to traditional money and mainly are treated as worth less. Noteworthy is a relatively big percentage of positive responses in China. This may be explained by legal restrictions on the transfer of capital abroad. Because it is prohibited, cryptocurrencies can be used as one of the possible measures to circumvent this ban. In Russia, however, an attachment to the USD can be seen and thus cryptocurrencies are not considered as good as the old traditional USD.

Figure 4. *Answers to question 8: Do you agree with the opinion that cryptocurrencies are worth as much as traditional money? (in %, in general)*



Source: *Own elaboration.*

Figure 5. *Answers to question 8: Do you agree with the opinion that cryptocurrencies are worth as much as traditional money? (in %, by countries)*



Source: *Own elaboration.*

According to the next question Bitcoin seems to be the most trustworthy currency as 70% of respondents marked it, then Ethereum (15,71%), Ripple (1,43%) and Universa[3] (1,43%). Over 11% declared that they do not trust any cryptocurrency. It is quite similar within countries, because in all of them Bitcoin is the most often indicated answer. In fact, in Poland it is the only answer (100%).

Respondents were asked about the acceptance for payments of their salary in cryptocurrencies. Only 10% of them declared that they would accept a payment of their salary in such a form, but the average part of this salary that they would be willing to accept was 17,5%. Majority of respondents would not accept payments of salary in cryptocurrencies (65,43%), 3,7% declare that it depends on the currency and 18,52% do not know.

Table 1. *Answers for the question 10: Would you accept the payment of part of your salary in the form of cryptocurrency? (in %)*

	China	Russia	Poland
Yes	31,58	8,51	0
No	57,89	76,6	40,0
It depends	0	4,25	6,67
I don't know	10,53	10,64	53,33
Average part of salary accepted	24,5	11,83	10,0

Source: *Own elaboration.*

It sounds to be fairly interesting as in China people are the most willing to accept payments in cryptocurrencies although they declare the lowest knowledge in this field. Not such definite answers were given to the next question about acceptance for making transactions with cryptocurrencies, because 37,04% of respondents marked "no" while 34,57% marked "yes". The rest (28,39%) marked "I don't know". This may be due to the fact that in China there is an unprecedented digitization of the most spheres of life and for making most transactions by a smartphone, which is connected to the user's personal profile and not to cash. At this level of virtualization and absorption of modern technologies, it is not necessary to understand its nuances, but it becomes natural that in the opinion of the average user there is no greater difference between electronic money used on a daily basis on mobile platforms through smartphones and cryptocurrencies, which may be in the opinion of users another (alternative) form of money. Next questions were connected with experience in using cryptocurrencies.

Answers to these questions show that respondents have very small experience in using cryptocurrencies, and despite there are small differences between countries where such general tendency is repeated.

[3]*This answer was provided by one of the Chinese respondents.*
https://coinmarketcap.com/currencies/universa/ 10.02.2020.

Table 2. *Answers for the questions 12, 13, 14, 15 (%)*

	yes				no				I don't know			
	CH	RU	PL	All	CH	RU	PL	All	CH	RU	PL	All
Have you ever used cryptocurrencies as a mean of payment?	5,26	8,51	13,33	8,64	86,67	94,74	91,49	91,36	---			
When you consider buying an item using cryptocurrencies, do you convert its value into traditional currency?	66,66	46,51	20,00	46,05	16,67	23,26	20,00	21,05	16,67	30,23	60	32,90
Have you had commitment in cryptocurrencies?	15,79	13,04	6,67	12,50	84,21	86,96	93,33	87,5	---			
Have you ever settled liabilities using cryptocurrencies?	5,26	8,70	6,67	7,50	94,74	91,30	93,33	92,50	---			

Source: *Own elaboration.*

Question 16 was about willing to use cryptocurrencies for speculative purposes. Answers are comparable as 36,85% tackled "yes", 39,47 – "no" and 23,68% - "I don't know". This result almost repeats for Russia (32,56%; 48,84%; 18,60%), but is different for Poland (7,14%; 35,71%; 57,15%), where people seem to be uncertain about using cryptocurrencies for speculating, and much different in China (68,41%; 21,06%; 10,53%), where people are very opened for this new possibility.

The next question testified readiness of respondents for keeping savings in cryptocurrencies. It seems that people are not ready for that, because majority marked "no" (56,25%), 17,5% were not sure ("I don't know"), 16,25% declared "yes" and 10% claimed that it depends on the cryptocurrency. Although, there are some differences in number of answers between countries, such a tendency is confirmed, but in Poland respondents were much more uncertain. Even 40% did not know if they were ready for storing savings in cryptocurrencies.

The next group of questions was about possible changes that can happen at the financial market because of introducing cryptocurrencies. When asked about replacing traditional money with cryptocurrencies respondents were quite unanimous. Majority was against such a suggestion (62,03%), 17,72% did not know and 20,25% agreed with this vision. It was quite similar within countries, but in Russia people were even more definite as 73,33% marked "no", while in Poland 46,66% and China 47,36%.

The next question (Do you think that you would be the full owner of the cryptocurrency that you would have in your wallet?) seems to be incomprehensible for some respondents as 36,71% pointed "I don't know". A similar group of persons claims that they would not be the full owner (44,30%) and only 18,99% say "yes".

This structure of answers repeats within countries. This question was about understanding the essence of cryptocurrencies. Since they are a digital asset with limited supply and at the same time decentralized, i.e. without the possibility of any interference by governments and additionally they are not burdened with any public debt, they therefore have unique features that cannot be indicated in the official currencies of the countries concerned. Nor can any government confiscate them by law, or devalue or cancel or exchange a currency which, by virtue of an official order, may cease to be binding within a given country or currency area within one day.

In this way, it can be concluded that the cryptocurrency user is at the same time its only full owner. National currencies are really dependent on the government, the country's debt, a macroeconomic situation and confidence in the banking system. In history, currency exchange has already occurred many times in many countries, during which people lost their properties. For cryptocurrencies, this is not technically feasible.

The next three questions were at the Likert scale and concerned the level of acceptance for some relations between traditional money and cryptocurrencies.

Table 3. *Answers to questions 20, 21, 22 (%)*

	CH	RU	PL	All
To what extent, do you agree with the statement that cryptocurrencies are safer than traditional money issued by the central bank?	3,84	3,09	4,00	3,44
To what extent, do you agree with the statement that cryptocurrencies are less vulnerable to inflation than traditional money issued by the central bank?	4,74	4,82	5,40	4,91
To what extent, would you agree with the statement that cryptocurrencies store value better than traditional money issued by the central bank?	4,79	3,72	3,73	3,99

Source: *Own elaboration.*

Table 3 shows that in general there is little acceptance for suggested relations, which means that respondents rather think that cryptocurrencies are not safer than traditional money, do not store value much better than traditional money, but can be less vulnerable to inflation.

According to opinions presented in next point it looks like respondents think that transactions using cryptocurrencies should be controlled (68,83%) and independent cryptocurrencies should exist in parallel with the traditional money issued by the central bank (49,35%). Almost 26% is convinced that transactions using cryptocurrencies are not completely anonymous, 22% claims that only one cryptocurrency should be in global circulation, independent of any central bank, as well as than only one cryptocurrency should be in a global circulation, controlled by one central bank. Over 19% respondents think that each country should have its own

cryptocurrency, controlled by its own central bank, 18,18% that transactions using cryptocurrencies are completely anonymous and 10,39% that transactions using cryptocurrencies should not be controlled at all.

The last two questions were about the source of knowledge about cryptocurrencies and it is not surprising that Internet is the main one. Almost 86% pointed it out. Over 46% gain some knowledge thanks to the friends, 35,90% from press, 29,49% via specialist literature and only some from TV programmes (12,82%), classes at the university (8,97%) and almost nobody from radio programmes (2,56%). One person indicated parents.

When asked about "What information are you looking for about cryptocurrencies?" respondents declared that mainly they were searching for information about cryptocurrency trading platforms (61,84%), the possibility of speculating on cryptocurrencies (44,74%), if it is possible to exchange cryptocurrencies for traditional currency (42,11%) and for cryptocurrency storage options (34,21%). One person indicated technical side of cryptocurrencies.

The final question was about the trust for currencies and it seems that traditional currencies, issued by the central bank are still the most trustworthy form of money. Respondents also trust the money based on the gold standard, but only few decentralized cryptocurrencies independent on the central bank.

Table 4. *Answers to question 26: Which currencies do you think are the most trustworthy? (in %)*

	Which currencies do you think are more trustworthy? (%)			
	CH	RU	PL	All
traditional, issued by the central bank, the so-colled paper	52,63	80,49	78,57	72,98
decentralized cryptocurrencies independent of the central bank	0	4,88	0	2,70
based on the gold standard	47,37	14,63	21,43	24,32

Source: *Own elaboration.*

7. Conclusions

Although money is so old issue it is still an object of interest. Because it is constantly developing, the attitudes towards money and money perception have evolved. The purpose of this paper was to answer research questions stated at the beginning and testify two hypotheses. The first one was: There are differences between countries in perception and use of virtual money. This hypothesis was confirmed because several contrasts were seen between respondents from the chosen countries. These discrepancies can have cultural or historical background.

Furthermore, the second hypothesis, that there are differences in using virtual money for payment and for savings within countries, was confirmed. It seems that respondents from China are more willing to accept payments of salary in a new form of money, although they do not have much experience in using virtual money and declare that they do not know much about it. They also more often agree that it is a good means of storing value. These discrepancies also can have cultural or/and historical background. It must be clearly stated that Authors are fairly aware of the fact that all results are not representative, and conclusions cannot be generalized at the whole population. What was done is just the introduction to a wider and a bigger survey. The practical usefulness of the whole study is that gathered information will permit to examine the economic and financial literacy of the respondents and their preferences for the use of innovative financial instruments. Thus, it can help to protect people from serious mistakes and their consequences in using virtual money.

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