A Survey of Central Bank Digital Currency Adoption in African countries

Ozili, Peterson K

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Peterson K. Ozili

Abstract

The paper presents a survey of central bank digital currency (CBDC) adoption in African countries. Secondary data based on desk research were used to conduct the survey. Data for each African country were collected from publicly available information about each country's interest and efforts in issuing a central bank digital currency. The survey shows that 70 per cent of African countries have not shown any interest in central bank digital currency. The West African region has the highest number of countries that have not shown any interest in central bank digital currency. Only 4 African countries have a robust payment system infrastructure that can support central bank digital currency. Only 14 African countries have officially indicated interest in central bank digital currency. Only 13 African countries have announced that they are studying central bank digital currency to determine whether they will pursue central bank digital currency as a short-term or long-term goal. Only 4 African countries have reached the pilot test stage of issuing a central bank digital currency. Finally, only one African country has formally issued a central bank digital currency. The policy implication of the findings is that there is low interest in central bank digital currency in the African continent. The low interest in central bank digital currency in African is attributed to the strong preference for cash payments, lack of a robust payment system, low use of digital payments, central banks' focus on other priorities, fear of failure, lack of government interest in digital currency and concerns about CBDC privacy risk and security threats. These factors can slowdown the level of development and economic inclusion in African countries. There is need to accelerate the issuance of CBDC in African countries.

Keywords: central bank digital currency, CBDC, Africa, blockchain, distributed ledger technology, CBDC survey.

JEL code: E42, E58, G21, G28, O33, N17.

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1. Introduction

This paper presents a survey of central bank digital currency adoption in African countries.

After independence, many African countries introduced many initiatives to spur development and economic inclusion. Some examples of these initiatives are industrialization schemes, financial sector development initiatives, mineral resources development initiatives, agricultural schemes, amongst others. Some of the initiatives failed while others succeeded. Two decades ago, another type of initiative emerged to spur development and economic inclusion in African countries. This initiative is the digital transformation of the economic system in African countries.

Recently, many African economies have begun to witness digital transformation. They want to harness the potential of digital technologies to spur development and economic inclusion particularly in the financial sector and in the payment systems (Enaifoghe, 2021; Madichie and Hinson, 2022). These digital transformations are not only transforming international trade and the financial sector, they are also transforming the nature of money and how people engage with money (Westermeier, 2020). One notable digital transformation of money is the evolution of digital currencies.

Digital currency is simply money in electronic form. Its ability to be used as a medium of exchange depends solely on whether the transacting parties agree to use a digital currency as a medium of exchange. Digital currency can be private or public depending on whether the issuer is a private entity or a central authority. A common type of private digital currencies are cryptocurrencies. Examples of cryptocurrency are Bitcoin, Ethereum, Litecoin, etc. The emergence of private digital currencies in African countries, and the growing interest in private digital currencies for transactional and speculative purposes by African citizens, have led some African central banks to gain interest in a type of digital currency which they can issue and control centrally. This type of digital currency is commonly known as a central bank digital current]cy. As the name implies, it is a digital currency issued by the central bank.

A central bank digital currency is a digital currency issued by the central bank and is a direct liability of the central bank (Bossu et al, 2020; Ozili, 2023). In Africa, some central banks have

begun to conduct research into CBDC, others have launched CBDC pilot tests while others are still in the process of determining whether issuing a central bank digital currency is a sound objective to pursue or to ignore the idea completely. The literature shows that there is a strong case to issue a central bank digital currency in developing countries. For example, it can spur development in areas where paper money has failed to spur development, it can increase financial inclusion, it can increase remittance inflows, it can increase tax revenue, it can improve welfare allocation decisions, it can reduce financial crime and reduce cash-based money laundering, it can eliminate tax evasion when CBDCs are used widely, and it can improve monetary policy functions (Bordo and Levin, 2017; Ozili, 2022c; Wadsworth, 2018; Ozili, 2023). These benefits present a strong case for African countries to issue CBDC. Yet, the unique problems faced by African countries, such as underdeveloped payment systems, cyber-crime, digital illiteracy and poor infrastructure, raises questions about whether Africa is ready for CBDC just yet. There are also concerns as to whether African countries have the resources to mitigate the risks associated with issuing a central bank digital currency, most of which are unknown yet.

Despite these concerns, few central banks in African countries have reached an advanced stage in issuing a CBDC. For these central banks, the major concern is how to design a central bank digital currency that can be delivered through existing digital payment infrastructure in African countries. Other African central banks are either not interested in issuing a CBDC just yet, or they want to develop a central bank digital currency at their own pace and without pressure. For this reason, it is expected that each African country will develop its own central bank digital currency at its own pace depending on their interest in CBDC. Some central banks may take a bold step to develop a central bank digital currency within a short time, others may take a longer time, while others may not issue a central bank digital currency due to legal bottlenecks that prevent a central bank from issuing a digital version of fiat paper currency.

This study contributes to the literature in the following way. First, this study contributes to the economics literature that explore alternative monetary systems (see, for example, Othman et al, 2020; Seddon, 2021; Lin et al, 2020). The present study contributes to this literature by using a survey to explore the readiness of African central banks to issue a CBDC that can act as an alternative form of money in addition to traditional paper money. Second, the present study

contributes to studies that examine how the digital revolution is changing the financial landscape in developing countries (see, for example, Ozili, 2018; Hanson et al, 2020; Mitha et al, 2020; Gupta et al, 2017). This study contributes to this literature by showing how digital money can change the nature of money in African countries. Finally, this paper contributes to the literature that explore the role of central banks in fostering digital monetary systems in several countries (e.g. Allen et al, 2020; Ozili, 2022b; Armelius et al, 2020).

The rest of the paper is structured as follows. Section 2 discusses the growing interest in central bank digital currency. Section 3 presents a brief highlight of the policy literature on central bank digital currency. Section 4 presents the survey. Section 5 summaries the result of the survey. Section 6 concludes.

2. Related Literature

2.1. Studies on the determinants of economic development and inclusion

Existing studies have examined how digitalization can spur development and economic inclusion in African countries. van Rensburg et al (2021) point out that, despite the digital revolution occurring in many countries, African countries is to some extent still chained to its past, with many African countries still having many unresolved problems such as poor education systems, weak infrastructure, high levels of poverty, high levels of unemployment, and a poor policy implementation record. van Rensburg et al (2021) show that some technological progress exists in few African countries and such progress need to be harnessed and scaled up if the digital technologies are to make a significant difference to most African societies. Nwaiwu (2021) examined the digitalization of the energy sector in Africa, and show that Africa is still in the early stages of adoption and application of digital technologies within the energy sector. The author show that there is a disconnect between the policy environment and industry efforts to adopt and apply digital technologies in the energy sector. Nwaiwu (2021) also show that Africa's sustainable energy transition is in a rudimentary or early adoption stage, and the sustainable energy transition is not aided by the policy environments in which such projects are domiciled.

Bate (2021) examined the effect of digitalization on tax revenue mobilization in Africa. They show that the digitization of tax revenue has both a positive and significant effect on tax revenue mobilization in Africa. Specifically, Bate (2021) observed that the type of economic activity, level of education, financial and industrial development are the channels through which digitalization affects tax revenue mobilization in Africa. The author recommends that policy makers should promote the digitalization of African economies for better tax revenue mobilization, and they should formulate policies with a focus on the factors that lead to economic growth, human capital formation, financial and industrial development. Solomon and van Klyton (2020) examine the impact of the use of digital technology on economic growth for 39 African countries from 2012 to 2016. They find that individual ICT usage has a more significant positive impact on economic growth. The finding suggests that access to ICT should be granted to individuals so that they can use ICT to engage in economic activities that increases economic growth.

Aker and Mbiti (2010) show that access to and use of mobile telephony in sub-Saharan Africa has brought new possibilities to the continent by using mobile phones to connect individuals to individuals, information, markets, and services, and these effects are profound in rural Africa. They also show that mobile phones have greatly reduced communication costs, thereby allowing individuals and firms to send and to obtain information quickly and cheaply on a variety of economic, social, and political topics. Zamfir (2015) show that the use of information and communication technologies (ICT), especially of mobile communications, has increased significantly in Sub-Saharan Africa, and digital devices are becoming more affordable. Zamfir (2015) argued that general literacy and digital skills across the population need to be improved in order for African countries to fully reap the benefits of digitalisation. They argue that ICT is having an impact on many sectors of the economy, from access to basic amenities like electricity supply and clean water, to financial transactions, and ICT has been a major driver of economic growth and an important contributor to public budgets.

In South Africa, Aguera et al (2020) show that the application of advanced digital technologies such as machine learning, artificial intelligence, computer vision, remote sensing, unmanned aerial vehicles, and the Internet of Things have the potential to transform the agricultural sector in South Africa under the right enabling conditions. They argued that agriculture can be digitized

by the conversion of measurements of agricultural inputs and outputs into digitally stored data for use in automated systems and applications that provide information and assist decision-making. They also argue that the digitalization of agriculture can help to address food security challenges, create jobs, and address historical inequalities in South Africa. Chukwueren (2017) point out there are on-going discussions on the decolonisation of the education system and other sectors in South Africa. Chukwueren (2017) also point out that there are calls to decolonize the entire education system in south Africa. Chukwueren (2017) then argued that the decolonisation process cannot be complete without the recognition of African indigenous knowledge systems, and the integration of the African indigenous knowledge systems cannot be effective without digitalization. Overall, these studies show that digital transformations can help to spur development and economic inclusion in African countries.

2.2. Literature on Central Bank Digital Currency

In the literature, there is growing consensus that the emergence of central bank digital currencies, and the benefits that come with it, can disrupt the demand for private digital currencies such as Bitcoin. Wadsworth (2018) show that central banks want to take advantage of blockchain technologies to develop digital currencies that can help them perform their core functions more effectively. Boar et al (2020) suggest that central banks may need to collaborate with each other to better understand the impact of private digital tokens for central bank digital currency payments.

Regarding the design of central bank digital currency, Bossu et al (2020) show that central banks have to choose between a token-based central bank digital currency and an account-based central bank digital currency, and the legal treatment of the two types of central bank digital currency will depend on the design features of the central bank digital currency. Rahman (2022) suggested that a central bank digital currency can be designed to be decentralized. The decentralized central bank digital currency will be controlled by many central banks together and can only be used for international transactions between member countries. they further argue that a decentralized central bank digital currency system can provide international liquidity for member countries and make the whole international monetary system more stable. Fuchs (2022)

showed that the central bank can introduce an interest-bearing central bank digital currency which will provide a payment system that is superior to cryptocurrencies. Fuchs (2022) argued that miners of cryptocurrencies will not be able to match the central bank digital currency interest rate and will go bankrupt. Chu et al (2022) argue that central bank digital currencies should have offline features in order to extend the accessibility of central bank digital currency to many people including unbanked adults.

Other studies emphasize the importance and criticisms of issuing a central bank digital currency. Kwak (2022) argue that all countries need to issue its own a central bank digital currency so that no single central bank digital currency will dominate the world. Ozili (2022c) show that interest in information about central bank digital currency is growing among members of the public and many central banks are building specific knowledge and expertise about central bank digital currencies before issuing a central bank digital currency. Ozili (2022c) argue that the emergence of central bank digital currency might lead to calls to regulate cryptocurrency and may lead to the acceptance of stablecoins even though the benefits of stablecoins do not outweigh the benefits of issuing a central bank digital currency. Vuković (2021) argued that central bank digital currencies are needed to solve the problem of financial exclusion since many people in the world are still unbanked. Vuković (2021) argued that a central bank digital currency is an efficient and straightforward solution to financial exclusion without forcing unbanked adults to own transaction accounts with commercial banks. Ozili (2022d) argue that central bank digital currency can increase financial inclusion in several ways: it can digitize value chains, it can improve access to digital financial services, it can help to enlarge the digital economy, it can enhance the efficiency of digital payments, it can be used offline when there is no internet coverage, and it can offer low transaction costs. Mooij (2022) opposed the European central bank's plan to issue a general purpose central bank digital currency in the European Union. Mooij (2022) argued that the introduction of a general purpose central bank digital currency is unlawful because it would permit the European central bank to compete for deposits with commercial banks, and it will put the European central bank at a competitive advantage than commercial banks. The author also argued that the claim that central bank digital currency will increase financial inclusion in European Union is not true because the number of unbanked in the

European Union is decreasing, therefore, there is no good enough reason for the European central bank to issue a general interest central bank digital currency.

Studies in the literature highlight the benefits of a central bank digital currency *(*Auer and Böhme, 2020*;* Ozili, 2022a; Williamson, 2019; Chiu et al, 2019; Andolfatto, 2021; Ozili, 2022b; Bordo and Levin, 2017). They show that a central bank digital currency can offer cash-like safety and convenience for peer-to-peer payments *(*Auer and Böhme, 2020*),* it can increase trust in fiat digital currency (Ozili, 2022a); it can mitigate crime associated with physical currency and permit the payment of interest on a key central bank liability (Williamson, 2019); it can increase competition for bank deposits, it can expand financial intermediation and increase output (Chiu et al, 2019), it can increase financial inclusion (Andolfatto, 2021; Ozili, 2022b), and lead it can lead to the effective conduct of monetary policy (Bordo and Levin, 2017).

Engert and Fung (2017) show that the relevance of a central bank digital currency in facilitating retail payments depends on the specific attributes of the central bank digital currency such as whether the central bank digital currency bears interest or is non-interest bearing. Barontini and Holden (2019), in a survey of studies on central bank digital currency show that many Central Banks are progressing from conceptual work into experimentation, proofs-of-concept, and are in cooperation with other Central Banks. They show that only few Central Banks are proceeding to the pilot stage with central bank digital currencies, and even fewer Central Banks see the issuance of a central bank digital currency as a short or medium term goal. Ozili (2022a) argued that central banks may have strong incentives to issue a central bank digital currency, and when they do so, it could erode trust in cryptocurrencies, and lead to the collapse of cryptocurrencies although not immediately.

3. The Survey

3.1. Objective of the African CBDC survey

The objective of the survey is to explore the stages of central bank digital currency adoption in African countries. The survey is part of on-going efforts to build a comprehensive database of central bank digital currency adoption in the world. The survey complements existing central bank digital currency data that explore other regions or a global context. The survey focuses on African countries. It shows the state of central bank digital currency adoption in Africa. The survey will help to: (i) generate data about central bank digital currency adoption in African countries; (ii) gauge the level of interest in central bank digital currency in African countries, and (iii) detect the presence of a digital payment system that supports central bank digital currency.

3.2. Methodology

The CBDC survey was conducted through desk research and using secondary data. Data were collected from publicly available information about central bank digital currency adoption. Data were collected specifically from the information found in online media reports, online news reports, information on African central bank websites, central bank governor speeches, government speeches about central bank digital currency, and published research about central bank digital currency and payments system development in African countries. The sample period is from 2015 to 2022. The entry 'x' is inserted in a category if an African country has data for the category.

The survey data were collected into six (6) major categories. The first category is the data for "*No official public announcement indicating interest in issuing a CBDC*". This category highlights the African countries whose central banks have not made any public announcement to indicate their interest in issuing a central bank digital currency. The second category is the data for "*Has a robust digital payments system to support CBDC*". This category highlights the African countries that have a robust (i.e. fast and efficient) payment system. The third category is the data for *"Made an official public announcement indicating interest in CBDC."* This category highlights the African countries whose central banks have made some public announcement to indicate their interest in issuing a central bank digital currency. The fourth category is the data for *"Studying and researching CBDC".* This category highlights the African countries whose central banks are studying and conducting research into CBDC to determine whether they should issue as a short-

term or long-term goal. The fifth category is the data for *"Planning pilot test for CBDC"*. This category highlights the African countries whose central banks are planning a pilot test for CBDC. The six category is the data for *"Already issued a CBDC".* This category highlights the African countries whose central banks have formally issued a central bank digital currency. The coded survey data is reported in table 1.

Table 1. A Survey of Central Bank Digital Currency Adoption in Africa

Country	No official public announcement	Has a robust digital payments system to support CBDC	Made an official public announcement indicating interest in CBDC	Studying and researching CBDC	Planning pilot test for CBDC	Already issued a CBDC

		indicating interest in issuing a CBDC									
1	Algeria	×									
2	Angola					×		×			
3	Benin	×									
4	Botswana	×									
5	Burkina Faso	×									
6	Burundi	×									
7	Cameroun	×									
8	Cabo Verde	×									
9	Central African Republic	×									
10	Chad	×									
11	Comoros	×									
12	Democratic republic of Congo	×									
13	Republic of Congo	×									
14	Djibouti	×									
15	Egypt	×									
16	Equatorial Guinea	×									
17	Eritrea	×									
18	Ethiopia	×									
19	Gabon	×									
20	Gambia	×									
21	Ghana			x		×		×		×	
22	Guinea	×									
23	Guinea-Bissau	×									
24	Côte d'Ivoire	×									
25	Kenya			×		×		×			
26	Lesotho	×									
27	Liberia	×									
28	Libya	×									
29	Madagascar					x		×			
30	Malawi	x									
31	Mali	x									
32	Mauritania	×									
33	Mauritius					×		×		×	
34	Morocco					x		×			
35	Mozambique	×									
36	Namibia	×									
37	Niger	×									
38	Nigeria			×		×					×
39	Rwanda					×		×			
40	Sao Tome and Principe	×									
41	Senegal										×
42	Seychelles	×									
43	Sierra Leone	x									
44	Somalia	×									
45	South Africa			×		×		×		×	
46	South Sudan	×									
47	Sudan	×									
48	Swaziland or Eswatini					x		x			
49	Tanzania					x		x			
50	Togo	x									
51	Tunisia									×	
52	Uganda					x		x			
53	Zambia							x			
54	Zimbabwe					x		x			

4. Survey results

4.1. Summary of survey results

The analysis of the survey entries is reported in table 2. The survey analysis shows that 38 out of 54 African countries have not made an official public announcement indicating interest in issuing a central bank digital currency. This means that 70 percent of African countries have not shown interest in issuing a central bank digital currency. The analysis also shows that only 4 of 54 African countries have a robust payment system infrastructure that can support central bank digital currency. This means that about 7 percent of African countries have a robust payment system infrastructure that can support central bank digital currency. Meanwhile, only 14 African countries have officially declared interest in central bank digital currency through official public announcements made by the Head of the governments, central bank representatives or the official statement published on central bank websites. This means that about 26 percent of African countries have officially declared interest in central bank digital currency through official public announcements. Also, 13 African countries have announced that they are studying central bank digital currency to determine whether they will issue central bank digital currency as a short-term or long-term goal. This means that about 24 percent of African countries have announced that they are studying or researching central bank digital currency. Furthermore, only 4 African countries have reached the pilot test stage of issuing a central bank digital currency. This means that about 7 percent of African countries have reached the pilot test stage of issuing a central bank digital currency. Finally, only one African country has formally issued a central bank digital currency. The survey results show that many African central banks are being cautious about issuing a CBDC. The findings of the survey support the findings of Barontini and Holden (2019) and Boar and Wehrli (2021) who find that central banks are proceeding with caution and most central banks are only at a conceptual stage in developing a CBDC. The findings of the survey in this paper are similar to the findings of Auer et al (2021)'s survey which show that most central banks are yet to take a firm decision on issuing a CBDC.

Table 2. Summary of 2022 survey result

Indicators	Number of countries	Percent (Appx %)	The countries
No official public announcement indicating interest in issuing a CBDC	38	70.4% (70%)	Algeria, Benin, Botswana, Burkina Faso, Burundi, Cameroun, Cape Verde, Central African Republic, Chad, Comoros, Democratic republic of Congo, Republic of Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Guinea, Guinea-Bissau, Cote d'Ivoire, Lesotho, Liberia, Libya, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Sao Tome and Principe, Seychelles, Somalia, South Sudan, Sudan, Sierra Leone and Togo
Has a robust digital payments system to support CBDC	4	7.41% (7%)	Ghana, Kenya, Nigeria, and South Africa
Made an official public announcement indicating interest in CBDC	14	25.9% (26%)	Angola, Ghana, Kenya, Madagascar, Mauritius, Morocco, Rwanda, South Africa, Nigeria Swaziland, Tanzania, Uganda, Zambia and Zimbabwe
Studying and researching CBDC	13	24.1% (24%)	Angola, Ghana, Kenya, Madagascar, Mauritius, Morocco, Rwanda, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe
Planning pilot test for CBDC	4	7.4% (7%)	Tunisia, South Africa, Ghana and Mauritius
Already issued a CBDC	1	1.8% (2%)	Nigeria

4.2. Regional results

This section analyses the survey results in regional categories. The regional result is reported in table 3. The West African countries region has the highest number of countries that have not shown any interest in issuing a central bank digital currency. Specifically, 13 West African countries, 9 East African countries, 6 Central African countries, 4 North African countries and 3 Southern African countries have not officially declared any interest in central bank digital currency. This indicates that a large number of African countries have not officially declared any interest in issuing a central bank digital currency. Regarding the presence of a robust payment system infrastructure to support central bank digital currency, the survey show that two West African countries, one East African country, and one Southern African country have a robust digital payment system infrastructure to support a central bank digital currency. This indicates that only few African countries have a robust payment system infrastructure to support a central bank digital currency. Also, only three West African countries, six East African countries, three Southern African countries and one North African country have made official public announcements to indicate interest in a central bank digital currency. This implies that only few

African countries have shown interest in a central bank digital currency. Regarding studying and doing research into a central bank digital currency, only one North African country, two West African countries, seven East African countries and three Southern African countries have begun to study and conduct research into a central bank digital currency. Regarding pilot test of CBDC, only one West African country, one North African country, one East African country and one Southern African country are planning a pilot test for CBDCs. Finally, only one Western African country has fully issued a CBDC.

Table 3. CBDC adoption in Africa survey regional results

Indicators	North African countries	West African countries	East African countries	Central African countries	Southern African region
No official public announcement indicating interest in CBDC	4	13	9	6	3
Has a very robust digital payments system to support CBDC	0	2	1	0	1
Made an official public announcement indicating interest in CBDC	1	3	6	0	3
Studying and researching CBDC	1	2	7	0	3
Planning pilot test for CBDC	1	1	1	0	1
Already issued a CBDC	0	1	0	0	0

4.3. Correlation

This section conducts a correlation analysis for the categorical variables. Each 'x' value in the survey data in table 1 is transformed into a binary variable of '1' and zero otherwise. Afterwards, the categorical variables are renamed and labelled as NOP, RPS, MPA, CRS, PPT and AAF. NOP variable represents the "*No official public announcement indicating interest in CBDC*" data category. RPS variable represents the "*Has a very robust digital payments system to support CBDC*" data category. MPA represents the "*Made an official public announcement indicating interest in CBDC*" data category. CRS variable represents the "*Studying and researching CBDC*" data category. PPT variable represents the "*Planning pilot test for CBDC*" data category. AAF represents the "*Already issued a CBDC*" data category. The correlation result is reported in table 4. The CRS and MPA variables are significant and positively correlated with each other. This indicates that central banks' interest in CBDC is correlated with efforts to study and research

about CBDC. The RPS and AAF variables are also significant and positively correlated with each other. This indicates that the presence of a robust payment system is associated with the issuance of a central bank digital currency. Taken together, these correlation results suggest that African central banks who have gained an interest in central bank digital currency will proceed to study and research about CBDC and also proceed to issue a CBDC.

Table 4. Pearson correlation of the categorical survey data

Variables	NOP	RPS	MPA	CRS	PPT	AAF
NOP	1.000					

RPS	-0.434***	1.000				
	(-3.44)	-----				
	((0.00))	-----				
MPA	-0.866***	0.501***	1.000			
	(-12.42)	(4.14)	-----			
	((0.00))	((0.00))	-----			
CRS	-0.822***	0.357**	0.948***	1.000		
	(-10.33)	(2.73)	(21.49)	-----		
	((0.00))	((0.01))	((0.00))	-----		
PPT	-0.434***	0.459****	0.335**	0.357***	1.000	
	(-3.44)	(3.69)	(2.54)	(2.73)	-----	
	((0.00))	((0.00))	((0.01))	((0.01))	-----	
AAF	-0.301**	0.318**	0.117	-0.107	-0.056	1.000
	(-2.25)	(2.39)	(0.84)	(-0.76)	(-0.41)	-----
	((0.03))	((0.02))	((0.40))	((0.44))	((0.68))	-----

***, ** denote statistical significance at the 1% and 5% levels. T-statistic is reported in single parenthesis. P-values are reported in double parenthesis. NOP = "No official public announcement indicating interest in CBDC" data category. RPS = "Has a very robust digital payments system to support CBDC" data category. MPA = "Made an official public announcement indicating interest in CBDC" data category. CRS = "Studying and researching CBDC" data category. PPT = "Planning pilot test for CBDC" data category. AAF = "Already issued a CBDC" data category.

5. Conclusion

This paper presented a survey of CBDC adoption in African countries. Secondary data were used to conduct the survey. Secondary data were collected from official media announcements about CBDCs and from online media sources and research publications about central bank digital currency.

The analysis of the survey showed that 70 per cent of African countries have not shown interest in central bank digital currency. The West African region has the highest number of countries that have not shown any interest in central bank digital currency. Only 4 African countries have a very robust payment system infrastructure that can support central bank digital currency. Only 14 African countries have officially declared interest in central bank digital currency. Only 13 African countries have announced that they are studying central bank digital currency to determine whether they will pursue central bank digital currency as a short term or long term goal. Only 4 African countries have reached the pilot test stage of issuing a central bank digital currency. Finally, only one African country has formally issued a central bank digital currency.

The policy implication of the findings is that there is low interest in central bank digital currency in the African continent. The low interest in central bank digital currency in African is attributed to many factors such as the strong preference for cash payments, lack of a robust payment system, low use of digital payments, central banks' focus on other priorities, fear of failure, lack of government interest in digital currency and concerns about CBDC privacy risk and security threats. These factors can slowdown the level of development and economic inclusion in African countries. There is need to accelerate the issuance of CBDC in African countries. African countries that have already issued a CBDC and those in the pilot test stage need to pay attention to the specific design of central bank digital currency and ensure that the central bank digital currency design has features that mitigate international shocks and spillovers as well as features that permit greater financial inclusion for unbanked adults, and features that promote the better conduct of monetary policy. When these considerations are taken into account, the issued central bank digital currency will be able to resolve many development challenges facing African countries and spur many African economies towards development and economic inclusion.

Future research can investigate the extent of cryptocurrency adoption in Africa and compare this with the extent of central bank digital currency adoption in Africa. Future research can also examine whether CBDC adoption actually increases financial inclusion, economic development and economic inclusion in Africa.

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