### ANALYSIS OF CRYPTOCURRENCIES THROUGH THE PRISM OF PUBLIC ATTITUDES IN REPUBLIC OF BULGARIA AND REPUBLIC OF TURKEY

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#### **Abstract**

The historical development of mankind shows that money is one of the greatest and most debated creations of our time. In the conditions of the XXI century of innovations and technological rise, the practical displaces the logical. In this regard, cryptocurrencies known as digital money are increasingly being discussed. The subject of this study are cryptocurrencies as a new and innovative financial resource. for payment between economic operators at national and supranational level. The subject of the study is an analysis of public attitudes. The main goal of the research is related to the analysis of cryptocurrencies through the prism of the public attitudes of the society on the territory of the Republic of Bulgaria and the Republic of Turkey.

Keywords: cryptocurrency, digital money, economic, finance, public attitudes, Republic of Bulgaria, Republic of Turkey

#### 1. Introduction

Globally, cryptocurrencies are a new type of evolutionary financial instrument for payment and trade between economic entities, which differs from traditional fiat money. In this regard, the object of study are cryptocurrencies. The subject of the research is an analysis of the public attitudes of economic agents related to cryptocurrencies as a new and innovative financial instrument for payment and trading. Cryptocurrency trading is attracting more and more economic agents because it provides a wide range of investment options through financial transactions in an anonymous and decentralized virtual environment. The scientific development arises as a consequence of both the need to study public attitudes in society and the still unspecified status of cryptocurrencies at the national and supranational level. The lack of a clear and concrete unified position in a global aspect provokes the compilation of a questionnaire and research on the selection of questions by looking for dependencies.

# 2. Analysis of the respondents on the territory of the Republic of Bulgaria and the Republic of Turkey

The analysis of cryptocurrencies as a new financial instrument through the prism of public attitudes is related to an empirical study, which presents the results of an author's study on their confidence in cryptocurrencies in the Republic of Bulgaria and the Republic of Turkey.

The survey includes 604 people on the territory of the Republic of Bulgaria and 512 people on the territory of the Republic of Turkey, aged between 17 and over 40 years of age, and their participation is voluntary. When disseminating the questionnaire, it is clearly and in accordance with the current legislation and regulations that it is clarified that the data are used only for

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scientific purposes. The generated data is systematized using Microsoft Excel and SPSS. The questionnaire includes questions related to:

- demographic orientation in order to get an idea of the persons participating in the survey;
- he attitude of the respondents towards cryptocurrencies.

After selecting questions from the demographic part of the questionnaire and systematizing the results obtained, it is established that:

According to a graphic analysis, a total of 604 persons from the Republic of Bulgaria, aged 17 to over 40, took part in the survey, systematized in electronic graphic form, in order to achieve clarity in the analysis of demographic data (*fig. 1.*). They are divided into four age categories. Respectively, in numerical values in the age range from 17 to 24, 165 persons took part in the survey; from 25 to 32 years old 167 people participate; from 33 to 40 years – 128 people; 144 people in the age range over 40 were surveyed. 512 respondents from the Republic of Turkey are again divided into four age categories, as the ratio in numerical values in the age range from 17 to 24 years – 263 people; from 25 to 32 years – 88 people; from 33 to 40 years – 79 persons; in the age range over 40 years – 82 persons *fig. 1*. and *fig. 2*. illustrate in percentage the number of participants.

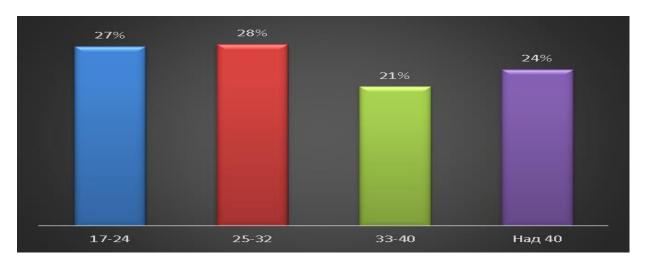


Figure 1. Analysis of the age of the surveyed population in the Republic of Bulgaria

Source: own calculations

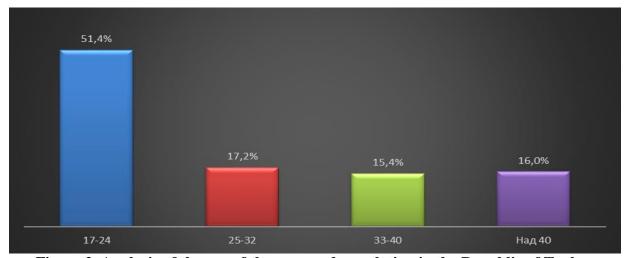


Figure 2. Analysis of the age of the surveyed population in the Republic of Turkey

Source: own calculations

puite logical in the demographic analysis of the persons who fill in the survey is to clarify the educational qualifications of all participants in the survey fig. 3. and fig. 4. As can be seen from fig. 3., about half of the respondents in the territory of the Republic of Bulgaria have secondary/secondary special education, and this category also includes students with a bachelor's degree, followed by persons with a bachelor's degree, semi-higher, "Master" and "Doctor" degrees. According to the data from the questionnaire, there are no persons to declare that they have primary education. Analysis of fig. 4. shows a wide range of age amplitudes of the participants in the survey on the territory of the Republic of Turkey, as 0.8% or 4 of the respondents indicated that they do not have an educational qualification, and there are no participants with an initial educational qualification.

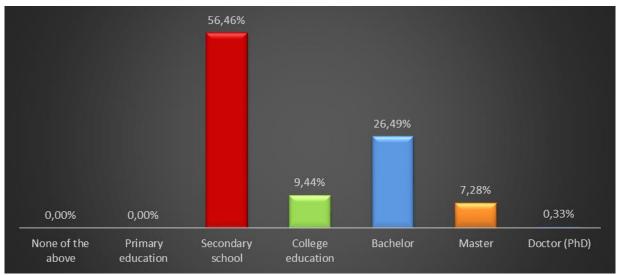


Figure 3. Analysis of the educational qualifications of the respondents in the Republic of Bulgaria

Source: own calculations

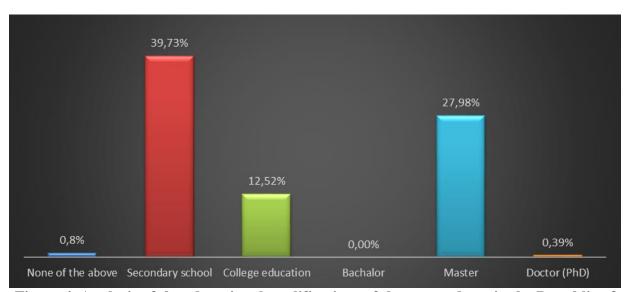


Figure 4. Analysis of the educational qualifications of the respondents in the Republic of Tukey

Source: own calculations

as part of the demographic analysis is included systematized information about the sector in which the respondents work in the Republic of Bulgaria *fig.* 5. The variations of the possible answers are divided into basic professional classifications of the professions, namely: IT (information technologies); service; industry; public; non-governmental organization; something else. The presented data indicate that the greatest interest in the survey on the territory of the Republic of Bulgaria is shown by persons working in the service sector (in numerical terms 240 persons out of 604), followed by the public sector (147 persons), non-governmental organizations), IT (76 people) and industry (24 people). On the territory of the Republic of Turkey (*fig.* 6.) with the largest number of respondents working in the service sector – 179, followed by the public – 107, IT – 71, another sector – 56, industrial – 54, non-governmental organization – 45.

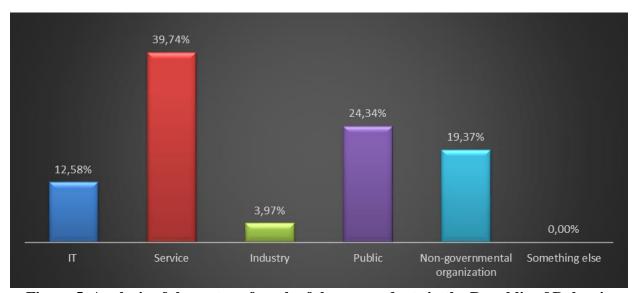


Figure 5. Analysis of the sector of work of the respondents in the Republic of Bulgaria

Source: own calculations

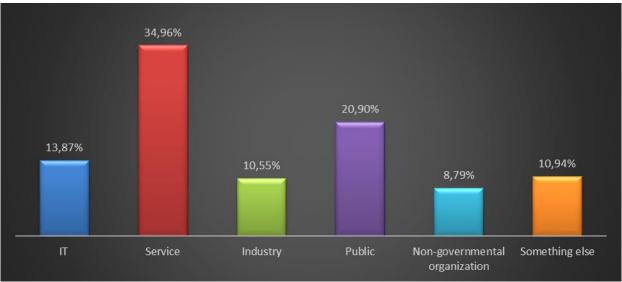


Figure 6. Analysis of the sector of work of the respondents in the Republic of Turkey

Source: own calculations

## 3. Analysis of the correlations between selected parameters from a survey conducted on the territory of the Republic of Bulgaria and the Republic of Turkey

The SPSS electronic system compares selected claims, namely: "I have the resources to use cryptocurrency", "I intend to use cryptocurrency as an alternative currency to buy and sell products in the future", "I believe that cryptocurrency would work in my best interest", "People who are important to me think I should use cryptocurrency", "I have knowledge to use cryptocurrency", "When I use cryptocurrency I am afraid of losing", "Cryptocurrency is compatible with other technologies I use", "Cryptocurrencies are easy to understand and use", "I think cryptocurrencies should be supported by the government to ensure their security", "Using cryptocurrencies for payment saves time and helps me accomplish my tasks faster", looking for a link to demographic issues: "Age", "What is your educational qualification", "Indicate the sector in which you work or have worked".

The purpose of the analysis is to find out whether there is a connection and what it is, between the studied variables on the territory of the Republic of Bulgaria and the Republic of Turkey. As a result of the performed correlation analysis it is established that between the analyzed parameters in the Republic of Bulgaria there is a strong correlation between: What is your educational qualification degree/Age, expressed in value 0.717. There are many moderate correlations between: I intend to use a cryptocurrency as an alternative currency to buy and sell products in the future/I have the resources to use a cryptocurrency denominated in 0.433; I believe that the cryptocurrency would act in my best interest/I intend to use the cryptocurrency as an alternative currency to buy and sell products in the future, expressed as 0.426; People who are important to me think that I should use cryptocurrency/I have the resources to use cryptocurrency, expressed in value 0.356; People who are important to me think that I should use cryptocurrency/I intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed as 0.341; I have knowledge to use cryptocurrency/I have resources to use cryptocurrency, expressed in value 0.547; I have knowledge to use cryptocurrency/I intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed in value of 0.400; I have knowledge to use cryptocurrency/People who are important to me think that I should use cryptocurrency, expressed in value 0.414; Cryptocurrencies are easy to understand and use/I have the knowledge to use a cryptocurrency, expressed in a value of 0.364. These correlations are reported with high statistical significance Sig. ( $p \le 0.001$ ).

Analysis of the generated data from the empirical study conducted on the territory of the Republic of Bulgaria shows that there are negative correlations, as significant between them are: I have the resources to use cryptocurrency/Age, expressed in value -0.356; When I use cryptocurrency I am afraid of losing/I have knowledge to use cryptocurrency expressed in value -0.312; I think that cryptocurrencies should be supported by the government to ensure their security/Cryptocurrency is compatible with other technologies I use, expressed in a value of -0.375. The data are a prerequisite for the inverse proportionality of their linear dependence, namely analogously: age is a prerequisite for allocating financial resources for investing in cryptocurrencies.

Analysis of the correlations between selected parameters from an author's study on the territory of the Republic of Turkey show a strong correlation between the statements: What is your educational qualification degree/Age, expressed in value 0.843, I believe that the cryptocurrency would act in my best interest I intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed as 0.671; I have knowledge to use cryptocurrency/I have resources to use cryptocurrency, expressed in value 0.687; Using

cryptocurrencies for payment saves time and helps me complete my tasks faster/I intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed as 0.638; Using cryptocurrencies for payment saves time and helps me complete my tasks faster/I believe that cryptocurrency would work in my best interest, expressed at 0.647; Cryptocurrencies are easy to understand and use/I have knowledge to use a cryptocurrency expressed in value 0.614. The analysis also found many moderate correlations, namely: Indicate the sector in which you work or have worked/Age, expressed in value 0.356; Indicate the sector in which you work or have worked/What is your educational qualification degree, expressed in value 0.388; I intend to use cryptocurrency as an alternative currency to buy and sell products in the future/I have the resources to use cryptocurrency expressed in the value of 0.566; I believe that the cryptocurrency would act in my best interest/Age, expressed as 0.406; I believe that the cryptocurrency would act in my best interest/I have the resources to use a cryptocurrency expressed in the value of 0.524; People who are important to me think that I should use cryptocurrency/I have the resources to use cryptocurrency expressed in value 0.303; People who are important to me think that I should use cryptocurrency/I intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed as 0.362; People who are important to me think I should use a cryptocurrency/I believe that a cryptocurrency would work in my best interest, expressed at 0.404; I have knowledge to use cryptocurrency/I intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed in the value of 0.592; I have knowledge to use cryptocurrency/I believe that cryptocurrency would act in my best interest, expressed in value 0.525; I have knowledge to use cryptocurrency/People who are important to me have decided that I should use cryptocurrency, expressed in value 0.369; The cryptocurrency is compatible with other technologies that I use/I have the resources to use cryptocurrency, expressed in the value of 0.439; The cryptocurrency is compatible with other technologies that I use/intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed as 0.469; The cryptocurrency is compatible with other technologies I use/I believe that the cryptocurrency would act in my best interest, expressed as 0.487; The cryptocurrency is compatible with other technologies that I use/I have knowledge to use cryptocurrency, expressed in the value of 0.477; Cryptocurrencies are easy to understand and use/I have the resources to use a cryptocurrency valued at 0.564; Cryptocurrencies are easy to understand and use/I intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed as 0.571; Cryptocurrencies are easy to understand and use/I believe that cryptocurrency would work in my best interest, expressed at 0.521; Cryptocurrencies are easy to understand and use/People who are important to me think that I should use a cryptocurrency expressed in the value of 0.347; Cryptocurrencies are easy to understand and use/Cryptocurrency is compatible with other technologies I use, expressed in value 0.576; I think that cryptocurrencies should be supported by the government to ensure their security/I intend to use cryptocurrency as an alternative currency to buy and sell products in the future, expressed at 0.302; I think that cryptocurrencies should be supported by the government to ensure their security/I believe that cryptocurrency would act in my best interest, expressed at 0.353; I think cryptocurrencies should be supported by the government to ensure their security/Cryptocurrency is compatible with other technologies I use, expressed in value of 0.332; I think cryptocurrencies should be supported by the government to ensure their security/Cryptocurrencies are easy to understand and use, expressed in value of 0.305; Using cryptocurrencies for payment saves time and helps me complete my tasks faster/I have the resources to use a cryptocurrency expressed in value 0.509; Using cryptocurrencies for payment saves time and helps me complete my tasks faster/People who are important to me think I should use a cryptocurrency expressed in value 0.307; Using cryptocurrencies for payment saves time and helps me to complete my tasks faster/I have knowledge to use cryptocurrency, expressed in value 0.517; Using cryptocurrencies for payment saves time and helps me complete my tasks faster/Cryptocurrency is compatible with other technologies I use, expressed in the value of 0.541; Using cryptocurrencies for payment saves time and helps me complete my tasks faster/Cryptocurrencies are easy to understand and use, expressed in a value of 0.558; Using cryptocurrencies for payment saves time and helps me complete my tasks faster/I think cryptocurrencies should be supported by the government to ensure their security, expressed in the value of 0.368. These correlations are reported with high statistical significance Sig. ( $p \le 0.001$ ).

Analysis of the studied parameters from the survey in the Republic of Turkey shows that there are negative correlations, as significant between them are: I have the resources to use cryptocurrency/Age, expressed in value -0.533; I have resources to use cryptocurrency/What is your educational qualification degree, expressed in value -0.517; I intend to use cryptocurrency as an alternative currency to buy and sell products in the future/Age expressed as -0.383; I intend to use cryptocurrency as an alternative currency to buy and sell products in the future/What is your educational qualification degree, expressed in value -0.353; I believe that the cryptocurrency would act in my best interest/What is your educational qualification degree, expressed in value -0.364; I have knowledge to use cryptocurrency/Age, expressed in value -0.487; I have knowledge to use cryptocurrency/What is your educational qualification degree, expressed in value -0.471; The cryptocurrency is compatible with other technologies I use/Age, expressed in value -0.365; The cryptocurrency is compatible with other technologies I use/What is your educational qualification degree, expressed in value -0.365; Cryptocurrencies are easy to understand and use/Age, expressed in value -0.466; Cryptocurrencies are easy to understand and use/What is your educational qualification degree, expressed in value -0.457; Using cryptocurrencies for payment saves time and helps me complete my tasks faster/Age, expressed in value -0.430; Using cryptocurrencies for payment saves time and helps me to complete my tasks faster/What is your educational qualification degree, expressed in value -0.403, which is a prerequisite for inverse proportionality of their linear dependence, namely analogously: in lowering demographic parameters age and educational qualification degree there is an increased interest in the use of cryptocurrencies among the surveyed population in the territory of the Republic of Turkey.

#### 4. Conclusions and recommendations

Cryptocurrencies are one of the most discussed financial phenomena of the 21st century in the public sphere. Both the increased media interest and the discussions related to virtual money in the public space encourage economic agents to invest in alternative currencies to fiat money. The research aims to provide generated and systematized information on selected statements from an author's survey. In summary of the above, similarities are observed in some of the studied factors for the Republic of Bulgaria and the Republic of Turkey, but there are also differences. There are fewer correlations between the studied statements on the territory of the Republic of Bulgaria compared to the Republic of Turkey, where the demographic factors "Age" and "Educational qualification degree" have a significant impact on public attitudes related to cryptocurrencies. The author recommends to deepen the research in this area by analyzing and looking for the factors that have an impact on the identified differences in public attitudes.