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Chapter 9
Evaluating Knowledge, Perception, and Adoption of Enaira Among Rural Dwellers:
Implications for Central Bank Digital Currency Development in Nigeria

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ABSTRACT

E-naira is an electronic currency issued by the Nigerian government, controlled by the Central Bank of Nigeria, which was introduced in October 2021. The eNaira is the digital representation of Naira cash notes. This study assessed the knowledge, perception and adoption of eNaira among rural people and the impact on digital currency in Nigeria. A well-structured interview guide was adopted in this study wherein data was collected from 15 individuals and a focus group discussion consisting of 13 participants and the data was analyzed using thematic analysis. The study reported that the knowledge level of eNaira among rural dwellers is extremely low; all the participants have no knowledge about eNaira, their perception of eNaira is also negative and lastly the adoption of eNaira is influenced by several factors such as level of education, access to smart phones, digital literacy. The study recommended that relevant authorities to bridge the gap in information dissemination and implement educational campaigns to promote knowledge of eNaira for financial inclusion in the rural areas.

INTRODUCTION

The digital revolution, which involves increasing adoption of digital currencies and technology coupled with the emergence of digital era (Carstens, 2018; Ozili, 2022) have created a new global picture on money and central banks. With global economy now turning digital, the central banks around the world are analyzing the benefits of having a digital version of their national fiat currency which would replace their current currencies (paper money) because of inherent weaknesses in the existing payment systems and the need to improve financial inclusion (Kosse & Mattei, 2022; Bordo & Levin, 2017). According to the Grand View Research report, the global Fintech market size is currently on the way to touch the $460 billion mark by 2025, which will be achieved through an estimated compound annual growth rate of 23. About 8% of the market share is expected to be gained by 2025, as compared to 2020 (Grand View Research, 2021)

In addition to the physical currency, eNaira, which is a digital coin equal in value to the Nigerian Naira, and also designed to remain an occasional mode of payments and also as a store of economic value (Central Bank of Nigeria. 2021). The Central Bank of Nigeria (CBN) understands how electronic Naira (e-Naira) creates accessibility to financial services for Nigerians, overhauling intermediation and cutting down their fees, and facilitating cross-border payments (Adedipe, 2022).These aims accord with the general view of CBDCs that seeks to expand the efficacy and efficiency of payment systems and by so doing, to reinforce financial stability, to smooth monetary policy transmission, and to expand financial inclusion (Kosse & Mattei, 2022; Davoodalhosseini, 2021; Bordo & Levin, 2017).

Even though CBDCs may provide many opportunities, their successful exploitation depends upon a number of factors such as public perception, trust, and the extent to which individuals are willing to adopt digital money (Arli et al., 2021; Koziuk, 2021). This is of great importance in rural areas where people have limited access to traditional banks and digital infrastructure (Ozili 2022, Gopane 2019). The degree of knowledge, attitude, and awareness of eNaira in rural areas in Nigeria needs to be analyzed to evaluate the influence of the CBDCs on financial inclusion and the development of digital currencies in the country.

The narrative concerning CBDC was primarily reviewed in terms of their design, macroeconomic affects and possible monetary policy implications (Auer et al., 2021; Bindseil, 2021; Mancini-Griffoli, 2018). However, the factors that will ultimately lead to wider CBDC acceptance and adoption by different groups in the population, including underfunded economies such as Nigeria, remain unexplored. This study focuses on the missing link of the identified shortcomings by empirically examine the level of knowledge, perception and adoption of eNaira from the rural dwellers in Nigeria as well as its implications for the standing of the CBDC in Nigeria. The researcher focuses on rural dwellers because they are citizens of Nigeria and as such financial inclusion is also for them.

Research Questions

The following are the research questions for the study;
i.   What is the knowledge level of eNaira among rural dwellers?
ii.   What is the perception of eNaira to rural dweller sin Nigeria?
iii. What is the level of eNaira adoption and utilization among rural dwellers in Nigeria?
iv.   What is the implication on CBDC development in Nigeria?

The subsequent sections of the book chapter are organized as follows: Section 2 provides a comprehensive literature review, examining existing research on digital currencies, central bank digital currencies (CBDCs), and the adoption of electronic payment systems, with a focus on rural areas. In Section 3, the methodology is outlined, detailing the research design, sampling techniques, and data collection methods employed in the study. Section 4 presents the results of the study, including findings on the knowledge, perception, and adoption of eNaira among rural dwellers. Following this, Section 5 discusses the implications of the findings, exploring the potential impact of eNaira adoption on financial inclusion and economic development in Nigeria. Section 6 delves into the implications of the findings specifically for the development of CBDCs in Nigeria, considering policy implications and future directions. Finally, Section 7 offers a conclusion summarizing the key findings of the study, along with recommendations for policymakers and stakeholders, and discusses the limitations of the research and avenues for future research.

LITERATURE REVIEW

The Concept of Money and Evolution of Digital Currencies

The concept of money as a means of exchange, as a form of value storage, and as a unit of account has evolved over time (Brunnermeier & Niepelt, 2019). The emergence of digital technologies enabled the money concept to be put to test and a road to the world of digital currencies was opened (Carstens, 2018; Ozili, 2023a). Central bank digital currencies (CBDCs) provide for a new money form that is issued by central banks, their core features being the features of regular fiat currency but with the advantages advantage of digital technologies (Bordo & Levin, 2017; Kosse & Mattei, 2022).

The theoretical framework of CBDCs may be derived from the theory of "narrow banking" which was put forward by Fisher (1935) and it says that banks should hold 100% reserves against their demand deposits. The digitization of money and its transfer to digital platforms is made possible by the main idea of a central bank's digital currency that allows people to maintain their digital assets directly with the bank (Brunnermeier and Niepelt, 2019; Akindipe et al., 2023).

It is evident from many studies that CBDCs have the advantages as documented in the literature and thus have increased their popularity. CBDC can help increase financial inclusion by giving the digital communications systems' requirements to unbanked and under banked populations (Mancini-Griffoli et al. 2018; Ozili, 2023a). They may also enhance the effectiveness of the payment systems and security, facilitate the elimination of transactional costs, and relieve the pressure of cross border trades networks (Auer et al., 2022; Fernández-Villaverde et al. 2021). In particular, central banks could use CBDCs as a monetary policy tool regardless of the intermediaries of the financial sector (Bordo & Levin, 2017; Davoodalhosseini, 2021).

CBDC in Nigeria: The eNaira

As a debut CBDC in Africa, the eNaira was launched by Nigeria in October 2021, sparking major interest around the world. The eNaira which is an electronic version of the Naira will function alongside the Naira physically and serve as the platform for payment and store of value (Central Bank of Nigeria, 2021). One of the major objectives of the eNaira is to expand financial inclusion level, cutting down

processing cost, reduce cash processing, and improve banking standards in cross-border payments (Adedipe, 2022; Ogunrinde, 2023).

Ozili (2023a) maintains that the eNaira CBDC can increase financial inclusion in Nigeria by providing ease of account opening process, offering multiple types of financial services accessibility through digital means, delivering products and services at cheaper rates, eliminating bank charges that are not explainable, attracting those individuals who have lost their faith in banks and introducing interest-bearing eNaira via offline channels. The author thus points to the possibility of the eNaira to be the catalyst for digitalization and in the process, improve the speed and efficiency of digital payments. The author nevertheless cautions on cybersecurity, privacy, and the implications for the banking sector.

Since the eNaira was very recently launched, there is not a lot empirical research yet on its adoption and acceptance. Accordingly, there are some research projects that examine the economic and financial aspects of eNaira for the Nigerian economy and financial system. Oladejo and Akanbi (2022) research the modalities of the Nigerian bankers to the eNaira and find that while Nigeria's bankers recognize the potential benefits of the eNaira for financial inclusion and the payment system, they also have concerns about the impact of the eNaira on the banking system and the demand for appropriate regulatory frameworks and supervisions.

Furthermore, Ozili (2023b) highlighted the fact that the implementation of the eNaira would be gradual in nature and would work hand-in-hand with existing payment systems, while encouraging digital literacy, offering interest-bearing eNaira and an all-round non-disruptive approach to ensure its success among the masses, with a focus on financial inclusion. The author moreover argues that the eNaira should be allowed in the informal economy which make up for a very big part of the Nigerian economy.

Theoretical Underpinnings

To explain the knowledge, perceptions and acceptance of eNaira within the rural populace several versions of theory have been put forward. One of the theories widely studied is the TAM (Technology Acceptance Model), which was proposed by Davis (1989) and it elucidates the factors involved in the adoption of eNaira by the rural populace in Nigeria. According to the TAM, these people will act rationally depending on their perception of the new technology usefulness and ease of its use. Perceived usefulness is the degree to which rural dwellers believe that the eNaira will make things easier for them to access financial service and give them a better platform to carry out their financial transactions. In contrast, the concept of perceived ease of use captures the level of belief that the inhabitants of rural areas have about the lack of effort required to use the eNaira.

Another theory is the Unified Theory of Acceptance and Use of Technology (UTAUT), formatted by Venkatesh et al. (2003), and is a combination of various technologies acceptance models that explain user tendency and behavior. The UTAUT identifies four key constructs that influence technology adoption: performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy denotes the level which rural residents believe that the use of the eNaira platform will lead to the success of their financial efforts. Effort Expectancy conceptualizes the ease of accessibility and usability of the eNaira. Social influence implies that people in rural areas would feel that their significant others think they should utilize the eNaira. The creation of the favorable environment is an alternative term for this, which refers to the organizational and technical facilities which are available for the use of the eNaira. Among the theories is dissatisfaction theory of financial inclusion, proposed by Ozili (2020), that financial exclusion occurs when certain individuals become dissatisfied with actions of financial

institutions and exit the formal financial system. The eNaira, the CBDC issued by the Central Bank, could be an attractive alternative for rural dwellers who have lost trust in commercial banks and in that way, provide them with access to various financial services.

Review of Relevant Empirical Studies on Cryptocurrency and CBDC Adoption

It has been proved that trust is a core indicator of digital currency adoption. Schaupp and Festa (2018) conduct a survey to research the primary determinants of cryptocurrency adoption and the factors they reveal to be influential are the level of trust that users put in the technology and the allocation authority. These factors have a consistent pattern and appear to shape user attitudes and intentions. Arli et al. (2021) and Koziuk (2021) add more weight to the argument by stating that the potential users of CBDC might be reassured by the certainty of a solid backing coming from the central bank.

In the same vein, Auer et al. (2021) also carry out a survey on behalf of the Bank for International Settlements (BIS) and found that convenience, privacy, security, and interoperability are the most vital features making CBDCs popular. Bijlsma et al. (2024) investigate the subjective feature preferences for CBDC design in the Netherlands. They discern that the majority of people need privacy, security, and the ability to use the currency offline.

In his extensive analysis of the CBDCs literature on financial inclusion, Ozili (2022) highlights that electronic payment system access for the unbanked, transaction cost reduction, and cross-border remittances facilitation feature as the most important tools for using CBDCs to promote financial inclusion. Nevertheless, the author maintains that overcoming CBDC adoption barriers is key to their successful implementation, by improving digital literacy and infrastructure challenges.

Likewise, Fernández-Villaverde et al. (2021) establish a model to uncover the effects of CBDCs on the transmission of monetary policy and find that CBDCs can enhance the effectiveness of monetary policy by giving the central banks a direct channel to influence interest rates without having to go through intermediaries. Nevertheless, the authors also emphasize that the CBDCs may result in the consequential disintermediation along the financing chain, and increase the risk of bank runs if mis-designed.

METHODOLOGY

Data Collection, Preparation and Analysis

The study uses qualitative research design in its process of evaluation of knowledge and perception of eNaira among rural areas of Nigeria. The qualitative approach enables an in-depth dive into what the participants think and feel about the eNaira and their own experiences using it (Saunders et al., 2019). This type of research design is useful in discovering the relevant factors that encourage eNaira adoption in rural areas and the implications for CBN digital currency policy in Nigeria.

Population, Sampling Size, and Technique

The study was carried out in Ondo town, which was made up of Ondo West Local Governments and the market in Ife Central Local Governments. The project focused its study on 20 villages which were concerned in the rural areas of Ondo town like Fagbo, Bagbe, Igbado, Laje, Ogho, Odowo, Igunshin,

Asantan, Lobi, Litaye, Igbindo, Leyogho, Tokunbo, Ago'gbo, Obunkeko, Ilutitun, Temidire, Olorunsogo, Oloruntedo, and Erinla. Also, the research data was collected from Oja Oja Market and OAU Central Market in Ife Central local government.

Research Instruments

With the utilization of a designed interview document, 15 individual interviews were carried out just as one group focus session. The interview guide was prepared considering the aptness of the questions in the evaluation of knowledge, perception and usage of eNaira among the rural population. The questions were formulated using the research objectives as a guide to guarantee their relevance and clarity.

Table 1. Profile of the respondent

S/N	CODE	EDUCATION LEVEL	OCCUPATION	LOCATION	SEX
1.	Respondent 1	Modern 3	Cocoa merchant	Litaye	M
2.	Respondent 2	B.ed	Proprietress	Bagbe	F
3.	Respondent 3	NCE	Businesswoman	Moferere	F
4.	Respondent 4	SSCE	Trader	Igbado	F
5.	Respondent 5	SSCE	Fish trader	Moferere	F
6.	Respondent 6	SSCE	Trader	Oja tuntun	F
7.	Respondent 7	Primary school	Trader	Oja tuntun	F
8.	Respondent 8	HND	Cloth trader	Oja tuntun	M
9.	Respondent 9	NCE	Trader	Oja tuntun	M
10.	Respondent 10	SSCE	Trader	Oja tuntun	F
11.	Respondent 11	OND	Trader	OAU market	F
12.	Respondent 12	B.sc	Phone dealer	OAU market	M
13.	Respondent 13	SSCE	Trader	OAU market	M
14.	Respondent 14	Diploma	Trader	OAU market	F
15.	Respondent 15	SSCE	Trader	OAU market	F

The interview also includes 1 Focus Group of an Artisan group in Ondo with a total of 13 respondents.

Development of Themes

Table 2. Coding and development of theme

Theme one: Knowledge of rural dwellers on e-Naira	Theme two: Perception of rural dwellers on e-Naira	Theme three: Adoption of e-Naira among rural dwellers
		Categories: ● Facilitators to adoption ● Barriers to adoption

Techniques and Method of Data Analysis

Primary data was collected through well-structured interviews that were personally administered by the researcher to the rural folks in the chosen villages. The interviews were not only conducted for the stakeholders of the chosen local governments, but people who sell in these places. The qualitative data collection techniques used were valuable for coding, evaluation, and analysis of the product effectiveness. The guide for the questions was well-structured, with seven of them.

Thematic analysis was a strategy that was used for the analysis of the gathered interview data. The thematic analysis is a qualitative research tool that helps to discover, explore and report from text data, topics or patterns within the text of the study. This is the process of drawing out and encoding in a systematic way the important themes which act as a base for the storytelling which is the main reason for the data collection. Thematic analysis illustrates a way of presenting evidence of what are the primary themes in the data relevant to the research questions.

The interviews have been audio- and video-recorded along with the text transcription. The validity of transcriptions was next undertaken by contrasting to the recordings for the sake of fitting the accuracy and completeness. During the data collection procedure, the interviews were conducted in process of indigenous Ondo dialect and Yoruba language. Therefore, the transcription of the interviews was made in the English language by the researcher and then it was formed into code and themes to analyze the findings of the interview using atlas.ti.

Ethical Considerations

Ethical regulation and morality were addressed on all stages of research. The consent to take part in the survey was previously acquired from all the participants prior to the conversation. Participants were notified that the study was for informational purposes, the fact they were free to join or leave the study at their convenience and be sure about their right to withdraw at any time they wished. Confidentiality and anonymity were achieved by assigning numbers instead of names such that they would remain unknown to researchers. The data was secured and stored in a way it wasn't accessible to any of the other researchers but the researcher only. Thus, ensuring the participants' privacy and security of the information.

DATA PRESENTATION AND ANALYSIS

This presents the analysis and interpretation/discussion of the results of the study. Analysis of the data generated from the study in relation to the responses gotten during the interview session. The interview had 15 participants and a focus group of an artisan

The findings from this study are discussed in themes relating to the respondent's knowledge, perception and adoption of e-Naira among rural dwellers. Four main themes emerged. Theme one relates to the knowledge of rural dwellers on e-Naira, theme two describes the perception of rural dwellers on e-Naira, theme three describes the adoption of e-Naira among rural dwellers, which is further categorized into facilitators and barriers and theme four discusses the implication for CBDC development in Nigeria.

Theme One: Knowledge Of Rural Dwellers on e-Naira

The first theme of this study is knowledge about eNaira which is assessing the first objective of this study "assess the knowledge of naira among rural dwellers". E-Naira was proposed by the central bank of Nigeria. The eNaira is the digital equivalent of the cash Naira. Put simply, 'same Naira, more possibilities. This theme describes the respondents' knowledge on eNaira. None of the respondents were aware of the presence of eNaira and the focus group respondents also had no knowledge about e-Naira.

> "I've not heard that before" (Respondent 3)
> "Not at all" (Respondent 8)

There was a general lack of understanding on the concept and purpose of the digital currency. One respondent stated:

> "That should be goods we can sell in our environment right" (Respondent 4)

There was limited understanding among the respondents
One respondent stated:

> "What is that?" (Focus group respondent 10)
> "Who is that?" (Respondent 1)

Participants displayed no knowledge about the potential benefits or implications of eNaira for financial transactions in Nigeria.

It can be inferred that the level of knowledge of rural dwellers on eNaira in this study is extremely low. There is a complete lack of knowledge as eNaira is a digital currency, information dissemination through online channels may not effectively reach communities.

Theme Two: Perception of Rural Dwellers on e-Naira

This theme describes the perception of rural dwellers on the e-Naira. Perception goes a long way in accepting and adoption of e-Naira. The respondents mentioned that the e-Naira was not suited for their specific group showing their belief that it may not be beneficial for people living in rural areas, which becomes a barrier to adoption and the need for targeted educational initiatives.

> "This is strange" (Respondent 13)
> "I think it's not uneducated people like me" (Focus group respondent 5)

The respondents mentioned certain barriers which viewed their perception about the use of e-Naira. Some respondents mentioned their lack of education which colored their view on the use of e-Naira. Education can significantly influence perception (Bijlsma et al., 2024)

> "I think it's only educated people that can use it" (Respondent 4)
> "I think it's not for uneducated people like me" (Focus group Respondent 9)

A respondent mentioned that they preferred cash to online transactions therefore they were not interested in knowing about the e-Naira.

> "No, because I prefer cash, I know what I have at hand, what I can buy with it and when I've sold it, I can easily use the money for whatever purpose I want, its faster than pressing phones and that's why I think it's not easy for traders" (Respondent 4)

This negative perception also highlight the presence of digital divide among rural dwellers. This digital divide refers to the gap between individuals who have access to and use digital technologies effectively and those who do not.

> "I think it is limited to some set of people, due to the technology involved" (Respondent 9)
> "I have to learn how to use a smart phone first…" (Respondent 7)

It can be inferred that there is the existence of a perception that eNaira may not be well-suited for these specific groups (rural dwellers), indicating potential barriers to adoption and the need for targeted educational initiatives and infrastructure improvements to address these concerns. E-Naira may be affected by digital illiteracy (Ozili, 2023a) this agrees with the findings of this study

The perception of eNaira among rural dwellers can be deduced to be negative and this also goes a long way in affecting the adoption, this also affects achieving financial inclusion as one of the objectives of eNaira by the central bank of Nigeria. Perception plays a crucial role in the process of adoption (Bijlsma et al., 2024)

Theme Three: Adoption of e-Naira Among Rural Dwellers

This theme describes the adoption of the use of e-Naira among rural dwellers. One of the major objectives of the e-Naira is to aid the financial inclusion of individuals but based on this research, the respondents had mixed reviews which were further categorized into facilitators and barriers to the use of e-Naira which would either promote or affect financial inclusion.

Facilitators to adoption

Respondents mentioned that if they were taught on the e-Naira, it would improve their access and use of e-Naira. Early adoption may be required for financial markets to learn the technology. Fernandes et al., (2021)

> "There should be special training for rural dweller on how to access the e-Naira" (Focus group respondent 3)
> "I think people that are uneducated can be taught how to use the eNaira wallet, that way people will be able to use it for their transactions and know other benefits they can enjoy by using eNaira" (Respondent 3)

Some respondents stated that if the app was made user-friendly, they will be willing to use it.

"If the eNaira wallet app is made user-friendly" (Respondent 11)

"The server should be strong enough to ensure smooth operation of the application…" (Respondent 12)

"If they make the application easy to navigate" (Respondent 8).

One respondent mentioned that the government should create walk-in outlets to aid the use of the e-Naira. She stated:

"If the government can create an outlet for people especially the rural dwellers and the uneducated ones to walk in like a banking hall and do their transactions" (Focus group respondent 2).

One respondent mentioned financial inclusion, that more people in the rural area should use it.

"If they can get more to use it, it will be easier to use" (Focus group respondent 12)

"It can be easier if my customers use eNaira and the people I buy from also have the eNaira wallet, and then I'll be able to use it" (Respondent 4)

Barriers to adoption

Respondents stated that their lack of education was significant in the use of e-Naira. The knowledge and education in the village and communities might hinder the informal sector and individuals from participating from eNaira.

"No, I don't think e-Naira is easy to use because of lack of education…" (Respondent 2)

"I think it is only educated people that can use it" (Respondent 5)

Ozili (2022) stated that e-Naira is designed to work through simple channels, a segment of the population particularly the uneducated ones and those with unreliable source of internet may be unable to access e-Naira effectively.

Some respondents mentioned their lack of a smart phone as a barrier

"I have to learn how to use a smart phone first, maybe then I will be able to use it" (Respondent 7)

"…not everyone here can operate a smart phone" (Focus group)

"If it's a situation that I have a smart phone and I can use it" (Respondent 1)

A respondent mentioned that because her customers have not mentioned it, she was not interested in e-Naira.

"No, my customers have not mentioned it before, and I can't use it where I buy goods" (Respondent 10)

A respondent mentioned lack of awareness about the e-Naira could affect the use of it.

All these money we cannot see, I am not interested in it (Respondent 13)

Some respondent mentioned that because of their location in the rural area, adoption of e-Naira would be affected.

"…because this is a rural area, talking about the urban area, we can still say some can use it. Rural dwellers don't even want to use smart phones how will they use the eNaira without a smart phone, so it's something difficult to use in this area"(Respondent 2).

In summary can be inferred that the adoption of eNaira is influenced by several factors. Some respondents are willing to adopt the use of eNaira with some facilitators to aid their use of eNaira while some respondents cannot use it. It can be said that from result of this findings, eNaira cannot be fully adopted. Adoption of an innovation is thus the decision of the complete use of an innovation as the best course of action available (Bhutto et al., 2023).

Figure 1. The use of e-Naira among rural dwellers
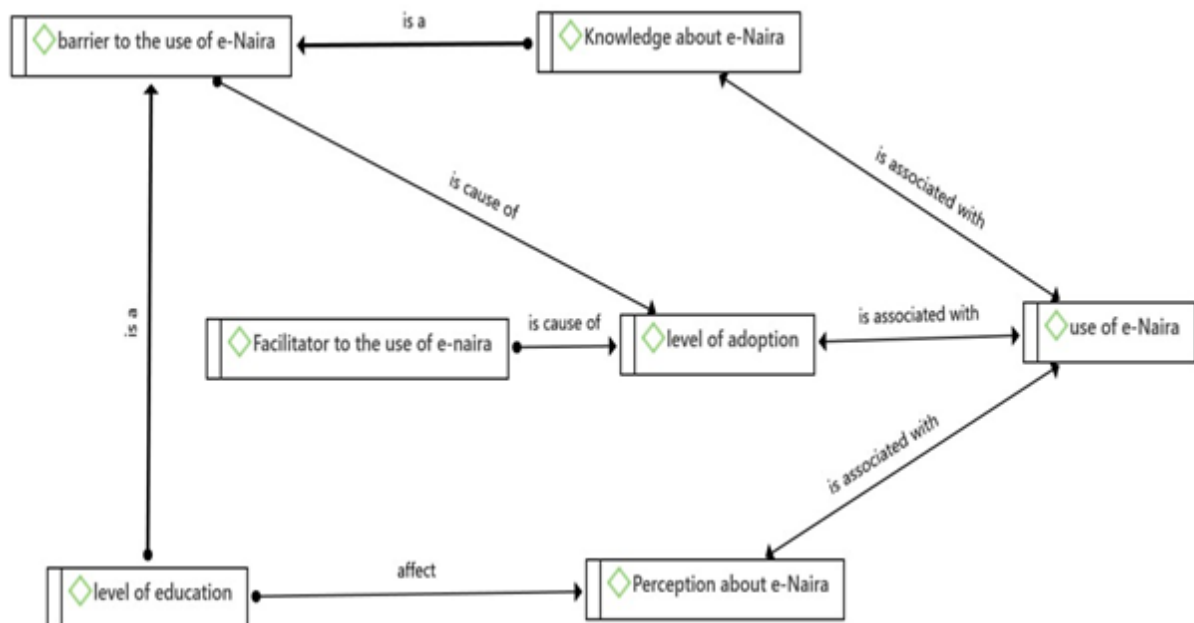
DISCUSSION OF FINDINGS

Level of Education Is a Barrier to the Use of eNaira

Education level can indeed be a potential barrier to the adoption of eNaira and the effective use of eNaira, Nigeria's digital currency which was introduced in 2021. The success and acceptance of any digital currency depend on people's understanding and ability to navigate the technology associated with it. Many people, especially in rural areas may lack the necessary skills and knowledge to understand how digital currencies work and how to use them effectively without adequate education and training on digital financial systems people may be hesitant to embrace eNaira as a viable payment option. Adegbite (2021) stated in a study that low awareness level of a technological innovation results in minimal or no use of such technology.

Knowledge About eNaira is a Barrier to the Use of eNaira is Associated With the Use of eNaira

The adoption of eNaira requires a basic knowledge on financial literacy and financial awareness. Users especially in the rural dwellers have to be comfortable using smart phones and other eNaira wallets, however not everyone is Nigeria has access to these resources particularly rural dwellers, this digital divide can result in people being excluded from participating in the digital economy and using eNaira as a means of exchange. Adegbite (2021) stated in a study that low awareness level of a technological innovation results in minimal or no use of such technology.

The Level of Education Affects the Perception about eNaira Which is Associated With the Use of eNaira

The level of education can significantly influence how individuals perceive and interact with technology. Education plays a vital role in shaping one's understanding and willingness to adopt and adapt new technological advancements. The level of education can affect the perception of eNaira in association to the use of eNaira. Education equips individuals with analytical skills enabling them to comprehend complex technological concepts better. "Education is the passport to the future, for tomorrow belongs to those who prepare for it today". - Malcom X

A well-educated person is more likely to be digitally literate understanding the benefits and functionalities of technology which can positively impact their perception of its usage and potentials. The study by Ogunmola and Das (2024) highlights that individual with lower educational attainment may perceive technology as more complex and have limited access to it, leading to a less favorable perception. The level of education also impacts digital skills as mentioned in a study by Bijlsma et al., (2024). Individuals with higher education typically possess more digital skills, making them more receptive to technology and its benefit.

The Barrier To The Use of eNaira is a Cause Of Level Of Adoption Is Associated With The Use of eNaira

One of the primary challenges for rural dwellers in adopting eNaira is the limited access to reliable internet connectivity and technological infrastructure. Without a stable internet connection, accessing eNaira wallets and conducting digital transactions can be difficult or even impossible. In rural areas cash-based transactions are often more prevalent and culturally ingrained and there may be hesitant to shift to digital currency. All these barriers are a cause to the level of adoption of eNaira in relation to the use of eNaira among rural dwellers. Awareness is a necessary condition for citizens' perception of ease of use and usefulness, not a direct factor in citizens' intentions (Ozili, 2023a; Bhutto et al., 2023).

Facilitators to the Use of eNaira is a Cause to The Level of Adoption Which Is in Association with The Use of eNaira

The facilitator to the use of eNaira is such a crucial factor influencing the adoption of eNaira. According to this research and the responses of the respondents the facilitators include: Education and awareness on eNaira, while education can be a barrier it can also be a facilitator. Raising awareness about the benefits of using eNaira and conducting educational campaigns can empower the people to understand and confidently use the central bank digital currency. Financial literacy training may mediate the perception of mobile money (Finau, 2016). User experience and a user-friendly interface play a vital role in encouraging people to adopt eNaira. One respondent mentioned that if the eNaira wallet is made user friendly it will enable their access to the use, another mentioned that if they make the application easier to navigate that it will enable their access to using eNaira.

IMPLICATION ON CBDC DEVELOPMENT IN NIGERIA

The findings from this research presented a large scale of work for the development of central bank digital currencies (CBDCs) in Nigeria. The rural dwellers' knowledge, awareness, and acceptance of eNaira helps them understand how to use and publish the CBN in its efforts to government and the Central Bank of Nigeria the successful implementation of CBDCs.

The main implication is that community-based educational projects should be conducted to better bring into focus and knowledge of eNaira to rural communities. The ignorance of eNaira and its potential benefits showcase the necessity of well-designed communication strategies and outreach programs. The Central Bank of Nigeria through partnership with state authorities, community leaders and media outlets need to let the public-know about eNaira and its prospects for improving financial inclusion and empowering economic activities.

Besides that, the digital divide needs to be taken into account and the infrastructure shortfalls of the rural areas should also be addressed. The obstacles to eNaira adoption, which include inaccessibility to smartphones and unreliable internet connectivity, demonstrate the need to have invested in digital infrastructure and provide multiple channels of eNaira access, say through USSD codes and the offline functionalities. Working together, the government and private sector can expand network coverage, promote digital literacy, and provide the user interface that local residents can readily understand and access.

Some of the respondents' negative perception of eNaira highlights the importance of building a trustworthy tangible link and confidence among the people for successful adoption of CBDCs. eNaira Central Bank of Nigeria must go through transparency, security and privacy in the plan and implementation stages of eNaira. Thus, interaction with rural communities by addressing community concerns and presenting factual benefits of eNaira through pilot projects and business stories can move perceptions and lead to acceptance.

CONCLUSION, LIMITATION, AND FUTURE WORK

The study assessed the knowledge, attitude, and adoption of eNaira by rural dwellers in Nigeria, as well as the policy implications of central bank digital currency (CBDC) development in the country. The survey results displayed that the information of rural dwellers about eNaira is at a very low level as no one out of the participants had a prior knowledge about eNaira. The rural communities in the eNaira project were found having a negative perception of the renewal currency, signifying that future adoption of the new currency is going to be hindered. The adoption of eNaira among rural communities was mainly influenced by several issues including how their existing business might be affected, availability of smartphones and technical skills, doubts about security and stability, and presence of eNaira users for easy transactions.

Education and awareness along with the simplicity of eNaira characterizes the primary focus of the assessment. The digital divide and infrastructure problem in poor areas should be addressed in order to ensure that everyone has an equal opportunity to participate in and benefit from the eNaira. However, the success or widespread adoption of eNaira is linked to its ability to gain implicit trust and high level of public confidence from the Central Bank of Nigeria and one way of achieving this is to focus on transparency, security, and privacy when the e-Naira is being planned or developed.

The findings of the research have a major signification for the development of CBDCs in Nigeria. Those in charge and the Bank of Central Nigeria should take the special ignored cases in the rural areas into consideration when putting in measures and policies eNaira. A multi-pronged or multi-stakeholder approach that seeks collaboration with local partners, financial service providers, technology companies, and civil society organizations, among others, is a must to guarantee the inclusiveness of the eNaira, and its responsiveness to local needs and aspirations as part of broader development goals.

Nevertheless, there are some shortcomings of this research that should be considered. The study was restricted to a particular geographical area where rural dwellers from Ondo town and two markets from Ife Central Local Government were the focus. The total size of the sample with 15 individual interviews and one focus group, may not represent the kind of lived experience of the entire population of the rural areas in Nigeria. Furthermore, the study resorted to the collection of qualitative data methodologies like interviews, which may be vulnerable to personal biases and subjective interpretations.

However, the study presents useful data on the knowledge, attitude and use of eNaira among rural inhabitants in Nigeria and the impact on the CBDC models. The future research 'must' be the expansion of the reach to a larger sample size in that case the research can be regarded as more comprehensive regarding the understanding of the adoption of the eNaira in the rural areas by the people of Nigeria. Furthermore, quantitative assessments also might be implemented in order to complement the qualitative data and to provide a more comprehensive perspective of the studied population.

Additionally, potential studies can investigate how educational activities and branding would affect eNaira acceptance among rural citizens. Studies could be conducted over long terms to follow the way how knowledge changed, perception developed, and adoption occurred, as well as a lot of different strategies would be applied to make e-naira usage wide spreading in the rural areas.

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KEY TERMS AND DEFINITIONS

CBDC (Central Bank Digital Currency): A digital form of central bank money that is different from balances in traditional reserve or settlement accounts. CBDCs are designed to be equivalent in value to physical currency.

Cybersecurity Provisions: Measures taken to protect digital information systems from cyber threats such as hacking, data breaches, and other forms of cybercrime.

Digital Divide: The gap between individuals who have access to and use digital technologies effectively and those who do not, often due to socioeconomic, geographic, or educational disparities.

Digital Infrastructure: The physical and virtual technology necessary to support the digital economy, including internet access, data centers, and communication networks.

Digital Literacy: The ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.

Digital Payment Systems: Platforms that facilitate electronic transactions, including the transfer of funds and payments, typically involving the use of digital currencies.

Effort Expectancy: The degree of ease associated with the use of the system.

Empirical Research: The process of collecting and analyzing data obtained through direct and indirect observation or experience, used to test hypotheses and build knowledge in various fields.

eNaira: The digital currency issued by the Central Bank of Nigeria (CBN), equivalent to the physical Naira. It aims to provide a platform for digital transactions and financial inclusion.

Financial Education Campaigns: Initiatives aimed at improving financial literacy and understanding among the population, especially regarding new financial technologies and products like CBDCs.

Financial Exclusion: The inability of certain individuals to access necessary financial services, often due to dissatisfaction with the actions of financial institutions, leading them to exit the formal financial system.

Financial Inclusion: The process of ensuring access to appropriate financial products and services needed by individuals and businesses to manage their money, effectively and securely, to build financial resilience and to grow.

Interoperability: The ability of different systems, devices, applications, or products to connect and communicate in a coordinated way, without effort from the end-user.

Perceived Ease of Use: The degree to which a person believes that using a particular system would be free of effort.

Perceived Usefulness: The degree to which a person believes that using a particular system would enhance their job performance.

Performance Expectancy: The extent to which an individual believes that using the system will help them to attain gains in job performance.

Privacy Settings: Configurations that control how personal information is used and shared by digital platforms, crucial for building trust in digital payment systems.

Programmable CBDCs: Central Bank Digital Currencies designed with specific features that allow for automation and adherence to regulatory standards, enhancing efficiency and compliance.

Qualitative Data: Non-numerical information collected through methods such as interviews, observations, and open-ended survey questions, used to gain insights into underlying reasons, opinions, and motivations.

Qualitative Research: A method of inquiry employed in many different academic disciplines, traditionally in the social sciences, but also in market research and further contexts. It aims to gather an in-depth understanding of human behavior and the reasons that govern such behavior.

Security and Trust: Critical factors in the acceptance and use of digital currencies, focusing on the protection of information and systems from theft, damage, or disruption.

Social Influence: The degree to which an individual perceives that important others believe they should use the new system.

Survey Methodology: A research method involving the use of structured questionnaires or interviews to collect data from a predetermined group of respondents to gain information and insights on various topics of interest.

Technology Acceptance Model (TAM): A model that explains how users come to accept and use a technology, focusing on perceived usefulness and perceived ease of use as primary factors influencing decision making.

Thematic Analysis: A method for identifying, analyzing, and reporting patterns (themes) within data. It minimally organizes and describes the data set in detail.

User Acceptance: The willingness of end-users to employ technology for the tasks it is designed to support, influenced by various factors including ease of use, perceived usefulness, and trust.

UTAUT (Unified Theory of Acceptance and Use of Technology): A model that explains user intentions to use an information system and subsequent usage behavior, incorporating performance expectancy, effort expectancy, social influence, and facilitating conditions.

APPENDIX

INTERVIEW QUESTIONS
DEPARTMENT OF FAMILY, NUTRITION AND CONSUMER SCIENCES
FACULTY OF AGRICULTURE
OBAFEMI AWOLOWO UNIVERSITY, ILE-IFE

This interview seeks to elicit information on knowledge, perception and adoption among rural dwellers. All information provided will be treated with strict confidentiality and sincere responses will be very much appreciated as this will go a long way to affect the validity of the final results.

Thanks for your anticipated cooperation

1. What is your occupation?
2. What is your highest level of education?
3. Have you heard about eNaira before?
4. What do think about eNaira?
5. Do you think eNaira is easy to use?
6. Do you think eNaira is useful for your business?
7. What can be done to make your access to eNaira easier?