

# A Study on the Factors Influencing Cryptocurrencies Emergence on the Banks in Malaysia

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## Abstract

Emergence of cryptocurrency has been an important issue to look at the current generation. Due to the rapid development of information and communication technologies, many activities in our daily life have been merged online and they become more flexible and more effective. A huge growth in number of online users has activated virtual word concepts and created a new business phenomenon which is cryptocurrency to facilitate the financial activities indirectly replacing the activities by the Central banks. The use of virtual currency has become widespread in many different systems in recent years. This paper investigates the bank employees' view on the cryptocurrency emergence towards the commercial banks. It also explores the factors influencing the banks in general and how the cryptocurrency emergence can contribute to those factors in replacing the current currency issued by the Central Banks. The paper also analyses the way in which 8 different local commercial bank employees have responded in terms of emergence of cryptocurrencies towards the commercial banks to develop a clear picture of its impact on various factors in commercial banks in Malaysia.

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## I. INTRODUCTION

### A. Background of the study

Emergence of many digital currencies or also known as cryptocurrency has tried to replace the current currency which is in the form of money. Cryptocurrencies are not issued by any central banks as they are not centralised or also not issued by commercial banks such as deposit accounts. Cryptocurrencies are issued by a decentralised systemised software protocol in the form of digital token. The sovereign currency has been potentially being given competition by the digital currency as a means of payment as the cryptocurrency allow relatively faster and cheaper peer-to-peer payments. There is no involvement of third parties such as banks or credit card companies in the transaction through cryptocurrency. It is also slowly being a substitute of the monetary cash (banknotes) and could cause an effect to the central banks as well as the monetary policy of a country.

Hence, the impact of the cryptocurrencies on multiple factors is needed to be found out in order to know how far the currency has been actively been replacing the fiat currency or about to do such way. This paper is based on the banks in Malaysia. There are many factors affecting the banks in Malaysia and such are listed out to know the factors affecting the impact of cryptocurrency in Malaysia. They are namely the Gross Domestic Product (GDP), Interest Rate Policy, Regulatory Policy and the Monetary Policy which affects the

banks' growth in Malaysia. The central bank in Malaysia has given few guidelines on the investors of cryptocurrency. The ambiguity remains a question on the guidelines regulating the people in the country to invest in cryptocurrency. Further discussion regarding that will be discussed in the paper later.

It is necessary and significant to carry out such study on cryptocurrency as many has come up saying how the digital currency is trying to replace the world currency or fiat currencies. Even the world's central bank, the Bank of International Settlements (BIS) are looking at it as an important study. The BIS have mentioned in the month of September 2017 that it is becoming more than just a curiosity for the investors of the cryptocurrency. The world's central bank also said that policy makers cannot ignore the cryptocurrencies' growth and will most probably have to consider whether it is better for them to issue their own digital currencies at some point of time (Lam, 2017). Thus, the cryptocurrency issue is very much significant to study on how it affects the banks in Malaysia too. It is significant to do such research on Malaysia banks because the Central bank in Malaysia is having this ambiguity to whether to go with the flow by implementing a separate regulation a guideline to the people in the country to invest into the cryptocurrencies without affecting the banks' fiat currencies.

The factors of monetary policy been affecting the banks in a negative force is true and been discussed majorly. Thus, monetary policies had a negative impact on excess liquidity

of the banks in a country(Phuong & Chen, 2015). Besides, the GDP has been classified as a proxy variable for business cycle. It is, therefore given importance on how it can be one of the factors of the liquidity in a bank. In one research, it is said that UK banks appeared to keep lesser liquidity amounts when GDP increased and vice versa, between the periods 1985 to 2003(Aspachs, et al., 2005). Other than that, another factor discussed here that affects the banks in a country is the Inflation Rate Policy which seem to be highlight in determining the banks' liquidity. In an empirical research, stated that there is a negative impact of the inflation policy on the banks in Tunisia(Moussa, 2015). Besides another research on Indian banks states that, there is a negative impact of the bank's liquidity(Khokhar & Shahriari, 2017). There is also other studies stating the impact on the banks' liquid asset has an insignificant effect(L. Weill, et al., 2014). Last but not least, the factor of regulatory policy has been one of the major issues to affect the banks in a country. It has been investigated that the impact of regulations are related to the three factors in Basel II which are the capital adequacy requirements, official supervisory power, and market discipline mechanisms, as well as restrictions on bank activities, on cost and profit efficiency of banks(Pasiouras, et al., 2009).

Therefore, it is much significant to study on this factor in order to know how it affects the banks liquidity after impacted by the cryptocurrency existence. It is needed as digital currencies are still somehow limited to only being virtual and has no value similarto money or fiat currency(Iwamura, et al., 2014). According to the Bank Negara Malaysia, also known as the Central Bank of Malaysia, the Governor had mentioned that the country will not ban the cryptocurrency however, will implement guidelines on the players of the currencies(O'Leary, 2017). In such way, it is thus, significant to do further research on how it can affect the existence of the commercial banks in Malaysia.

### B. Problem Identification

Banks has been one of the important sectors in a country. Research has been even done on how important the banks are. The banking sector was always deemed to be one of the most vital sectors for the economy to be able to function well. It is a crucial role of the financial institutions in developing a country as it contributes the financial growth of a country(Fulford, 2016). Hence, the need to improve the banks' liquidity in a country is very much vital. However, the emergence of the cryptocurrency may cause a serious contribution to the financial institution of the country. This is due to how the currencies used by the country could be affected majorly.

Consequently, the impact of the cryptocurrency is what been measured at how the digital currency would affect the bank's factors such as the monetary policy, inflation rate, GDP as well as the regulatory policy in a country. Therefore, there is need to share information about the increased rate of the usage of cryptocurrency more than fiat currencies in the banks or more than the usage of bank as the main transaction for the customers as this could be affected by the GDP as well. The banks should majorly take care of the banks' investors so they would not divert onto cryptocurrencies. This is because emergence of the cryptocurrency such as the

Bitcoin and Ethereum had caused some economy of the countries to a significant shift(CCN, 2017). It was also once mentioned that the arrival of cryptocurrencies would add a new dimensions to US Dollar (USD)(A.Seetharaman, et al., 2017).

Thus, this issue is well studied through the factors of the banks which would be impacted by cryptocurrencies. These are the factors that affect the banks' liquidity in general. They include the monetary policy which can be a major cause the banks' liquidity. The link among the monetary policy and bank profitability is majorly depending on the relationship between the interest rate and the performances if the banks(Gambacorta , et al., 2015). Besides, another factor is the GDP affecting the banks as one of the macroeconomic factors. Another macroeconomic factor is the inflation rate policy affecting the banks' liquidity. Other than that, regulatory policy plays a vital role as well.

### C. Research Objective

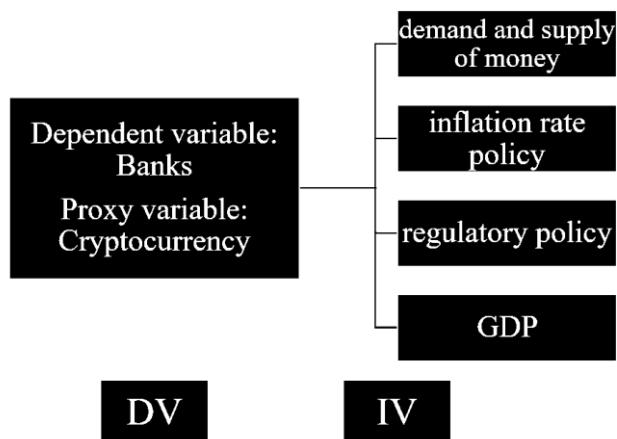
#### 1) General Research Objective

To study the monetary policy, inflation rate policy, regulatory policy and GDP factors influencing the cryptocurrency emergence towards the banks in Malaysia.

#### 2) Specific Research Objective

1. To determine the relationship between the demand and supply of money effect to cryptocurrency.
2. To determine the relationship between the inflation rate policy factor and cryptocurrency emergence towards the banks in Malaysia.
3. To determine the relationship between the banks regulatory policy and cryptocurrency emergence towards the banks in Malaysia.
4. To determine the relationship between the GDP factor and cryptocurrency emergence towards the banks in Malaysia.

### D. Research Framework



**Figure 1: Research Framework**

### E. Research Questions

1. Is there a relationship between the monetary policy factor and cryptocurrency emergence towards the banks in Malaysia?
2. Is there a relationship between the inflation rate policy factor and cryptocurrency emergence towards the banks in Malaysia?

3. Is there a relationship between the regulatory policy factor and cryptocurrency emergence towards the banks in Malaysia?
4. Is there a relationship between the GDP factor and cryptocurrency emergence towards the banks in Malaysia?

#### F. Hypothesis

Hypothesis	Hypothesis Statement	Type of analysis
H1	There is a significant correlation between the monetary policy factor and cryptocurrency emergence towards the banks in Malaysia.	Pearson Moment Correlation Test
H2	There is a significant correlation between the inflation rate policy factor and cryptocurrency emergence towards the banks in Malaysia.	Pearson Moment Correlation Test
H3	There is a significant correlation between the regulatory policy factor and cryptocurrency emergence towards the banks in Malaysia.	Pearson Moment Correlation Test
H4	There is a significant correlation between the GDP factor and cryptocurrency emergence towards the banks in Malaysia	Pearson Moment Correlation Test

#### G. Significance of the Study

The significant of this study is to make a contribution to the research on cryptocurrency emergence towards the banks in Malaysia based on the monetary policy, inflation rate policy, regulatory policy and GDP as well as identifying the relationship between them. The researcher believes that this study will contribute to some benefits in several perspectives as followed.

##### 1) Theoretical Perspective

This research will provide knowledge contribution within the scope of the monetary policy, inflation rate policy, regulatory policy and GDP. Moreover, it will also support the future research by creating paths to focus within this spectrum of study.

##### 2) Banking Sector Perspective

This study will help the banks in Malaysia to raise the awareness about the importance of cryptocurrency emergence towards the banks in Malaysia based on the monetary policy, inflation rate policy, regulatory policy and GDP. It can help banks in improving the banks in Malaysia.

##### 3) Academic Perspective

This study may help future student to understand about cryptocurrency. It also can be reference for other researcher who may have interest in the study of cryptocurrency.

#### H. Limitation of the Study

The reliability of this study depends on the honesty and memory of respondents in providing the information needed in the questionnaires distributed. Therefore, the responds gathered might be of unreal data. The finding from this study only consist a small number and the result acquired from this study should not be generalized as whole as it does not discuss the factors influencing the cryptocurrencies as a whole but instead with specific factors as mentioned above. Cost and time constraints are also part of limitations in this study. This is due to the last of time given to collect and gather the data as well as money to be invested in gathering the data from the respondents. Besides, there is lack of

availability of the data as the issue is still new to talk about. Cryptocurrency emergence only arrived around year 2009 with the Bitcoin as the starter of the cryptocurrency, thus, the information gathered from the respondents might lack as the respondent's knowledge towards this issue might be lesser.

#### I. Terminology of the Study

The definitions of key term in this study are as follows. Different instruments were adopted to measure each variable.

##### Cryptocurrency

Cryptocurrency is defined as a digital currency in which has encryption techniques which are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank. The nature of the cryptocurrency is anonymous that usage of it might lead to illegal activities such as money laundering and tax evasion(INVESTOPEDIA, 2018).

##### Monetary Policy

Monetary Policy here is defined as one of the macroeconomic factors to central banks. It is majorly involved in money supply and interest rate management and is the demand side economic policy used by the country's government to achieve macroeconomic objectives such as inflation, consumption, growth and liquidity conditions(The Economic Times, 2018).

##### Inflation Rate Policy

Inflation here is defined as the rate which the general price level of products and services is rising(INVESTOPEDIA, 2018). Thus, the power of purchasing of the currency could fall. Central banks usually limit the inflation in order to prevent deflation and to keep the economy running.

#### J. Deliverables

This final year project starts with a description of the various contents in which the problem identification and objectives were investigated. Moreover, variables such the monetary policy, inflation rate policy, regulatory policy and GDP have been introduced in the first chapter.

Apart from that, the second chapter is about the review related literature which included the monetary policy, inflation rate policy, regulatory policy and GDP. Variables have been identified and discussed in detail in this chapter by reviewing the pass studies.

The methodology of the research related with research design and the selection of the study areas will be shown in the last chapter, Chapter Three. The researcher adopted different instruments and methods to measure each variable.

## II. MATERIALS

In this chapter, some relevant literatures that related to this topic will be presented. The chapter will be divided into several subtopics, namely: (1) monetary policy, (2) inflation rate policy, (3) regulatory policy and (4) GDP. Apart from that, the previous theory related with cryptocurrency emergence will be presented below.

#### A. Independent Variables

##### 1) Monetary policy factor on the Banks' Performances

The banks are majorly affected by the monetary policy regulated. The pass through policy refers to the bank lending rate and it is significant enough as it measures the effectiveness of the monetary policy to control inflation and to stabilise the economy(B.T.Matemilola, et al., 2015). The

main reason on how the monetary policy can affect the banks is shown in a research done by the BIS where up to 109 large international banks has been their respondents. In a nutshell, they have found out that there is a positive relationship among the short-term rates level and the slope of the yield curve which is the interest rate structure. On the other hand, reflecting the relationship towards the profitability of the bank which is on the return of assets part (Gambacorta, et al., 2015).

#### *2) Inflation Rate policy factor on the Bank's performance*

There was a research done on measuring the Kenya Commercial Bank base lending rate, new lending volumes and loans defaulting affecting by the annual inflation rate. It is found out in that research that there is a positive increase in the inflation figures contributing to the increase in the bank lending rate assuming that it may be due to purchasing power of money in reduction. Thus, the bank demands for a higher bank lending rate in order to cover the assumptions of credit risk (OMONDI, 2014). Another research has some ambiguity on proving the inflation correlation with the performance of the central bank independence (CBI). Anyhow the empirical relationships had mentioned that the increase in central bank independence (CBI) is correlated with lower inflation rates (Sheets & Loungani, 1997).

#### *3) Regulatory policy factor on the Bank's performance*

Previous research has been given evidence on how the regulations of a government can affect the performance of the banks. Regulations played a vital role in the Turkish country affecting the performance of the banks. Results has shown that there is a positive impact on the importance of regulations for the soundness of banks, management quality and monitoring may be more crucial than what is thought. In general, a new macroeconomic environment, particularly new regulations, have positive effects on productivity reduction in the purchasing power of money hence the bank demanding a higher base lending rate to cover for assuming this credit risk (Kale, et al., 2015).

#### *4) GDP factor on the Bank's performance*

Based on one of the researches which was also been revealed on the first section of this paper, there is a significant impact by the GDP as it is classified as the macroeconomic factors affecting the bank's performance. Based on their panel data analysis, the macroeconomic including the GDP significantly affect bank liquidity (Singh & Sharma, 2016). The paper had revealed there is relationship between the macroeconomic factors and the liquidity of the Indian banks. Whereas another research has determined that there is no significance of the GDP affecting the profitability of the bank. This could be a limitation factor in the study as the measurement is only made on one type of banks in the country. The results have been revealed that GDP has no significant or lowest impact on the CIMB Bank Profitability (Dinson, 2017).

### *B. Proxy Variables*

#### *1) Cryptocurrency affecting the Monetary Policy*

Cryptocurrency, such as Bitcoin have been one of the serious issues affecting the monetary policy. In this research, they outlined the relationship between miners' reward and market price, and also studied the monetary policy for each of the cryptocurrencies been researched (Zhang, 2013/2014). This research can be used as the comparison with monetary

policies by the financial institutions in a country. Another research also determining suggestions on how to ease the effect of contractionary monetary policy affected by the cryptocurrencies (Ametrano, 2016). Some say that the technology that uses the cryptocurrency which is the Blockchain can help the monetary policy makers turn the clock back to money supply targeting (Rajadhyaksha, 2018).

#### *2) Cryptocurrency affecting the Inflation Rate Policy*

Some findings have been found saying that cryptocurrencies could be a solution to the inflation that rise in the world. Besides, able to make a change on the saving or earning in a bigger scale. It has been found that if the cryptocurrency were accepted by the world's reserve currency, the inflation rate could be curbed, and favorable deflation would be introduced. As suggested by the Friedman Rule, bitcoin would be deflationary till the fixed number of coins are finally minted over the course of time (Pardo, 2016). This is because the Bitcoin currency is regularly been minted at decreasing fixed rates every four years which causes the effect of deflationary although there is an increase in the supply of money during the inflation condition.

#### *3) Cryptocurrency affecting the GDP*

To measure an accurate GDP, it is just classified as an estimate. It is difficult to somehow calculate the actual GDP value very accurately. This is maybe because it is hard to calculate all the consumption information given by an economy such as the cash transactions, markets informality and so on. Though, economists still are trying to include all the expenditure through estimation. In this case, the expenditure of cryptocurrency seems unable to measure well to calculate the consumption of it as well as to present in the GDP of the country. However, it is necessary to do so as the cryptocurrency plays a vital role the people of the country at some point. As mentioned by the Bank of England, if the cryptocurrency is created on their own, that could generate the GDP growth of 3% owing to lower interest rates and costs (RBC (newspaper, Russia), 2017).

### *C. Conclusion*

Based on the literature review made, most researchers have found out the reasons but still with some ambiguity on the factors affected by cryptocurrency. Besides, the data available is quite less as the issue is still been a research item. Most of the researchers have researched on a different perspective. The four factors portrayed are explained in various journal and not just one. There is not much research on this kind of study as it is either researches available of the factors affecting the bank and that is in different aspects such as the bank lending rate, deposits, bank profitability and bank performance separately or other researches are based on how the cryptocurrency affects the central banks in general. Thus, this study is necessary to measure the importance as well as to find the effects.

## **III. METHOD**

In this chapter, the research design, instrumentation, data analysis and ethical considerations will be presented. Section A explained the types of research design that employed in the study as well as the sampling methodology. The instrumentation that used in the study will be shown in Section B. Section C outlines the data analysis methods used

in the study and follow by Section D as known as ethical considerations.

#### A. Research Design and Sampling Methodology

##### 1) Research Design

This study is a Quantitative designed study. Quantitative study is a study which the approach is to collect, analyse, interpret and the write down the results gathered by necessary sample of population (Creswell, 2013). Quantitative research has proposed that explanatory study refers to the explanation for the related variables and identifying the relationship between them. While looking at the sampling method, the population of this study is at Malaysia and the sample in this study is the banking employees. When looking at the sampling methodology, the sampling methodology used here is the convenient sampling methodology to choose the respondents.

##### 2) Sampling Methodology

The total number of commercial banks available in Malaysia is 27 according to Bank Negara Malaysia (BANK NEGARA MALAYSIA, 2018). Out of 27 commercial banks, 8 local commercial banks would be chosen as the sample size for this study. The list of commercial banks (both local and foreign) in Malaysia is listed below in the table below.

Commercial Banks		
No.	Name	Ownership
1	<u>Affin Bank Berhad</u>	L
2	<u>Alliance Bank Malaysia Berhad</u>	L
3	<u>AmBank (M) Berhad</u>	L
4	<u>BNP Paribas Malaysia Berhad</u>	F
5	<u>Bangkok Bank Berhad</u>	F
6	<u>Bank of America Malaysia Berhad</u>	F
7	<u>Bank of China (Malaysia) Berhad</u>	F
8	<u>Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad</u>	F
9	<u>CIMB Bank Berhad</u>	L
10	<u>China Construction Bank (Malaysia) Berhad</u>	F
11	<u>Citibank Berhad</u>	F
12	<u>Deutsche Bank (Malaysia) Berhad</u>	F
13	<u>HSBC Bank Malaysia Berhad</u>	F

14	<u>Hong Leong Bank Berhad</u>	L
15	<u>India International Bank (Malaysia) Berhad</u>	F
16	<u>Industrial and Commercial Bank of China (Malaysia) Berhad</u>	F
17	<u>J.P. Morgan Chase Bank Berhad</u>	F
18	<u>Malayan Banking Berhad</u>	L
19	<u>Mizuho Bank (Malaysia) Berhad</u>	F
20	<u>National Bank of Abu Dhabi Malaysia Berhad</u>	F
21	<u>OCBC Bank (Malaysia) Berhad</u>	F
22	<u>Public Bank Berhad</u>	L
23	<u>RHB Bank Berhad</u>	L
24	<u>Standard Chartered Bank Malaysia Berhad</u>	F
25	<u>Sumitomo Mitsui Banking Corporation Malaysia Berhad</u>	F
26	<u>The Bank of Nova Scotia Berhad</u>	F
27	<u>United Overseas Bank (Malaysia) Bhd.</u>	F

**Table 1: List of Malaysian Commercial Banks**

#### B. Research Philosophy

This study is based on research philosophy of Positivism. Positivist approach here is defined where the reality is believed to be stable and to be observed as well as to describe them in an objective perspective without interfering the phenomenon studied (Hunt, 1991). Positivism will have a structural approach when conducting research by identifying a specific research topic, generate hypothesis and adopt an appropriate research methodology (EDIRISINGHA, 2012). Other than that, the researchers incline to use past theory to develop their hypothesis. The hypothesis will be formed and tested to confirm whether it is in part, whole or rejected. Hence, the hypothesis that will be tested will lead to further theory development (A Saunders, et al., 2012).

#### C. Research Approach

The research approach used in this study is the deductive approach. Deductive approach is aimed at testing theory and it usually begins with hypothesis and it emphasises more on casualty (Clough & Nutbrown, 2012). In deductive approach, there are five sequential steps to progress (Robson, 2002). Firstly, deducing the hypothesis from the theory. Then, express the hypothesis in operational terms and outline a

relationship between the variables. Thirdly, test the hypothesis that formulated with the proper model. Examine the results of the inquiry which will either accept the theory or direct that there is a need of adjustment will be the following step. Lastly, modify the theory if necessary if it is not confirmed(Robson, 2002).

#### D. Research Strategy

The research questions, objectives, the knowledge, availability of time and resources will guide the research strategy(A Saunders , et al., 2012). In this research, the research strategy will be based on survey. Saunders, et al. (2009) mentioned that, the deductive approach is usually linked with survey strategy. It is a popular strategy to use to answer questions like who, where, what or how. It is a common strategy among business and management research as well. Generally, the researchers collect the huge amount of data by questionnaire from a sizeable population since it allows an easy comparison with a standardised structure. The data can be gathered using the interview Questions as well.

#### E. Data

In this study, primary data collection will be through distributing the questionnaire or interview to the respondents. The questions are adopted from previous studies and questionnaire will be distributed physically to the respondents. The target area of the questionnaire distribution will be commercial banks in Malaysia. The respondents for this study were randomly selected from the local commercial banks as the research is using convenient sampling in this study. Therefore, the bank employees in Malaysia is the main focus group in the research.

Other than that, data will be gathered through the literature review for the secondary data collection. Information was obtained from the reliable academic sources such as Asian Social Science, International Journal of Business and Management, Research Gate, Emerald Insights and ProQuest. The scope of literature review was mainly concerned on the stated determinants that included the monetary policy, inflation rate policy, regulatory policy and GDP on the cryptocurrency emergence towards the banks in Malaysia. To assure the reliability and the validity of the data, the variables that originated from the literature review will be further investigated through the primary data.

#### F. Time Series

This study is based on cross sectional time horizon. Cross-sectional refers to the studies that had been carried out previously in the past and studies a specific phenomenon at a wide range of period(Saunders, et al., 2009). Cross-sectional is a research study method that employs survey strategy to gather and analyse as well as interpret the data form a representative subset that to explore the relationship between independent variables and dependent variable respectively(Hawker & Boulton, 2000).

#### G. Data Analysis

##### 1) Time Series Analysis

The time series analysis is referred to a statistical technique to forecast the future event from the past time series data. In this study the time series analysis is made use to analyse the quantitative research data which is from the secondary data from the literature review above. It is based on the

longitudinal study. A longitudinal study refers to the methodology employed for this study to examine variables which include the monetary policy, inflation rate policy, regulatory policy and GDP on the cryptocurrency emergence towards the banks in Malaysia(Collis & Hussey, 2009).

##### 2) Descriptive Statistics Analysis

Descriptive Statistics analysis is referred to a mathematical technique that is made used to summarize, organize, and display a set of numerical data in a vibrant and comprehensible way(Keating & Porta, 2008). This analysis can help in simplifying a larger amount of data in an advisable way(Jaggi & Leung, 2003). The descriptive statistics analysis for each of the variables were designed to indicate the mean, standard deviation, maximum, minimum, skewness and kurtosis values. This helps readers to understand the characteristic of each variable.

##### 3) Correlation Analysis

Correlation analysis is a statistical method that is active to assess a possible linear relationship between two variables(Mukaka, 2012). Correlation coefficients divulges the direction of relationship which denotes to positive or negative and the strength of the relationship between two variables. The strength of relationship is ranging within -1.00 and +1.00. The value of negative 1 (-1.00) represents a perfect negative value while the value of positive 1 (+1.00) represents a perfect positive value. If the value is indicating as 0.00, it can be justified that no linear relationship happens between the variables being researched(Zabria, et al., 2016).

##### 4) Multiple Linear Regression

The multiple linear regression is majority used is researches to measure the value of it. This study uses this model to measure value of the banks. A multiple linear regression analysis can be used to measure whether independent variables (IV) predict a given dependent variable (DV). The Statistical Package for the Social Science (SPSS) the dependent variable (DV) and independent variable (IV), test the hypotheses and validate the findings. This SPSS software is used to analyse the secondary data in order to obtain the research results. Meantime, data collected via secondary data will be analysed by using the multiple linear regression analysis which is based on the dependent variables.

#### H. Ethical Considerations

To carry out the study in an ethical manner, below is some of the ethical consideration before, during and after the research. The study has been obliged to be treated all the information gathered from respondent as strictly private and confidential. The study is obliged to be obtained consent from respondents prior to survey; no respondent should be forced to participate in the survey/interview. Misrepresentation of the data collected is abolished. Respondents should give full cooperation to complete the research once they agree to participate. Respondents are obliged to provide truthful and honest responses.

#### I. Conclusion

This chapter have been discussed on the data research and the methodology as well as the approach for this study. Guided by the established theoretical framework, hypotheses have been developed and tested to study the influence of the monetary policy, inflation rate policy, regulatory policy and GDP on the cryptocurrency emergence towards the banks in

Malaysia. Meantime, the data collection and analysis method of this study have been identified. In a nutshell, this research will need to continue without any issue in order to provide the users to learn the cryptocurrency. There is a good research design is being discussed to help the researcher to carry out the research topic in the future as the foundation and the whole framework of the research is already done. This will save more of my time as I can solve this issue faster and publish it to public for the user to learn and understand it.

#### IV. FINDINGS AND DISCUSSION

##### DATA ANALYSIS

In this chapter, analysis of data is being gathered from survey questionnaire that have been completed by 105 respondents respectively. The questionnaire was collected to give this research a detailed explanation on the respondents' understanding in the Cryptocurrency issues. The participants of the questionnaires are in the form of Malaysian Local Bank employees as discussed in the sampling methodology in the previous chapter. These responses give a detailed description on explaining the result from the questionnaire on the cryptocurrency emergence towards commercial banks in Malaysia. The data gathered will be used as a proof in supporting the topic of this research.

Besides, this chapter will run through the analysis of the data in order to determine the acceptance and rejection of the hypothesis of this research. The survey questionnaire was distributed through web link for the respondents to easily fill up and submit it. It took up to 2 weeks for the 105 respondents to respond the questionnaire and submit back with their demographic information filled up as well. The demographic factor is vital in competing this study of the research as it helps determine the type of respondents received. The questions answered will be further discussed in this chapter. Last but not least, the analysis of the data is done by using the Statistical Package for Social Science (SPSS).

##### A. Definition of Terms

In this data analysis, there will be few terms used to explain the questionnaire responses in detail. The definition of the terms are as follows.

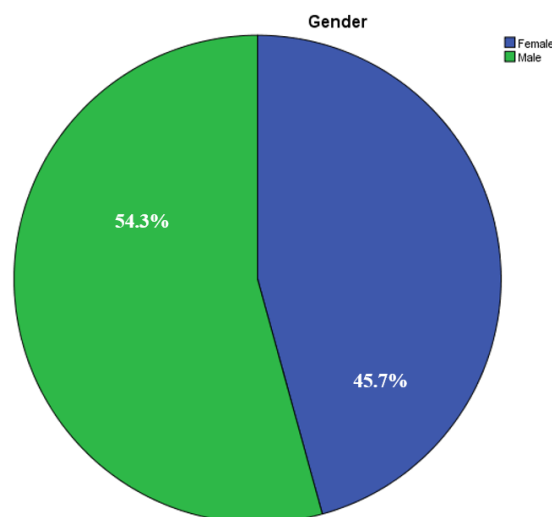
- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Agree
- 4 = Strongly Agree
- Missing = No entries made

##### B. Demographic Factor

###### 1) Gender

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	48	45.7	45.7	45.7
	Male	57	54.3	54.3	100.0
	Total	105	100.0	100.0	

**Table 2: Frequency of gender responded for the questionnaire**



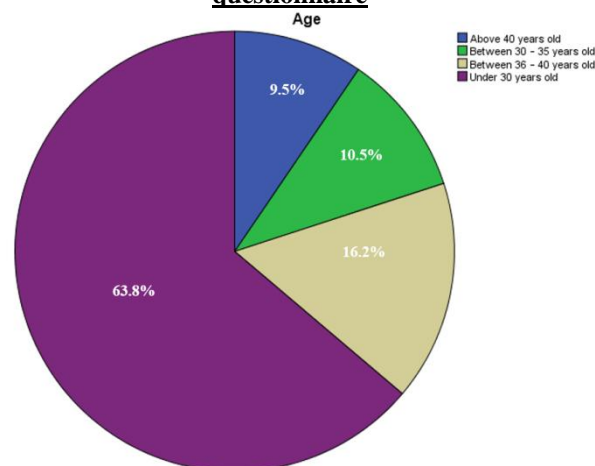
**Pie Chart 1: Percentage of gender responded for the questionnaire**

According to the Pie Chart 1, the total of 45.7% of females and 54.3% of males have answered this questionnaire making up to 105 respondents for this research. Based on the table above, 48 respondents were female whereas 57 of the respondents are male respondents.

###### 2) Age

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above 40 years old	10	9.5	9.5	9.5
	Between 30 - 35 years old	11	10.5	10.5	20.0
	Between 36 - 40 years old	17	16.2	16.2	36.2
	Under 30 years old	67	63.8	63.8	100.0
	Total	105	100.0	100.0	

**Table 3: Frequency of age responded for the questionnaire**



**Pie Chart 2: Percentage of age responded for the questionnaire**

Based on the Pie Chart 2, the percentages of the age of the respondents shows that the majority of the respondents comprises of respondents under 30 years old representing up to 63.8% of the overall respondents having 67 responses as a total. This shows that the responses are inclusive of young generation who are much exposed to current issue related to cryptocurrencies. Besides, they could be the fresh employees who have had knowledge on this matter comparatively.

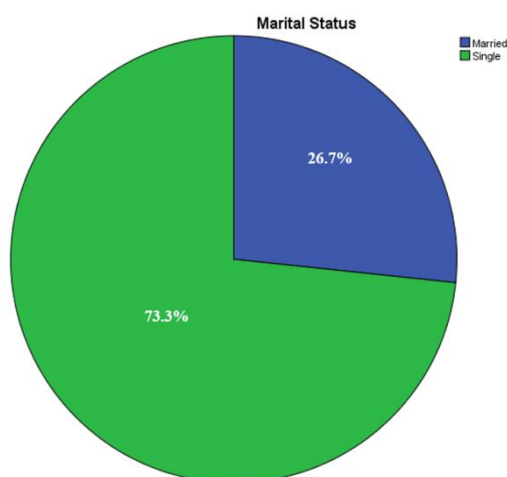
Having respondents with a better knowledge or expertise towards the issue related to my research of the study helps to continue the research well. The second highest respondents up to 16.2% of the overall responses are by the respondents aging between 36-40 years old, with a total of 17 respondents. Following to that are the respondents aged between 30-35 years old amounting up to 10.5% of the overall respondents with a total of 11 respondents. The minority group holding 9.5% of the overall respondents are from the ones aged above 40 years old with a number of 10 responses.

### 3) Marital Status

**Marital Status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Married	28	26.7	26.7	26.7
Single	77	73.3	73.3	100.0
Total	105	100.0	100.0	

**Table 4: Frequency of marital status for questionnaire**



**Pie Chart 3: Percentage of marital status responded for the questionnaire**

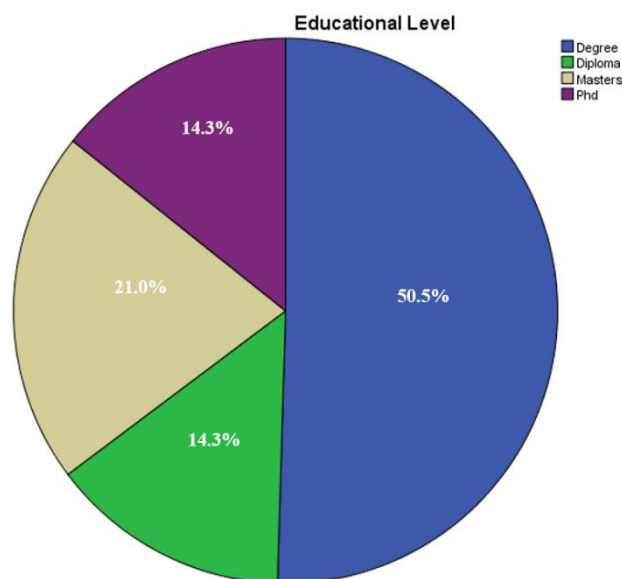
Based Pie Chart above, the majority 73.3% of the respondents are unmarried totalling up to 77 respondents. Whereas the minority responses with percentage of 26.7% of the overall responses are married amounting to 28 respondents.

### 4) Educational Level

**Educational Level**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Degree	53	50.5	50.5	50.5
Diploma	15	14.3	14.3	64.8
Masters	22	21.0	21.0	85.7
Phd	15	14.3	14.3	100.0
Total	105	100.0	100.0	

**Table 5: Frequency of educational level responded questionnaire**



**Pie Chart 4: Percentage of educational level responded for the questionnaire**

Based on the Pie Chart 4, the educational level of the respondents is recorded to find out their qualification they have as respondents of this research. The majority respondents with a percentage of 50.5% of the respondents are Degree holders. The responses are amounting up to 53 respondents out of the overall respondents. This shows that being the Bank employees, the majority responses received from the employees are Degree holders. The second highest respondents have educational qualification up to Master's with a number of 22 responses. The least 2 minority group of respondents are from the ones in the educational level of Diploma and PhD. They are in the minority group holding 14.3% of the overall responses with a number of 15 respondents each. This clearly shows that the respondents whom are the employees are least with the Diploma as well as PhD qualifications. Thus, most of the responses for this research are from the Degree holders.

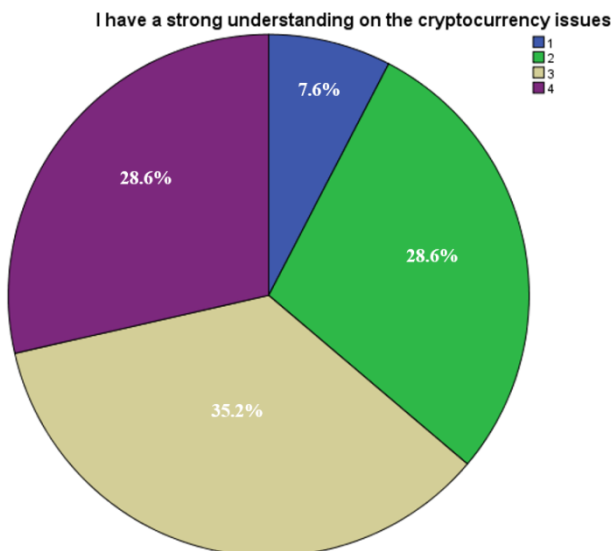
### C. Cryptocurrency

#### 1) I have a strong understanding on the cryptocurrency issues

**I have a strong understanding on the cryptocurrency issues**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	8	7.6	7.6	7.6
2	30	28.6	28.6	36.2
3	37	35.2	35.2	71.4
4	30	28.6	28.6	100.0
Total	105	100.0	100.0	

**Table 6: Frequency of respondents' strong understanding on the cryptocurrency issues**



**Pie Chart 5: Percentage of respondents' strong understanding on the cryptocurrency issues**

This research study includes respondents to give some of their views regarding their understanding on this issue. Therefore, the respondents are required to fill up this question regarding understanding on this issue. The majority of the respondents amounting up to 35.2% agree that they have strong understanding on the cryptocurrency issues. The number of responses 37 out of the total respondents. Following to that 28.6% of the respondents have strongly agree as well as disagree that they have strong understanding on the cryptocurrency issue. The total responses for this percentages are 30 respondents each. The least group answering this question have clarified that only 7.6% of the total respondents have least understanding on the cryptocurrency issues as they have strongly disagreed regarding the understanding on this issue. Therefore, a total of 8 responses out of the total respondents have strongly disagreed regarding understanding on this issue.

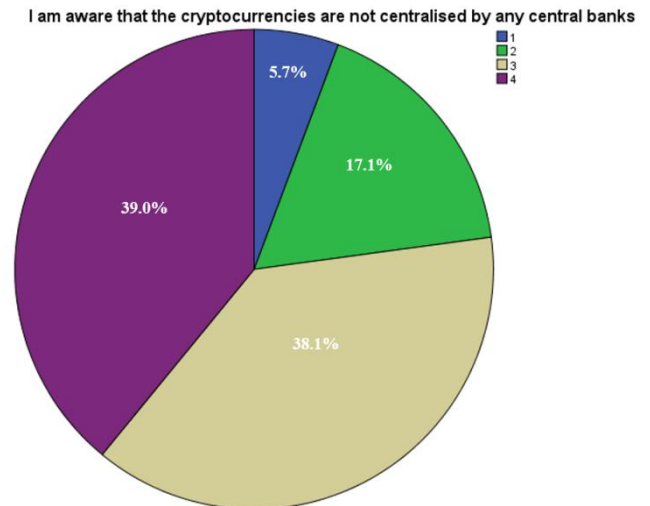
This clearly shows that most of the respondents have agreed that they have understanding on this issue and least number of respondents have disagreed regarding understanding on this issue. This helps to support the further process of this research as most of the respondents have understanding to this issue. The majority group who have understanding on this issue are due to their nature as Bank employees who have understanding and exposure towards this issue. This shows that the majority group of the respondents in the research will be reliable sources as they come from the form of Bank employees.

2) *I am aware that the cryptocurrencies are not centralised by any central banks*

**I am aware that the cryptocurrencies are not centralised by any central banks**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	6	5.7	5.7	5.7
2	18	17.1	17.1	22.9
3	40	38.1	38.1	61.0
4	41	39.0	39.0	100.0
Total	105	100.0	100.0	

**Table 7: Frequency on respondents' awareness on cryptocurrencies not centralised by any central banks**



**Pie Chart 6: Percentage on respondents' awareness on cryptocurrencies not centralised by any central banks**

Respondents are required to give their responses regarding the awareness about the cryptocurrencies not being centralised by any Central Banks. Based on the pie chart above, majority of the respondents with a total percentage of 39.0% have strongly agree that they are aware that the cryptocurrencies are not centralised by any Central Banks. Therefore, a number of 41 respondents out of the total respondents have strongly agreed this matter. Moving on to the next highest respondents amounting up to 38.1% have agreed that they are aware that the cryptocurrencies are not centralised by any Central Banks with a number of 40 responses. 17.1% of the total respondents have disagreed that they are aware about the cryptocurrencies not centralised by any Central Banks with a total response of 18 people. Last but not least 5.7% of the overall respondents have strongly disagree regarding the awareness of this issue. Therefore 6 responders are not aware that the cryptocurrencies are not centralised by any Central Banks.

However, looking at the overall responses more than half of the respondents are aware that the cryptocurrencies are not centralised by any Central Banks clearly showing that the respondents have knowledge to this issue. Thus, this helps to further continue this research of the study as most of the respondents have a proper knowledge towards the dependent variable of this research. Besides, the majority group of 77.1% of the respondents have agreed on having understanding towards the cryptocurrency proving the results of the further questions to be a reliable one as they come from the group which have awareness on the cryptocurrency emergence.

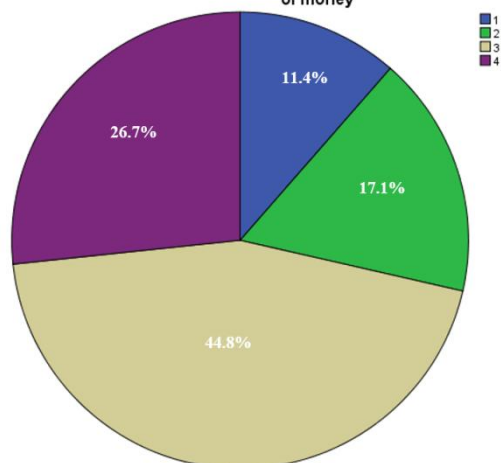
3) *Cryptocurrency is supposed to replace the current currency which is in the form of money*

**Cryptocurrency is supposed to replace the current currency which is in the form of money**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	12	11.4	11.4	11.4
2	18	17.1	17.1	28.6
3	47	44.8	44.8	73.3
4	28	26.7	26.7	100.0
Total	105	100.0	100.0	

**Table 8: Frequency of respondents' understanding on cryptocurrency replacing money**

Cryptocurrency is supposed to replace the current currency which is in the form of money



**Pie Chart 7: Percentage of respondents' understanding on cryptocurrency replacing money**

The next question was to test on the respondents regarding their knowledge and personal view about cryptocurrency replacing the current currency which is in the form of money. Based on the pie chart above the majority of respondents with a percentage of 44.8% have given the responses by agreeing that currency in the form of money should be replaced by cryptocurrency with a number of 47 responses out of the total respondents. The next highest respondents amounting up to 26.7% of the overall respondents have strongly agreed that the money which is the current currency should be replaced by cryptocurrency with a total of 28 responses. However, a group of 17.1% of the responses have disagreed that cryptocurrency should replace the current currency in the form of money with a number of 18 respondents and last but not least 11.4% of total respondents have strongly disagreed that cryptocurrency is supposed to replace the current currency which is in the form of money. Thus, 12 respondents have strongly disagreed that cryptocurrency should replace the money.

Based on both the pie chart and the table above, this shows that the respondents have given their personal view on their understanding regarding cryptocurrency replacing the money and more than half of the respondents have agreed that cryptocurrency should replace the money. A minority group of respondents have disagreed regarding this matter. This clearly shows that there are majority of the supporters of cryptocurrency replacing the money personally. Furthermore, this shows clearly that the majority group have realised the emergence of cryptocurrency in replacing the fiat currency. As a result, the further relatable questions on money demand and supply would be responded reliably with the respondents who have knowledge towards this issue.

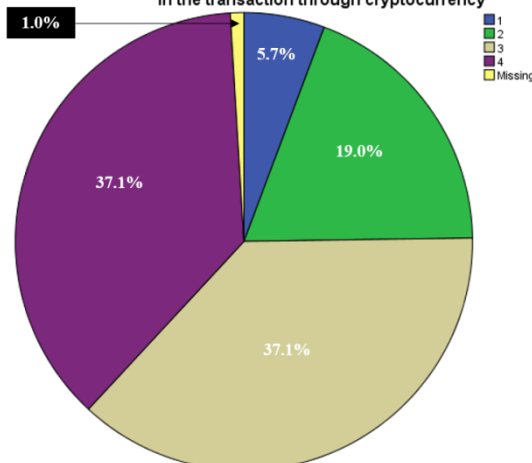
4) *There is no involvement of third parties such as banks or credit card companies in the transaction through cryptocurrency*

There is no involvement of third parties such as banks or credit card companies in the transaction through cryptocurrency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	5.7	5.8	5.8
	2	20	19.0	19.2	25.0
	3	39	37.1	37.5	62.5
	4	39	37.1	37.5	100.0
	Total	104	99.0	100.0	
Missing	System	1	1.0		
Total		105	100.0		

**Table 9: Frequency on responding on no involvement of third parties in transactions through cryptocurrency**

There is no involvement of third parties such as banks or credit card companies in the transaction through cryptocurrency



**Pie Chart 8: Percentage on responding on no involvement of third parties in transactions through cryptocurrency**

The next question in the questionnaire is to know the respondents' understanding about involvement of third parties such as banks and credit cards companies in the transaction through cryptocurrencies. Majority of the respondents with a percentage of 37.1% each agreed and strongly agreed that there's no involvement of third parties during the transaction through cryptocurrency. A number of 39 respondents have each agreed and strongly agreed regarding this matter. 19.0% of the overall respondents have disagreed that there's no involvement of third parties with a number of 20 responses whereas 5.7% of the total respondents assume that that is involvement of third parties such as Banks during the transaction in cryptocurrencies with a number of 6 responses out of the overall respondents. There is 1.0% of the total respondents who have not answered to this issue as this falls under the missing category, choosing not to answer this question as they might not have much knowledge regarding this matter. Based on the pie chart and the table above, this shows that majority of the respondents believe that there is no involvement of third-party during transactions through cryptocurrency. As shown on the previous questions regarding the Cryptocurrency as the dependent variable, there are majority supporting this question with a total group of 74.2% of the total respondents. This clearly proves that the respondents have knowledge towards the cryptocurrency as a currency that does not have involvement of third parties. This shows that the further research question will be answered by the respondents who are reliable overall.

#### D. Changes in Demand & Supply on Money

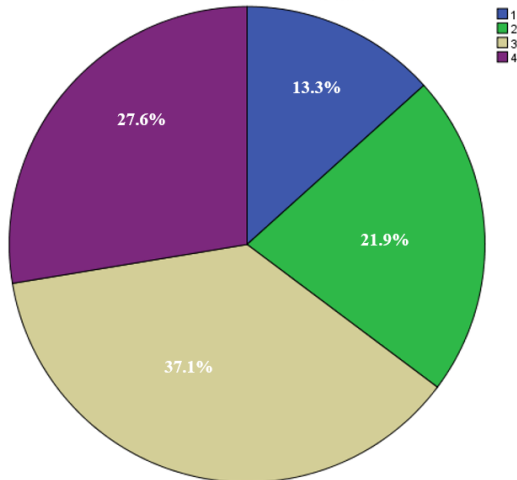
##### 1) Cryptocurrency will be able to replace the supply of the money issued by Government

**Cryptocurrency will be able to replace the supply of the money issued by Government**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	14	13.3	13.3	13.3
2	23	21.9	21.9	35.2
3	39	37.1	37.1	72.4
4	29	27.6	27.6	100.0
Total	105	100.0	100.0	

**Table 10: Frequency on cryptocurrency replacing the supply of money issued by Government**

**Cryptocurrency will be able to replace the supply of the money issued by Government**



**Pie Chart 9: Percentage on cryptocurrency replacing the supply of money issued by Government**

The first independent variable requires respondents' understanding towards changes in demand and supply on money affected by the cryptocurrencies' emergence. The first question on this independent variable requires respondents to give their understanding about cryptocurrency being able to replace the money supply issued by government. Based on the pie chart above the highest percentage of 37.1% shows that 39 respondents out of the total number of respondents have agreed that cryptocurrency will be able to replace the money supply issued by government. The second highest of 27.6% of the total respondents have strongly agreed on this issue in which 29 out of total respondents have given the response. 21.9% of the total responders have disagree that cryptocurrency will replace the money supply with a number of 23 responses. Last but not least 13.3% of the total respondents strongly disagree with a number of 14 responses and claim that cryptocurrency will not be able to replace the supply of the money issued by government.

However majority number of responses agree that cryptocurrency will be able to replace that supply of money issued by government clearly showing that those respondents support the cryptocurrency emergence in replacing the money whereas the minority number of respondents give their personal view on cryptocurrency not replacing the money supply by government. This could be because the majority of the respondents who have responded about replacing the cryptocurrency towards the normal currency

assume that there would be possibilities of such event to happen. These respondents might have exposure towards the cryptocurrency movement in a country as well as how it has been affected in many countries gradually taking over their fiat currency.

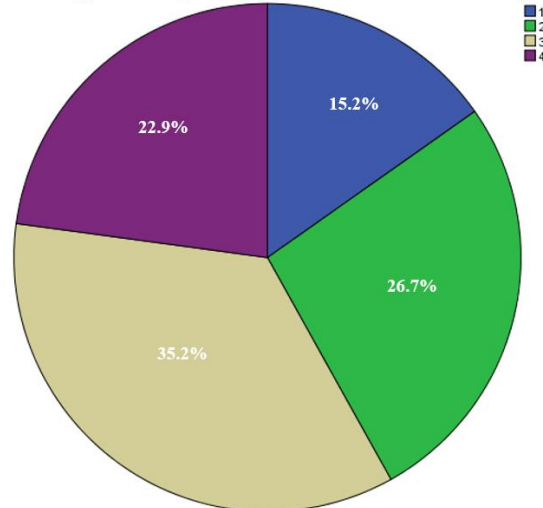
##### 2) Cryptocurrency have driven down the demand of money by the Public

**Cryptocurrency have driven down the demand of money by the Public**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	16	15.2	15.2	15.2
2	28	26.7	26.7	41.9
3	37	35.2	35.2	77.1
4	24	22.9	22.9	100.0
Total	105	100.0	100.0	

**Table 11: Frequency on cryptocurrency reducing the demand of money by the Public**

**Cryptocurrency have driven down the demand of money by the Public**



**Pie Chart 10: Percentage on cryptocurrency reducing the demand of money by the Public**

Moving on to the second question for this independent variable which requires respondents understanding on cryptocurrency reducing the demand of money by the public. Majority of the respondents of this questionnaire with a percentage of 35.2% amounting up to 37 number of responses have agreed that cryptocurrency have been driving down that demand of money by the public. The second highest percentage of 26.7% of the total responses disagree that cryptocurrency have reduce the demand of money by the public with a total amount of 28 responses. However, referring to the Table 11 above 24 responses which shows a percentage of 22.9% of the total respondents have strongly agree that cryptocurrency have produced the money demand by the public. Nevertheless, the least percentage of 15.2% with a number of 16 responses of the total respondents have strongly disagree that cryptocurrency does not reduce the demand of money by the public.

This shows that based on the pie chart above majority of the respondents agree that cryptocurrency reduces the money demand by the public claiming that the cryptocurrency emergence is a threat for the money demand by the Public. As analysed, the majority respondents who agreed to cryptocurrency as a threat for the money demand by Public might assume such way as they might have exposure to how

demand of money works to public as well as how the public lately demands for easier life comparatively.

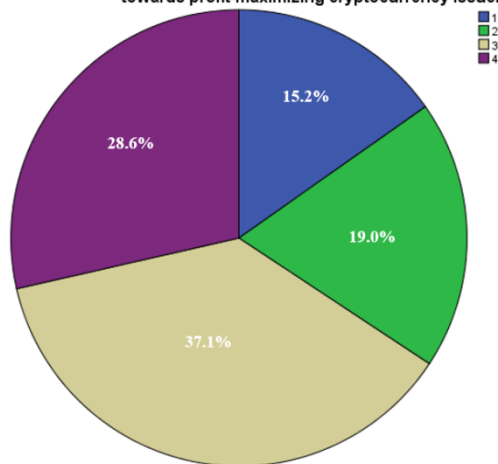
3) Banks should start issuing cryptocurrencies to avoid the public to be dependent towards profit-maximizing cryptocurrency issuers

**Banks should start issuing cryptocurrencies to avoid the public to be dependent towards profit-maximizing cryptocurrency issuers**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	16	15.2	15.2	15.2
2	20	19.0	19.0	34.3
3	39	37.1	37.1	71.4
4	30	28.6	28.6	100.0
Total	105	100.0	100.0	

**Table 12: Frequency on banks should start issuing cryptocurrency**

**Banks should start issuing cryptocurrencies to avoid the public to be dependent towards profit-maximizing cryptocurrency issuers**



**Pie Chart 11: Percentage on banks should start issuing cryptocurrency**

The next question here requires respondents understanding on banks to start issuing cryptocurrencies in order to avoid the public to be dependent on profit-maximising cryptocurrency issuers. Based on the pie chart above majority of the respondents amounting up to 37.1% with a number of 39 responses agree that banks should start issuing cryptocurrency probably assuming that the public is very much dependent towards profit-maximising cryptocurrency issuers. Another 28.6% of the total respondents with a number of 30 responses strongly agree in this matter which clearly shows that more than half of the respondents agreed that banks should start issuing cryptocurrencies. The minority respondents with a number of 20 responses showing a percentage of 19.0% disagree that banks should start issue in cryptocurrencies as well as 15.2% of the total respondents in a number of 16 responses strongly disagree that banks should start issuing possibly assuming that public are not much dependent on the profit-maximizing cryptocurrency issuers.

This shows that everythe greatest number of respondents think that banks should start issuing cryptocurrencies probably because the respondent's come in the form of Bank employees who already work and experience how the banks have been affected after the cryptocurrency emergence therefore recommending Banks to start issuing in order for

the public to depend on the banks. Besides, the majority group might this this way will avoid the public to deviate from coming back to the bank as their roots.

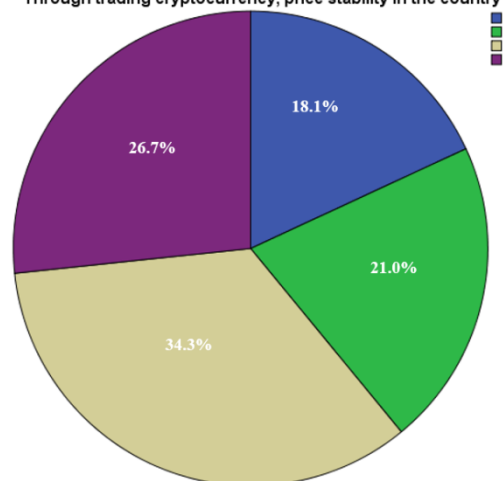
4) Through trading cryptocurrency, price stability in the country can be achieved

**Through trading cryptocurrency, price stability in the country can be achieved**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	19	18.1	18.1	18.1
2	22	21.0	21.0	39.0
3	36	34.3	34.3	73.3
4	28	26.7	26.7	100.0
Total	105	100.0	100.0	

**Table 13: Frequency on price stability in country achieved through cryptocurrency**

**Through trading cryptocurrency, price stability in the country can be achieved**



**Pie Chart 12: Percentage on price stability in country achieved through cryptocurrency**

This question requires respondents understanding on price stability in country achieved to trading in cryptocurrencies. Based on the pie chart above majority of respondents of 34.3% with a response of 36 agree that through trading cryptocurrency price stability in the country can be achieved. On the other hand, an amount of 26.7% of total responses with a number of 28 respondents strongly agree that price stability in country can be achieved through cryptocurrency trading. However, 21.0% of total responses with a number of 22 responses disagree on this matter as well as 18.1% with a number of 19 responses strongly disagree that the price stability in the country can be achieved through trading cryptocurrencies. This could be because the minority respondents assume that trading in cryptocurrency does not affect the price stability in the country. Majority responses agree on this issue and believe that cryptocurrency trading affect the price stability in the country. The majority of the respondents amounting up to 61% of the respondents agreed to this issue clearly showing that they might have experienced the stability of price being affected by other influence in a country. Besides, working in bank, they might have the exposure towards this issue. Thus, having responses from the Bank employees indeed helped to make this research a reliable one.

### E. Fluctuations in Inflation Rate Policy

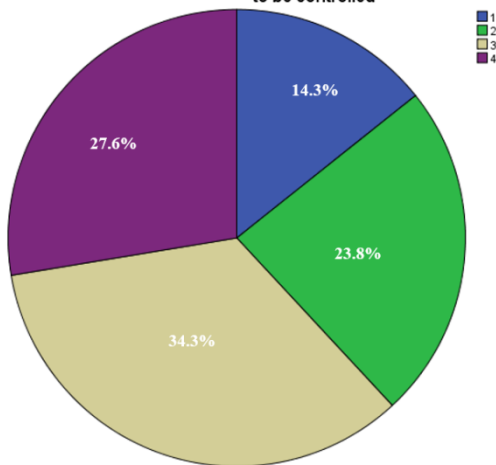
1) By using cryptocurrency, money supply will be reduced causing the inflation rate to be controlled

By using cryptocurrency, money supply will be reduced causing the inflation rate to be controlled

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	15	14.3	14.3	14.3
2	25	23.8	23.8	38.1
3	36	34.3	34.3	72.4
4	29	27.6	27.6	100.0
Total	105	100.0	100.0	

**Table 14: Frequency on cryptocurrency reducing money supply causing the inflation rate to be controlled**

By using cryptocurrency, money supply will be reduced causing the inflation rate to be controlled



**Pie Chart 13: Percentage on cryptocurrency reducing money supply causing the inflation rate to be controlled**

Fluctuations in inflation rate policy is something very important to look at especially when there are other factors entering a country such as cryptocurrency emergence. Being one of the independent variables here, the respondents are required to give their understanding on cryptocurrency reducing money supply causing the inflation rate to be controlled. Based on the pie chart 13 above a majority of 34.3% respondents with a number of 36 responses agree that by using cryptocurrency money supply will be reduced causing the inflation rate to be controlled and 27.6% of the respondents with 29 responses strongly agree with this matter. This clearly shows that more than half of the respondents support by using cryptocurrencies money supply can be reduced to achieve controlled inflation rate. However, minority of 23.8% respondents with a number of 25 responses disagree with this issue as well as 14.3% of the total respondents with a number of 15 responses strongly disagree and claim that by using cryptocurrencies money supply will not be reduced and therefore inflation rate will not be controlled.

Even though there are two different views of the respondents, having respondents in the form of Bank employees more than half of them agree on this issue therefore recommending that by using cryptocurrencies money supply can be reduced allowing the inflation rate to be controlled. As answered on the issue regarding the money demand by public, the majority responses towards the money supply to be reduced could be an honest review from the bank employees itself. Thus, the

inflation rate reduction due to the money supply reduction could be an experience to the bank employees allowing them to give response such way.

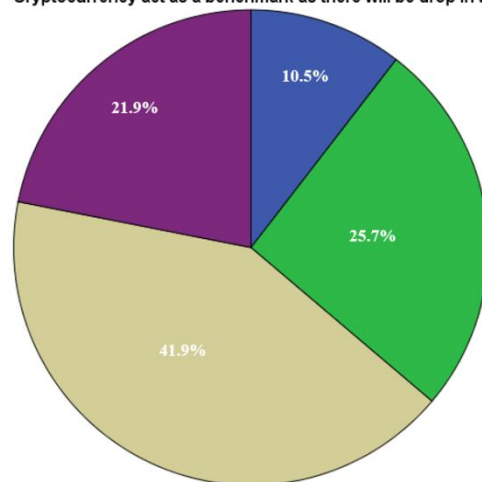
2) Cryptocurrency act as a benchmark as there will be drop in the value of currency

Cryptocurrency act as a benchmark as there will be drop in the value of currency

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	11	10.5	10.5	10.5
2	27	25.7	25.7	36.2
3	44	41.9	41.9	78.1
4	23	21.9	21.9	100.0
Total	105	100.0	100.0	

**Table 15: Frequency on cryptocurrency acting as a benchmark as there will be drop in the value of currency**

Cryptocurrency act as a benchmark as there will be drop in the value of currency



**Pie Chart 14: Percentage on cryptocurrency acting as a benchmark as there will be drop in the value of currency**

This question requires respondents to give the understanding and personal view on cryptocurrencies acting as a benchmark as there will be drop in the value of currency. Based on the pie chart above 41.9% of the respondents the number of 44 responses agree that cryptocurrency acts as a benchmark as they believe they will be dropping the rate of currency in the future. A group of 25.7% of the total respondents with a number of 27 responses disagree on the other hand on this matter. However, 21.9% of the total respondents with a number of 23 responses strongly agree and belief that cryptocurrency act as a target level because they belief in the drop of currency in the future. Nevertheless, a minority of 10.5% of the total respondents with a number of 11 responses do not believe on this matter and claim that cryptocurrency will not be able to act as a benchmark even if there is a drop in the value of currency.

This clearly shows how more than half of the respondents believe on the emergence of the cryptocurrency as a benchmark as there will be currency drop in future, thus, requiring the importance of the emergences. Most of the respondents believe that there will be reduction in the currency drop, probably, because the bank employees are exposed to the how the currency value is influenced by external factors. This is because the currency is very much fluctuating. However, this is good way to help this research to move further.

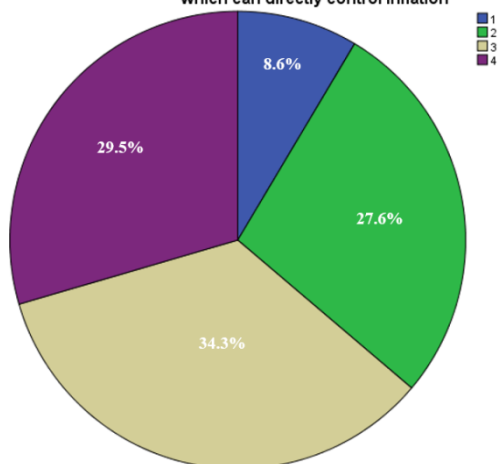
3) Cryptocurrency investment encourages public to divert from using fiat currency which can directly control inflation

**Cryptocurrency investment encourages public to divert from using fiat currency which can directly control inflation**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	9	8.6	8.6	8.6
2	29	27.6	27.6	36.2
3	36	34.3	34.3	70.5
4	31	29.5	29.5	100.0
Total	105	100.0	100.0	

**Table 16: Frequency on cryptocurrency investment encourages public to divert from using fiat currency which can directly control inflation**

**Cryptocurrency investment encourages public to divert from using fiat currency which can directly control inflation**



**Pie Chart 15: Percentage on cryptocurrency investment encourages public to divert from using fiat currency which can directly control inflation**

This question requires respondents to give their understanding on cryptocurrency investment in encouraging public to divert from using Fiat currencies which can directly control inflation. Based on the pie chart above a majority of 34.3% respondents with a number of 36 responses agree that cryptocurrency investment encourages public to divert from money and believe that the inflation rate can be controlled in such way. Besides 29.5% of the total respondents with a number of 31 responses also strongly agree with this issue clearly showing that more than half the respondents agree on this matter recommending that cryptocurrency investment encourages public to divert from using Fiat currencies. However minority number of respondents with a number of 29 responses as showed on the table above with percentage of 27.6% disagree with this issue as well as 8.6% of the least number of responses in which 9 of them strongly disagree and believe that cryptocurrency investment does not encourage public to divert from using normal currencies and this issue will not be able to control inflation rate. However, the majority of respondents believe in this matter because they might look at how impact the cryptocurrency investment could be in diverting the public and also allowing them to stop using Fiat currency therefore controlling the inflation rate. The majority respondents agreeing to cryptocurrency investment in encouraging public to divert

from using Fiat currencies which can directly control inflation shows that they have knowledge on the investment through cryptocurrencies and inflation rate if often controlled.

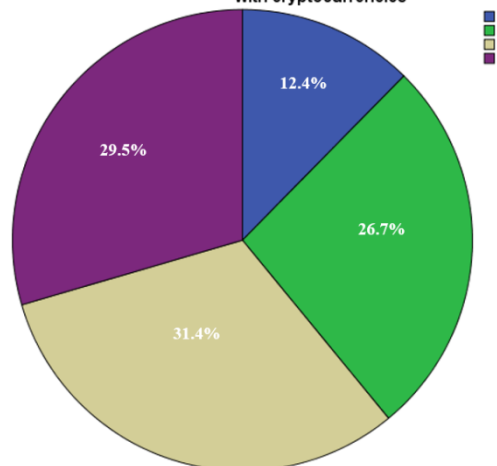
4) Inflation rate in an economy can be reduced/abolished, if currencies are replaced with Cryptocurrencies

**Inflation rate in an economy can be reduced/abolished, if currencies are replaced with cryptocurrencies**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	13	12.4	12.4	12.4
2	28	26.7	26.7	39.0
3	33	31.4	31.4	70.5
4	31	29.5	29.5	100.0
Total	105	100.0	100.0	

**Table 17: Frequency on Inflation rate in an economy can be reduced/abolished, if currencies are replaced with Cryptocurrencies**

**Inflation rate in an economy can be reduced/abolished, if currencies are replaced with cryptocurrencies**



**Pie Chart 16: Percentage on Inflation rate in an economy can be reduced/abolished, if currencies are replaced with Cryptocurrencies**

This question requires respondents to give the understanding on inflation rate in an economy to be reduced or abolished if currencies are replacing with cryptocurrencies. A majority of 31.4% of the total respondents with a number of 33 responses agreed that inflation rate in an economy can be reduced if cryptocurrencies are replaced as well as 29.5% of the total respondents with a number of 31 response strongly agree with this matter which clearly shows more than half of the respondents agree on inflation rate in an economy can be reduced or abolished if currencies are replaced with cryptocurrencies. However, a minority group of 26.7% of the total respondents with a number of 28 responses as shown in the table above disagree with this issue as well as 12.4% of the respondents with a number of 13 responses totally strongly disagree and claim that inflation rate in an economy cannot be reduced if currencies are replaced with cryptocurrencies. However more than half of the respondents believe in this issue and believe that inflation rate can be reduced with cryptocurrencies. A group of 60.9% of the overall respondents have overall positively agreed towards the

inflation rate in an economy to be reduced or abolished if currencies are replaced with cryptocurrencies. The majority of the respondents might have looked at the positive impact of the cryptocurrency as a replacement for the fiat currency today.

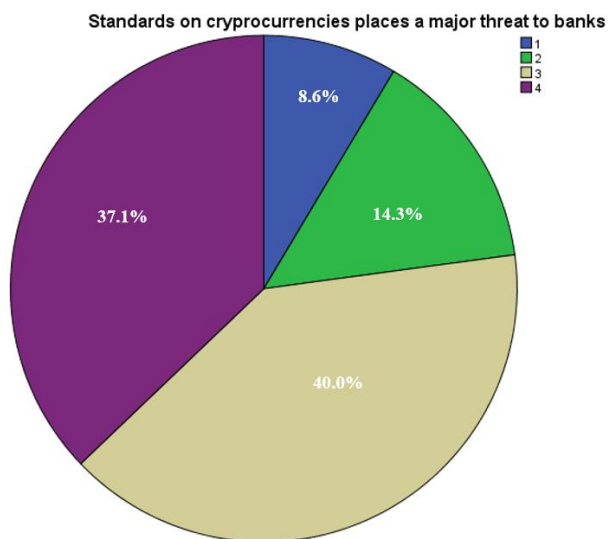
#### F. Regulatory Policy

##### 1) Standards on cryptocurrencies places a major threat to banks

**Standards on cryptocurrencies places a major threat to banks**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	9	8.6	8.6	8.6
2	15	14.3	14.3	22.9
3	42	40.0	40.0	62.9
4	39	37.1	37.1	100.0
Total	105	100.0	100.0	

**Table 18: Frequency on standards on cryptocurrencies places a major threat to banks**



**Pie Chart 17: Percentage on standards on cryptocurrencies places a major threat to banks**

Regulatory policy is an important factor to be considered in a country when there is an emergence of an issue such as cryptocurrencies. Cryptocurrencies should have not regulated therefore this question requires respondents to give their personal views and understanding on cryptocurrencies standards placing major threat to Banks. Coming in the form of Bank employees a majority of 40.0% of the total respondents with a number of 42 responses agree that standards on cryptocurrencies places a major threat to Banks as well as 37.1% of the respondents with a number of 39 responses as shown in the table above strongly agree with this issue. However, there's a minority group of the respondents where 14.3% of the total responses with a number 15 respondents disagree with this issue and the least group of 8.6% of the total respondents with a number of 9 people responding to this issue strongly disagree that standards on cryptocurrencies can please major threat to Banks.

More than half of the respondents amounting up to 81 respondents agreeing majorly on standards on cryptocurrencies placing major threat to Banks possibly because this respondentis much involved into Banks regulations and believe that cryptocurrency standards could

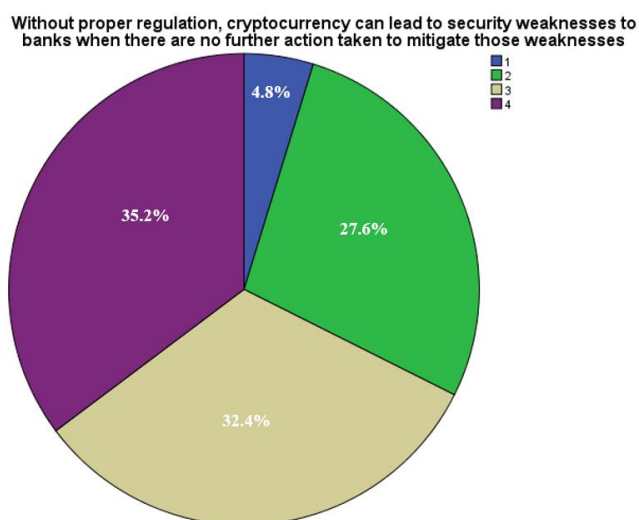
be a major threat. Besides, this could be because the majority respondents could have exposure towards government regulations and how the Banks are regulated. This helps the research to move further reliably.

##### 2) Without proper regulation, cryptocurrency can lead to security weaknesses to banks when there are no further action taken to mitigate those weaknesses

**Without proper regulation, cryptocurrency can lead to security weaknesses to banks when there are no further action taken to mitigate those weaknesses**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	5	4.8	4.8	4.8
2	29	27.6	27.6	32.4
3	34	32.4	32.4	64.8
4	37	35.2	35.2	100.0
Total	105	100.0	100.0	

**Table 19: Frequency on cryptocurrency leading to security weaknesses to banks without proper regulation**



**Pie Chart 18: Percentage on cryptocurrency leading to security weaknesses to banks without proper regulation**

Moving on to this question where respondents of this questionnaire are required to give a personal view and understanding on cryptocurrency leading to security weakness to banks without a proper regulation. An amount of 35.2% of the total respondents with a number of 37 responses strongly agree on this matter and belief that without proper regulation, cryptocurrency can lead to security weaknesses to Banks when there is no further action taken to mitigate those weaknesses. Besides, a number of 34 responses with a percentage of 32.4% out of 2 total respondents also agree on this issue. This clearly shows that more than half of the respondents agree that could cryptocurrency can lead to security weaknesses to banks without proper regulations. However, a minority group of 27.6% of the total respondents with a number of 29 responses disagree with this matter as well as 4.8% of the total respondents with only a number of 5 responses disagree completely and belief that cryptocurrency could not lead to security weaknesses to banks without any regulation.

Thus, the majority group of respondents which come in the form of Bank employees believe that cryptocurrency should

be regulated in order to avoid security weaknesses to the banks as well as for the actions should be taken in order to overcome the weaknesses. As mentioned in the previous question, this response clearly shows the importance of the regulatory policies on the cryptocurrency emergence towards the commercial banks.

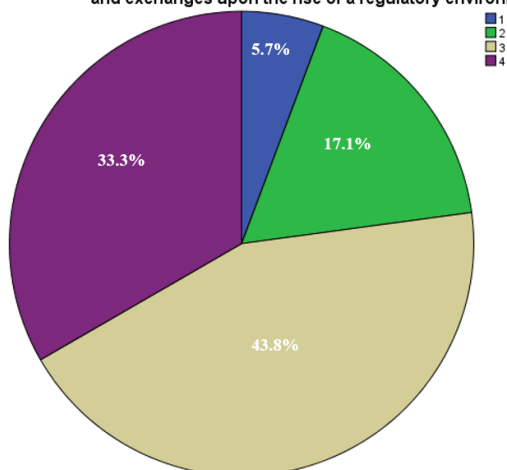
3) *Cryptocurrency environment will only grow a stronger support from investors and exchanges upon the rise of a regulatory environment.*

**Cryptocurrency environment will only grow a stronger support from investors and exchanges upon the rise of a regulatory environment.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	6	5.7	5.7	5.7
2	18	17.1	17.1	22.9
3	46	43.8	43.8	66.7
4	35	33.3	33.3	100.0
Total	105	100.0	100.0	

**Table 20: Frequency on cryptocurrency environment growing stronger upon the rise of regulatory environment**

**Cryptocurrency environment will only grow a stronger support from investors and exchanges upon the rise of a regulatory environment.**



**Pie Chart 19: Percentage on cryptocurrency environment growing stronger upon the rise of regulatory environment**

This question requires understanding of the responses on cryptocurrency environment growing stronger upon the rise of regulatory environment. A majority group of 43.8% of the total respondents with a number of 46 responses as shown in the table above shows that cryptocurrency environment will only grow a stronger support from investors and exchanges upon the rise of a regulatory environment. Furthermore, the next highest group of 33.3% of the total respondents with a number of 35 responses strongly agree on this matter clearly showing more than half of the respondents agree on this issue. However, minority group of respondents with a number of 18 responses as shown in the table above with the percentage of 17.1% out of the total respondents disagree with this matter as well as 5.7% of this respondent with a little number of 6 strongly disagree and believe that cryptocurrency environment does not grow stronger upon the rise of regulatory environment.

Based on the pie chart above, more than half of the respondents have agreed and believe that cryptocurrency environment can grow stronger with regulations and therefore recommending cryptocurrency to have a regulatory environment. Besides, the majority group of the respondents have strongly agreed on the previous questions as well regarding the regulatory policies clearly proving the importance of laws for the cryptocurrency to rise.

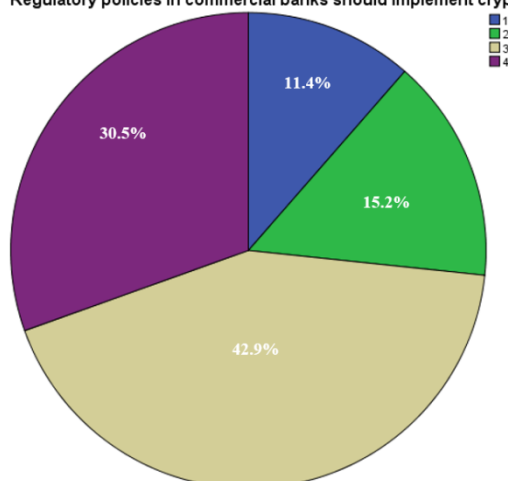
4) *Regulatory policies in commercial banks should implement cryptocurrency rules*

**Regulatory policies in commercial banks should implement cryptocurrency rules**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	12	11.4	11.4	11.4
2	16	15.2	15.2	26.7
3	45	42.9	42.9	69.5
4	32	30.5	30.5	100.0
Total	105	100.0	100.0	

**Table 21: Frequency on regulatory policies in commercial banks should implement cryptocurrency rules**

**Regulatory policies in commercial banks should implement cryptocurrency rules**



**Pie Chart 20: Percentage on regulatory policies in commercial banks should implement cryptocurrency rules**

This question needs the respondents to give their understanding on regulatory policies in commercial Banks on whether to implement cryptocurrency rules. A majority group of 42.9% of the total respondents with a number of 45 responses agree that regulatory policies in commercial Banks should implement cryptocurrency rules as well as 30.5% of the total respondents with a number of 32 responses strongly agree with this issue. However, a minority group of 15.2% of the total respondents with a number of 16 responses as shown on the table above disagree with regulatory policies to be implemented by commercial Banks regarding the cryptocurrency rules. Besides there is the least minority group of 12 respondents with a percentage of 11.4% strongly disagree on this issue.

The pie chart above clearly shows that more than half of the respondents which comes in the form of Bank employees strongly agree that cryptocurrency laws should be

implemented in commercial Banks as regulatory policies. This might be because the respondents believe that when such regulatory policies are implemented, the users or traders of cryptocurrencies will have a proper guideline and closely depend on commercial Banks. Besides, the bank employees might have seen the complications faced by the investors at banks, therefore, recommending the implementations of laws towards the investment in cryptocurrency.

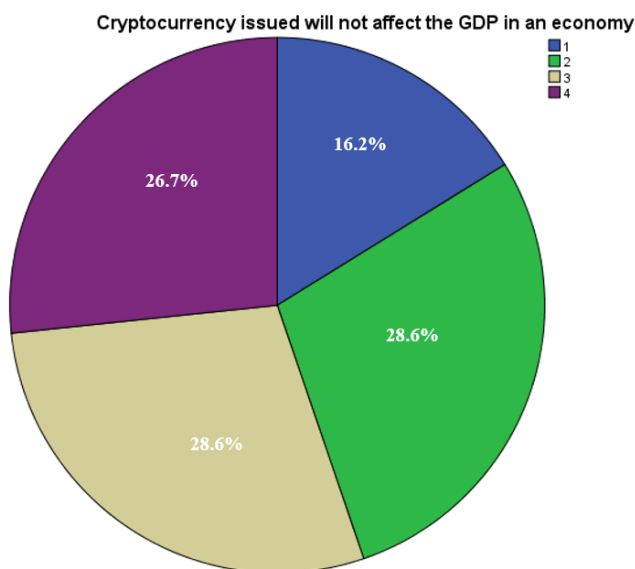
#### G. Gross Domestic Product

##### 1) Cryptocurrency issued will not affect the GDP in an economy

**Cryptocurrency issued will not affect the GDP in an economy**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	17	16.2	16.2	16.2
2	30	28.6	28.6	44.8
3	30	28.6	28.6	73.3
4	28	26.7	26.7	100.0
Total	105	100.0	100.0	

**Table 22: Frequency on cryptocurrency issued will not affect the GDP in an economy**



**Pie Chart 21: Percentage on cryptocurrency issued will not affect the GDP in an economy**

The gross domestic product in an economy is something closely to look at in this research of the study. Being an independent variable, this question requires respondents understanding on cryptocurrency issued to affect the GDP in an economy. Respondents' personal views and their responses will determine whether the cryptocurrency issued will or will not affect the GDP in an economy. A majority number of respondents with a percentage of 28.6% have both agree and disagree on this issue with a number of 30 responses each. However, the next highest group of 26.7% of the total respondents with a number of 28 responses strongly agree that cryptocurrency issued will not affect the GDP in an economy. On the other hand, 16.2% of the total respondents with a number of 17 responses strongly disagree and believe that cryptocurrency issue will affect the GDP in an economy. The respondents who agree with this issue probably believe that cryptocurrency emergence does not have any relation to the GDP in an economy thus, not affecting the GDP. There is

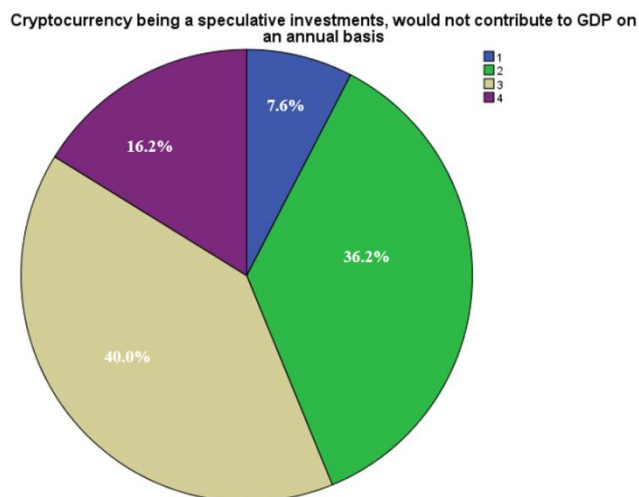
equal amount of the responses for both agreeing and disagreeing that the cryptocurrency would affect the GDP in an economy. Therefore, this clearly shows that the majority number of respondents are unsure about this issue. This could be because they are not exposed to issued related to the GDP in a country and how it is been affected.

##### 2) Cryptocurrency being a speculative investment, would not contribute to GDP on an annual basis

**Cryptocurrency being a speculative investments, would not contribute to GDP on an annual basis**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	8	7.6	7.6	7.6
2	38	36.2	36.2	43.8
3	42	40.0	40.0	83.8
4	17	16.2	16.2	100.0
Total	105	100.0	100.0	

**Table 23: Frequency on cryptocurrency being a speculative investment, would not contribute to GDP on an annual basis**



**Pie Chart 22: Percentage on cryptocurrency being a speculative investment, would not contribute to GDP on an annual basis**

This question requires respondents to give their understanding on cryptocurrency being a speculative investment would not contribute to GDP on an annual basis. A majority group of 40.0% of the total respondents with a number 42 responses agree on cryptocurrency being a speculative investment, would not contribute to GDP on an annual basis. The second highest group of 36.2% of the total respondents with a group of 38 responses disagree on this issue. However, based on the table above, 17 respondents with the percentage of 16.2% strongly agree that cryptocurrency being a speculative investment would not contribute to GDP on an annual basis. 7.6% of the total respondents with a number of 8 responses strongly disagree with this issue.

Based on the pie chart above more than half of the respondents amounting up to 59 respondents agreeing on this issue possibly because cryptocurrency is a speculative investment therefore it would not contribute to GDP on an annual basis. However, there are up to 46 respondents disagreeing on this issue, clearly showing that most of the

respondents in the responses are unsure about this issue and the responses given by them might not a reliable one. The bank employees who agreed to it might only guessed with their choices of answers.

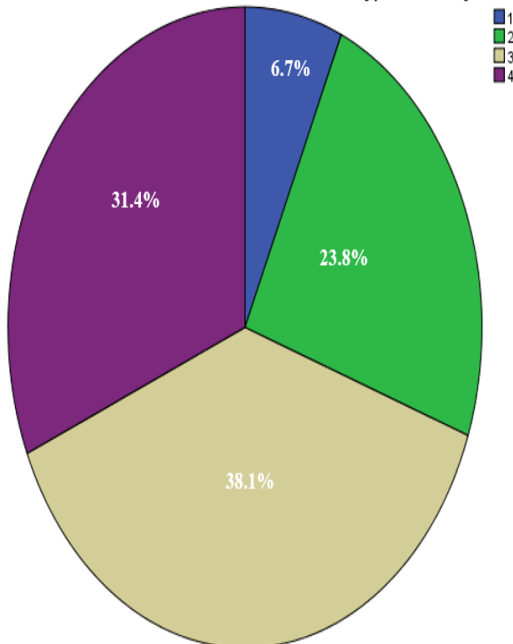
3) *Only a small portion of the profit value may contribute to GDP if capital gains taxes were levied on cryptocurrency*

**Only a small portion of the profit value may contribute to GDP if capital gains taxes were levied on cryptocurrency**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	7	6.7	6.7	6.7
2	25	23.8	23.8	30.5
3	40	38.1	38.1	68.6
4	33	31.4	31.4	100.0
Total	105	100.0	100.0	

**Table 24: Frequency on small portion of the profit value may contribute to GDP if capital gains taxes were levied on cryptocurrency**

**Only a small portion of the profit value may contribute to GDP if capital gains taxes were levied on cryptocurrency**



**Pie Chart 23: Percentage on small portion of the profit value may contribute to GDP if capital gains taxes were levied on cryptocurrency**

This question requires respondents on giving personal views and understanding on small portion of the profit value contributing to GDP if capital gain tax is levied on cryptocurrencies. According to the pie chart above, a majority group of 38.1% of the total respondents with a number of 40 responses that only a small portion of the profit value may contribute to GDP if capital gain taxes were levied on cryptocurrency. The next highest group of 31.4% out of the photo respondents with the number of 33 responses strongly agree on this matter. Based on the table above a number of 25 responses with the percentage of 23.8% disagree as well as the minority group of 6.7% out of the total responders with a number of 7 responses strongly disagree with this issue and believe that the portion of the profit value

is not depending on the size of it but a big or small portion may or may contribute to GDP if capital gain taxes were levied on cryptocurrencies.

The majority respondents believe that the profit value of the cryptocurrency does not contribute to GDP as shown in the pie chart above. As based on the previous questions related to GDP, the majority of the respondents to this question also mostly disagreed on a small portion of the profit value may contribute to GDP if capital gain taxes were levied on cryptocurrency. This could be because the respondents might not have much exposure towards this issue.

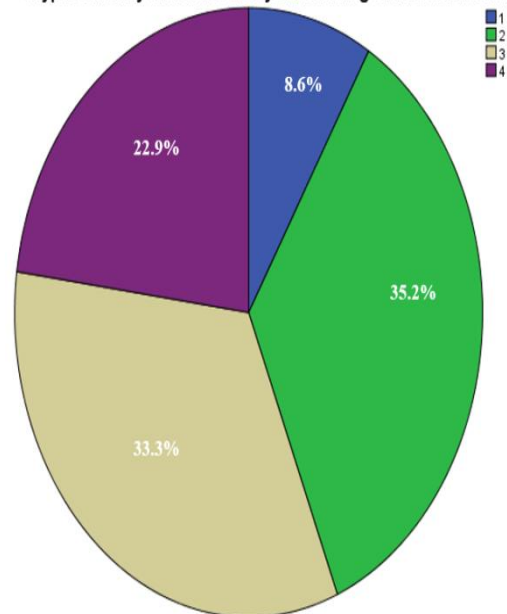
4) *Cryptocurrency which are always fluctuating can be used to measure the GDP*

**Cryptocurrency which are always fluctuating can be used to measure the GDP**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	9	8.6	8.6	8.6
2	37	35.2	35.2	43.8
3	35	33.3	33.3	77.1
4	24	22.9	22.9	100.0
Total	105	100.0	100.0	

**Table 25: Frequency on cryptocurrency which are always fluctuating can be used to measure the GDP**

**Cryptocurrency which are always fluctuating can be used to measure the GDP**



**Pie Chart 24: Percentage on cryptocurrency which are always fluctuating can be used to measure the GDP**

In measuring the GDP understanding by the respondents are required in giving their personal view on whether cryptocurrencies can be used to measure GDP because cryptocurrencies are always fluctuating. Based on the pie chart results above, a majority of 35.2% of the total responses with a number of 37 responses disagree that cryptocurrency which are always fluctuating can be used to measure the GDP. On the other hand, a group of 35 respondents with a percentage of 33.3% out of 30 respondents agree that cryptocurrency can be used to measure the GDP. A group of 24 respondents with a percentage of 22.9% of the total respondents strongly agree on this issue whereas minority

group of 8.6% of the total respondents with a number of 9 responses strongly disagree that cryptocurrency can be used to measure the GDP.

Based on the pie chart above, it shows that more than half of the respondents agree that cryptocurrency can use to measure the GDP however, almost half the respondents also disagree with this issue possibly because cryptocurrency is always fluctuating and cannot be used to measure the GDP. Besides, having the respondents as bank employees, they might not have much knowledge towards this issue clearly proving behind the double responses on majority agreeing as well as disagreeing with cryptocurrencies being used to measure GDP.

### H. Reliability Analysis

The reliability analysis allows researchers to find out the measurement scale properties as well as items that compose the scales (IBM, 2019). The procedures in the reliability analysis helps computing the numbers of often used scale reliability measures as well as caters data about the relationships of the scale's individual items. By using the reliability analysis, items in the questionnaire related to each other can be determined, overall index of the repeated item can be determined as well besides finding out the whole scale's internal consistency and identifying certain defects that should be taken away from the particular scale. In this chapter this reliability analysis test will be very important as it will portray how the relationship is between the independent variables and the dependent variable. Furthermore, the acceptance or rejection of the hypothesis will be shown.

### 1) Pearson Correlation Test

The Pearson correlation coefficient or also known as Pearson product-moment correlation coefficient is measurement using two variables to find the link for the strength of linear between them and is denoted by  $r$  (Statistics.Laerd., 2019). The two variables are continuous variables such as Dependent Variable and Independent Variable. Besides just showing the relationship between the two variables, the Pearson correlation test helps in understanding the relationship by drawing line of best fit through the information of both variables besides representing in the form of ranged values indicating the association between the variables. The Pearson correlation coefficient,  $r$ , could take a range of values between +1 and -1. The table below shows the Correlation value,  $r$  as well as the respective interpretation to the values.

Value of Correlation r	Interpretation of Correlation
-1	A perfect negative relationship
-0.70	A strong negative relationship
-0.50	A moderate negative relationship
-0.30	A weak negative relationship
0	No relationship
+0.30	A weak positive relationship
+0.50	A moderate positive relationship
+0.70	A strong positive relationship
+1	A perfect positive relationship

**Table 26: Correlation value  $r$  and its interpretation(Rumsy, 2016)**

## 2) Pearson Correlation Test Results

[illegible]

**Table 27 and 28: The correlation of IV ad DV**

Based on the table 27 and 28 above, many correlations within the DV and the IV can be seen. Those relationship between them are some positive and some negative, some are even mixed in the data to be analysed. The variables above are positively correlated as they have positive relationship wedding from weak, moderate to strong relationship. The dependent variables are moderately having positive relationship for example the Q1 and Q2 as well as question one and question three have a strong positive relationship. Whereas some of the dependent variables have moderate positive relationship for example the Q3 as well as Q4 are having a moderate positive relationship. On the other hand, some of the dependent variables are having a strong positive relationship however it is important to analyse the relationship between independent variables and dependent variables compared to just the dependent variables. Further analysis will be done to find out the relationship of correlation between the independent variable and dependent variable.

Looking at IV4 Q2 and DV1 Q1, it can be said that there is a strong positive relationship between them as shown in the table showing results of  $r=0.6$  and  $p=0.000$ . There is a strong positive relationship because the respondents will have strong understanding on the cryptocurrency issues might have answered correctly therefore helping the research to be more precise. This clearly shows that the respondents will have the awareness and understanding about the cryptocurrency have given your opinion on cryptocurrencies not contributing to GDP on an annual basis.

However, there are also variables which have weak positive relationship. Looking at the table above IV2 Q4 and DV Q2 has a weak positive relationship. The result shows  $r=0.20$  and  $p=0.043$ . This clearly shows that the respondents were aware that cryptocurrencies are not centralised on banks especially Central Banks have given the response towards cryptocurrency is being able to reduce inflation rate in an economy. Therefore, it is clearly seen that respondents who are aware of the impacts of cryptocurrency towards inflation rate or the respondents we have knowledge regarding this issue. This helps in continuing better research of the study. Referring to the table above, they're multiple independent variables having moderate positive relationship with the dependent variables. Most of them are having moderate positive relationship with IV 4. An obvious one can be seen in IV3 Q4 and DV Q3 as shown in the result above. The result therefore shows,  $r=0.5$  and  $p=0.000$ . Having Bank employees as the responders the respondents who have agree that cryptocurrency is supposed to replace the current currency in the form of money have given much responses towards commercial Banks to implement cryptocurrency rules in terms of regulatory policies. This clearly shows that the bank employees are recommending the commercial Banks to implement cryptocurrency rules in order to avoid having cryptocurrencies not regulated when it is in the form of replacing the current currency which is in the form of money. Other than that, most of the variables are positively related, varying from weak, moderate to strong positive relationship. Most of the independent variables have moderate positive relationship with the dependent variable as shown in the table above. Besides some of them have weak positive relationship and the rest have strong positive relationships with the dependent variable. This clearly shows that the respondents have a clear understanding to it's the dependent variable and the response is given for the independent variable are trustworthy.

#### I. Cronbach's Alpha Results

To measure the internal consistency on how a set of things are items are related in a group, the Cronbach's Alpha test is used. While measuring if the measurement is having a high value of alpha it does not mean that the measure is unidimensional (Institute for Digital Research and Education, 2019). This test is also known as a scale reliability however it is not a statistical test but more of a reliability or consistency test knowing as a coefficient of reliability. The Cronbach Alpha is first developed by Lee Cronbach in year 1951 in order to create a measurement for reliability and also for internal consistency. This test is usually used for test and studies that uses Likert scale. The result of this scale will be shown in between 0 to 1. At times, the result will produce a

negative result which means it is indicated that there is mistake on the data.

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

**Table 29: Size of the Cronbach Alpha Coefficient**

#### 1) Cronbach's Alpha Result

##### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.925	.926	5

**Table 30: The Reliability Statistics**

According to table 30 above, it shows the overall reliability statistic of the dependent variable and the independent variable available in the questionnaire. The result above shows  $r=0.925$  for the overall 5 items. As shown on the table 29 above, the Cronbach's Alpha result indicates that it has an excellent internal consistency because it is more than or equal to 0.9. Since it falls under an excellent internal consistency this data falls and a positive and can be used.

##### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
DVMean	11.2571	8.057	.743	.573	.919
IV1Mean	11.4968	7.034	.852	.734	.898
IV2Mean	11.4468	7.208	.812	.672	.907
IV3Mean	11.2278	7.850	.802	.650	.909
IV4Mean	11.4921	7.551	.821	.691	.904

**Table 31: The overall Item-Total Statistics**

The table above Shores the overall item of total statistics which is actually used to measure the Cronbach's alpha if one of the items is the removed or deleted. As shown on the table above, as soon as a Cronbach's Alpha has deleted any one of the items almost all the result above shows it does not increase above the value of the current Cronbach's Alpha. And all the values remain positive as it falls more than or equal to 0.9. However, one of the independent variables which is IV1 Mean would fall under the category of below 0.9 which is falling under 'good internal consistency' value of 0.898 if one item is deleted. Nevertheless, the value is not very much of a difference compared to 0.9. Therefore, this shows that the Cronbach's Alpha still remains in a positive value.

#### J. Multiple Linear Regression

An extension towards a simple linear regression is known as multiple linear regression. This multiple linear regression is used when a research requires to predict value of variables to be based on one or two or more of other variables. The

predicted variable is known as a dependent variable which is also known as the outcome or the target valuable. On the other hand, the variables used to predict the value of the dependent variable is known as the independent variable which is also known as the predictor or explanatory variable (Statistics.Laerd., 2019). For instance, regression can be used to understand and determine the overall fit (variance) of the model and the contribution of each of the independent variables to the total variance explained. The multiple linear regression can be measured using SPSS statistics and this research uses the SPSS to interpret and produce a report of results as shown below.

Coefficients <sup>a</sup>								
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		
	B	Std. Error	Beta			Lower Bound	Upper Bound	
1 (Constant)	.763	.205		3.717	.000	.356	1.171	
IV1Mean	.228	.104	.271	2.186	.031	.021	.435	
IV2Mean	.099	.096	.117	1.028	.306	-.092	.290	
IV3Mean	.386	.103	.388	3.747	.000	.182	.591	
IV4Mean	.055	.110	.059	.501	.617	-.163	.273	

a. Dependent Variable: DV/IVMean

**Table 32: The Multiple Linear Regression Coefficients**

The Table 32 above shows the results on using the multiple linear regression model using SPSS statistics for this research. As shown in the model above the value of relationship between the dependent variable which is a when is of respondents to what's the cryptocurrency and the other four independent variables in the research study are shown. The value  $p = 0.005$  is the break-even point that represents whether the value should be acceptable or rejected, therefore, the break-even point for the significant would be  $p=0.005$  for the value to be accepted. From the table above it is shown clearly that out of five only two variables can be accepted which are the dependent variable as well as IV 3. The other variables are rejected as though result is more than 0.005. Hence, as accepted in IV3 the variable which is the Regulatory Policy has a strong relationship on the dependent variable which is the Cryptocurrency because this variable has a value of  $p=0.000$  which is lower than 0.005.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.757 <sup>a</sup>	.573	.556	.47381	.573	33.597	4	100	.000

a. Predictors: (Constant), IV4Mean, IV3Mean, IV2Mean, IV1Mean

**Table 33: Model Summary for the R square**

ANOVA <sup>a</sup>					
Model		Sum of Squares	df	Mean Square	Sig.
1	Regression	30.169	4	7.542	.000 <sup>b</sup>
	Residual	22.449	100	.224	
	Total	52.618	104		

a. Dependent Variable: DV/IVMean

b. Predictors: (Constant), IV4Mean, IV3Mean, IV2Mean, IV1Mean

**Table 34: The ANOVA Model**

In analysing the multiple linear regression model, the other models which helps studies to show if the variables in the research is being very significant and variables' relationships. The Table 33 above shows summary for the R square as well as the adjusted R square. The summary of the R square shows a measurement of statistics on how the data is close to each other and whether they are fit into the fitted regression line. Basically, it is a percentage of response variable variation shown in the r square that explains the linear model. The R square is supposed to be between 0 to 100%. If the R square value falls below 0% then none of the variability of the response data are around the mean whereas, if it falls around

100% or below then it indicates that is variability of response data are around mean. Based on table above, the adjusted R square value shows 0.556 whereas the R square value shows 0.573 which indicates 57.3%. This value clearly shows that it falls between 0 and 100%. Therefore, there is 57.3% of the cryptocurrency emergence towards commercial banks in Malaysia explained by the changes in demand and supply on money, the fluctuations in inflation rate policy, the regulatory policy as well as gross domestic product.

Moving on the next table, Table 34 shows the ANOVA model where it is actually and analysis showing the statistically significant difference between the regressions. The significant is  $p = 0.000$  which is lower than 0.005. The F shows 33.597 and the degree of freedom shows 4 and 100. To what this whole model the significant value is very significant as this is the value which will provide the chance of finding difference within the observed sample.

### K. Hypothesis Analysis

Hypothesis	Hypothesis Statement	Type of analysis	Result
H1	There is a significant correlation between the changes in demand and supply on money factor and cryptocurrency emergence towards the banks in Malaysia.	Pearson Moment Correlation Test	Rejected
H2	There is a significant correlation between the inflation rate policy factor and cryptocurrency emergence towards the banks in Malaysia.	Pearson Moment Correlation Test	Rejected
H3	There is a significant correlation between the regulatory policy factor and cryptocurrency emergence towards the banks in Malaysia.	Pearson Moment Correlation Test	Accepted
H4	There is a significant correlation between the GDP factor and cryptocurrency emergence towards the banks in Malaysia	Pearson Moment Correlation Test	Rejected

**Table 35: Result on Hypothesis Acceptance**

Based on the table 35 above, it is clearly shown that not all the her, but this is has been accepted but only one which is Hypothesis 3 is a significant correlation which is between the regulatory policy factor and cryptocurrency emergence towards the banks in Malaysia. It is proven in the previous tables above, where the other independent variables do not have relationship with the dependent variable. Based on the previous table 32, which shows all the significant value of the coefficients with the Independent Variables mean prove that there is only one independent variable which has a significant value of 0.000 lower than the break-even point of 0.005 indicating the acceptance of the hypothesis. This means that there is a relationship between the cryptocurrency and the regulatory policies to be enforced on the cryptocurrency emergence on commercial banks in Malaysia. This means by enforcing the regulatory policies regarding the cryptocurrency it will play a huge role on bringing

corrections towards cryptocurrency emergence on commercial banks in Malaysia.

As a comparison to analysis above, there is no relationship between cryptocurrency emergence in commercial banks and changes of demand and supply on money. This could be because the changes in demand and supply on money to the public may not be much affected by the cryptocurrency emergence. This proves that the cryptocurrency will not be able to replace the supply of money issued by the government as well as the demand of money by the public. Therefore, the changes in demand and supply on money in a specific country will not be much affected if there is an extra factor influencing for example the cryptocurrencies however this issue has to be given attention in future time.

Besides, as compared to the acceptance and rejection of the hypothesis shown in the table above, there is no relationship for the second independent variable which is the fluctuations in inflation rate policy with the cryptocurrency emergence towards commercial banks in Malaysia. This could be because inflation rate policy is not measured using cryptocurrency. Therefore, having cryptocurrency might not affect inflation rate in a country whereby using cryptocurrency, money supply might not be reduced, thus, not reducing the inflation rate. Other than that, cryptocurrency investment might not encourage public to divert themselves from using money as they are major investment hence, inflation rate will not be affected. It is clearly shown that inflation rate policy in a country solely depends on Fiat currency which will not be affected by any digital currencies, however, this is an issue something to look at in the future.

Last but not least the rejection of the 4th independent variable on the hypothesis above shows that there's no relationship with the gross domestic product and the cryptocurrency emergence towards commercial banks in Malaysia. This could be because cryptocurrency is a speculative investment and therefore it will not be able to contribute much to the GDP in a country. Other than that cryptocurrency is always known as a fluctuating currency which is very complicated to measure the GDP in a country. Hence it is quite impossible to replace cryptocurrency in a normal currency used by a country to measure the GDP. It is clearly shown the reason behind the relationship between GDP and cryptocurrency emergence being rejected.

## V. FINDINGS AND DISCUSSION

### A. Introduction

In this chapter, the data analysis done on the collected data from the questionnaire that have been conducted and there will be elaboration and discussion whether the objective have been stated in chapter 1 is matched. It is a very important chapter at it would show how the research has completed its purpose. Furthermore, there will also be hypothesis testing showing if all the propose hypothesis is being accepted or rejected. Besides, this explanation will show whether the relationship between the independent variable and the dependent variable is correlated or likewise. As shown on the previous chapter that SPSS has been used to calculate and

generate the results that have been gathered from the questionnaire from the respondents which comes in the form of Bank employees. Reliability of the results that have been collected from the questionnaire is shown in the previous chapter on how reliable the variables are and the relationship within the variables. The significance of the hypothesis will also be explained.

### B. Findings

This research is been carried out to learn and understand the cryptocurrency emergence towards commercial banks in Malaysia. It is important to do such research as emergence of many digital currencies or also known as cryptocurrency has tried to replace the current currency which is in the form of money as stated in Chapter 1 earlier. However, multiple independent variables have been tested to find the significance of this research. In the initiating this Research, there are few objectives that has been designed to keep the research moving further on the planned direction.

### C. Research Question Test

This questionnaire is been designed in a way that it comprises of 5 sections respectively. The sections are namely demographic factor, dependent variable as well as the independent variables. The demographic factor includes gender, age, marital status as well as the educational level. All these questions seemed to be a necessity to show their status as a respondent to a question that relates to the Cryptocurrency emergence in commercial banks. As shown in the analysis in Chapter 4, respondents aged above 40 years are the least respondents, showing the cryptocurrency emergence are much affected to younger generation compared to generation who are not tech-savvy.

The dependent variable here shows the understanding and personal view of the respondents towards the cryptocurrency in general. The questions are majorly about the respondents' understanding on cryptocurrency issues and whether the cryptocurrencies should replace the fiat currency or not in general. Besides, there are 4 other independent variables namely the Changes in Demand and Supply in Money, Fluctuations in Inflation Rate Policy, Regulatory Policies as well as the Gross Domestic Product. The results of the questionnaire as analysed in chapter 4 above shows that only the 3<sup>rd</sup> independent variable Regulatory Policy has relationship towards the cryptocurrency emergence towards the commercial banks in Malaysia. The other three independent variables have been rejected due to lack of relationship with the dependent variables stating the understanding towards the cryptocurrency emergence.

### D. Hypothesis Result

In this chapter, there will be further discussion and explanation on the hypothesis that has been accepted and rejected respectively as analysed in Chapter 4. This chapter is vital as it shows the relationship among the dependent variable and the independent variable. This discussion can be used for future research.

1) *There is a significant correlation between the changes in demand and supply on money factor and cryptocurrency emergence towards the banks in Malaysia.*

The purpose of this research is check if there is any relationship between the dependent variable and this independent variable. As per the first hypothesis, there is a necessity to find out the relationship between the changes in demand and supply of money with the cryptocurrency emergence towards banks in Malaysia. Based on the results in Chapter 4 above, it clearly shows there is no relationship between both of these variables. This is clearly being proved in the SPSS result above showing the  $r = 0.757$  and the  $p = 0.031$ . The value  $p$  is higher than 0.005 which shows it has a negative correlation and significance on cryptocurrency emergence towards commercial banks. Therefore, there would not be any impact on changes in demand and supply on money by the cryptocurrency emergency towards the commercial banks.

The demand and supply of money is very vital in commercial banks as the central banks controls the demand for the money in natural. They control the supply and interact with other financial institutions. The supply of money on the other hand depends entirely on decisions made by central bank especially on the quantity of money supplied. Thus, the banks play a huge role in the change of demand and supply on money. Thus, if there is another currency involvement in the banks' roles, there should be a huge impact as well.

Even though in the result it shows there is no correlation between the relationship of the changes in demand and supply on money and the cryptocurrency emergence towards the commercial banks in Malaysia, in many other countries it has been a huge impact. There was one research made showing the public demanding on cryptocurrency compared to fiat currency directly decreasing the demand on money by the Public(Kamada, 2017). This disables the banks to supply the money as well. This research has shown the investigation on optimal currency choice, particularly the choice between paper and digital currencies. The Baumol-Tobin model of transactions demand for money is prolonged to derive conditions under which digital currency is preferred compared to paper currency, while taking consideration the network externality in the currency choices.

However, although there might be a huge impact on changes in demand and supply on money by due to the impact of cryptocurrency emergence towards commercial banks, at times this correlation might not exist easily. This is because the demand and supply of cryptocurrency are not similar to that of the money. Thus, the money would not be easily comparable or replaceable by the digital currencies. Hence, having the cryptocurrency emergence towards commercial banks would not affect much to the changes in demand and supply on money as derived in the hypothesis.

2) *There is a significant correlation between the inflation rate policy factor and cryptocurrency emergence towards the banks in Malaysia.*

As explained in the first hypothesis, there is a necessity to find out the second hypothesis, which is the relationship between the fluctuations in inflation rate policy with the

cryptocurrency emergence towards banks in Malaysia. Based on the results in Chapter 4 above, it clearly shows there is no relationship between both of these variables. This is clearly being proved in the SPSS result above showing the  $r = 0.757$  and the  $p = 0.306$ . The value  $p$  is higher than 0.005 which shows it has a negative correlation and significance on cryptocurrency emergence towards commercial banks. Therefore, there would not be any impact on fluctuations in inflation rate policy by the cryptocurrency emergency towards the commercial banks.

Fluctuation in inflation rate policy is important towards commercial banks as it indicates the decrease in the nation's currency through purchasing powers. When the prices increase, they start impacting general living costs for the public in common as well as the necessary money authorities such as the central banks, thus, allowing them to take necessary actions such as limits to keep the inflation controlled. Therefore, the central banks play a huge role in controlling the inflation rate in an economy.

Although there is no relationship between the fluctuation in inflation rate policy and the cryptocurrency emergence towards commercial banks, there were past researches proving there could be some effects. There were researches on negative impact on the central banking making clear the cause being destructive inflation towards currency, decreasing in purchasing power, hence, decreasing the cost of living standard for the citizens in the country(LeBlanc, 2016). The research has proven that Bitcoin is concluded to do things banks can do in few hours by easily taking away the financial sector for servicing for the public to spend on more goods and services thus, reducing their purchasing power, causing the inflation rate to be reduced.

Even though there is some effects of the cryptocurrency towards the fluctuation in inflation rate, sometimes it would not be much affected as it is very rare due to the characteristics of the cryptocurrency which are also fluctuating. Besides, the inflation rate are very much connected to the supply and demand of the money thus, needing the necessity of the money for the measurement of the inflation rate of the economy in nature. Having this hypothesis rejected, shows a negative correlation between these variables proving that the cryptocurrency emergence towards commercial banks and the fluctuations in inflation rate policy.

3) *There is a significant correlation between the regulatory policy factor and cryptocurrency emergence towards the banks in Malaysia.*

As explained in the first and second hypothesis, there is a necessity to find out the third hypothesis, which is the relationship between the regulatory policies with the cryptocurrency emergence towards banks in Malaysia. Based on the results in Chapter 4 above, it clearly shows there is relationship between both of these variables. This is clearly being proved in the SPSS result above showing the  $r = 0.757$  and the  $p = 0.000$ . The value  $p$  is lower than 0.005 which shows it has a positive correlation and significance on cryptocurrency emergence towards commercial banks. Therefore, there would be impact on regulatory policy by the cryptocurrency emergency towards the commercial banks.

Regulatory policies are important in a country to run any factor that affects the country in general. Ideally, regulations in banks and financial services help protect stability of financial services companies. Thus, it helps regulating the money and protect the investors and traders in the banks by protecting from frauds and mismanagement. Hence, if there are any new policies or rules in a bank, it is necessary for the regulatory policies to take necessary actions to avoid frauds or investors to be mismanaged.

There were researchers supporting the hypothesis accepted here which is accepting the relationship between regulatory policies with the cryptocurrency emergence towards commercial banks. The research has summarised from 14 different countries that have either have laws regulated for the cryptocurrencies, half-regulated and not regulated at all. The regulated countries have imposed taxed on the cryptocurrencies. One of those countries found it necessary to regulate the cryptocurrency which is the Argentina. For example, in the research done, the National Constitution of Argentina believe that the only authority capable of issuing legal currency is the Central Bank(The Law Library of Congress, Global Legal Research Center , 2018).

*4) There is a significant correlation between the GDP factor and cryptocurrency emergence towards the banks in Malaysia*

As explained in the three hypotheses above, there is a necessity to find out the forth hypothesis, which is the relationship between the Gross Domestic Product (GDP) with the cryptocurrency emergence towards banks in Malaysia. Based on the results in Chapter 4 above, it clearly shows there is no relationship between both of these variables. This is clearly being proved in the SPSS result above showing the  $r = 0.757$  and the  $p = 0.617$ . The value  $p$  is higher than 0.005 which shows it has a negative correlation and significance on cryptocurrency emergence towards commercial banks. Therefore, there would not be any impact on Gross Domestic Product (GDP) by the cryptocurrency emergency towards the commercial banks.

The Gross Domestic Product is all the finished goods and services produced in the borders of country for a period of time. The GDP comprises of all private and public consumption, investments, government outlays, private inventories, paid-in construction costs and the foreign balance of trade where exports are added, and imports are subtracted. Simply said, the GDP is a wide measurement of a country's overall economic activity. It is necessary to improve the GDP in order to stabilize a bank's profitability(Togbenou & Combey, 2017). Therefore, the GDP plays a huge role in stabilizing the bank's profitability and likewise. It is important to find out what's affecting the banks to avoid itself from affecting the GDP.

There was news on how cryptocurrency emergence have affected the country's GDP. However, there was a positive impact towards the country's GDP. The analysts of this study Yoshiyuki Suimon as well as Kazuki Miyamoto has made a statement that the GDP for Japan will increase by 0.3% in the first 3 months of 2018(Goyal, 2018). This is because during the final months of 2017, there was huge increase in the

market capitalisation by 12 trillion Yen. They name this effect as 'the bitcoin effect' taking it positively.

Although there was huge positive impact in the country, there will always be some miscellaneous beliefs such as knowing that the GDP is not just a guess work, but it actually means has lot more wider scope to think of. This is because the cryptocurrency might not be the only reason behind the impact on a country's GDP. Thus, there could not be any correlation between the GDP in a country and cryptocurrency emergence towards banks easily. Hence, having the cryptocurrency emergence towards commercial banks would not affect much to the GDP as derived in the hypothesis.

*E. Conclusion on Hypothesis Result*

As a conclusion to the results of the tests above for all the four hypotheses, clearly shows that all the four hypotheses are accepted through the ANOVA model which shows the  $r = 0.757$  which falls between 0% and 100%. However, based on the results in Chapter 4 above, it clearly shows there is no relationship between the first hypotheses which is between the changes in demand and supply of money and the cryptocurrency emergence towards banks in Malaysia. Based on the results in Chapter 4 above, it clearly shows there is no relationship between both of these variables. This is clearly being proved in the SPSS result above showing the  $p = 0.031$ . The value  $p$  is higher than 0.005 which shows it has a negative correlation and significance on cryptocurrency emergence towards commercial banks. Therefore, there would not be any impact on changes in demand and supply on money by the cryptocurrency emergency towards the commercial banks.

Other than that, looking at the relationship between the second independent variable and the dependent variable which is the relationship between the fluctuations in inflation rate policy and the cryptocurrency emergence towards banks in Malaysia, it clearly shows there is no relationship between both of these variables. In the SPSS result above shows the  $p = 0.306$ . The value  $p$  is higher than 0.005 which shows it has a negative correlation and significance on cryptocurrency emergence towards commercial banks. Therefore, there would not be any impact on fluctuations in inflation rate policy by the cryptocurrency emergency towards the commercial banks.

However, looking at the correlation between the third hypotheses which is the relationship between the regulatory policies with the cryptocurrency emergence towards banks in Malaysia, shows that there is relationship between both of these variables. This is clearly being proved in the SPSS result above showing the  $p = 0.000$ . The value  $p$  is lower than 0.005 which shows it has a positive correlation and significance on cryptocurrency emergence towards commercial banks. Therefore, there would be impact on regulatory policy by the cryptocurrency emergency towards the commercial banks.

Lastly, which is the relationship between the Gross Domestic Product (GDP) with the cryptocurrency emergence towards banks in Malaysia. Based on the results in Chapter 4 above, it clearly shows there is no relationship between both of these variables. This is clearly being proved in the SPSS result

above showing the  $r = 0.757$  and the  $p = 0.617$ . The value  $p$  is higher than 0.005 which shows it has a negative correlation and significance on cryptocurrency emergence towards commercial banks. Therefore, there would not be any impact on Gross Domestic Product (GDP) by the cryptocurrency emergency towards the commercial banks.

## VI. CONCLUSION

### A. Introduction

In this chapter, overall discussion will be given on this research study to indicate the success and failure of this research. This chapter also includes necessary recommendation for the research study and future studies.

### B. Conclusion

Conclusively, this research is being carried out to find out if cryptocurrency emergence towards commercial Banks have effects on certain factors. It is very important as almost more than half of the respondents have stated that they are aware of the cryptocurrencies which indicates that almost majority of the respondents have given their true response towards all the other variables. However, they are minority number of people who are not aware of this issue therefore, this is a disappointment as it would lead many people on being victim to the cryptocurrency emergence not knowing how to handle them especially the commercial bank.

There are 4 independent variables created in the questionnaire in order to find the relationship with the dependent variable. Out of the four variables one of the variables has relationship and indicates that by having the independent variable it shows clearly that regulatory policy has relationship towards cryptocurrency emergence on commercial Banks indicating laws and regulations should be carried out towards cryptocurrencies in commercial Banks. After having the questionnaire and being analysed as shown on the chapters above almost all the variables has relationship however not perfectly accepted as according to the hypothesis. Generally, it is very important for the commercial Banks to give importance to all the factors that affects them commonly for example, all the variables that have been stated above. It is very important to look through all the variables directly in order for the commercial Banks to not lose their power. For example, in terms of changes in demand and supply of money it is the banks obligation to control the movement of money market therefore, if there is an emergence of cryptocurrency it is necessary to look through this information to avoid further impact on the banks. Besides, is important for commercial banks to look at fluctuations on inflation rate policy in an economy as banks play a big role in this issue. Hence, having cryptocurrency which is the new currency opposite to the current Fiat currency it is important for the banks to give a serious enforcement. As accepted on the hypothesis above, regulatory policies play a big role in commercial Banks. Without regulation, money or any trading or transaction that happens in the banks will not be managed easily. There are certain regulatory bodies which are obligated to create regulations and laws for the commercial banks. For example, the Securities Exchange Commissions (SEC) are obligated to create regulations for Securities markets in the banks and financial institutions. Therefore, in order to accept the cryptocurrency emergence in the commercial banks it is

necessary to have a separate regulatory body or regulations to be enforced on the commercial banks in order to allow investors or traders to use and treat the currencies well. Last but not least, the GDP and the banks' profitability are much related. When the GDP movement changes, the banks' profitability movement also changes which shows that if there are any other factor influencing the commercial banks there are possibility of GDP movement. However, in this research shows that there is no relationship between both the variables. Other research has proven that they could be increase and decrease in GDP due to cryptocurrency margins and it is important for future study to look through this information to avoid banks profitability to be affected. This research paper would be more useful for upcoming generation who would like to have a research on cryptocurrency and its impact towards.

As a result, the future commercial banks will be aware on the emergence of cryptocurrency and will make sure the necessary enforcement has been made. Besides, this research will create awareness to the people out there even if it's not in a high portion but at least in an indirect or small portion towards cryptocurrency in general.

### C. Limitations of Study

For this research of the study, there were multiple limitations faced. One of the most visible one could be the time. There was limited time to carry out this research as the questionnaires were received back on hand late. The bank employees took their time to response to the questionnaire probably because they had other work to do during their working days. Due to this, the time for my family was given up. Besides, the reliability of the source is one of the limitations as some of the respondents would not answer honestly or have much knowledge or awareness towards the questions approached in the questionnaire.

Other than that, the age of the respondents is a limitation. Most of the responses are gathered from younger generation bank employees who might not have much exposure towards the issue discussed, therefore, they would not provide the true personal view. Other than that, regarding the awareness on cryptocurrency the minority group of the respondents aged above 40 years old might not have knowledge or exposure towards the digital currency which is emerging lately.

## VII. RECOMMENDATIONS

### A. Technical Recommendations

These recommendations are for the future researchers to avoid facing the limitations faced in this research. As discussed in the limitation above, time should be managed well. The questionnaire or respective interviews should be distributed at a respective time frame and received back on hand. A time limit should be given to the respondents in the future in order for them to not take their time but to give back their responses on time.

Besides, having the reliability of the source as one of the limitations due to some of the respondents would not answer honestly or have much knowledge or awareness towards the questions approached in the questionnaire should be overcome as well. In the future research, the researcher of the study should be aware of the qualifications of the respondents. This way can make the source of the study reliable to research further.

Furthermore, the age factor of the respondents should be avoided making sure there are little information of the discussion of the research given to the respondents in order to give them a little understanding on the questionnaire. Besides, different types of questionnaires can be distributed to different age group or eliminating either one in future research.

#### B. Recommendation on Research Study

In general cryptocurrency has changed the financial globalisation which is the financial activities movement among countries financial institutions and the people around the world. Having such changes due to just one digital currency has create awareness to people to place guide and protection on cryptocurrency developers and also the uses of the cryptocurrencies. As for this research study there are four recommendation that could be added.

Although the SPSS seems to show that there is a weak relationship with the dependent variables the recommendation here would be to have investigation on optimal currency choices particularly the choice between people and digital currencies towards people. In this hypothesis for this research, shows this variable is not having relationship with the dependent variable, however many other countries has shown there is a huge impact therefore, it is necessary for future research to be taken to find out if this factor is still an important influence to us cryptocurrency emergence on commercial banks which is the changes in demand and supply of money. Besides, it is necessary to expose the bank employees towards this issue as well as the respondents in the future would be a reliable source. Trainings on issues related to changes in demand and supply of money should be given to the employees.

Besides, having the fluctuation in inflation rate policy as one of the major variables which does not have any relationship towards a dependent variable as discussed in this research study, it is still waiting for future research study to carry out these impacts as a research because the past research is proving that there could be some effects. The past researchers have proved and listed down many negative impacts to the central Banks causing a destructive inflation due to cryptocurrency emergence. The recommendation here would be necessary actions such as limits for inflation to be controlled should be taken and enforced by the central Banks. Besides, it is important to keep researching on fluctuations in inflation rate with the effects of cryptocurrency. Furthermore, respondents should be given awareness on the inflation rate policy every year. The movement of the inflation rate should be circulated to the public as well by the government as well as the Central banks in order to receive reliable respondents in the future.

In terms of regulatory policies, it is important for future researchers to keep researching on the regulatory bodies that should take obligations on cryptocurrencies in the future. Furthermore, it is necessary for commercial Banks to create a separate regulatory body or a separate regulation for such influences. Other than that, government can take initiative to create laws for investors or traders would like to trade in cryptocurrencies. This is because it is even proved in the hypothesis above that there is relationship into regulatory policies and cryptocurrencies emergence towards commercial Banks. It is clearly to avoid mismanagement and

frauds to happen in commercial banks because lately corruption has been an issue. Besides, it is also to avoid unnecessary money laundering happening unexpectedly. Last but not least, the final recommendation for this research would be, it is necessary for future research to keep researching on the impact between the Gross Domestic Products (GDP) with the cryptocurrency emergence towards Banks. As mentioned above, the banks' profitability can be influenced by the GDP and the GDP will also be impacted. Therefore, it is important to be aware of the factors that influence the commercial Banks. Other recommendation would be the bank employees in the commercial Banks should be aware on the movement of currencies as well as its market capitalization if there is a huge difference after an emergence of new influences just like the cryptocurrency. If there is such huge difference, it is necessary for the banks to create enforcement. Awareness on this issue should be indulged to the bank employees during their working time for instance by giving training on this issue on a daily basis or training the fresh graduates who are in a younger generation because most of the younger generation aged between 20 to 30 are the respondents for this research as well.

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