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Students' Perception Regarding the Cryptocurrencies

Adrian MOROSAN[1],
Oana OPRIŞAN[2],
Eduard Alexandru STOICA[3],
Cosmin TILEAGĂ[4]

[1] "Lucian Blaga" University of Sibiu, Romania, adrian.morosan@ulbsibiu.ro
[2] "Ovidius" University of Constanta, Romania, oana.oprisan@yahoo.com
[3] "Lucian Blaga" University of Sibiu, Romania, eduard.stoica@ulbsibiu.ro
[4] "Lucian Blaga" University of Sibiu, Romania, cosmin.tileaga@ulbsibiu.ro

Abstract: Through our study, we studied the perception of the students of an economic faculty speciality which are at the end of their studies and who will soon become economists, and their attitude towards the cryptocurrencies. Their contacts inside or outside the university led to their professional development because they brought to their attention the widening of the sphere of finance through the prism of a new concept that appeared fifteen years ago, that of cryptocurrency. The main scope of the paper is to understand how students currently relate to cryptocurrencies, after going through all the subjects in the curriculum of their economic specialization. The methodology will involve the use of a structured interview. Important results of our study will be related to the fact that the female students interviewed, who, unlike almost all of the female students, are or say that they will be involved in trading cryptocurrencies in the near future and to the fact that an important part of their information regarding the cryptocurrencies is obtained from outside the faculty. We will recommend, knowing the current situation of the interviewed students, to the teachers who teach various disciplines in the specialization of which the interviewed students are part of that they could try, in the situation where the taught subjects allow it, to offer to the students who will come in the following years additional information about the cryptocurrencies.

Keywords: *Students' perception; Cryptocurrencies advantages; Cryptocurrencies disadvantages; Blockchain; Structured interview.*

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1. Introduction

Through our study, we studied the perception of some students which are being at the end of their studies and who will soon be economists, and their attitude towards the cryptocurrencies, as a result of their contacts inside or outside the university, which led to their professional development because they brought to their attention the widening of the sphere of finances through the prism of a new concept that appeared fifteen years ago, that of cryptocurrency. We saw how students currently relate to cryptocurrencies, after going through all the subjects in the curriculum of their specialization.

2. Literature review

In 2008 the idea for a digital currency was born under the pseudonym Satoshi Nakamoto which belonged to a person or group of people that have used this pseudonym (Ghimire & Selvaraj, 2018; Clarke et al., 2020), under the name Bitcoin, in the paper "Bitcoin: A Peer-to-Peer Electronic Cash System" (Nakamoto, 2008), in response to the 2007 global crisis and in response to the uninspired government actions to protect investors from a severe crisis, was deliberately created "free of any government and human intervention" (Janson & Karoubi, 2021). The first software was launched in early 2009, so the first Bitcoin cryptocurrencies were created then. There was, at that time, a parity between 1 Bitcoin and a US dollar. According to Nakamoto (2008) a fundamental innovation of the cryptocurrencies is their ability to make it possible for online payments to be transmitted from one place to another without going through a financial institution but by using a peer-to-peer peer network where electronic money is a chain of digital signatures. In other words, the fundamental innovation of Bitcoin was to avoid the need for a trusted third party (Blundell-Wignall, 2014) through the blockchain system (which is now days a buzzword) and one of the reasons why, 9 years later, the digital currency Bitcoin (BTC) had reached the price of over $ 67,000 / BTC and dominated in terms of the volume of trading the new world of cryptocurrencies. Blockchain is a chain where "the digital sequences, which are linked to a person, are passed around without possibility to copy and double" the transaction (Mazonka, 2016), giving intrinsic value to services that use blockchain, by the fact that it has this technology that involves high transaction security, speed and low costs, without any government intervention.

There are authors who state that "the value of BTC lies, mainly, in its secured network" (de Mombynes & Grandval, 2018). The value of BTC

would not have increased if the first users were not aware of the value of these embedded services (Janson & Karoubi, 2021).

Currently, some of the studies written on cryptocurrencies consider them to be assets that are partly or wholly speculative (Selgin, 2015; Bouoiyour & Selmi, 2015; Pichet, 2017; Gandal et al., 2018; Ghysels & Nguyen, 2019; Bhattacharya et al., 2022; etc.). The researchers were mentioning seven years ago that the chances that, in the long run, an absolutely new concept, which depends on its users, will be accepted and used, especially when this concept is related to the monetary system, are small but exist (Rose, 2015). At the beginning of 2022, there were over 10,000 different cryptocurrency chains worldwide (Statista, 2022). One of the fundamental advantages of the consumers would be their option to use "a globally traded and unregulated alternative currency" (Pieters, 2017), a situation in which the monetary policy decisions of the central banks would be much easier to be avoided in a given country. Blockchain technology is already revolutionizing technical fields and may revolutionize areas such as the accounting and the auditing in the future (Pandurangiah & Lakshmana, 2018) for which this technology should not be seen as a threat but as an opportunity (Kwiliński, 2019). Popper (2013) stated that "Bitcoin could become a major means of payment for e-commerce and may emerge as a serious competitor to traditional money-transfer providers", as it happened later. Because both approaches presented in the conclusions of some studies, speculative and tech-savvy investors have their own objective arguments, Lee et al. (2020) incorporate both in the model they proposed.

Some recent studies of researchers written in the field of cryptocurrencies claim that their quotation evolves according to the sentiment of investors and not according to their economic fundamentals (Burggraf et al., 2020; Bouri et al., 2022). We consider that the quotation of the cryptocurrencies evolves, in the long run, according to their economic fundamentals and, in the short term, according to the predominant market sentiment, which can be measured by means of technical analysis indicators. According to the results of a study published last year, there is a dominance of cryptocurrencies with a higher market capitalization and an influence of these cryptocurrencies returns on sentiment spill overs (Akyildirim et al., 2021).

There were traded as a daily average in the last three months ending in March of this year BTC cryptocurrencies valued at about 27 billion US dollars, the market capitalization of Bitcoin being, at the end of this period, about 800 billion US dollars. In 2011 a BTC could be bought for less than

US $ 1, in January 2017 for about US $ 1,000, and about 4 years after 2017, a buyer was willing to pay even $ 67,000.

3. Methodology

3.1. Objective

Through this research, we studied the perception of the cryptocurrencies among the students from the Faculty of Economic Sciences of Lucian Blaga University of Sibiu (LBUS), specialization Accounting and Management Informatics and their present and future intentions in relation to the use of knowledge that they have, or will have about this concept.

3.2. Participants

We focused on the study of the perception of the mentioned students because they represent people who have already completed almost all the subjects in their curriculum and reflect, from our point of view, the opinions of some students who are close to graduating and well trained from the faculty mentioned. We know that the mentioned students are admitted to the faculty with some of the highest admission grades and finish their university studies with some of the highest graduation grades, so they are some of the best students from the faculty, looking through their grades. We believe that the opinions we have gathered from them in the light of the organized interviews can be extended, to a large extent, to those who will complete the same section of the Faculty of Economic Sciences (LBUS) in the coming years and, to a lesser extent, to the students who pursue similar specializations in other faculties, as there are differences, in part, because of the curricula they follow and, to a very large extent (most of the time in full), because of the teachers they meet. If they choose, after graduating, the masteral studies, the students will get in touch there with disciplines that will develop some of the previously acquired notions. We'll remind the fact that Romania has been a member of the Bologna process since 1999 (Damian, 2011) and, for this reason, the Romanian university education involves a two-stage organizational structure of the university education system, respectively undergraduate studies (three years, for economics) which can be completed with the master studies (two years, for economics).

3.3. Instrument

The information was collected between February and April 2022 in the form of a structured interview conducted by one of the authors of this

research with the students from Accounting and Management Informatics, third year of study, from the Faculty of Economic Sciences, in an office where, during the interview, only the interviewer and the interviewed student were present.

3.4. Procedure

At one of the courses in February 2022, the teacher presented to the students, in general, what the interview entails and asked them which one of them want to participate in it, mentioning that participation does not imply any obligation. 25 students out of the 34 who were present at that course announced to be interested in participating (the total number of students in the third year of study from the Accounting and Management Informatics specialization is 75 people). The total number of men participating in the interview was 4 from a total of 25 students, so only 16% were men, the results found characterizing, to a large extent, the women with economic studies from the faculty and specialization analysed and their opinion related to the cryptocurrencies. The date and time of the interview were set according to the availability of the interview participants, by mutual agreement. The initial interview questions were listed and made available to the interviewed student at the beginning of the interview. The duration of each interview was about half an hour. The structured interview consisted of a total of 12 questions, some with a single answer, others with multiple answers and it went like this: the interviewer greeted the interviewed student, he asked him to feel comfortable, to take a seat and to take the sheet on which the interview questions were listed and, after a few more general accommodation remarks, which the interviewer exchanged with the interviewee, they moved on the questions part of the interview. The interviewer read out loud each question in the interview and its answers options to choose from, and finally asked the interviewee if he or she had any doubts about the way the question was formulated and about its answers. Afterwards, the interviewee studied the written question with its answers, asked questions if he did not understand a formulation, and choose the answer or answers that seemed appropriate for him. At the end of each interview, after thanking for participation and involvement, the interviewer said goodbye to the interviewee.

3.5. Data analysis

The descriptive statistics was used to analyze and present the results obtained by processing the students' answers.

4. Results

We started the interview by wanting to get an idea of the school evolution of the students we were interviewing. The interviewed students finished high school among the first, in the classes in which they studied, according to the following chart (Fig. 1):

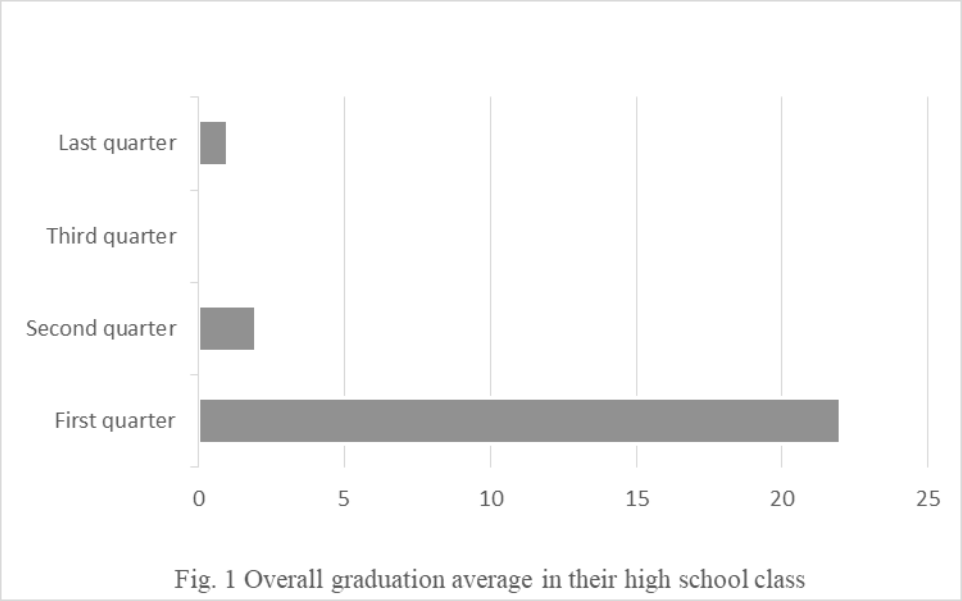


Fig. 1 Overall graduation average in their high school class

It confirms to us that, as a rule, the students present at the courses are among those who have been involved throughout their studies, not only in the faculty.

As a result of the following question from the interview, we found that during the faculty, the interviewed students were admitted, mainly, in the first half of their specialization, according to the following chart (Fig. 2):

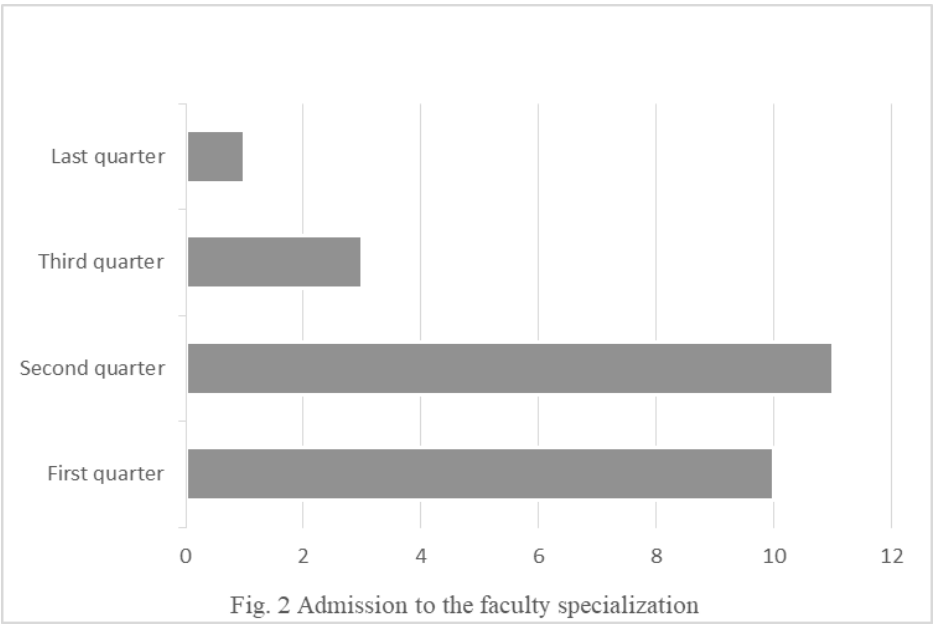


Fig. 2 Admission to the faculty specialization

The third question in the interview presents the current structure of the interviewed students within the analysed specialization, according to the general average grade obtained by them during the last year of study completed (respectively the second year – Fig. 3):

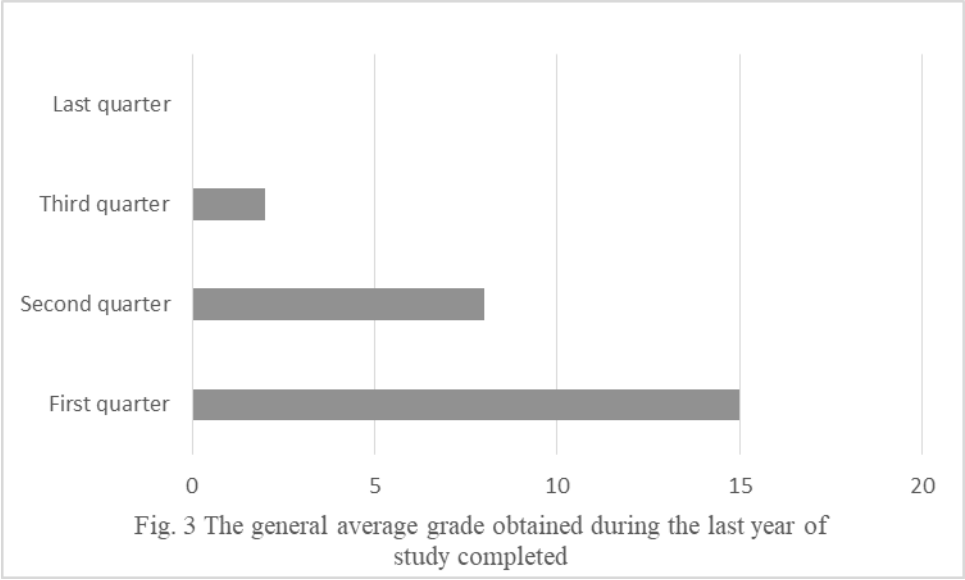


Fig. 3 The general average grade obtained during the last year of study completed

The next question the students have answered in the interview, was to analyze their current level of knowledge about the attributes of the currency. Their answers are summarized in the following graph (there is the possibility of multiple answers here – Fig. 4):

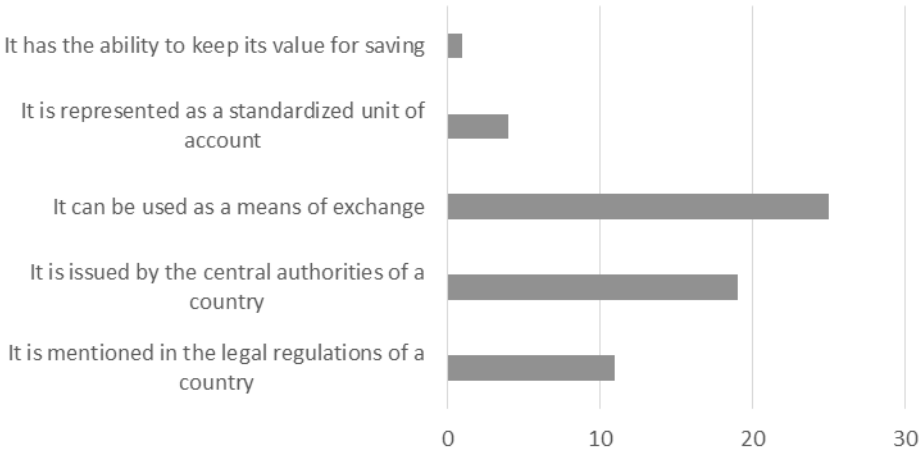


Fig. 4 The attributes of the currency

Through another question, we tried to see what the students interviewed think about what the cryptocurrencies are. Their answers are shown in the chart below (Fig. 5):

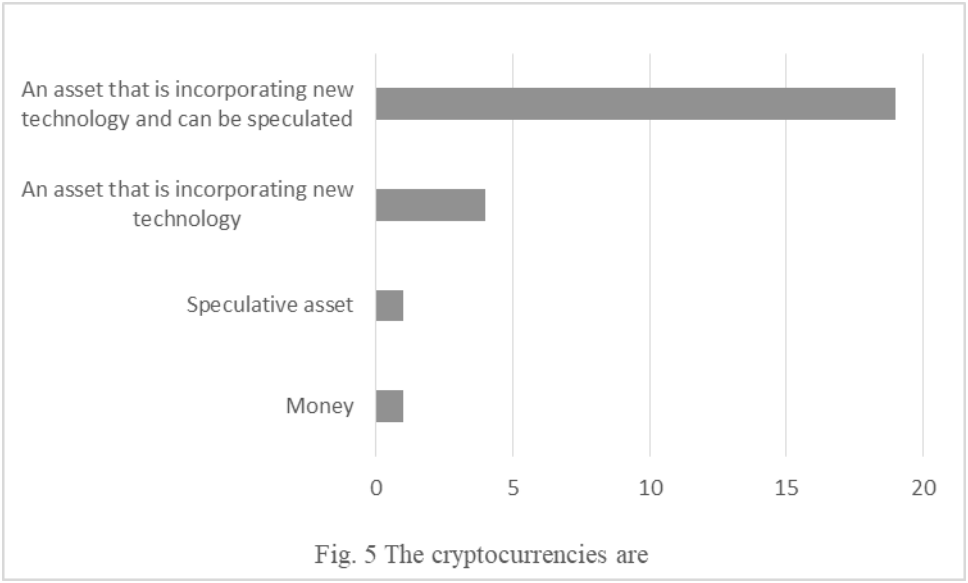


Fig. 5 The cryptocurrencies are

The opinion of the students interviewed about the new technology incorporated in cryptocurrencies is represented below (Fig. 6):

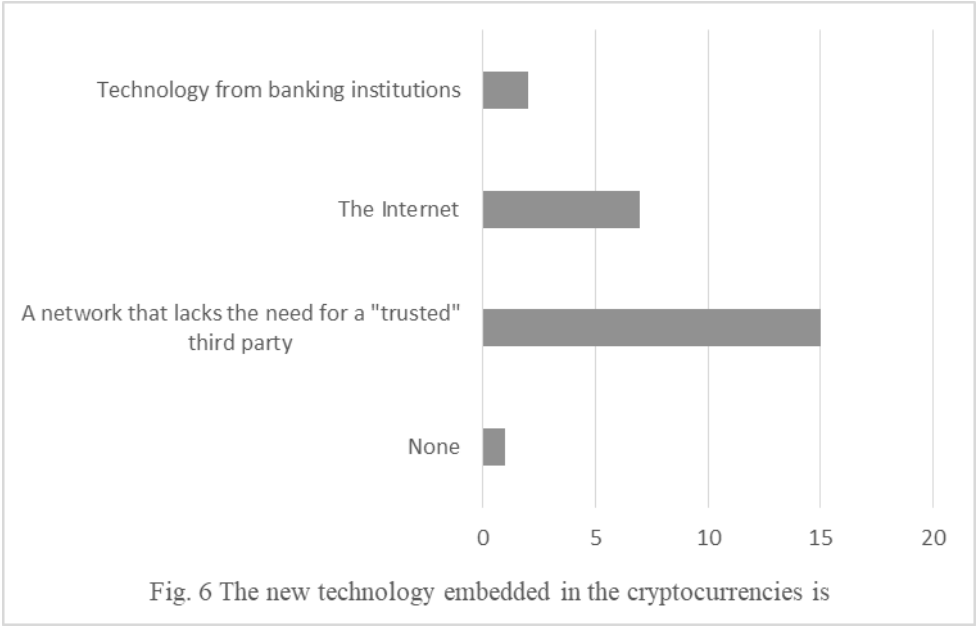


Fig. 6 The new technology embedded in the cryptocurrencies is

Regarding the advantages of the cryptocurrencies over the other means of exchange used, the opinion of the interviewed students is

represented graphically below (here and in the following questions there exists the possibility of multiple answers – Fig. 7):

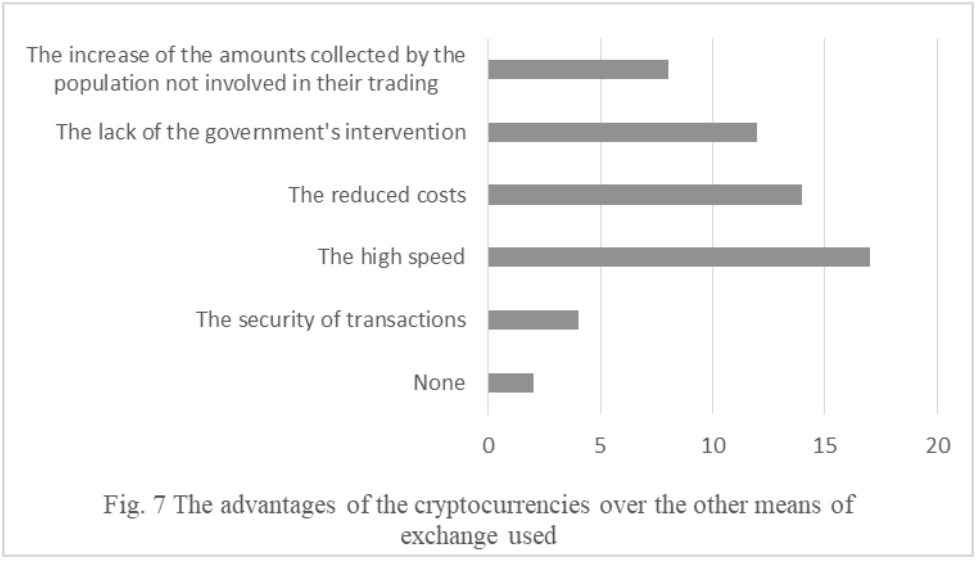


Fig. 7 The advantages of the cryptocurrencies over the other means of exchange used

The students interviewed believe that the widespread use of cryptocurrencies would bring benefits to the society summarized by the following chart (Fig. 8):

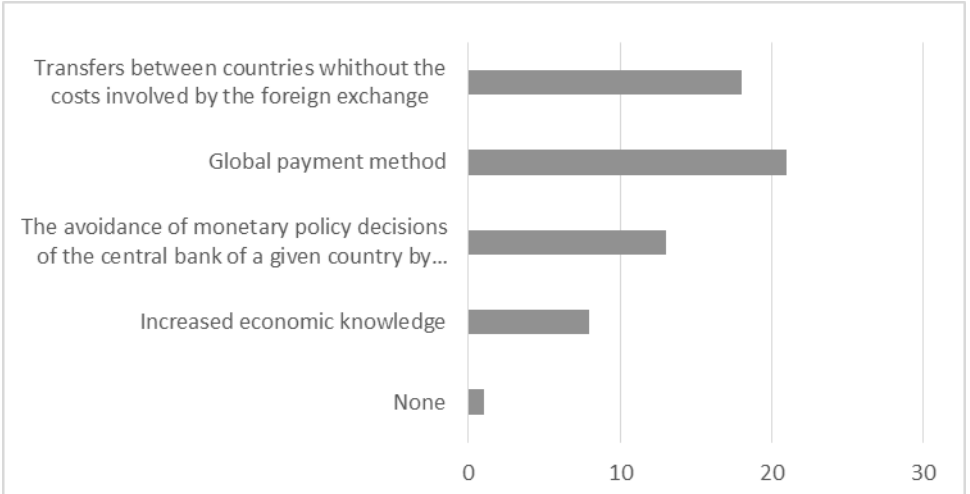


Fig. 8 The widespread use of cryptocurrencies would bring the following benefits to society

The disadvantages for the society that would be determined by the widespread use of the cryptocurrencies are, according to the interviewed students, represented by the following graph (Fig. 9):

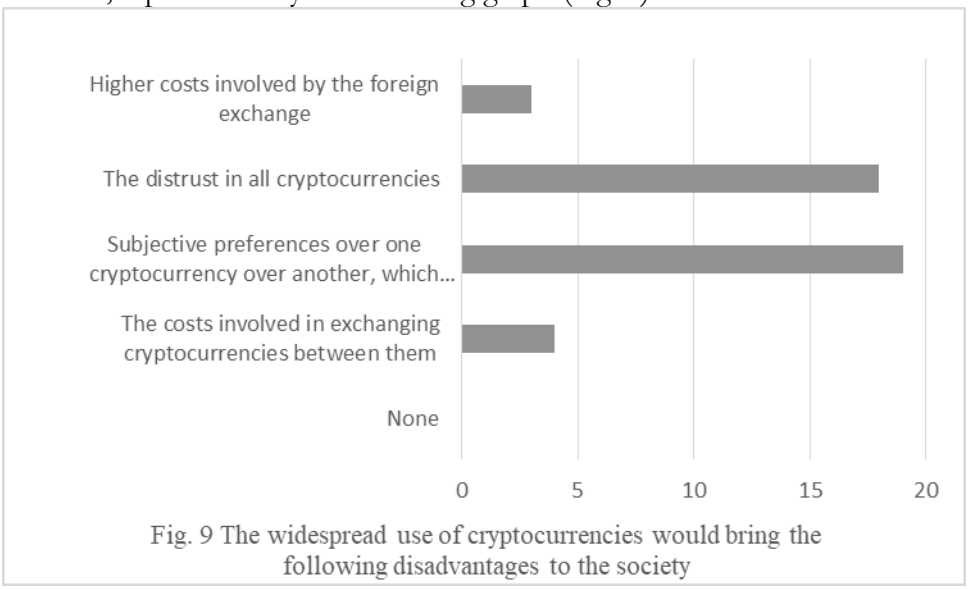


Fig. 9 The widespread use of cryptocurrencies would bring the following disadvantages to the society

The opinion of the interviewed students regarding the disadvantages of cryptocurrencies compared to other means of exchange currently used is graphically represented below (Fig. 10):



Fig. 10 The disadvantages of cryptocurrencies compared to other means of exchange currently used

The contact with cryptocurrencies of the interviewed students is currently found in activities that appear in the following chart (Fig. 11):

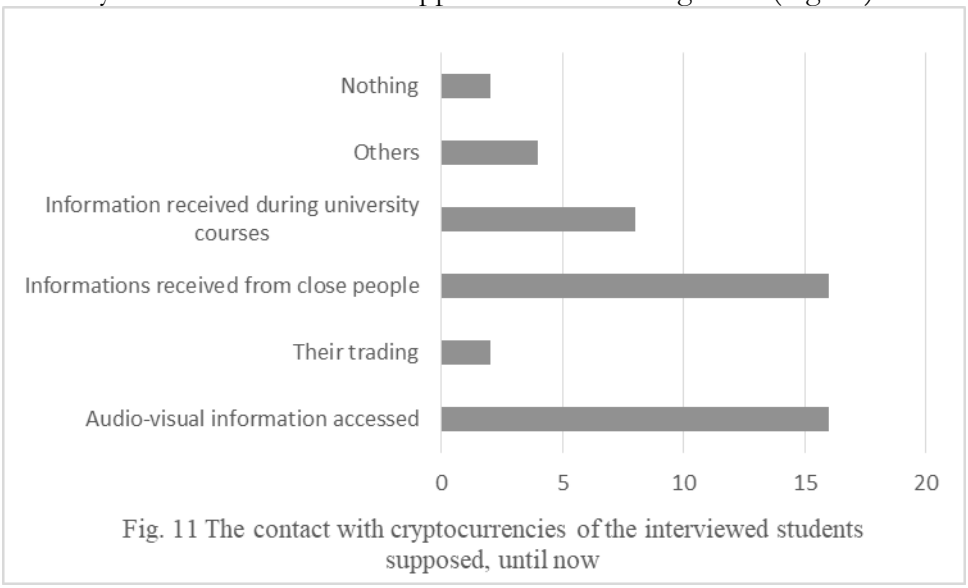


Fig. 11 The contact with cryptocurrencies of the interviewed students supposed, until now

In the near future (1 year) the contact with cryptocurrencies of the interviewed students will imply the existence of the activities that appear in the following graphic representation (Fig. 12):

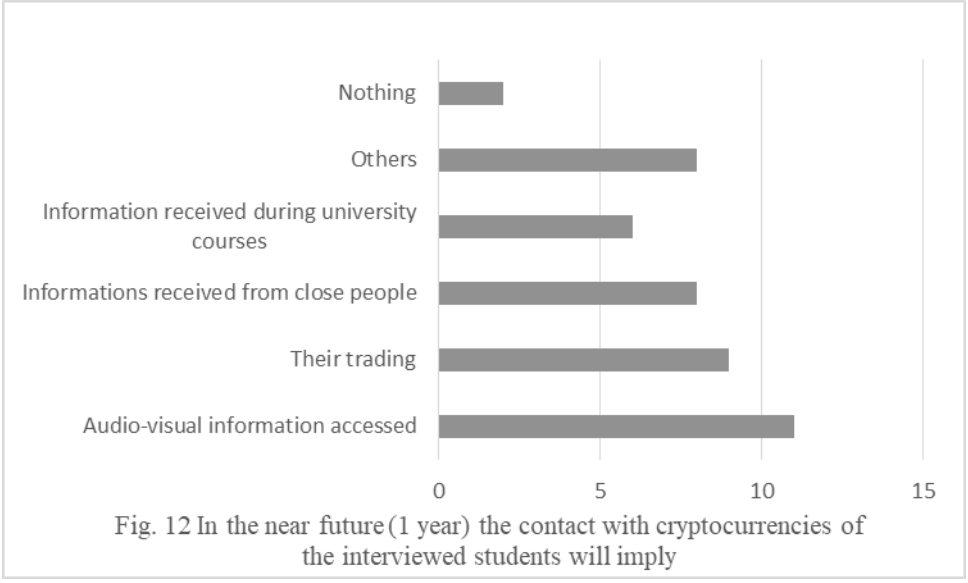


Fig. 12 In the near future (1 year) the contact with cryptocurrencies of the interviewed students will imply

5. Limits and discussions

According to some previous studies, women are less likely to use cryptocurrencies (Bohr & Bashir, 2014), but students are known to be among those who are more open to adopting cryptocurrencies than the general population (Sudzina et al., 2021), so our study shows, to a large extent, how female students in economics position themselves on cryptocurrencies.

The results of the interviews show that most of the students interviewed (88%) finished the high school in the first quarter of the class in which they studied. From the point of view of the evolution within the faculty, we found that the interviewed students continued to maintain good positions, looking at the overall average of the study year preceding the one in which the interview was organized (60% in the first quarter and 32% in the second quarter of their specialization).

According to the European Central Bank (ECB, 2015) money are defined by the following attributes:

- can be used as a means of exchange;
- is a standardized unit of account and can therefore be used to measure various assets and liabilities;
- have the ability to keep their value for saving.

Herbert and Stabauer (2015; 2017) say that "for a currency to exist, it must be written into the government regulations of a country and legally issued by a central authority of that country".

The virtual currency is not issued by a central bank, credit institution or electronic money institution, but is a digital representation of value that, in some situations, can be used as an alternative to money, according to the ECB (2015).

All the students interviewed believe that the currency can be used as a means of exchange, 76% of them believe that it is issued by the central authorities of a country and 44% agree that it is mentioned in the legal regulations while only 16% think that the currency is a standardized unit of account and only 4% see it as having the ability to keep its value for saving, to this question having the possibility of multiple answers. We specify that there were no questions to clarify the concepts used by the interviewees.

The term cryptocurrency comes from the word cryptography (Kessler, 2003), which is a secret way of writing using a conventional sign code and the word currency. Cryptocurrency is a term used to describe the blockchain trading systems (Vujičić et al., 2018; Valdeolmillos et al., 2019), not being a currency in the general sense of the aforementioned term

because it is not regulated by any government. 76% of the students interviewed believe that the cryptocurrency is an asset that incorporates new technology and can be speculated, while 16% believe that the cryptocurrency is an asset that incorporates only new technology, and 4% see it as a pure speculative asset and 4% as money.

Regarding the new technology incorporated by cryptocurrency, 60% of the interviewed students consider that it is represented by a network that implies the lack of the need for a "reliable" third party, 28% believe that the Internet is the new technology, 8% think that the new technology comes from banking institutions and 4% say that cryptocurrencies do not involve new technology.

When viewed as a medium of exchange, cryptocurrencies have advantages over other means of exchange according to the students interviewed and multiple answers are possible from the question about the advantages of cryptocurrencies to the end of the interview. The high speed is an advantage in the opinion of 68% of the interviewed students, the reduced costs according 56% of them, the lack of government interventions according to 48% of them, the increase in the amounts received by the population not involved in their trading in the opinion of 32% from the respondents, according to 16% of them the security of transactions and according to 8% of them, they have no advantage over other means of exchange.

The advantages for the society that would be determined by the widespread use of cryptocurrencies are represented by the fact that they could be used as a global mean of payment (according to 84% of the interviewed students), the transfers between countries without the costs involved in foreign exchange (according to 72% of them), the avoidance of monetary policy decisions of the central bank in a given country by the population (after 52% of them), the increased economic knowledge (after 32% of them) and none (after 4% of them).

The disadvantages for society that would be determined by the widespread use of the cryptocurrencies are seen by the students interviewed as follows: the subjective preferences for one cryptocurrency to the detriment of another, which would incorporate more value (after 76% of them), the distrust in all the cryptocurrencies (after 72% of them), the costs involved in exchanging cryptocurrencies between them (after 16% of them) and higher costs than at present involved in foreign exchange (after 12% of them).

Regarding the disadvantages of the cryptocurrencies compared to other means of exchange used, the students interviewed believe that they

involve: low security (after 52% of them), low speed (after 24% of them), high costs (after 20% of them), while 16% consider that they do not involve anything, 12% believe that the disadvantages are represented by the increase of the amounts received by the population and also 12% consider that a disadvantage could be represented by direct government interventions through new cryptocurrency issues.

Regarding the contact with cryptocurrencies of the interviewed students, it has consisted, so far, in: information received from close people and audio-visual information accessed (after 64% of the interviewed students, for both variants), information received during the university courses (after 32% of them), others (after 16% of them), their trading (after 8% of them) and in nothing (also 8% of them).

In the near future (up to 1 year) the contact with cryptocurrencies of the interviewed students will imply, in their opinion: audio-visual information accessed (after 44% of them), their trading (after 36% of them), information received from close people (after 32% of them), others (after 32% of them), information received in university courses (after 24% of them - the decrease could be due to the fact that not all students interviewed want to pursue a master's program in the next year), and nothing (after 8% of them). It is observed, comparatively to the general population, the increase of the intention to trade cryptocurrencies of the interviewed students, in a maximum of one year, 4.5 times.

An important limit of our study is, as we already mentioned, that it cannot be totally generalised to other parts of the population than the one the interviewed students are part of. So, our conclusions could be generalised to a large extent to the students from the profile Accounting and Management Informatics that will be present to the Faculty of Economic Sciences (LBUS) courses because of the fact that 73,52% from them agreed to be interviewed and especially to the female students who represented 84% from the total. Also, the conclusions could be generalised, to a smaller extent, to the students that have the same profile (specialisation), from different economic faculties from Romania and from abroad, because of the fact that their teachers are, in their absolute majority, different persons and their curriculum is not exactly the same as the one of the interviewed students. Future researches that we will develop will study the compatibility between the educational plans of the faculty where we made the current study and those from other economics faculties from the EU and from other developed countries, so, will clarify further the limits until which the conclusions of the actual study could be nationally and internationally significant but we believe now that the results are significant to an

international level regarding the economics students' perception on the cryptocurrencies.

6. Conclusions

All the questions in the interview show that most of the students interviewed are well-informed about the concept of cryptocurrencies and other related subjects. The main scope of the paper was to understand how students currently relate to the cryptocurrencies and, as there is an interest among them in their trading, the answers received to the questions asked to the students through the interview conducted in this study may be one of the factors that could be considered for a possible adjustment of the curricula addressed to their profile, so that the number of those who will say that the information they have about the cryptocurrencies comes, in part, from their university studies, to increase.

The female students interviewed are or say that they will be, unlike the big majority of all the other faculties profiles female students, involved in trading cryptocurrencies in the near future.

According to the interviewed students' answers, an important part of their information regarding the cryptocurrencies is obtained from outside the faculty.

Knowing the current situation of the interviewed students, the teachers who teach various disciplines in the specialization of which the interviewed students are part of, could try, in the situation where the taught subjects allow it, to offer to those who will come in the following years additional information about cryptocurrencies, knowing the high interest of getting involved in the cryptocurrency trading of those who are at the end of the last year of faculty in the specialization where the interview was conducted.

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