INVESTIGATING THE ADOPTION AND USAGE OF CRYPTOCURRENCIES IN NIGERIA

Emomotimi John Agama[1]

ABSTRACT

Using survey evidence from crypto users in Nigeria, this study provides insights into factors influencing the adoption of crypto assets in the country. Data was collected through a survey of 102 active Nigerian-based Crypto users from two widely used crypto WhatsApp groups. The study finds that all of the respondents (100%) have actively invested in crypto assets. In addition, vast adopters (87.62%) are male, highly educated to tertiary level (86.67%) and most (49.52%) fall between the ages 25-34. Here the vast majority of respondent(s) (67.62%) adoption was influenced by crypto assets potential as both an alternative payment system and its perceived profit expectation. The study has important implications for policymakers and the results presented in this study offer new insights into the academic literature on the implications for policymakers.

Keywords: Cryptocurrencies; Adoption; Bitcoin; Monetary policy; Nigeria

INTRODUCTION

The growth of the crypto assets usage rate in Nigeria continues to attract the attention of policymakers. The data from the 2021 Chain analysis Global Crypto Usage Index report, shows that Nigeria, Africa's largest economy, ranks sixth among the top 20 countries globally with the highest grassroots crypto usage. Why do Nigerians adopt Crypto assets in Nigeria? The high level of usage has been a source of concern for policymakers evidenced by several disclaimers and warnings to deposit money in banks and other Non -Bank Financial Institutions.

[1] Emomotimi John Agama PhD is with the Nigerian Capital Market Institute [NCMI] eagama@sec.gov.ng

Therefore, gaining a more in-depth understanding of the usage of Cryptocurrencies in Nigeria is an important prerequisite for understanding the macroeconomic and monetary policy implications in Nigeria. This study adds to this body of research by investigating the usage of crypto assets in Nigeria. Given the limited knowledge of policymakers on the usage of crypto assets, I believe that an exploratory data analysis of the theme provides a valuable contribution to the existing literature. There is a paramount need to understand the details of the usage of cryptocurrencies in Nigeria. The study will provide some baseline information on possible drivers of the usage of cryptocurrencies in the country.

Cryptocurrency trading goes on more in Nigeria than almost anywhere else in the world (Hain, 2021). Between 2015 to 2020, Nigerians reportedly traded nearly $600 million in Bitcoin (Ndukwe, 2021). Several foreign crypto Exchanges operating in Nigeria, have a combined transaction trade volume exceeding N4 Billion naira weekly (Amugo, 2021). Cryptocurrency thus is a $2 trillion market that cannot be ignored (Agama, 2021). According to Kumah and Odei-Mensah (2021) "while much of the focus elsewhere [on cryptocurrencies] has been on speculation, trading, and investment, Africa, more than any other continent, requires the utility of cryptocurrencies." There is an uptick in cryptocurrency usage, as more and more corporations and merchants are adopting cryptocurrencies as a treasury asset and a means of payment.

Cryptos are increasingly being embraced as a pseudo-currency used as an alternative to mainstream currencies with grave implications for monetary policy and macroeconomic aggregates. This is especially true in Nigeria as cryptocurrency is not without its challenges. First, they are not legal tenders and may pose an economic risk to economies. The level of cryptocurrency trading going on in Nigeria is very high. Apart from the United States, the country ranks as the second-largest Bitcoin market. This level of cryptocurrency usage despite the non-recognition by the Central Bank of Nigeria reflects a growing apathy toward other traditional forms of investment in the economy (Ndukwe, 2021). It may also represent the craving for investment outlets from a

very important demographic component of our society, the youth bracket.

On Feb. 5, 2021, the Central Bank of Nigeria (CBN), reechoing its January 12, 2017 stance; directed Nigerian banks to discontinue transactions with and in cryptocurrency dealing entities (Akuiyibo, 2021). The CBN circular stated that Cryptocurrencies are issued by largely anonymous entities and went on to state that "the CBN has no comfort in cryptocurrencies at this time and will continue to do all within its regulatory powers to educate Nigerians to desist from its use and protect our financial system from activities of fraudsters and speculators" (Central Bank of Nigeria, 2021). According to Amugo (2021), the ban was to allow the Central bank the opportunity to address the pseudonymous nature of crypto transactions. However, shortly following Nigeria's Central Bank 2021 restriction, cryptocurrencies continued to be traded and even at a premium on the Luno Exchange in Nigeria (Handagama, 2021). This reflects a growing appetite for virtual currencies in the country. The year 2020 was a tumultuous year for the economy, in addition to the Covid -19 effects on the economy, the resultant crude oil price crash, as well as the drop in foreign remittances, year on year CPI inflation rate of about 16%, the Nigerian Naira was also devalued twice at the Investors' and Exporters window, the economy re-entered a recession, restriction on the use of forex for some imports, the reintroduction of financial institutions $100 a month limit/ restrictions on foreign transactions. All these and other events drove Nigerians to hunt for alternatives through cryptocurrency thus propelling Nigeria to become the world's second-largest peer-to-peer (P2P) bitcoin market (Akuiyibo, 2021).

This growing usage is an issue of concern among policymakers. A developing literature has explored the adoption of crypto assets around the globe. For example the adoption of crypto assets has been examined in the literature for Japan (Fujiki 2020), China (Nadeem et al. 2021), Malaysia (Abbasi et al. 2021), and the Philippines (Doblas 2019). However, relatively few studies have devoted attention to measuring the adoption and use in Nigeria. The study aims to contribute to this literature and fill this gap in adoption of cryptocurrency in Nigeria by

conducting an analysis. This study examines crypto owner's demographic characteristics, purchase intentions of crypto-assets in Nigeria, and owners' level of understanding of the new asset class. This study employs several adoption factors (perceived ease of use, perceived usefulness, transaction processing, and security and control) to investigate the individual's intention to use Bitcoin in Nigeria. The rest of the paper is organized as follows. The next section reviews the literature, following the methodology which outlines the data collection procedure. The results and discussion deliberate on the findings of the survey. The final section summarizes the main findings.

Literature review

Nadeem et al.(2021) explored the factors that affect an individual's intention to adopt Cryptocurrencies in China. Utilizing a survey from 385 Chinese respondents' results showed the important implication of perceived ease of use on the individual intention to use Bitcoin and perceived usefulness. The authors opined that technology is more likely adopted by users if it is user-friendly, understandable as well as useful, which is consistent with past studies. Results indicate that the perceived ease of use influence was an important predictor of the perceived usefulness. In addition, the perceived speed of transaction processing was a significant predictor of perceived usefulness, consistent with prior literature. However, their study found that security and control were not important predictors of perceived usefulness.

Silinskyte(2014) study explored bitcoin usage among a small sample of 111 bitcoin users and non-users worldwide using the Unified Theory of Acceptance and Use of Technology (UTAUT) model. The study finds that respondents' expectations of the performance of bitcoins and the amount of effort required to adopt them inform the usage intention. Silinskyte(2014) also reports that facilitating conditions affect actual bitcoin usage.

Shahzad et al.(2018) study examined the usage behaviour of 376 Chinese inhabitants living in Harbin City of China as regards cryptocurrencies. Employing a structural equation modelling, findings

reveal that awareness and perceived trustworthiness constituted important determinants to measure a Chinese dweller's intention to use Bitcoin. Findings revealed a positive impact on awareness, perceived usefulness, perceived ease of use, and perceived trustworthiness as regards the intention to use bitcoins. Furthermore, the authors reported that a greater understanding of the functioning of crypto assets as well as greater trust levels among end-users could result in higher usage.

Schuh and Shy (2016) on the other hand explored this relationship using a representative sample of U.S. consumers. The study utilized data from the 2014-2015 Survey of Consumer Payment Choice. Findings showed a low usage rate of about 1% of consumers ever owning cryptos. Usage was driven by an investment motive. Results indicate that the expectation of an appreciation of a crypto asset influences adopters' intention to hold virtual currency. The study also finds that adopters use the currency as a means of payment as well as for remittance payments to other consumers.

Fujiki(2020) investigated the usage of crypto assets in Japan. Distinguishing crypto-asset owners from non-owners, the study examined the factors that differentiate the owners from each group from the rest**.** Utilizing probit models and multinomial logit models' findings reveal that adopters are more likely to be male, aged below 30 years, engaged in private or public companies, have higher pretax income, or be self-employed, and graduate compared with non-owners. The study found that adopters had higher financial literacy. While in respect of financial behaviour, adopters were overconfident about their financial literacy, impatient, lack self-control, and were less risk-averse than non-owners.

Jonker (2018) employed a large representative sample of retailers active in e-commerce to analyze the drivers of bitcoin usage in the Netherlands. The author discovered that although the use of crypto payments was limited (2 per cent), there was a major figure for online shops to embrace them. According to the regression study, people's willingness, net transactional gains, and views of how simple it was to receive crypto payments were significant predictors of how likely they were to use and accept them. The study identified a lack of consumer

demand as a major barrier to usage and concluded that it was unlikely that crypto usage will grow soon by online retailers. Jonker ascribed cryptocurrency's low utilization to the lack of defined value of crypto payments in comparison to traditional methods. Electronic transactions are beneficial to maintain consistency in economic transactions.

METHODOLOGY

Empirical Methodology

Survey design and pilot testing

The study first utilized a descriptive research design and utilizes a researcher-developed research instrument as a survey questionnaire. The empirical analysis is then based on the responses to a survey of crypto users in Nigeria. The measurement items for this study were modified from previously published studies. A number of adjustments were carried out for the present study. All the items were measured employing a 5-point Likert-type scale, ranging from 1 = strongly disagree to 5 = strongly agree. To ensure that the survey questions are well understood by participants and appropriate to identify respondents' perceptions, intentions, and views on crypto assets, a pilot survey was run in July 2021 and the survey was adjusted based on initial feedback from respondents. The final version of the survey was launched in August 2021 and the last responses were gathered in September 2021. The list of questions of the survey is provided in the Appendix. The survey questionnaire was shared with respondents in a survey link on crypto adopters' WhatsApp groups and the survey responses were collected via survey monkey software.

The Population of the Study

The population of the research includes all the users and adopters of crypto assets in Nigeria. Nigeria is ranked among the top 6 crypto users in the world.

Sampling Technique

Data was collected based on purposive convenience sampling from identified users of crypto assets in Nigeria. Respondents were

chosen based on one critical criterion, namely by virtue of their usage of crypto assets. The survey instrument was administered in crypto users' WhatsApp space.

This section presents the interpretations of the results followed by the findings of the study. The first sections identify the demographic profile of the respondents in terms of age, gender, and education. This is followed by questions on reasons for usage, while the final section explores the perception and awareness of adopters concerning crypto assets.

ANALYSIS OF QUESTIONNAIRE RESPONSE

After the close of the survey, descriptive statistics were employed to examine the demographics of the respondents. Overall, for the survey, 105 Nigerian-based Crypto users from two widely used crypto WhatsApp groups were collected. Of these 105, 102 were crypto users. this study opines those crypto restrictions by the Central Bank discouraged many active users from responding to the survey. However, given that these 102 adopters are significant and active users of crypto assets, the study will be able to discern important information from the respondents.

Figure 1 provides information on the age distribution of respondents. The largest share of respondents is from the 25-34 age bracket, representing 49.52% of the entire sample, followed by 35-44 (20%) and 18-24 (19.05%) and 45-54 (9.52%) while under 18 and those between the 55-64 age bracket represented 1% each of the overall sampled respondents.

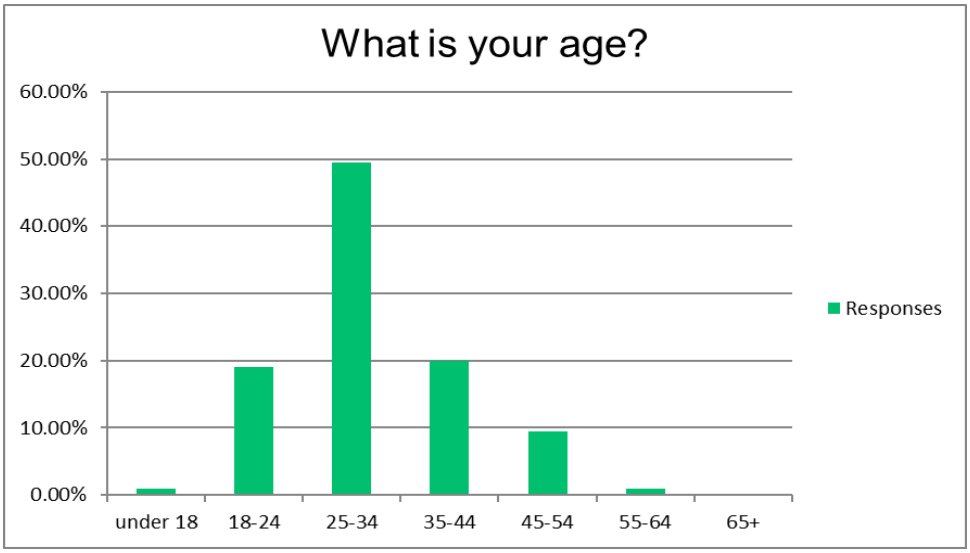


Figure 1: Showing distribution of respondents' age

In terms of gender, a look at Figure 1 reveals that the majority of the respondents are male at 87.62% (n=92) and only 12.38% (n=13) were female. Figure 2 offers information on the gender of the respondents while 4.3 presents users' level of education. A cursory look at figure .3 reveals that, out of the 105 respondents, only 13.3% (n=14) were educated to the secondary level while the remaining 86.67% (n=91) had tertiary degrees. This suggests that a large number of crypto assets users in Nigeria were young males predominantly under the age group of 25-34 and are highly educated up to the tertiary level.

The large disparity between the number of male and female respondents can be attributed to the notions and traditions of the Nigerian society where the questionnaire was administered and where women are assumed primarily not to be tech-savvy.

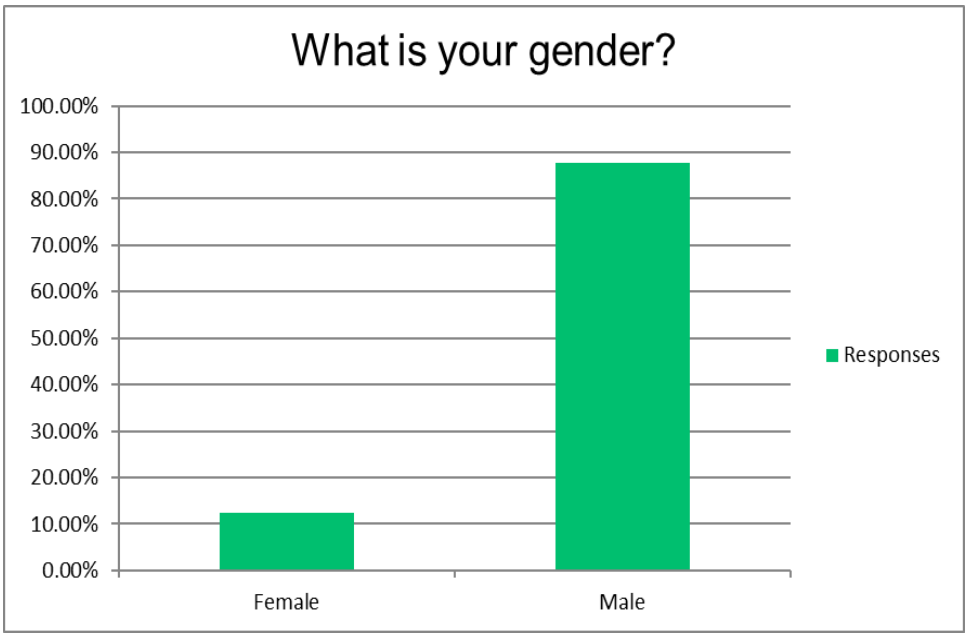


Figure 2: Showing gender distribution

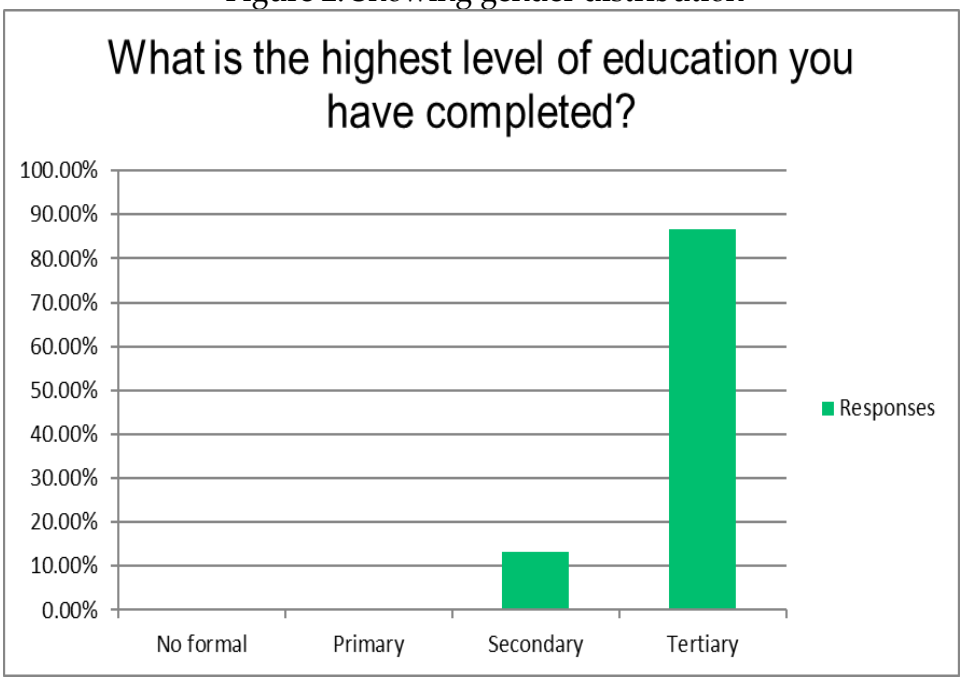


Figure 3: Showing distribution of respondents' education

The next focus of the survey is gaining an understanding of crypto users. Here most respondents 97.34% (n=102) reported that they have purchased cryptocurrency before. On what influenced their usage of crypto assets in Nigeria, results indicate that while 28.57% (n=30) were influenced by profit expectation, only 3.81% (n=4) use crypto assets as a means of alternative payment. While most of them, representing 67.62% (n=71) of the users was influenced by crypto assets potential as both an alternative payment system and also profit expectations. A key issue for consumers using virtual currency is their expectation of the asset. Thus, cryptocurrencies are attractive in Nigeria due to their attractiveness as an alternative currency and because of profit expectations.

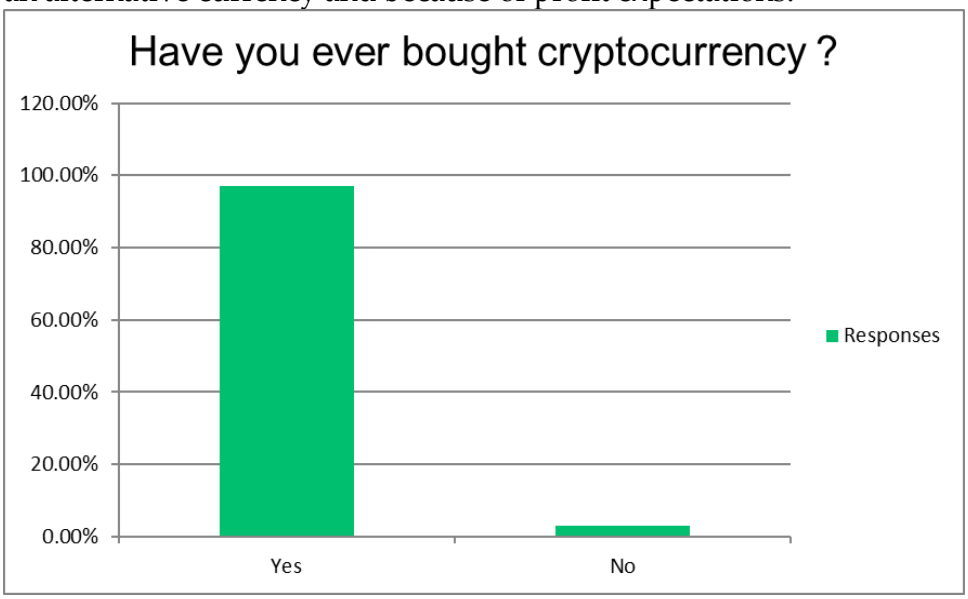


Figure 4.: Showing the Level of usage

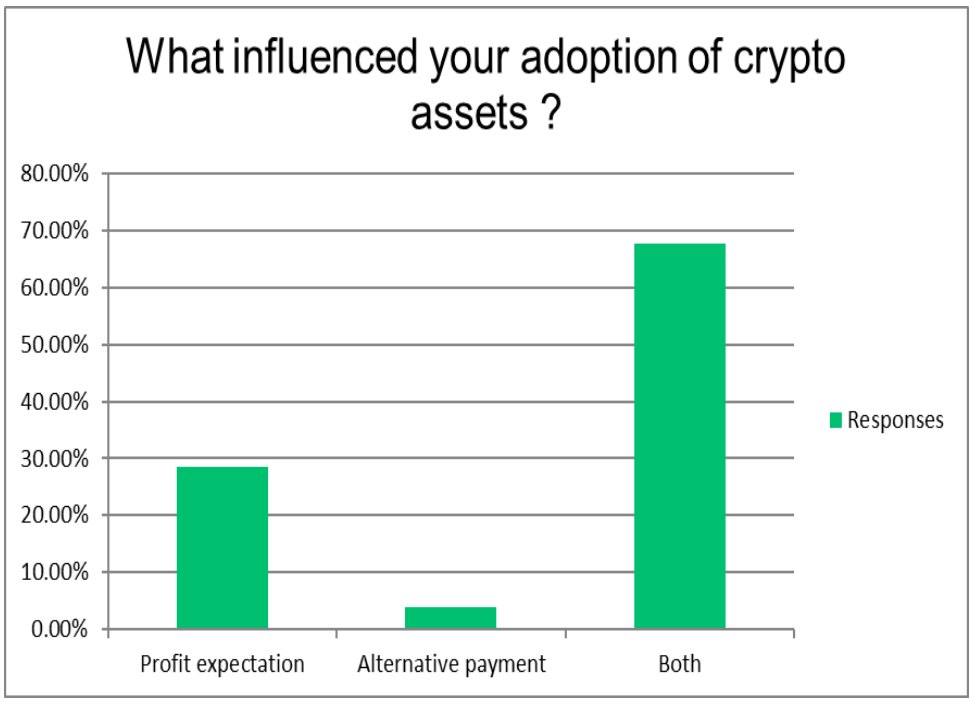


Figure 5: Factors that influenced the usage of crypto assets

Respondents' responses to the statements about their perception of crypto assets are discussed in this section. As presented in Figure 6, according to the respondents surveyed in this study, the majority (77%) of the respondents either agree or strongly agree that payment is cheaper with crypto- assets than under other methods.

As regards employing cryptocurrencies, the majority over 94% either agree or strongly agree that they are likely to use crypto assets as an alternative source of currency. The majority about 85% either agree or strongly agree that using crypto assets is desirable due to its ability to make users anonymous. Over 90% also either strongly agree or agree that using crypto payments is timesaving.

As regards respondents' perception of transaction processing. The ability of cryptocurrencies. Most of the respondents 99% either agree or strongly agree that crypto assets enable instant transfer of cash around the world. A further 80% also either agree or strongly agree that cryptocurrencies permit the transfer of small fractions of the amount.

Furthermore, about 77% either strongly agree or agree that crypto assets attract low transaction fees

As regards, respondents' level of awareness of crypto assets, the findings reveal that the majority representing 87% are aware of the concept of hash graph and blockchain that support cryptocurrencies. About 73% of respondents agree that they are aware of the difference between proof of work and proof of stake. While over 84% agree that they can distinguish between crypto coins and tokens. In response to the question on how much cryptocurrencies are, the majority strongly agreed with the perception.

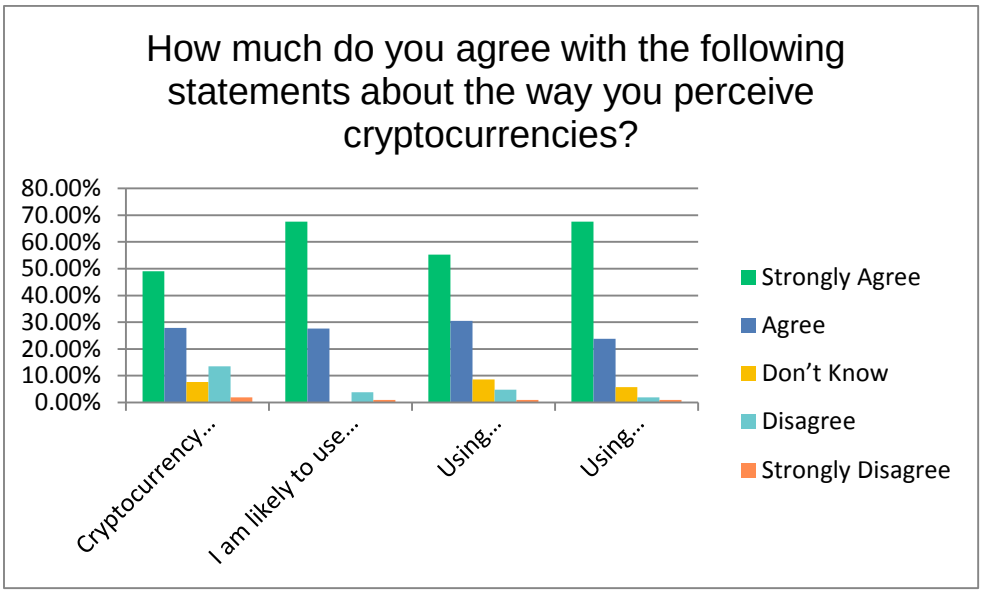


Figure 6: Showing distribution of responses on Perception of Cryptocurrency

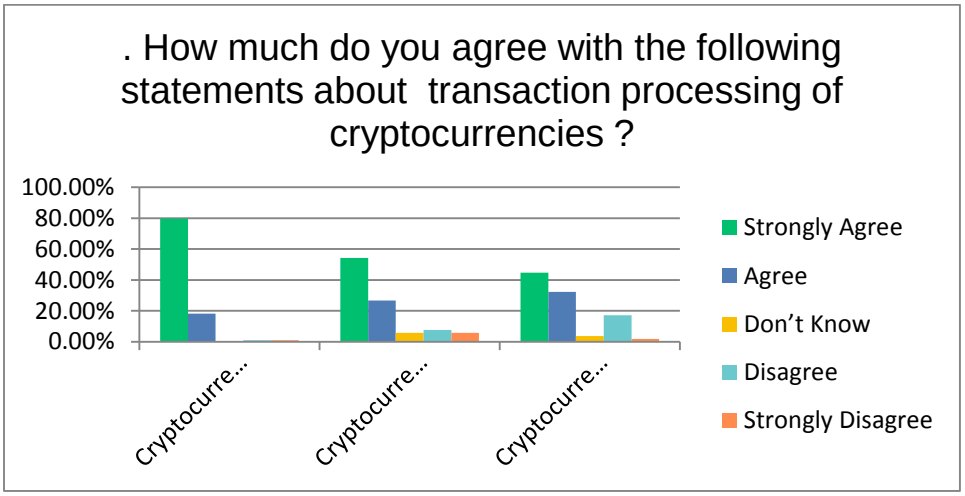


Figure 7: Showing distribution of responses on Transaction Processing

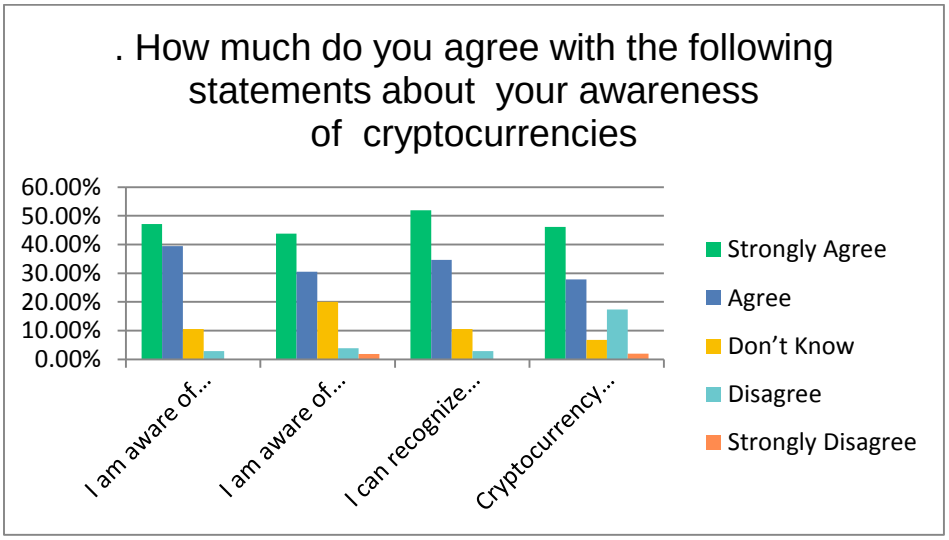


Figure 8: Showing distribution of responses to awareness

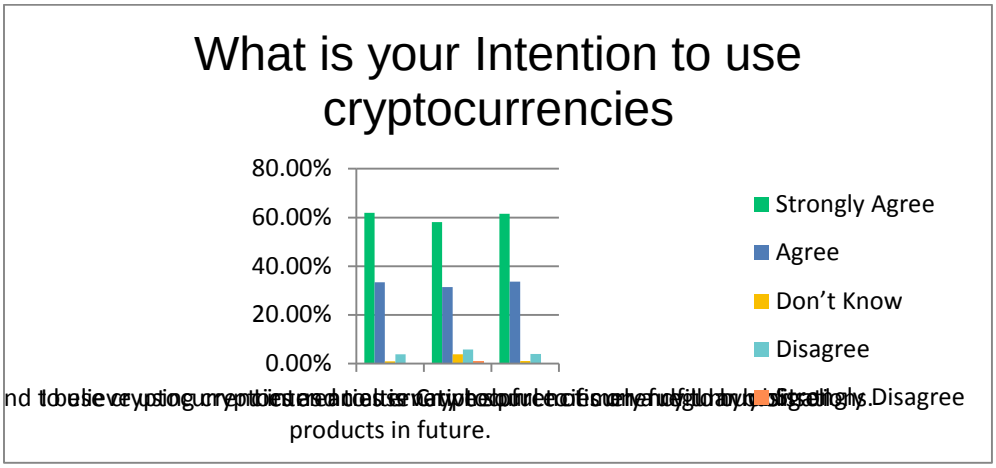


Figure 9: Showing distribution of responses on Future Usage of Cryptocurrency

CONCLUSIONS

This study uses survey responses from 102 crypto adopters to gain a deeper understanding of cryptocurrency adoption, the factors that affect their adoption decisions and their views/perceptions on the new asset class.

The study finds that the all of respondents (100%) have actively invested in crypto assets. In addition, vast adopters (87.62%) are male, highly educated to tertiary level (86.67%) and most (49.52%) fall between the ages 25-34. Here the vast majority of respondents (67.62%) adoption was influenced by crypto assets potential as both an alternative payment system and the profit expectation. The study has important implications for policymakers and the results presented in this study offer new insights into the academic literature on the implications for policymakers. However, due to the number of respondents, the study has limitations regarding the generalizability of the results so future research is needed to understand better the new asset class.

The embrace of the asset class by the youths of this country has huge implications for the future of this country and so it is important that further research be carried out where the government has recognized the asset class as an alternative payment system and

investment channel. The possible distortion the wide usage and investment can generate may have implications for the economy. The pseudonymous nature of cryptocurrencies has attracted youths and could encourage crime and money laundering activities that has effect on society and good governance.

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APPENDIX

Survey Questionnaire

The usage of Crypto assets in Nigeria

What is your age?

Answer Choices	Responses	
Under 18	0.95%	1
18-24	19.05%	20
25-34	49.52%	52
35-44	20.00%	21
45-54	9.52%	10
55-64	0.95%	1
65+	0.00%	0
	Answered	**105**
	Skipped	**0**

What is your gender?

Answer Choices	Responses	
Female	12.38%	13
Male	87.62%	92
	Answered	**105**
	Skipped	**0**

What is the highest level of education you have completed?

Answer Choices	Responses	
No formal	0.00%	0
Primary	0.00%	0
Secondary	13.33%	14
Tertiary	86.67%	91
	Answered	**105**
	Skipped	**0**

Have you ever bought cryptocurrency?

Answer Choices	Responses

		10
Yes	97.14%	2
No	2.86%	3
	Answered	**105**
	Skipped	**0**

What influenced your usage of crypto assets?

Answer Choices	Responses	
Profit expectation	28.57%	30
Alternative payment	3.81%	4
Both	67.62%	71
	Answered	**105**
	Skipped	**0**

How much do you agree with the following statements about the way you perceive cryptocurrencies?

	Strongly Agree		Agree		Don't Know		Disagree		Strongly Disagree		Total
Cryptocurrency payment is cheaper than other methods of payment.	49.04%	51	27.88%	29	7.69%	8	13.46%	14	1.92%	2	104
I am likely to	67.62%	71	27.62%	29	0.00%	0	3.81%	4	0.	1	105

use cryptocurrency as an alternative source of currency.									95%		
Using cryptocurrency is more desirable than money because of the anonymity of its users	55.24%	58	30.48%	32	8.57%	9	4.76%	5	0.95%	1	105
Using cryptocurrency for payments is time-saving and helps me to complete tasks more quickly	67.62%	71	23.81%	25	5.71%	6	1.90%	2	0.95%	1	105

		105
Skipped		**0**

How much do you agree with the following statements about transaction processing of cryptocurrencies?

	Strongly Agree		Agree		Don't Know		Disagree		Strongly Disagree		Total
Cryptocurrencies enables me to transfer money instantly all around the world	79.81%	83	18.27%	19	0.00%	0	0.96%	1	0.96%	1	104
Cryptocurrencies enables me to transfer	54.29%	57	26.67%	28	5.71%	6	7.62%	8	5.71%	6	105

a very small fraction of amount.											
Crypto currencies enables me to transfer money with low or no transaction fees	44.76%	47	32.38%	34	3.81%	4	17.14%	18	1.90%	2	105