

# The Growth of Digital Currencies in Western Balkan Countries during the Covid-19 Pandemic Period

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## Abstract

The impacts of Covid-19 have been both negative and positive. While a significant portion of the economy has been affected negatively, the financial market experienced a major boost following increased digital currency transactions. The digital currency platform has registered significant gains during the Covid-19 pandemic as governments across the world formulated and implemented policies to discourage transactions in Fiat currency, which is considered a common way of spreading the virus. Governments in developing countries that are highly likely to be overwhelmed by the virus have taken key initiatives to encourage use of digital currencies such as crypto-currency in directing financial institutions to waive their transaction charges during the pandemic, a move that has encouraged more people to adopt use of digital currency. The Western Balkan region has particularly experienced massive transformation of its financial markets, with digital currencies such as crypto-currencies gaining more in roads in the industry. Before the pandemic, many organizations in Balkan lacked the necessary infrastructure to support the digital currency framework. Western Balkan countries still lagged behind EU's digital currency threshold. With the changes that have taken effect, Western Balkan countries have put in place the necessary resources required to mitigate the spread of Covid-19 by developing the digital currency platform. While cash may still be the most common method of payment, government financial policies adopted during the Covid-19 pandemic are fueling the culture of crypto currency. Using digital currency to complement other payment methods can fasten growth in the Western Balkan economies. These findings reinforce findings of numerous other studies that pointed to adoption of crypto-currencies being a major economic performance indicator. Thus, this paper will investigate the effects of Covid-

19 on digital currencies in the last one year that the pandemic has been active, focusing on six Western Balkan countries; Serbia, Montenegro, Kosovo, Bosnia, Albania, and Macedonia.

Keywords: Covid19, Western Balkan States, Digital Currency.

#### Statement of the Problem

Cash transaction have been flagged as one of the common ways of spreading Covid-19 which has prompted governments across the world to formulate policies that encourage use of digital currencies. Thus, the prospect of Covid-19 influencing growth in use of digital currencies has emerged. Broz et al (2020) documents that Western Balkan countries have always fallen below EU's digital currency threshold. Sanfey and Milatovic (2018) and Dabrowski and Myachenkova (2018) highlight that use of digital currencies has led to increased trade volumes between Balkan countries and other countries. With the measures implemented by governments across the six Western Balkan countries selected, this study seeks to investigate the actual impact of Covid-19 on digital currencies.

**Hypothesis:** The study hypothesizes that Covid-19 has a positive impact on digital currencies.

#### Aim of the Study

To investigate the impact of Covid-19 on digital currencies.

#### Research Question

The following research question was formulated to guide the study:

- How does increase in Covid-19 cases influence knowledge and use of digital currencies?

#### Research Methodology

This study will rely on primary data collected from different financial institutions in the four Western Balkan countries selected. Due to the restrictions imposed to curtail the spread of Covid-19, the interviews were conducted via digital platforms. Doody and Noonan (2013) express that interviews are effective data collection methods because they allow a researcher to gain insights about a particular issue of interest. Williamson (2013) backs the above assertions, noting that focus groups in interviews allow a researcher to obtain accurate information on an issue being investigated. The questionnaire and the oral interviews are in the English language. The population for the data collection is digital currency stockers and investors. The linear regression method was used in the data analysis. The study will investigate the relationship between two variables; digital currency (dependent variable-Y) and Covid-19 (independent variable-X). The participants used in this study consisted of investors and owners from different financial institutions in the Balkan region. 8 participants were selected for every country which means that a total of 48 participants were included in the study. The investors will be the oral interview subjects while the owner will do the questionnaire. The research paper is centered on finding out the investors' feelings on the changes that digital currency has undergone amid COVID-19. The oral interviews were conducted by interviewers who could speak in the native language of the subjects. Therefore, before the interview, the clients were asked to state their first language.

### Questionnaire

Since the study brings two set of participants (investors and owners), questionnaires will only be administered to owners while investors will be engaged through oral interviews. The questionnaire contains the main questions that will be useful in collecting data for the verification of the hypothesis. The data collected will be analyzed using linear regression as it is an appropriate method of determining the relationship between the dependent and the independent variable. The interview questions and responses are shown in Appendix A.

### Findings

#### Demographic Information

#### Country

The population distribution per country is shown in the table below.

Table 1: Country distribution

Country		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Serbia	8	16.66	16.66	16.66
	Kosovo	8	16.66	16.66	33.32
	Montenegro	8	16.66	16.66	49.98
	Macedonia	8	16.66	16.66	66.64
	Albania	8	16.66	16.66	83.3
	Bosnia	8	16.66	16.66	100.0
	Total	48	100.0	100.0	

### Gender

The respondents were asked to indicate their particular gender. It was observed that out of the 48 respondents, 30 of them were male, while the rest were female. This is illustrated in the table below.

Table 2: Gender distribution

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	30	62.5	62.5	62.5
	Female	18	37.5	37.5	100.0
	Total	48	100.0	100.0	

### Age

Table 3: Age of the respondents

Are you aged below thirty years?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	20	41.7	41.7	41.7
	No	28	58.3	58.3	100.0
	Total	48	100.0	100.0	

The respondents were asked to indicate their ages if they were above or below 30 years. The data clearly showed that most of the respondents were above 30 years (28 respondents). Those who were below 30 years had a frequency of 20 (41.7%).

Extent to which cash has been effective as a mode of transaction in the COVID 19 period

Table 4: Extent to which using cash is the best mode of transacting

To what extent do you agree that using cash is your best mode of a transaction?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	1	2.1	2.1	2.1
	Moderately agree	6	12.5	12.5	14.6
	Indifferent	11	22.9	22.9	37.5
	Moderately disagree	17	35.4	35.4	72.9
	Strongly disagree	13	27.1	27.1	100.0
	Total	48	100.0	100.0	

The respondents revealed that there has been a low implementation of cash as a mode of transaction during COVID 19 pandemic by the six countries, as per the table above. Most respondents disagreed to cash being effective (frequency=17 and frequency=13). Only 14.6% agreed to cash being the best method when doing transactions, while 22.9% were indifferent. This is an indication that with the advent of COVID 19 pandemic, there has been increased utilization of cashless transactions by various states as an effort to reduce the spread of the virus.

#### Knowledge about Digital currencies

The respondents were asked to rate the procurement performance before E-procurement implementation. Most respondents, as per the table below, indicated that they were familiar with digital currencies (frequency=30). Only 18 of them claimed that they were not aware of digital currencies before the pandemic. This is an indication that most of the people with knowledge of these currencies could implement them in place of using cash.

Table 5: Knowledge about Digital currencies

Did you know about digital currencies before the COVID- 19 pandemic?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	62.5	62.5	62.5
	No	18	37.5	37.5	100.0
	Total	48	100.0	100.0	

Impact on digital currencies on the spread of COVID 19

Table 6: Impact on digital currencies on the spread of COVID 19

Do you think that digital currencies have reduced the spread of COVID- 19 (Positive or negative)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Positive	29	60.4	60.4	60.4
	Negative	19	39.6	39.6	100.0
	Total	48	100.0	100.0	

The respondents indicated that digital currencies have significantly and positively reduced the COVID 19 spread (frequency=29). This further supports the significance of implementing use of digital currencies. Despite their importance, most of the people are illiterate and not well versed with their use, as evidenced by the responses from the table below, who claim it is too complicated (35.4%).

Table 7: Importance of digital currencies during COVID 19 pandemic

What are you take about digital currencies during the Corona Virus Pandemic? [Digital currencies]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I like the turn of events; I like it	15	31.3	31.3	31.3
	I cannot see any difference	3	6.3	6.3	37.5
	It is complicated for me	17	35.4	35.4	72.9
	I do not use digital currencies	13	27.1	27.1	100.0
	Total	48	100.0	100.0	

### Regression Analysis

#### Model Summary

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.869 <sup>a</sup>	.755	.750	.245
a. Dependent Variable: Digital currencies				
b. Predictors: (Constant), COVID 19				

From the findings in the above table, the adjusted R squared ( $R^2$ ) is the coefficient of determination which shows the variance in digital currencies' usage due to changes in COVID 19 infections. As shown above, it is 0.750, which means that 75.0% of the total variance in

digital currencies usage has been explained by the independent variable. The R squared ( $R^2$ ) is 0.755 which means that 75.5% of variation in the digital currencies' usage was explained by the changes in COVID 19 infections.

#### Model Coefficients

Table 9: Regression Coefficients

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.174	.107		1.631	.110
	COVID 19	.860	.072	.869	11.910	.000

a. Dependent Variable: Digital currencies

From the findings, the following regression model was established;

$$Y = 0.174 + 0.860X$$

From the findings of the regression analysis, it was found that holding the COVID 19 variable at constant zero, the digital currencies variable would be 0.174. The model further reveals that a unit increase in the COVID 19 infections would lead to an increase in the use of digital currencies by a factor of 0.860. The finding indicates that the COVID 19 variable is statistically significant at 5% level of significance. Since the t-test values for the predictor variable is above the absolute value of 2, then the relationship between this variable and use of digital currencies is statistically significant.

#### Discussion

The aim of this study was to investigate the impact of Covid-19 on digital currency in the Western Balkan region. The study hypothesized that Covid-19 has a positive impact on digital currency in various ways. Primary data was collected from owners and investors in financial institutions across six countries in the Western Balkan and analyzed through linear regression. Generally, the results of the analysis conducted have revealed that Covid-19 has positively impacted digital currencies. Regarding the first interview question asked, 14.6% expressed that they considered cash the best method of transaction during Covid-19 pandemic. 22.9% were indifferent as to what method of transaction they preferred while the remainder preferred digital currencies. This finding is consistent with Kakushadze and Liew (2020) who found that most



people preferred to transact in digital currencies following government measures put in place to discourage cash transactions. The second question tested participants' knowledge of digital currencies. The results of the analysis revealed that 62.5% had concrete knowledge about digital currencies such as cryptocurrency. However, this may not be reflective of the entire population as the sample was drawn from financial institution experts. This finding is consistent with Stojkovski (2020) who found that while cash is still preferred as the main medium of exchange across Western Balkan countries, more people are getting to learn about digital currencies. Regarding whether digital currencies had reduced the spread of Covid-19, 60.25 of the participants expressed their belief that digital currencies had helped curtail the spread of the virus. The findings are consistent with Assoumou-Ella, 2020 and Chronopoulos et al. 2020 who found that governments across the world had reduced the spread of Covid-19 by adopting digital transactions. Regarding the relationship between the two variables; Covid-19 and digital currency, the linear regression analysis revealed that holding the COVID 19 variable at constant zero, the digital currencies variable would be 0.174 while an increase in the number of Covid-19 infections would lead to an increase in the use of digital currencies by a factor of 0.860. This depicts a positive correlation between Covid-19 and digital currency. This finding is consistent with Assoumou-Ella, 2020 and Chronopoulos et al. 2020 who found that increased use of digital currencies resulted from increased cases of Covid-19.

#### Conclusion

The results of this study has revealed that Covid-19 has a positive impact on use of digital currency. A number of factors have been highlighted as expressly behind the increased usage of digital currencies for transaction. Government policies adopted to encourage use of digital currencies have largely affected how people transact, with most people expressing their preference for digital currencies. Also, people have become more aware of the various digital currency options available. From the results of the linear regression, a positive correlation between Covid-19 and digital currencies has been established. Thus, the hypothesis formulated for this study is accepted as true.

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Appendices

**Questions**

- 1) Are you aged below thirty years?
- 2) Is using cash your best mode of a transaction?
- 3) What are you take about digital currencies during the Corona Virus Pandemic?
- 4) To what extent do you agree that using cash is your best mode of a transaction?
- 5) Did you know about digital currencies before the COVID- 19 pandemic?
- 6) Do you think that digital currencies have reduced the spread of COVID- 19 (Positive or negative)
- 7) What are you take about digital currencies during the Corona Virus Pandemic?

[Digital currencies