



# “DIGITAL CURRENCY - BOON OR BANE”

## CUSTOMER PERCEPTION WITH SPECIAL REFERENCE TO NEWGENERATION BANKS IN THRISSUR DISTRICT, KERALA

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### 1. Introduction

The digitalization of economy has far reaching implications for many areas of economic inquiry, not least for monetary economics and the concept of money itself. With the massive volumes of data that digital activities generate, come new opportunities and challenges for societies and the monetary system. The ongoing digital revolution may lead to a radical departure from the traditional model of monetary exchange.

When discussing the impact of digitalisation on the monetary system, it is useful to distinguish between the architecture and technology of a monetary system. While digital money and electronic payment systems have become increasingly important elements of the monetary system for many years already, they so far have not substantially changed the architecture of the traditional two-tiered monetary system based on central bank money and deposits in commercial banks. New developments such as private money in the form of crypto currencies and the prospect of digital currencies issued by the government or private entities, have the potential to radically alter the way the monetary system works.

The decline in the relative importance of cash in most economies is mainly driven by the convenience and efficiency gains offered by electronic payment methods in combination with mobile devices. In the transition to a cashless society, a major social challenge is to prevent parts of the population from being left behind.

Late in the 1980's, India's banking sector felt a need to implement computerisation of recording and accounting of data. A committee was set up in 1988 by the Reserve Bank of India, headed by Dr C

Rangarajan, to study computerization in banks. After the introduction of the LPG policy, the process of digitalization picked up the pace with the change in the Indian economy.

On 1<sup>st</sup> February 2021, the Finance Minister of India, Smt. Nirmala Sitharaman, declared that India is going to introduce CBDC in 2023. CBDC (Central Bank Digital Currency) is a digital or virtual currency but it is not comparable to the private virtual currencies or cryptocurrency that has mushroomed over the last decade (*The Economic Times, February 03, 2022*).

So, the researcher finds that the digital currency is the emerging trend in India. This is the relevance of this study. The researcher wants to study the awareness of digital currency, as well as the opportunities and limitations. The researcher will choose the customers of new generation banks in Thrissur, Kerala for the study.

## 2. Statement of the problem

The research problem arises when the researcher finds there is a research gap in the article “*Digital Currency and its Implications for India*” -Manpreet Kaur, SGT University in *The Management Accountant Journal*- September 2020

- Awareness of digital currency in India
- Acceptance of the Digital Currency
- How it is related with Banks?

After digitalization in banking, customers are facing some kind of problem related to understanding of new technology of banking services, customer expectation about the digital currencies, factors affecting dissatisfaction of customers towards digital money. After demonetization, the government tried to change the technology, methods and techniques of particular areas of banking which included the digitalization of money terms. Banks needs to explain the benefits of digital currencies which leads to the reduction of time and personalized services to customers.

## 3. Literature review

- D Andolfatto, September (2020): “Digital currencies and the future of the monetary system” ‘Assessing the impact of central bank digital currency on private banks’
- Bohme, R, N Christin, B Edelman and T Moore (2015): “Central bank digital currencies, crypto currencies and, privacy” ‘Bitcoin: Economics, Technology, and Governance’
- Christian Catalini, MIT Expert- “Blockchain, explained” In this Blog (MIT Digital), the author has explained in detail about the Block chain Technology and its origin linked with the origin of cryptocurrency.
- Everett J. & Team, Department of US Treasury - “Risks and Vulnerabilities of Virtual Currency- Cryptocurrency as a Payment Method”

#### 4. Objectives of the study

- To study the awareness and perception level of digital currencies among people in Thrissur district.
- To study the opinions of investors on future of digital currency in Thrissur district.
- To analyze the factors contributing towards effective implementation of digital currency.
- To analyze the major challenges for the implementation of digital currency.

#### 5. Research Methodology

##### 5.1 Research design and method

The research design of the study is mainly used upon **Descriptive Research Design**. In pursuance of the objectives and hypotheses, the following methodology was adopted for conducting the present study. Sample design is the framework, that serves as the basis for the selection of a survey sample.

##### 5.2 Sample size

The sample size is the number of people to be selected from the population to make a sample. A sample size should be sufficient enough to serve our purpose. The study includes the sample size of 100 customers of seven new generation banks and their branches from Thrissur district.

##### 5.3 Sampling Technique

This is the type of technique that one uses to select the samples. The sampling method that researcher have used is **Convenience Sampling**, which is a type of Non Probabilistic Sampling.

##### 5.4 Source of Data collection

Primary data is used in this study. The questionnaire was circulated to some specific part of Thrissur region in form of Google Survey Form, to measure their awareness and perception of digital currency. The questionnaire was prepared keeping in mind the demographics like male, female, age group starting from 20 years and above, working (public/private/educational institutions), business people, non-working, students etc. Even different annual income groups have been taken into account. The two variables under study have been measured accurately through tables and graphs and results have been interpreted. On the basis of results and interpretations, findings, conclusion and suggestions have been given. Other than Primary Data, Secondary Data has also been collected for the study to understand the general growth trend of the market in India and the world. The secondary data is mainly collected through online platforms, web resources, books, journals, newspapers, etc.

## 6. Variables under study

- Dependent variable – Opportunities and challenges of digital currency implementation.
- Independent variables – Availability, Risk, Government Regulations, Technology, Security, Online

<b>Descriptive Statistics</b>
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payment platforms, Cost etc.

## 7. Data Analysis Tools

- The data analysis tools adopted for this study includes ANOVA, Correlation, Multiple Regression, Descriptive statistics.

## 8. Limitations of the study

- As the sampling taken is convenience sampling, so it might not necessarily be the representation of the actual population of the Thrissur district.
- As the survey was circulated through Google Survey Forms, this study is limited to internet users only.
- Digital currency is a global product, but this study is mainly based on the people of Thrissur, so it will not give clear picture of its adoption at larger platform as people really want to have this as currency or investment tool.
- During the survey it was observed that some respondents are reluctant to give correct information in certain areas and to that extent the analysis of data may have suffered from non-sampling errors.
- The study was confined to one of the marketing segment - Personal segment - customers only.

## 9. Data Analysis and Interpretation

The average awareness level of the respondents is having a mean value of 1.2 (SD 0.40202) with the minimum awareness level 1 and maximum awareness level 2. This shows that majority respondents are having awareness about digital currency.

Descriptive Statistics										
	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error
Source of awareness	100	1.00	2.00	3.00	2.8000	.04020	.40202	.162	.325	.478
Valid N (listwise)	100									

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error
					c					
Awareness about various crypto currency	100	1.00	1.00	2.00	1.2000	.04020	.40202	.162	.325	.478
Valid N (listwise)	100									

From the above table it can be interpreted that majority of the respondents got awareness about digital currency from social media and online platforms since the minimum statistical value is 2 and maximum statistical value is 3 having a mean of 2.8 and a standard deviation of .40202.

### Correlation Analysis

Correlations			
		Awareness about various crypto currency	Perception towards digital currency
Awareness about various crypto currency	Pearson Correlation	1	.865
	Sig. (2-tailed)		.000
	N	100	100
Perception towards digital currency	Pearson Correlation	.978	1
	Sig. (2-tailed)	.000	
	N	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Ho: There is a significant relationship between awareness and perception level towards digital currency implementation.

H1: There is no significant relationship between awareness and perception level towards digital currency implementation

Awareness level and perception level of the respondents have a statistically significant linear relationship ( $r=.978, p < .001$ ). The direction of the relationship is positive (i.e., **awareness level and perception level of the respondents are positively correlated**), meaning that these variables tend to increase together (i.e., **greater perception level is associated with awareness level**).

Correlations			
		awareness about various crypto currency	perception towards trading platforms
awareness about various crypto currency	Pearson Correlation	1	.351**
	Sig. (2-tailed)		.000
	N	100	100
perception towards trading	Pearson Correlation	.351**	1

platforms	Sig. (2-tailed)	.000	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

Ho: There is a significant relationship between awareness and perception level towards trading platforms.  
 H1: There is no significant relationship between awareness and perception level towards trading platforms.

Awareness level and perception level of the respondents have a statistically significant linear relationship ( $r=.351$ ,  $p < .001$ ). The direction of the relationship is positive (i.e., **awareness level and perception level of the respondents are positively correlated**), meaning that these variables tend to increase together (i.e., **greater perception level is associated with awareness**).

### Multiple Regression

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000 <sup>a</sup>	.734	1.000	.00000
a. Predictors: (Constant), awareness about various crypto currency				

Correlations								
		Perception of digital currency	Awareness about various crypto currency	Source of awareness	Age group	Education background	Employability of the respondents	Area of the respondent
Pearson Correlation	Perception of digital currency	1.000	1.000	-1.000	1.000	-1.000	-.822	1.000
	Awareness about various crypto currency	1.000	1.000	-1.000	1.000	-1.000	-.822	1.000
	Source of awareness	-1.000	-1.000	1.000	-1.000	1.000	.822	-1.000
	Age group	1.000	1.000	-1.000	1.000	-1.000	-.822	1.000
	Education background	-1.000	-1.000	1.000	-1.000	1.000	.822	-1.000
	Employability of the respondents	-.822	-.822	.822	-.822	.822	1.000	-.822
	Area of the respondent	1.000	1.000	-1.000	1.000	-1.000	-.822	1.000
Sig. (1-tailed)	Perception of digital currency	.	.000	.000	.000	.000	.000	.000

	Awareness about various crypto currency	.000	.	.000	.000	.000	.000	.000
	Source of awareness	.000	.000	.	.000	.000	.000	.000
	Age group	.000	.000	.000	.	.000	.000	.000
	Education background	.000	.000	.000	.000	.	.000	.000
	Employability of the respondents	.000	.000	.000	.000	.000	.	.000
	Area of the respondent	.000	.000	.000	.000	.000	.000	.
N	Perception of digital currency	100	100	100	100	100	100	100
	Awareness about various crypto currency	100	100	100	100	100	100	100
	Source of awareness	100	100	100	100	100	100	100
	Age group	100	100	100	100	100	100	100
	Education background	100	100	100	100	100	100	100
	Employability of the respondents	100	100	100	100	100	100	100
	Area of the respondent	100	100	100	100	100	100	100

Excluded Variables						
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Source of awareness	.b	.	.	.	.000
	Age group	.b	.	.	.	.000
	Education background	.b	.	.	.	.000
	Employability of the respondents	.000 <sup>b</sup>	.	.	.	.325
	Area of the respondent	.b	.	.	.	.000
a. Dependent Variable: perception of digital currency						
b. Predictors in the Model: (Constant), awareness about various crypto currency						

From the above table the R value 1.000 which represents the measure of quality of prediction of the dependent variable shows a good level of perception. The "R Square" column represents the  $R^2$  value (also called the coefficient of determination), which is the proportion of variance in the dependent variable that can be explained by the independent variables (technically, it is the proportion of variation accounted for by the regression model above and beyond the mean model). From the above table the value of .734 indicates that our independent variables explain 73% of the variability of our dependent variable. From the above table the independent variable the "awareness level towards crypto currency" is significantly correlated compared to other independent variables. From the Collinearity statistics value the various independent



variables such as sources of awareness, age, education, employability and area of the respondents are considered to be excluded variables.

### Factor Analysis

Correlation Matrix						
		Risk	Security and safety	Trading platforms	Awareness about technology	Type of currency
Correlation	Risk	1.000	-.038	.393	.641	-.005
	Security and safety	-.038	1.000	.000	-.058	-.032
	Trading platforms	.393	.000	1.000	.270	.189
	Awareness about technology	.641	-.058	.270	1.000	.044
	Type of currency	-.005	-.032	.189	.044	1.000
Sig. (1-tailed)	Risk		.354	.000	.000	.481
	Security and safety	.354		.500	.283	.376
	Trading platforms	.000	.500		.003	.030
	Awareness about technology	.000	.283	.003		.333
	Type of currency	.481	.376	.030	.333	
a. Determinant = .473						

The correlation coefficient between a variable and itself is always 1, hence the principal diagonal of the correlation matrix contains 1s. The correlation coefficients above and below the principal diagonal are the same. The determinant of the correlation matrix is shown at the foot of the table below (0.473). With respect to the correlation matrix if any pair of variables has a value less than 0.5, consider dropping one of them from the analysis. For this factor, analysis needs to be reformed with the exclusion of pair of variables with less than 0.5 value. The off-diagonal elements (The values on the left and right sides of the diagonal in the table below) should all be very small (close to zero) in a good model. From the above table the independent variables such as security and safety, trading platforms, type of crypto currency are having significantly no correlation towards the perception level of the respondents. The independent variables such as risk and awareness level are significantly correlated.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.566
Bartlett's Test of Sphericity	Approx. Chi-Square	72.325
	Df	10
	Sig.	.012

Ho: The correlation matrix is an identity matrix

H1: The correlation matrix is not an identity matrix

From the above table the KMO measure is .566 which indicates that the responses given by the samples are barely accepted. From the same table, it can be seen that Bartlett's Test Of Sphericity is significant (0.12). That is, the significance is less than 0.05. In fact, it is actually 0.012, i.e., the significance level



is small enough to reject the null hypothesis. This means that the correlation matrix is not an identity matrix.

Communalities		
	Initial	Extraction
Risk	1.000	.811
Security and safety	1.000	.987
Trading platforms	1.000	.573
Awareness about technology	1.000	.732
Type of currency	1.000	.869

Extraction Method: Principal Component Analysis.

The above table shows how much of the variance. 99% of variance in “Security and safety”.57.3% of the variance in “Trading platforms” is accounted for.

Total Variance Explained							
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	1.908	38.157	38.157	1.908	38.157	38.157	1.880
2	1.063	21.256	59.413	1.063	21.256	59.413	1.142
3	1.001	20.018	79.432	1.001	20.018	79.432	1.003
4	.692	13.837	93.268				
5	.337	6.732	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

For analysis and interpretation purposes we are concerned only with Initial Eigenvalues and Extracted Sums of Squared Loadings. The requirement for identifying the number of components or factors stated by selected variables is the presence of eigenvalues of more than 1. The above table herein shows that for 1st component the value is  $1.908 > 1$ , 2nd component is  $1.063 > 1$ , 3rd component is  $1.001 > 1$ , 4th component is  $0.692 < 1$  and the fifth component is  $0.337 < 1$ . Further, the extracted sum of squared holding % of variance depicts that the first factor accounts for 38.157% of the variance features from the stated observations, the second 21.256% and the third 20.018%. Thus, 3 components are effective enough in representing all the characteristics or components highlighted by the stated variables.

### 10. Conclusion

The future of the digital currency concept is promising, showing more opportunities for positive change and progress in the e-business and e-payment sectors. With the rapid advancement and improvement of technology, digital currency will not stop progressing. And most of the respondents were aware about the digital currency and got their knowledge from mainly social media platforms. There are steps forward to improve and expand digital currency concept since our study was conducted. Digital currency is the product of new age innovative technologies, and many countries of the world have already regulated its use in day to day business and many countries are coming forward to regulate its transaction in financial market. So, the

Indian Government and regulatory authorities should come forward and take steps to regulate the transactions of digital currency as an investment option.

Reference:

1. *The Economic Times*, February 03, 2022
2. *The Management Accountant Journal*- September 2020
3. “*Digital Currency and its Implications for India*” -Manpreet Kaur, SGT University in *The Management Accountant Journal*- September 2020
4. D Andolfatto, September (2020): “Digital currencies and the future of the monetary system”
5. Bohme, R, N Christin, B Edelman and T Moore (2015)
6. Christian Catalini, MIT Expert- “Blockchain, explained” In his Blog ‘MIT Digital’
7. Everett J. & Team, Department of US Treasury

