Factors that Determine the Adoption of Nigeria's Central Bank Digital Currency (E-Naira)

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ABSTRACT

This study examined the factors that determine the adoption of e-naira, which is the Nigeria's Central Bank Digital Currency (CBDC). The study adopted survey cross-sectional research design and collected data using primary method through self-administered questionnaire from 400 students of ATBU, FUK, and FUGA. The collected data was analyzed using PLS-Structural Equation Modelling (PLS-SEM). It was found that perceived usefulness, social influence and awareness have significant positive influence on e-naira adoption in Nigeria. Based on that, the study concludes that Nigerians are more concern about the currency's practical benefits in their day to day financial activities and their adoption is driven by how they are aware of it as well as how the communities have confidence in its usage. Also, this study concludes that low awareness about eNaira is still a major barrier to its adoption as many Nigerians are not informed about the digital currency. In this regard, it is recommended that government through CBN should expand the practical applicability of eNaira by using it as a means of payment for youth empowerment, student loan among other social programs. It is also suggested that programs about eNaira should be promoted to trade associations, colleges or even NYSC so as to drive peer learning. Lastly, is advocated that awareness about eNaira should be accelerated through targeted, inclusive and multilingual campaign.

Keywords: CBDC, E-naira, perceived usefulness, perceived ease of use, social influence and awareness.

INTRODUCTION

Throughout the world, globalization of business atmosphere and the proliferation of internet usage as well as online purchasing habits have triggered the advent of digital currencies, which possess intrinsic properties of physical money while enabling prompt transactions across borders with supported devices and networks. With that, the financial landscape is radically transforming with the emergence of these digital currencies, which signifies a major shift from traditional forms of money like paper currency (Singh & Yadav, 2025). In this regard, central governments of both developed and emerging countries are increasingly taking steps to recognize digital currency institutionally through their apex banks as Central Bank Digital Currency (CBDC). Hence, governments are using CBDC to counter the challenges posed by private digital currencies like Bitcoin, Ethereum and Pi, which raise concerns over financial stability, monetary sovereignty, and the decentralized nature of these assets (Abdullahi et al., 2024). Therefore, CBDC combine the stability of traditional fiat currencies with the technological advantages of private digital currencies, while offering government greater control over monetary policy and promoting financial inclusion (Ozili & Nanez, 2024). Despite that, the rate at which these currencies are used by citizens in developing countries like Nigeria is abysmal which triggered the need for assessing factors that determines the adoption in this study.

Accordingly, different countries around the world, especially developed countries are launching their local CDBC based on their local policies and the need of their citizens. For instance, countries such as China with digital yuan, Sweden with e-krona, India with e-rupee, and the Bahamas with sand dollar have made significant strides in developing or implementing CBDCs (Bank for International Settlements (BIS), 2023). In September 2024, International Monetary Fund has reported that 134 countries accounting for 98% of the global economy were exploring CBDCs, with almost half in advanced stages of development. Pioneers such as China, the Bahamas, and Nigeria have already launched their digital currencies and are seeing increased usage (IMF, 2024). For developing economies, particularly in Africa, CBDCs present an opportunity to address long-standing issues such as financial exclusion and inefficient cash-based systems (Nawi et al., 2024). In Sub-Saharan Africa also, nearly 57% of adults remain unbanked, which limit their access to formal financial services and hindering the implementation of cashless policies (World Bank, 2020). Thus, CBDCs offer a potential solution by providing access to digital financial services that bypass traditional banking infrastructure.

In line with the expected benefits of CBDC across global economy, Nigeria has become first and so far the only African country to have introduced a digital currency of its own, referred to as the eNaira in October 2021. CBN issues eNaira as a distinctive kind of digital currency that has become an instrument of substitution along with a store of value and provision of more effective payments for purchases from retailers than cash payments (Abdullahi et al., 2024). It aims to enhance financial inclusion, it facilitates cross-border remittances, modernize Nigeria's payment system and helps in attaining the CBN's goal of achieving 95% financial inclusion among Nigerians in 2024 (Ozili, 2022). However, as of early 2024, only 700,000 individuals in Nigeria of the approximately 55 million financial accounts (representing 1.3%) have downloaded an eNaira wallet since the currency's launch in October 2021 (in accordance with Section 19 of the CBN Act), indicating an exceptionally low acceptance rate (Akinbanjo et al., 2024). This represents a very low rate of adoption by Nigerians after more than three years of its lunching.

Furthermore, despite being the first African country to launch a CBDC, only 0.5% of the Nigerian population had utilized the CBDC by the end of 2024, with 98.5% of registered wallets inactive, indicating widespread disinterest or a lack of understanding among potential users (CBN, 2024). In this regard, the success of this initiative depends on widespread adoption, particularly among tech-savvy younger populations and it heavily depends on understanding the behavioral intentions of potential users (Almawash & Saleh, 2024). Prior studies such as Nawi et al. (2024) and Jing et al. (2024) opined that TAM constructs (i.e perceived ease of use and perceived usefulness) are the most suitable predictors of digital adoption in different contexts. However, considering that eNaira in this context is not based on organizational context like other technologies, TAM does not take account of whether the citizens are aware of the technology or whether it is accepted by the peer groups. In this regard, this study extends Technology Acceptance model (TAM) with awareness and social influence as predictors of eNaira adoption among Nigerian youths.

Regarding the perceived usefulness, when users believed that CBDC is beneficial to improve their financial transactions, investment and overall financial system, this perception influences whether they will adopt and use the digital currencies in their financial transactions (Azmee & Azami, 2024). Users will be persuaded by the fact digital currency allows faster and more streamline transactions compare to conventional banking system. In addition, when individuals perceived simplicity and straight forwardness in interacting with digital currencies like CBDCs, they are convinced to us it for financial transactions because they believe they can easily learn, interact and perform transactions using digital currency platforms (Belmonte et al., 2024). Hence, perceived ease of use influences adoption of e-Naira among citizens. Furthermore, the general attitude toward digital financial system in society can affect the degree of digital currency acceptance and usage (Phuong et al., 2022). As such, when people who are important to the users (such as co-workers, family or friends) use or recommend a digital means of financial transaction, the new users are likely to follow their path so as to boost their status among peers (Upahyay & Pandey, 2024). Thus, social influence predicts eNaira usage. Lastly, awareness about digital currencies helps individuals and businesses in making informed decisions as they can make relevant and updated financial decisions when they understand digital currency (Onate et al., 2024). They believe it helps them minimize the risks associated with digital currencies such as market volatility.

Moreover, there is ongoing debate about how the technology adoption determinants influence digital currency adoption globally. For instance, Viviana and Mulyono (2021); Wardana et al. (2022); Nguyen et al. (2022); Belmonte et al. (2024) among others found that the determinants of TAM (usefulness and ease of use) significantly influence digital currency adoption in different contexts. In contrast, Nawi et al. (2024); Omar et al. (2022) found that the constructs do not contribute to the adoption. Also, large part of the studies were limited to the TAM construct only which open door for the present study to introduce social influence and awareness as contribution. Moreover, it was observed that numerous prior studies on the subject matter were conducted in other countries who adopt the CBDC long ago. With little emphasis in Nigerian context by the researchers, this study contributes by extending the subject matter into Nigerian context. Consequently, investigating the factors that determine the adoption of eNaira among Nigerian youth based on the premise of perceived ease of use, perceived usefulness, social influence and awareness will give insight for an informed policy formulation and improvement. This is because, understanding what encourage citizens to use eNaira will help CBN and other policymakers refine the implementation strategies, improve user experience so as to improve the adoption rate. Also, the study can provide a basis of addressing financial exclusion by accelerating the Nigeria's goal of financial inclusiveness. Furthermore, finding from this study will highlight the importance of eNaira awareness so as to improve CBN's outreach about the subject matter, which is crucial to massive adoption.

Research Questions

i. Does perceived usefulness significantly determine the adoption of eNaira by the Nigerian youths?

ii. Does perceived ease of use significantly determine the adoption of eNaira by the Nigerian youths?

iii. Does social influence significantly determine the adoption of eNaira by the Nigerian youths?

iv. Does awareness significantly determine the adoption of eNaira by the Nigerian youths?

LITERATURE REVIEW

Concept of eNaira (Nigeria's CBDC)

Enaira is a form of digital currency under CBDC that have been centralized under the Nigerian government regulation, allowing for the tracing of every exchange made on electronic payment platforms (Akinbanjo et al., 2024). It is a type of digital currency that is a direct liability of CBN and is denominated in the Nigerian unit of account which can either be account-based that rely on identification or token-based that allow for anonymity in payments using distributed ledger technology (Egbuna, 2022). The CBN issues eNaira as a distinctive kind of digital currency, which has become an instrument of substitution along with a store of value and provision of more effective payments for purchases from retailers than cash payments (Abdullahi et al., 2024). The eNaira will serve as a supplement to the traditional naira as a more, efficient and secured method of payment as well as increasing the efficiency of monetary policy, strengthen government ability to implement targeted social initiatives, and increase remittances through official channels (Ozili & Nanez, 2024). It is anticipated to reduce remittance costs, thereby making it simpler for Nigerians in abroad to remit money to Nigeria by acquiring eNaira from international money transfer operators and conveying it to Nigerian individuals via free wallet-to-wallet payments (Abdullahi et al., 2024). However, Egbuna (2022) stated that adoption of eNiara as Nigeria's CBDC will lead to loss of monetary control by the monetary authorities because virtual currencies not backed by any sovereign currencies attract zero interest rate, which is used by central banks to steer monetary policy.

Concept of Perceived Usefulness

Perceived usefulness is the extent to which a person or an organization believes that using a technology will enhance their performance (Wardana et al., 2022). It is therefore a factor widely used in the process of information system adoption and is seen as the degree to which users of new technology believe that using the technology would improve the work efficiency of that consumer (Widyanti & Usman, 2021). Equally, Viviana

and Mulyono (2021) considered it as the fact that users choose to adopt the service if they think the application can have a positive contribution. In digital currency context, perceived usefulness is the extent to which potential users or users believe that adopting or using digital currencies (such as cryptocurreencies or central bank digital currencies) is beneficial to improve their financial transactions, investment and overall financial system (Azmee & Azami, 2024). This perception influences whether people or organizations will adopt and use digital currencies in their financial transactions (Viviana & Mulyono, 2021).

Concept of Perceived Ease of use

Perceived ease of use is defined as the degree to which the user of technology believes that using a particular system would be free of effort (Nguyen et al., 2022). It is the extent of less effort involved in using this new technology (Jing et al., 2024). In the context of Fintech, perceived ease of use refers to the degree to which consumers feel relaxed and make efforts in the process of trying to learn to use Fintech services (Sharma et al., 2023). In the context of digital currency, perceived ease of use refers to how simple and straight forward individuals find it easy to interact with digital currencies like CBDCs or cryptocurrencies, which is one of the major determinants that motivate adoption (Belmonte et al., 2024). In view of that, perceived ease of use of digital currencies is crucial in influencing the users or potential users in adopting it for their financial transactions (Yang et al., 2021). This is due to its simple interfaces and clear processes, which reduces the chances of financial loss or any technical challenges (Nawi et al., 2024).

Concept of Social Influence

Social influence refers to the extent of how potential users of a particular technology believe on it's important based others' opinions in terms of adopting an information system (Upahyay & Pandey, 2024). It is also a construct which is based on the assumption that an individual's behavior is affected by the way people believe others will see them as a result of their technology experience (Handoyo et al., 2024). Regarding digital currency, social influence refers to the influence of society, peer groups, leaders and media communities have on individuals' attitudes and behaviors toward using digital currencies (Rahmiati & Susanto, 2021). As such, the general attitude toward innovation, technology and financial system in the community, family or peer group can affect the degree of digital currency acceptance and usage by individuals (Phuong et al., 2022). Furthermore, it is also believe that, when an individual believed a new technology and system would help maintain and boost his status in a group, he was more likely to use such a technology.

Concept of Awareness

Awareness involves knowing how these digital currencies work, their benefits, risks and their potential impact on the financial system and personal finance among citizens (Ulag & Dewi, 2020). It reflects the level of digital education, which is estimated by the familiarity with the digital rights and responsibilities, knowledge of usable techniques, as well as understanding of regulatory offences, penalties and fines (Apriliani et al., 2024). Thus CBDC awareness is an attitude of understanding corporate or individuals to understand the meaning, function and purpose of using digital currencies and other related e-money functions (Nguyen et al., 2024). It involves recognizing and understanding a particular issue, concept or trend. In the context of digital currency or, awareness means understanding the existence, functions and implications of digital forms of money like CBDCs (Onate et al., 2024). In this regard, awareness of digital currency fosters financial inclusion as it helps unbanked population to access financial services easier and understand legal obligations in the system to avoid unlawful acts (Salameh et al., 2023).

Conceptual Framework

Conceptual framework helps in explaining the relationship that the study strives to establish. It is a diagrammatical representation that shows the relationship between the variables (dependent and independent variable) of a study. In this study, the independent variables are perceived usefulness, perceived ease of use, social influence and awareness while the dependent variable is eNaira adoption among Nigerian youth.

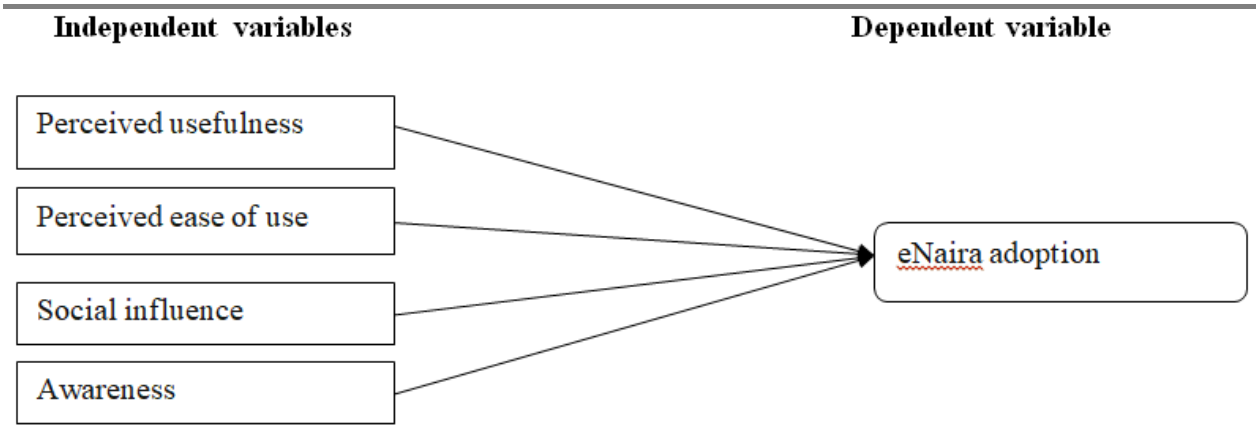

Figure 1: Research Framework

Empirical Review

Numerous studies were conducted to assess the factors that determine the adoption of digital currencies among other financial technologies around the world. Notable among the studies reviewed include Azmee and Azami (2024), which investigate factors influencing intention to use e-wallet in Malaysia. The study collects data from 394 respondents and analyzed using multiple regression with SPSS it was found that perceived usefulness and social influences have significant positive influence on intention to use e-wallet in Malaysia. Similarly, Wardana et al. (2022) examined the effect of perceived ease of use, and perceived usefulness on intention to use e-wallet in Indonesia. PLS-SEM was used to analyze the data collected from 225 respondents in the study area. It was found that that perceived usefulness, perceived ease of use and convenience has a positive and significant effect on the intention to use an e-wallet. In contrast, Omar et al. (2022) analyzed factors that influence customers' behavioral intention to e-wallet services at retail outlet in Malaysia. Data was obtained from 189 respondents and analyzed using multiple regression. It was found that perceived usefulness have insignificant influence on intention to use e-wallet while perceived ease of use and perceived risk have positive influence on e-wallet usage. Considering the contextual differences between Malaysia and Indonesia in the reviewed studies, this research considered Nigerian context for generalization.

Regarding the effect of perceived ease of use on digital currency adoption, Belmonte et al. (2024) explored factors influencing the intention to use e-wallet among generation Z and millennials in the Philippines. The study analyzed data from valid 120 respondents using PLS-SEM approach and found that perceived usefulness, perceived ease of use, perceived trust and perceived value have significant positive influence on the intention to use e-wallet in Philippines. Also, Sharma et al. (2023) examined the impact of service quality dimensions on behavioral intention to use FinTech payment services in India based on primary data collected from 578 respondents were analyzed using PLS-SEM. It was found that Perceived ease of use, perceived usefulness, attitude, quality outcome and quality assurance have significant positive influence on FinTech usage. Contrarily, Nawi et al. (2024) examine the factors influencing the intention to use e-wallets in Indonesia. Based on the data from 384 respondents and SmartPLS analysis, it was found that social influence and perceived ease of use did not have a positive impact on e-wallet adoption intention in Indonesian.

In addition, the relationship between social influence and digital currency adoption was deeply assessed in literature notable among them obtained favorable association like Khan and Abideen (2023), which examined the factors that influence behavioral intention to use digital wallets in Pakistan. The data from 450 digital wallet users revealed that social influence, perceived usefulness and ease of use have significant positive influence on intention to use digital wallets. In the same vein, Phuong et al. (2022) examined the extended UTAUT that incorporates trust and security as determinants of Gen Z's intention of using FinTech payment services in Vietnam. Data was collected from 568 Gen-z and analyzed using PLS-SEM statistics. It was found that performance expectancy, security, social influence, effort expectancy, trust, facilitating conditions had a significantly positive effect on the intention of FinTech platforms. On the other hand, Upahyay and Pandey (2024) examined factors that determine the intention to use e-wallet by customers during purchase in India. It was found that effort expectancy has significant positive effect while social influence, performance

expectancy, facilitating conditions perceived risk and perceived trust have insignificant influence of the intention in the study area, which will be extended in Nigeria by the present research.

Furthermore, the level of awareness regarding a particular digital means was considered by the previous studies as a major driver of its usage. For instance, Ulag and Dewi (2020) examined the effect of user awareness, user knowledge, perceived trust and perceived risk on intention to use Gopay in Indonesia. Primary data was obtained from 100 individuals who are actively using Gopay which was analyzed using multiple regression. It was found that user awareness, knowledge and perceived risk have significant positive influence on intention to use Gopay. Similarly, Onate et al. (2024) assess the influence of awareness on the acceptance of e-money among individuals in Balayan and Batangas in Philippines. It was found that awareness among other predictors have significant positive effect on acceptance of e-money in Philippines. Equally, Nguyen et al. (2024) investigate factors that determine e-payment continuance intention among youth in Vietnam. It was found from the 351 valid responses that familiarity, policy awareness and institutional surveillance have significant positive influence on e-payment continuance.

Theoretical Review

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is an information technology theoretic model developed by Davis in 1989, which is based on the theory of reasoned action and theory of planned behavior to propose a causal relationship between beliefs, attitude, intentions, and behavior for explaining and predicting potential users' acceptance of new technology. According to Nguyen et al. (2022), the model was originally intended to make up for the defects of the Theory of Reasoned Action (TRA) in 1986. It was proposed from the perspective of behavioral science, integrating expectation theory and self-efficacy theory, and is mainly used to study the behavioral intentions of individuals to use technology (Yang et al., 2021). The model divided the factors affecting individual behavioral attitudes into perceived usefulness and perceived ease of use, which are expected to have significant impact on the adoption of new technology (Davies, 1989).

In this context, TAM was considered to underpin the relationship between perceived usefulness, perceived ease of use and the adoption of eNaira in Nigeria. The model underpins usefulness and eNaira adoption because users might perceive the benefits of the currency in terms of being faster and more efficient transaction, lower the transaction costs, enhanced financial inclusion and improved security compare to cash or other forms of digital payment methods. Consequently, these expected benefits make individuals see eNaira as useful, which triggered its adoption and usage. Based on this premise, perceived usefulness is expected to have positive influence on eNaira adoption in this research. Secondly, perceived ease of use under TAM promotes the intention to use eNaira in the sense that when the citizens believed using the digital currency has simple registration and onboarding process, it has use-friendly mobile applications or digital wallets and it has seamless integration with existing payments systems, there is high likelihood they will adopt and use the digital currency.

Unified Theory of Acceptance and Usage of Technology

The Unified Theory of Acceptance and Usage of Technology (UTAUT) is a robust model developed by Venkatesh et al. (2003) to explain the user acceptance and usage behavior of technology. The model integrates the right and notable information technology acceptance models and it was argued to cover 70 percent of the technology acceptance behaviors, this implies a significant improvement over previous models. The theory comprises of four determinants related concerning to intention and usage which are performance expectancy, social influence, facilitating conditions, and effort expectancy (Handoyo et al., 2024). According to Upahyay and Pandey (2024), "performance expectancy is the degree to which an individual believes that using the system will help him or her to attain gains in job performance. Social influence refers to the degree to which an individual perceives that important others believe he or she should use the new system adopt. Facilitating Condition is the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system. Finally, effort expectancy is the degree of ease associated with the use of the system" (Venkatesh, et al. 2003).

The UTAUT model is used in this study to underpin the effect of social influence and awareness on eNaira adoption by Nigerians because the theory emphasized that social norms, pressure or recommendations promotes individuals' decision to use or adopt a particular technology. Therefore, when friends or families as peer group advocate the use of eNaira, it is likely that individuals will use it. Also, the intention to use the currency may be promoted by business leaders and financial experts' recommendation on its benefits in terms of efficiency and security. Hence, it is obvious that social influence can play a crucial role in fostering the use of eNaira. With regard to the awareness under UTAUT in relation to the intention eNaira adoption, the awareness helps users to recognize the available resources provided by the government (e.g. digital wallets, regulatory back-up and secured infrastructures) and support in order to reduce barriers to eNaira usage by the populace. Thus, the awareness enhanced facilitating condition of eNaira thereby encouraging individuals to use the currency.

METHODOLOGY

The methodology aspect of this research entails the research design, population, sampling approach, method of data collection and method of data analysis. The research design employed by this study is cross-sectional survey research design. It is a survey because it entails going to the field for data collection, while it is cross-sectional because it involves one time data collection from individuals. The population of this study is the number of students obtained from the ICT units of six major federal universities across six northeastern states in Nigeria. These universities include Abubakar Tafawa Balewa University (ATBU) Bauchi, Federal University Gashua (FUGA), Federal University of Kashere (FUK), Federal Universty Wukari, Modibbo Adama University of Technology (MAUTECH) and University of Maiduguri (UNIMAID). Based on the researchers' survey, these universities have about 119,750 students across various programs, which serve as the population of the study. The study used Taro Yamane formula to arrive at 399(approx 400) students as the sample size which were selected using cluster sampling of students randomly selected from ATBU, FUK and FUGA. In addition, the method of data collection was primary method using questionnaire distributed to the students in the aforementioned universities under study, while the inferential analysis and hypotheses testing was done using Partial Least Square-Structural Equation Modelling (PLS-SEM).

Model Specification

$$ENA = \beta_0 + \beta_1 PUS_i + \beta_2 PEU_i + \beta_3 SIN_i + \beta_4 AWS_i + \mathcal{E}$$

Where: ENA = E-Naira Adoption; PUS = Perceived Usefulness; PEU = Perceived Ease of Use; SIN = Social Influence; AWS = Awareness and $\mathcal{E}$ = error term.

Presentation of Results

A total of 400 questionnaires were distributed to the students in the selected universities within northeastern Nigeria. However, up to 298 questionnaires representing 74.5% were retrieved out of which 13 questionnaires representing 3.25% were rejected due to incomplete information of the respondents. This makes valid and useful questionnaires to be 285 representing 71.5%. The rate is considered appropriate 30% of the total response is considered adequate for survey analysis (Sekeran & Bougie, 2013).

PLS Path Model Result

Regarding the inferential statistics, PLS-SEM with SmartPLS software was used in this study for hypotheses testing. The PLS-SEM have two different stages which involve the definition of connections among the exogenous latent constructs and their indicators and it refers to as Measurement Model (MM). On the other hand, the second one is the measurement of Structural Model (SM) which defines the relation among endogenous and exogenous latent constructs (Hair et al., 2016). Accordingly, the MM was assessed using five criteria: including indicator reliability, internal consistency reliability, convergent validity, discriminant validity, and model fit evaluation, while the SM was used for hypotheses testing.

Indicator Reliability, Internal Consistency Reliability and Convergent Validity

Indicator reliability assesses the consistency of indicators in measuring their underlying latent construct. Basically, Hair et al. (2016) proposed 0.70 and above as the threshold of accepting indicator reliability or outer loadings of each latent construct. However, it is claimed that an indicator with the loading of 0.4 could be retained if its deletion would reduce the composite reliability. In this regard, out of the 32 indicators of the 5 variables in this study, only 20 items were retained thereby deleting 12 items in the process because they failed to meet the specified threshold criteria of 0.7or 0.4. Furthermore, internal consistency assessed how multiple indicators under the same construct yield consistent result (Ramayah et al., 2018). The reliability was assessed using composite reliability in SmartPLS based on the criteria that it should be 0.60 or more (Hair et al., 2016). Furthermore, convergent validity evaluates whether multiple indicators of the same variable are highly correlated and measure the intended construct. The most commonly used measure of convergence validity is the Average Variance Extracted (AVE), with a minimum threshold of 0.5. Accordingly, Table 1 presents the results of indicator reliability, internal consistency reliability and convergent validity of the retained indicators.

Table 1: Indicator Loadings, Composite Reliability, and AVE of Latent Constructs

Latent construct	Items	Item Loading	Composite Reliability(rho_c)	AVE
E-Naira Adoption	ENA1	0.742	0.807	0.514
	ENA2	0.836		
	ENA3	0.635		
	ENA4	0.636		
Perceived Usefulness	PUS3	0.807	0.884	0.657
	PUS4	0.831		
	PUS5	0.880		
	PUS6	0.715		
Perceived Ease of Use	PEU2	0.758	0.832	0.554
	PEU4	0.692		
	PEU5	0.789		
	PEU6	0.734		
Social Influence	SIN1	0.767	0.813	0.523
	SIN2	0.714		
	SIN3	0.776		
	SIN5	0.626		
Awareness	AWS1	0.863	0.827	0.551
	AWS2	0.658		
	AWS3	0.597		
	AWS6	0.817		

Source: Researcher's compilation with PLS-SEM 4.0

Accordingly, in line with the result depicted in Table 1 and Figure 2, the items' loadings range from 0.597 (AWS3) to 0.880 (PUS5), which means the values of the loadings are within the accepted threshold discussed earlier. The items with less than 0.70 were retained because their deletion reduced the composite reliability of

the latent constructs as suggested by Hair et al. (2016). Moreover, the composite reliability of all the latent constructs is displayed in the table ranged from 0.870 to 0.884, which exceeded the minimum of 0.60 thresholds for exploratory research, confirming that all the latent constructs had strong internal consistency. Furthermore, Average variance extracted values ranged from 0.514 to 0.657, which were also above the minimum threshold of 0.50, indicating that the constructs have strong convergence validity.

Discriminant Validity

This study used Fornell-Larcker criterion as the discriminant validity model established through a comparison of the square roots of AVEs and the inter construct correlations between constructs. Discriminant validity is the extent to which a particular latent construct differentiates itself from other constructs and it is computed to ensure that the scale used to measure a different construct is certainly measuring a distinct one (Saderst et al., 2021). The outcome demonstrates that the measurement model of this study has achieved good discriminant validity as depicted in Table 2.

Table 2: Discriminant Validity

	AWS	ENA	PEU	PUS	SIN
AWS	**0.742**				
ENA	0.456	**0.717**			
PEU	0.359	0.153	**0.744**		
PUS	0.296	0.568	0.461	**0.812**	
SIN	0.476	0.445	0.354	0.346	**0.723**

Source: researcher's compilation in PLS-SEM 4.0

Given the values of the above table, the first value of the awareness square root extracted variance is 0.742, which is greater than all the values of the shared variance between awareness and e-Naira adoption, perceived ease of use, perceived usefulness and social influence. For the e-Naira adoption, perceived ease of use, perceived usefulness and social influence, the root extracted variance were 0.717, 0.744, 0.812 and 0.723, were highly greater than the values obtained on its relationship of other constructs.

PLS-SEM Results of the Significance of Path Coefficients

The significance and relevance of PLS-SEM structural model were evaluated based on the t-statistics and p-values obtained using 10,000 bootstrapped samples in Smart PLS-4.

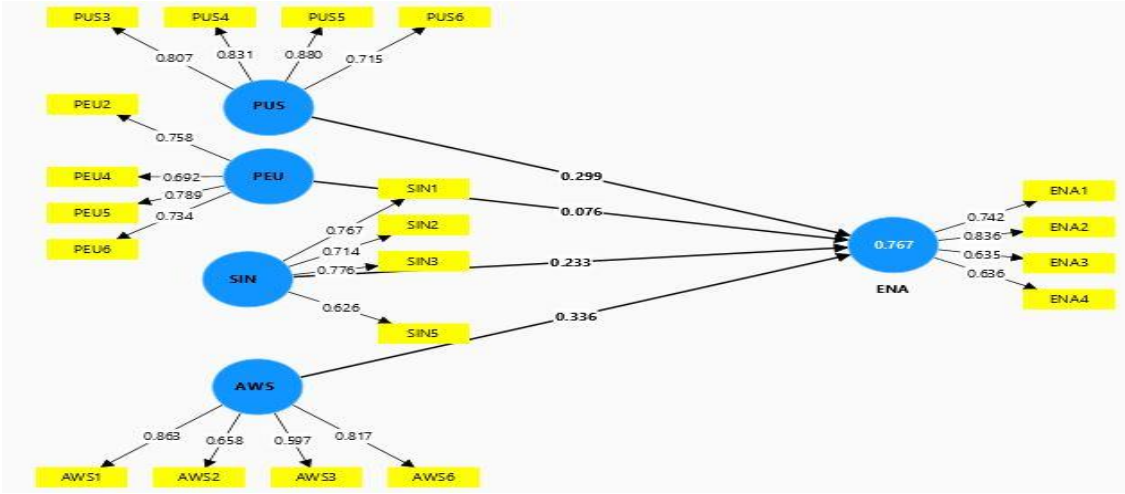

Figure 2: PLS-SEM Structural Model

Table 3: Structural Estimates

Hypotheses	Relationship	B	T statistics	P values	Decision
H1	**PUS -> ENA**	0.299	2.721	0.007	Accepted
H2	**PEU-> ENA**	0.076	0.809	0.419	Rejected
H3	**SIN -> ENA**	0.233	2.276	0.023	Accepted
H4	**AWS -> ENA**	0.336	2.891	0.004	Accepted

Note: Significant at the *p < 0.05 level; ** p < 0.01 level; and ***p < 0.001.

DISCUSSION OF FINDINGS AND HYPOTHESES TESTING

Discussion of studies' result presents the implication of the finding as well as the justification of the findings with previous studies. The first objective of the study assesses the influence of perceived usefulness on eNaira adoption in Nigeria. The result evident from PLS-SEM analysis revealed that, perceived usefulness of eNaira has significant positive influence on eNaira as the Nigeria's CBDC based on the coefficient and p-value of 0.229 and 0.007 respectively. This implies that the study is able to accept the first projected hypothesis, which predicted a significant influence of eNaira on its adoption and usage. In this regard, increase in the citizens' perception about eNaira will lead to an increase its adoption and vice versa. Accordingly, the result is supported with the finding Azmee and Azami (2024), which investigate factors influencing intention to use e-wallet in Malaysia and found a positive influence of perceived usefulness on intention to use e-wallet similar to this study. The result is also justified with Wardana et al. (2022) who examined the effect of perceived ease of use, and perceived usefulness on intention to use e-wallet in Indonesia and found a positive influence of perceived usefulness on e-wallet usage. The possible reason for this could be because Nigerian youth perceived e-Naira as a faster way to transact money without bank queues or delays associated with traditional banking. Hence, the need for speed, cost efficiency and trust which are associated with eNaira make them keen on adopting it.

In addition, the statistical analysis found a non-significant influence of perceived ease of use on eNaira adoption in Nigeria based on the coefficient of 0.076 and p-value of 0.419. Based on that, the second alternate hypothesis, which predicted a significant influence of perceived ease of use and eNnaira adoption cannot be accepted and is therefore rejected. Based on this outcome result, the usage of eNaira in Nigeria is not affected by the degree to which citizens perceived its ease of use through simplicity and interactivity. The possible reason for this result could be because the citizens and therefore the respondents in this study do not interact with eNaira platform which limits their ability to assess its effectiveness that can drive them to its adoption and usage. This result is supported and justified by the finding of Nawi et al. (2024) which examined the factors influencing the intention to use e-wallets in Indonesia. The study found among others that perceived ease of use does not predict that chances of using e-wallet among the citizens by having an insignificant relationship. The possible reason for this result could be because the Nigerian youth are not very well familiar with eNaira which limits their assessment on its simplicity. In contrast it may also be possible that their interactivity with other mobile applications makes the ease of use of eNaira not a matter of concern.

Furthermore, regarding the third objective, the PLS-SEM result showed that social influence has a strong positive interaction with eNaira adoption in Nigeria by considering the coefficient value of 0.233 and p-value of 0.023. In this regard, the third alternate hypothesis that projected a significant positive influence of social influence on eNaira adoption is accepted, which implies that increase in positive recommendation by peer groups will lead to higher rate of eNaira adoption in Nigeria and vice versa. In view of that, the result of is in line with the finding of Khan and Abideen (2023), which examined the factors that influence behavioral intention to use digital wallets in Pakistan. The outcome of the study shows a significant positive influence of social influence among others on digital wallet adoption among Pakistani citizens. Similarly, the result aligns

with Phuong et al. (2022) which examined the extended UTAUT that incorporates trust and security as determinants of Gen Z's intention of using FinTech payment services in Vietnam. The study found a positive influence of social influence on the adoption which is similar to the result of this study. The possible reason for this result could be because Nigerian youth are driven by a popularized activity especially things that are promoted by celebrities, which accepted by online communities, friends or classmates. Hence, when this peer groups accept eNaira, it is obvious that it adoption intent will increase.

Lastly, the forth objective of the research evaluates the influence of awareness on eNaira adoption in Nigeria. Based on the PLS-SEM result, eNaira adoption is positively influenced by the level of awareness among citizens evident from the coefficient and p-value of 0.336 and 0.004 respectively. Hence, the fourth alternate hypothesis that projected a positive influence of awareness on eNaira adoption in Nigeria is accepted and the null hypothesis is thereby rejected. This implies that increase in the level of awareness regarding eNaira among Nigerian citizens increases the extent of its adoption and usage, and vice versa. Accordingly, this result is in line with the finding Ulag and Dewi (2020) which examined the effect of user awareness, user knowledge, perceived trust and perceived risk on intention to use Gopay in Indonesia. It was found that the level of awareness about Gopay significantly promote the intention to use the digital payment service. In agreement, Onate et al. (2024) affirmed the finding on this relationship by assessing the influence of awareness on the acceptance of e-money among individuals in Philippines. It was found that awareness of e-money among other predictors have significant positive effect on its acceptance. The likely reason why awareness strongly promotes eNaira acceptance could be because many Nigerians are skeptical about new financial technologies especially rural and semi-urban areas due to fear of scam or fraud. Thus, greater awareness and campaign that clarifies the eNaira legitimacy obviously clear the doubt and uncertainty, which make the more willing to adopt.

CONCLUSIONS

This study aimed to investigate the factors that determine the adoption of Nigeria's CDBC (eNaira) considering that despite its importance and contribution to the economic well-being of Nigerians, the adoption rate is abysmally far below the government expectation. It therefore became pertinent to assess the drivers of its adoption so that the problem of financial inclusion and higher transaction cost can be mitigated. In this regard, numerous scientific approaches were employed to achieve the intended aim, which lead to the conclusions that are presented based on the study's objectives as follows:

Based on the fact that perceived usefulness of eNaira promotes its adoption, this study concludes that Nigerians are more concern about the currency's practical benefits in their day to day financial activities and their adoption is driven by how they are aware of it as well as how the communities have confidence in its usage. Furthermore, the study concludes that Nigerians will adopt and effectively use eNaira if they find it valuable and see clear benefits with its usage even if the platform is somewhat complex.

Secondly, as perceived ease of use does not affect eNaira adoption, it is also concluded that most Nigerians are already familiar with numerous modern financial technology and mobile banking adoption. Hence, complexity of eNaira could be does not pose a challenge to their adoption. It is also concluded that there is digital literacy gap among Nigerian citizens as the digitally literate segment finds eNaira simple due to familiarity with other FinTechs, the less tech-savvy segment especially people in rural areas see no difference in its simplicity due to lack of familiarity with any FinTech.

Furthermore, based on the fact that social influence fosters eNaira adoption, this study concludes that social media and influencers are the major drivers of creating a community that will see eNaira as a modern and advance mean of financial transaction thereby attracting youth to use it extensively. Moreover, it is asserted that social network and word of mouth is crucial in shaping the financial behavior of Nigerians because people are influenced by peers, family, classmates and media.

Lastly, in view of the fact that awareness is crucial in fostering eNaira adoption in Nigeria, this study concludes that there is still bad impression about eNaira among Nigerians due to fear of scam and fraud from online financial providers. Equally, low awareness about eNaira is still a major barrier to its adoption as many

Nigerians are not informed about the benefits and availability of the currency especially people from less developed communities, which contribute to lower rate of its usage in the country.

RECOMMENDATIONS

In line with the findings obtained and discussed earlier in this study, these recommendations were proposed for policymaking as follows:

i. CBN in collaboration with government should expand the practical applicability of eNaira by using it as a means of payment for youth empowerment, student loan among other social programs. This will promote the youths' interaction with the eNaira platform so that they will be more familiar with its benefits and applicability. Also, CBN should partner with fintech merchants to offer cahsbacks or discount exclusively for eNaira usage. This will promote the value of eNaira in the eyes of the citizens thereby accelerating the adoption rate regardless of its complexity.
ii. In addition, Nigerian government should make use of traditional rulers and religious or community figures to establish social network that will promote national campaign about eNaira usage and its benefits by organizing community-based events especially in rural communities. This will be important in fostering the adoption because it is easier to reshape someone's behavior when they see their role models are championing the product or service. It is also suggested that programs about eNaira should be promoted to trade associations, colleges or even NYSC so as to drive peer learning.
iii. Furthermore, it is advocated that awareness about eNaira should be accelerated through targeted, inclusive and multilingual campaign. This can be achieved by developing the promotion in multiple platforms like social media, radio and TV stations of federal, state and local government authorities. Also, regulatory authorities are advised to include eNaira education in financial literacy programs of commercial banks and National Deposit Insurance Corporation (NDIC). In this regard, extending public education, media campaign and financial literacy efforts are crucial for accelerating eNaira adoption rate.
iv. Lastly, government at federal level should require federal and state Ministries, Departments and Agencies (MDAs) to accept and process financial transactions using eNaira platform, while also integrating eNaira into pension and insurance platforms. Not only that, CBN should mandate other commercial banks to incentivize and onboard their merchants to accept eNaira. These institutional supports increase public trust about the digital currency and also signals seriousness by the authorities.

Suggestions for Future Study

This study makes a great effort in assessing the drivers of eNaira adoption in Nigeria. Notwithstanding, the study cannot go without some limitations that can hinder its generalization. In this regard, this study was limited to the responses of federal university students in three of the six states of northeastern Nigeria. Despite that, the result can obviously be generalized to the northeast and the Nigeria at large because the students of these universities came from various parts of the country. However, it will be more comprehensive if future studies can expand the scope of the study to other regions of the country so as to ensure effective generalization of the result across Nigeria. In addition, this study extended TAM with social influence and awareness only, which explains about 77% variation in the adoption. It will therefore be worthy for future researchers to extend the model with other determinants like compatibility, perceived risk, facilitating condition. Furthermore, considering that despite the low-level of eNaira awareness in Nigeria, the extent of trust can also become a barrier simultaneously with other predictors. Hence, it will be important if studies consider trust as a moderating variable in the future.

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