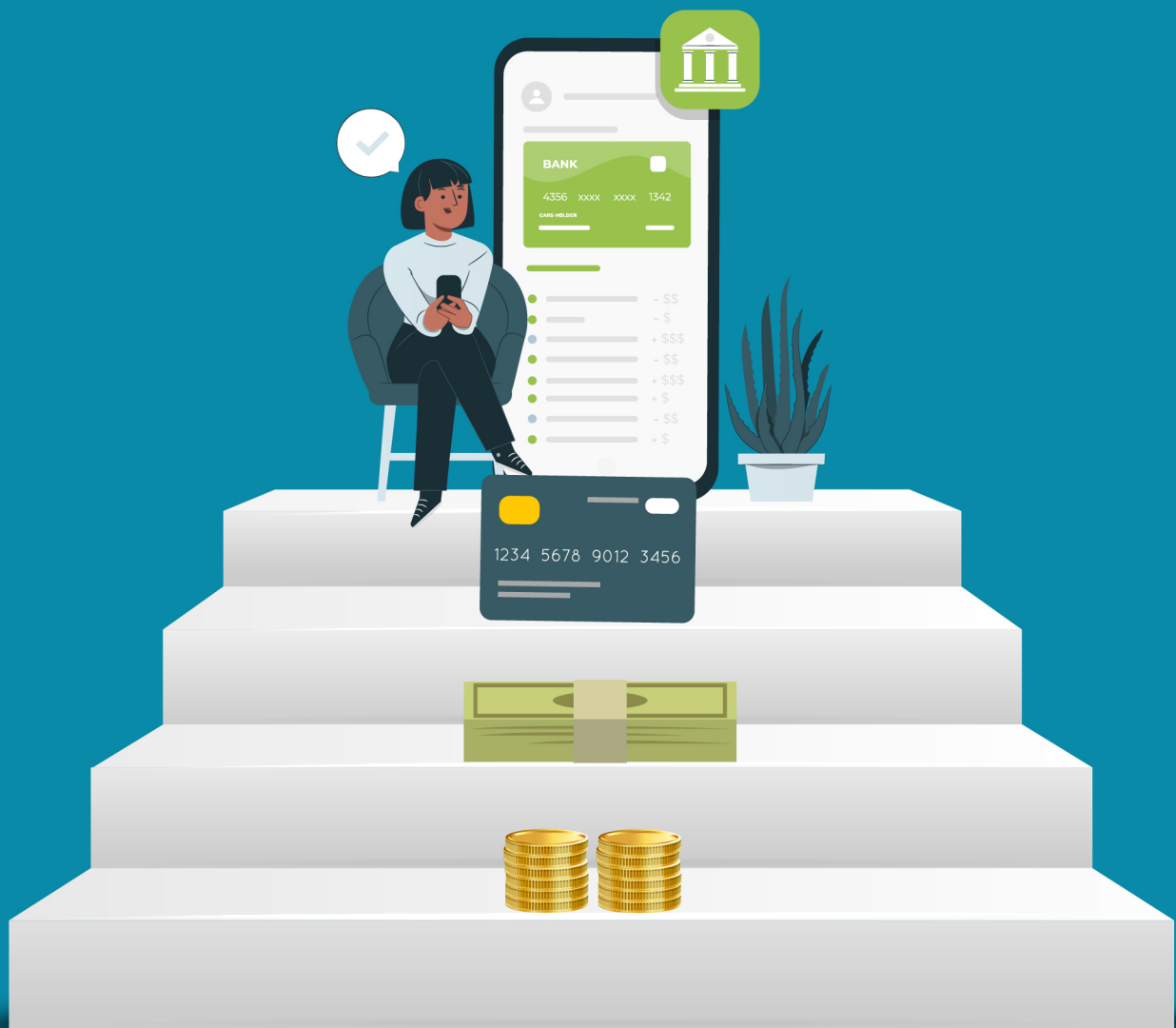


Infrastructural Pathways to Digital Payment Systems in Ghana





Executive Summary

The payment system of Ghana is the entire matrix of institutional infrastructure arrangements and processes in a country set up to enable economic agents (individuals, businesses, organizations, and Government) to initiate and transfer monetary claims in the form of commercial and central bank liabilities.

Ghana's payment system has improved significantly since 1997 when the MICR cheques were introduced, and continues to evolve to meet the developmental needs of the country. The current trend in Ghana's payment systems development is being driven by economic, financial, and public

policy factors as well as a growing local ICT industry and global trends in payment systems development.

For approximately twenty (20) years, Ghana's payment ecosystem has been transformed from a largely manual environment with serious inefficiencies to a network of interoperable digital payment streams supporting efficient, fast, convenient, and round-the-clock funds transfer. The gains to financial inclusion and digital banking arising from the change have been phenomenal.

Keywords: payment infrastructure, banking, digital payment, payment providers, GhIPSS, digital currency

Overview of the Ghana Payment Systems

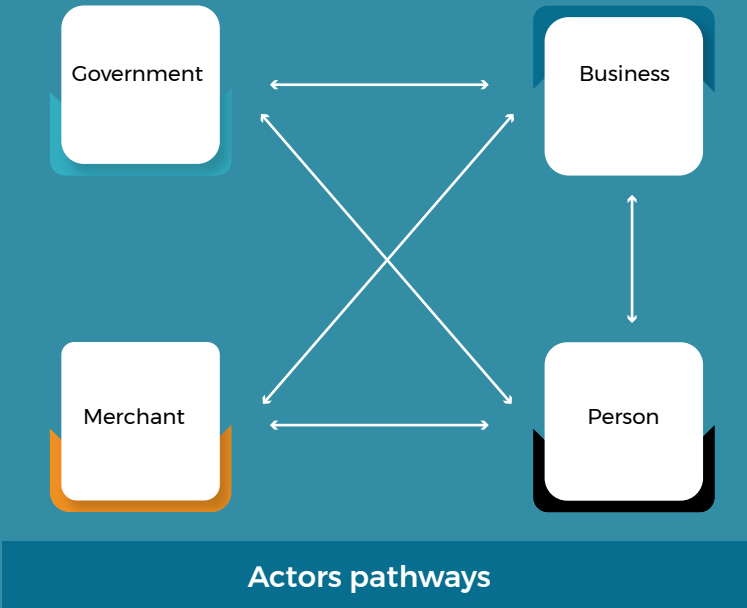
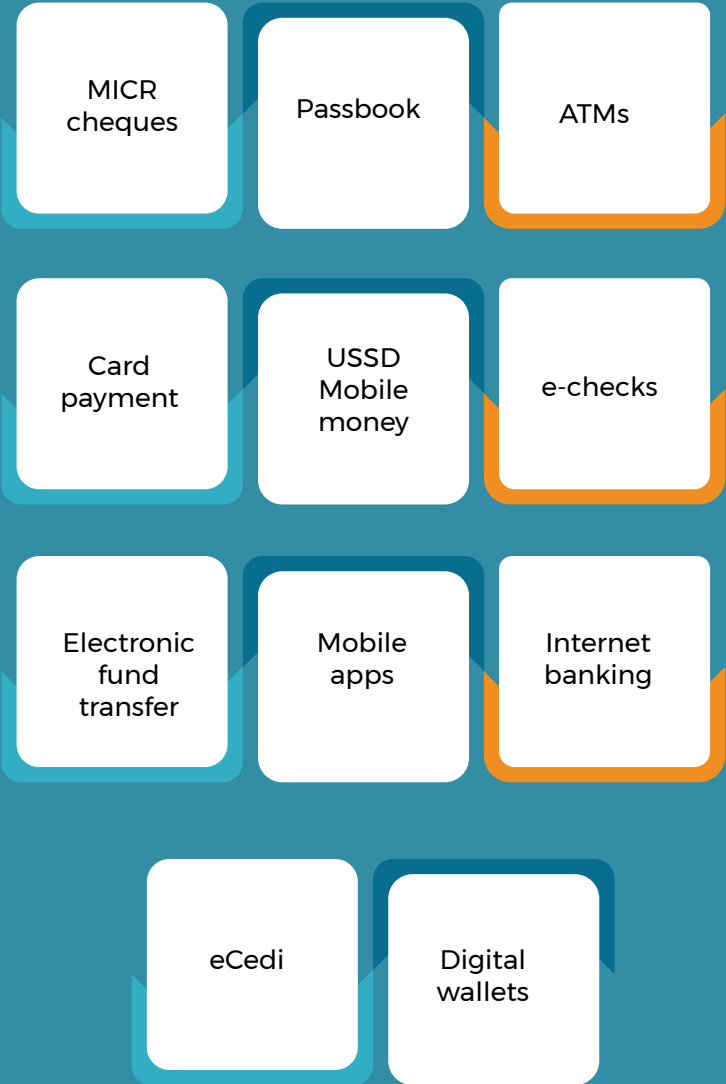


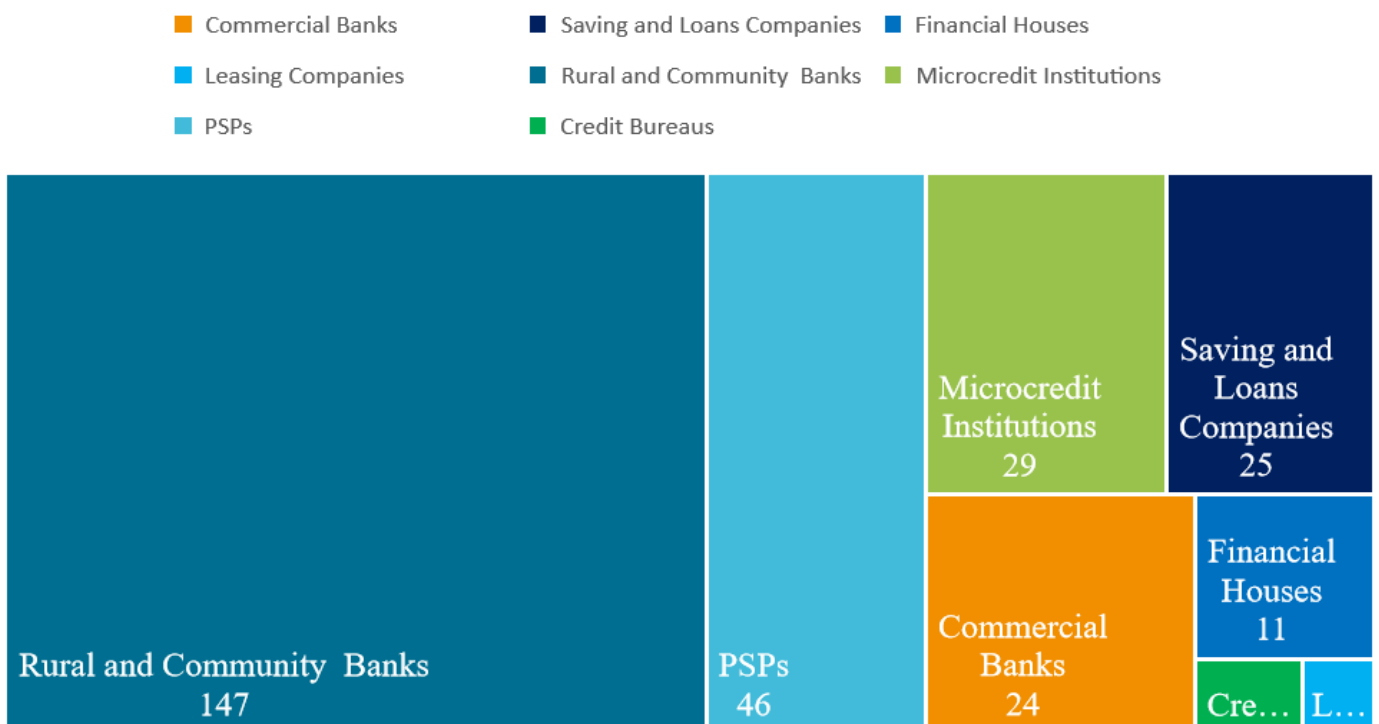
Table of Contents

Executive Summary	1
Overview of the Ghana Payment Institutions	4
Ghana Payment Structure	5
Payment Channels in Ghana	7
Instant and Inclusive Retail Payment Systems	8
GhIPSS Payment Infrastructure	11
How GhIPSS Instant Pay (GIP) works	12
Barriers to digital payment adoption	13
GhIPSS Transactions	14
The Changing Payment Landscape of Actors in Ghana	15
Digital payment for SMEs	17
The pathway toward digital payment usage in Ghana	18
Recent innovations in money and payments	20
Mobile money interoperability	20
GhanaPay	20
Ghana QR Code	21
Central Bank Digital Currency (eCedi)	21
Connecting digital currency to existing payment infrastructure	22
Regulation in the Payment Landscape of Ghana	23
Conclusion	26
References	27

Overview of the Ghana Payment Institutions

Over the past two decades, the Ghanaian payments industry has undergone a significant transformation on account of the adoption of digital technology. With the onset of the COVID-19 pandemic, a sense of urgency has been injected into Ghana’s payment ecosystem digitalization effort and necessitated a rethinking of the approach to Digital Financial Services (DFS). Recent events in the wake of the pandemic have brought to the fore the critical role of Digital Financial Services in promoting financial inclusion, business continuity, and sustainability, particularly medium and small-scale enterprises (MSSEs) and global trade. The urgent implementation of drastic but necessary COVID-19 pandemic containment measures by the Government of Ghana hampered to some extent economic and social activities. However, digital payments mitigated the economic consequences of the measures by facilitating economic activity during the lockdown.

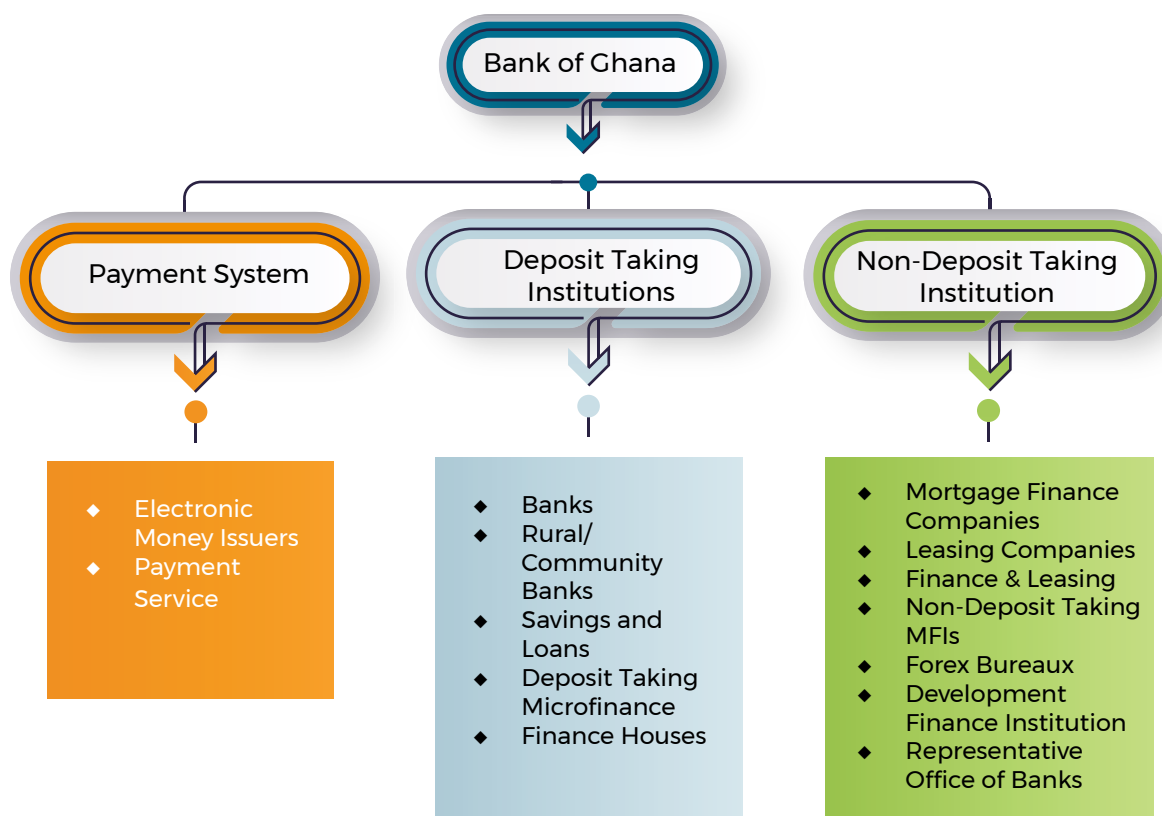
Figure 1: Number of financial institutions in Ghana



Source: Bank of Ghana (2023)

The Bank of Ghana has structured its banking activities into three sections (payment system, deposit-taking, and non-deposit-taking financial institutions). These boundaries help the BoG to set up guidelines, provides regulatory requirement and effective supervisory role that promote economic growth and development, and a sound banking and credit system.

Figure 2: Structure of the banking sector



Source: Bank of Ghana

Ghana Payment Structure

The payment infrastructure in Ghana is a set of software, hardware, and communication technologies designed to perform financial transactions with non-cash money. This payment infrastructure provides fast and reliable non-cash payments to individuals, businesses, organizations, and governments. The payment infrastructure system as an ecosystem in general includes a number of participants. The stakeholders of Ghana’s payment system are the central bank; the commercial banks, service providers, and users of the system. The central bank occupies an important and unique position in the payment system. It is an overseer, operator, and participant of the payment system. Commercial banks participate in the system by making and receiving payments on their own behalf or their customers’. The service providers are the printers of payment instruments and telecommunication companies who provide the infrastructural arrangements for the payment system. Notwithstanding

the unique role of each stakeholder, all of them are users of the payment system, including the banking public. All participants of the system interact with each other by certain rules and agreements, based on a clearly defined legislative framework.

Table 1: Payment systems in Ghana

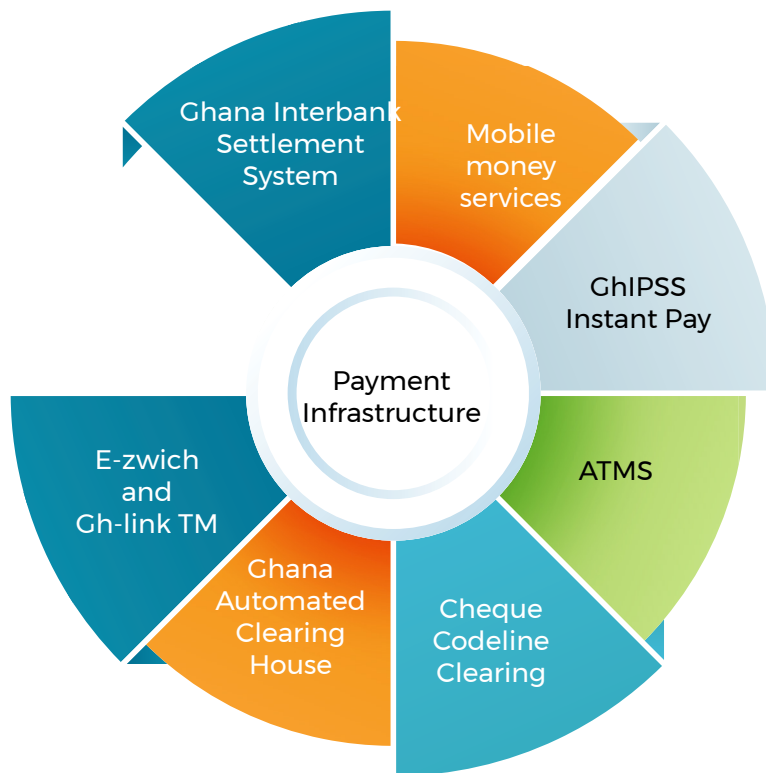
Payment System				
Settlement agent	Settlement modality	Foreign exchange hub	Correspondent bank	Interoperability
Bank of Ghana	Deferred net twice daily	None	None	Third-party
Instruments				
Card	e-money	Electronic fund transfers (EFT)		CBDC
Channels				
Branches	ATM/Kiosk	USSD	Mobile Apps	POS
Agents	QR Code	NFC	Web Browser	e-wallets
Use Cases				
Transfers and remittances (P2P)	Merchant payments (P2B)	Taxes and fees (P2G)	Social disbursements (G2P)	
Inventory and business services (B2B)	Salaries and Wages (B2P)	Cross-border (B2P/B2B/P2B) P2P	Social disbursements (G2B)	
Participants				
Direct			Indirect	
Central bank	Banks	Agents	MMOs	Fintechs/PSP

Source: Adapted from GhIPSS

Payment Channels in Ghana

Ghana's payment system has undergone many developmental transitions from the era of barter trade to digitalization. The major digital payment channels in the country are mobile money platforms and mobile apps, internet banking, digital wallets, e-checks, Unstructured Supplementary Service Data (USSD), and electronic funds transfers. Among some of the remarkable financial transformations includes the implementation of the Ghana Interbank Settlement (GIS) system, which is one of the first few Real Time Gross Settlement (RTGS) systems, Ghana Interbank Payment and Settlement Systems (GhIPSS), Automated Clearing House (ACH) system and the Cheque Codeline Clearing with truncation (CCC) system.

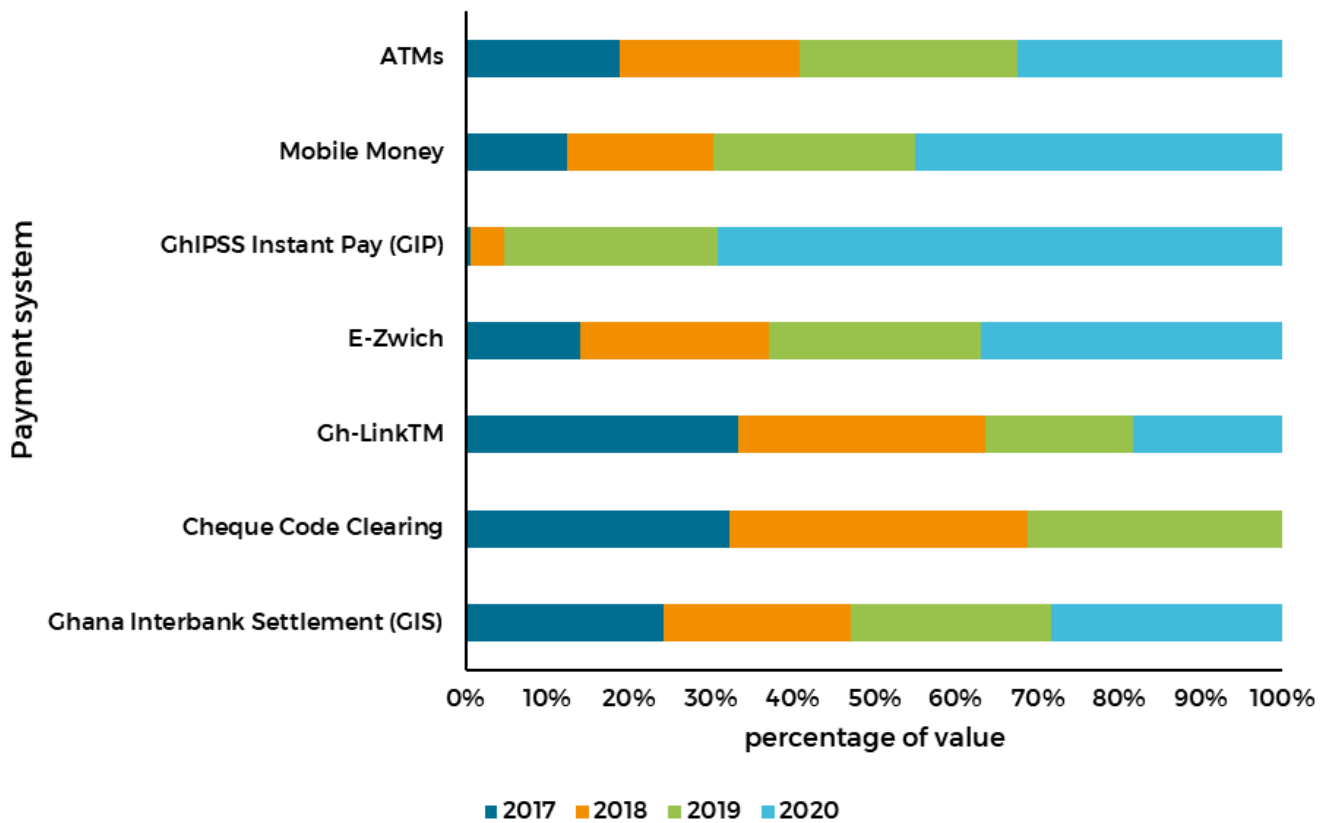
Figure 3: Payment infrastructure overview



Source: Agpaytech

In 2020 GhIPSS Instant Pay (GIP) recorded a growth of 62.2%. The total volume of transactions was 6,804,754, with a value of GH¢ 9.15 billion, compared with 1,905,267 and GH¢ 3.46 billion, respectively, in 2019. Ghana Inter-bank Settlement (GIS) system transactions increased by 4.8 % from 1,376,094 in 2019 to 1,442,182 in end-December 2020. ATM transactions continued to dominate Gh-linkTM platform transactions and constituted more than 99.0 % of the total transactions. The total value of mobile money transactions grew by 82.4 % over the 2019 value to GH¢564.16 billion at end of December 2020.

Figure 4: Comparative Payment System Statistics, 2017-2020



Source: Bank of Ghana

Instant and Inclusive Retail Payment Systems

Instant and inclusive retail payment systems can play a pivotal role in creating universal access to financial services for all Africans. The rise of mobile transactions has been a key driver of the substantial gains in the reach of the financial services sector in recent years (World Bank Findex, 2022). The latest global Findex survey shows that 46% of all African adults with transaction accounts had made or received at least one digital payment in 2021, compared to 33% in 2017 (World Bank Findex, 2022). Payment services also provide the rails for and gateway to other formal financial services such as savings, insurance, and credit, of which usage remains low in Africa. This means that greater uptake of retail payment services can simultaneously help to bridge the broader financial inclusion gap in Africa. Moreover, the ability to transact and exchange value is at the heart of people’s daily economic lives. Thus, by facilitating more secure, lower-cost daily transactions, instant and inclusive payment systems form a powerful mechanism for grassroots economics.

Instant payment systems (IPS) are retail payment systems that are multilateral and open loop and that enable digital push payments in near real-time for use 24 hours a day, 365 days a year, or as close to that as possible. Instant and

and inclusive payment systems (IIPS) process retail transactions digitally in near real-time and are available for use 24 hours a day, 365 days a year, or as close to that as possible. They enable low-value, low-cost push transactions that are irrevocable and based on open-loop and multilateral interoperability arrangements. For most Ghanaians, making a payment involves a limited option; either cash or other digital choices. When interacting with a seller in person, merchants may present consumers with cash payment options, except in a few cases credit or debit card, prepaid card, mobile payment, or check. Online shopping and other electronic payments might allow consumers to use some of the same options, as well as bank transfers (e.g., ACH payments) or other mechanisms for making electronic purchases.



- ◆ Cash
- ◆ mobile money payment
- ◆ Internet/mobile payment app
- ◆ card, etc.

Figure 5: Key factors consumers consider before choosing a payment choice in Africa



Source: Agpaytech

Payment Channels in Ghana

The Ghana Interbank Payment and Settlement Systems Limited (GhIPSS) is a wholly-owned subsidiary of the Bank of Ghana. It was incorporated in May 2007 with a mandate to implement and manage interoperable payment system infrastructures for banks and non-bank financial institutions in Ghana. In line with its mandate, GhIPSS has implemented and currently manages the following:

- ◆ National Switch & Biometric Smart Card Payment System- e-zwich
- ◆ Cheque Codeline Clearing (CCC) System
- ◆ Ghana Automated Clearing House (GACH) systems- Direct Credit & Direct Debit
- ◆ National Switching and Processing System- gh-link.

Table 2:GhiPSS service

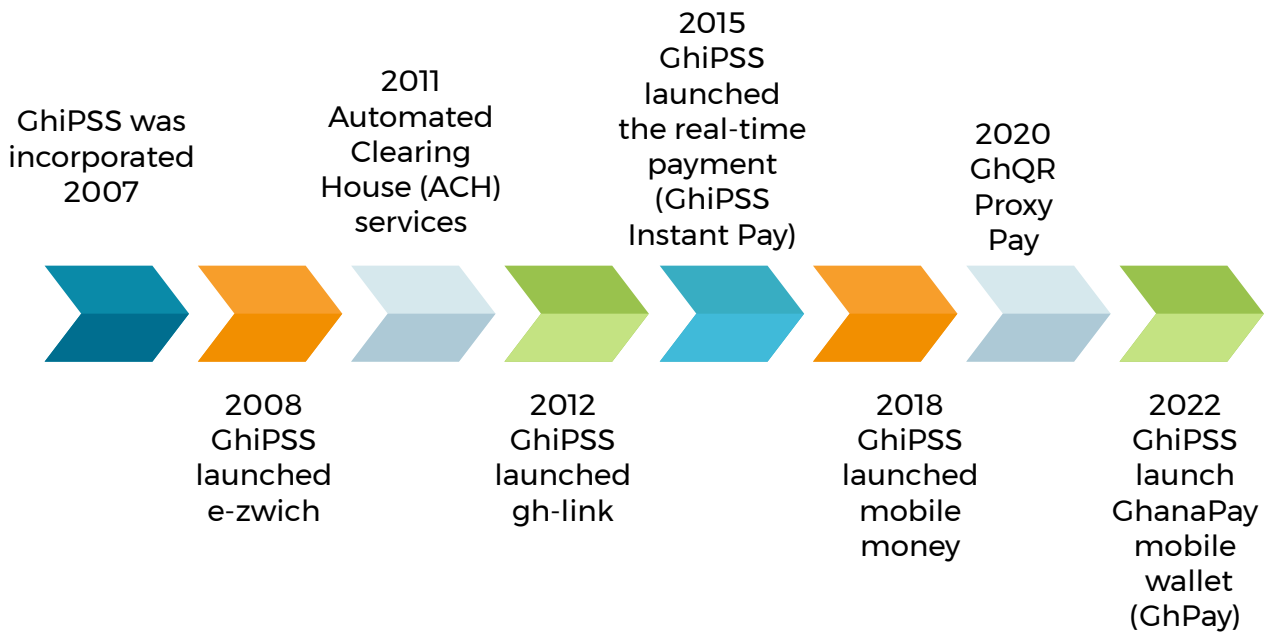
Cards & Verified Payments	Real-Time Payments	Bulk Payments	Third-Party Settlement
e-zwich biometric card	GhiPSS Instant Pay (GIP)	Cheque Codeline Clearing	Hosting services
Gh-link card	Proxy pay	Automated Clearing House Direct Credit	
Gh-link e-commerce	Ghana's Universal QR Code	Automated Clearing House Direct Debit	
GhDual Card	Request to pay		
e-zwich agent business	Mobile money interoperability		
Merchant business	GIP payment gateway		

Source: Agpaytech

The first digital platform built was the e-zwich smart card solution in 2008. e-zwich is a biometrically enabled card that enables users to conduct banking services with any other e-zwich-enabled bank via an ATM. In August 2015, leveraging the existing gh-link infrastructure, GhIPSS launched its real-time payment service called GhIPSS Instant Pay (GIP). The platform permits the real-time clearing of low-value, interbank transactions. In parallel, GhIPSS launched the Mobile Money Interoperability (MMI) service which facilitates instant transactions between all mobile money providers. MMI is connected to GIP, allowing interoperability between mobile money and bank accounts as well. In 2020, GhIPSS again leveraged the GIP platform to introduce Ghana's universal QR code solution (GhQR) and the Proxy Pay service. GhQR creates interoperability at merchant locations by allowing businesses to receive payments from different customer funding sources without the need for an expensive POS.



Figure 6: GhIPSS journey



Source: Agpaytech

How GhiPSS Instant Pay (GIP) works

GhiPSS Instant Pay (GIP) is a real-time interbank account-to-account credit transfer service. It allows funds to be sent across financial institutions electronically from one bank account to the other as a single immediate payment. The service is provided by financial Institutions through channels like Mobile banking apps, USSD, Internet banking, in-branch, ATM, and POS devices. GIP can be used by both businesses & individuals for payments for goods & services (GhiPSS, 2022). Benefits of GhiPSS Instant Pay

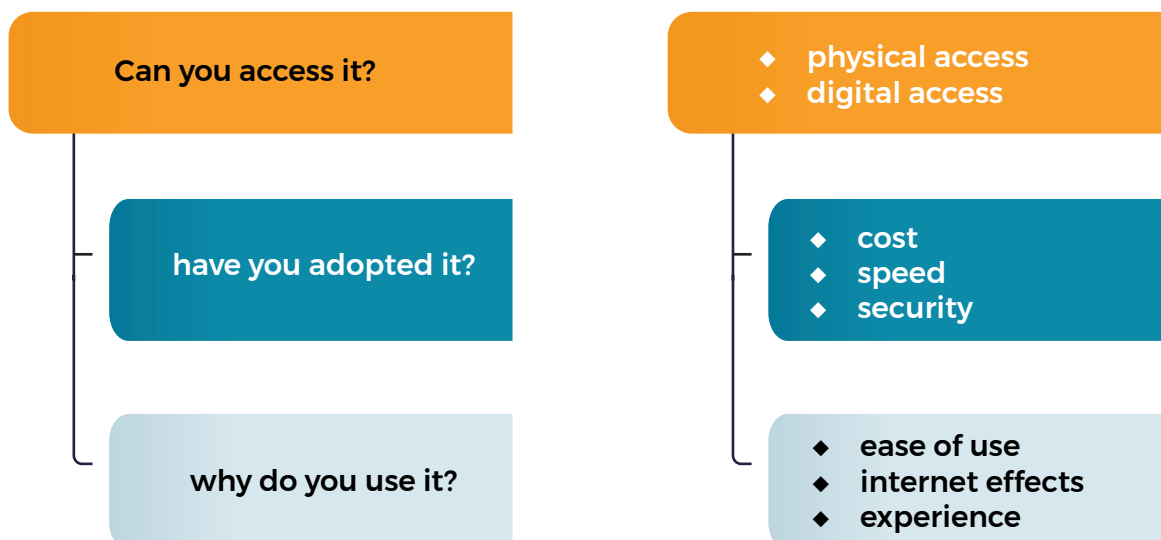
- ◆ Provides Convenience
- ◆ Better cash management
- ◆ Service is available 24/7
- ◆ Provides an audit trail of transactions
- ◆ Recipients get value in real-time



Barriers to digital payment adoption

In the Ghanaian payment market, merchants or retailers present consumers with limited payment options, including cash, mobile payment, and sometimes, digital method. While the consumer payment choice is restricted to the environment (online or physical shop, user), in each case there are many payment alternatives the consumer and the merchant could exchange transactions. This, however, depends on several factors of accessibility, adoption, and usage experience. Due to long queues in some traditional banks, customers prefer electronic access to their financial needs. These electronic approaches come with their merits and demerits. Users therefore compare the cost, accessibility, convenience, and other related factors to make a choice for their transactional needs.

Figure 7: Digital payment adoption factors



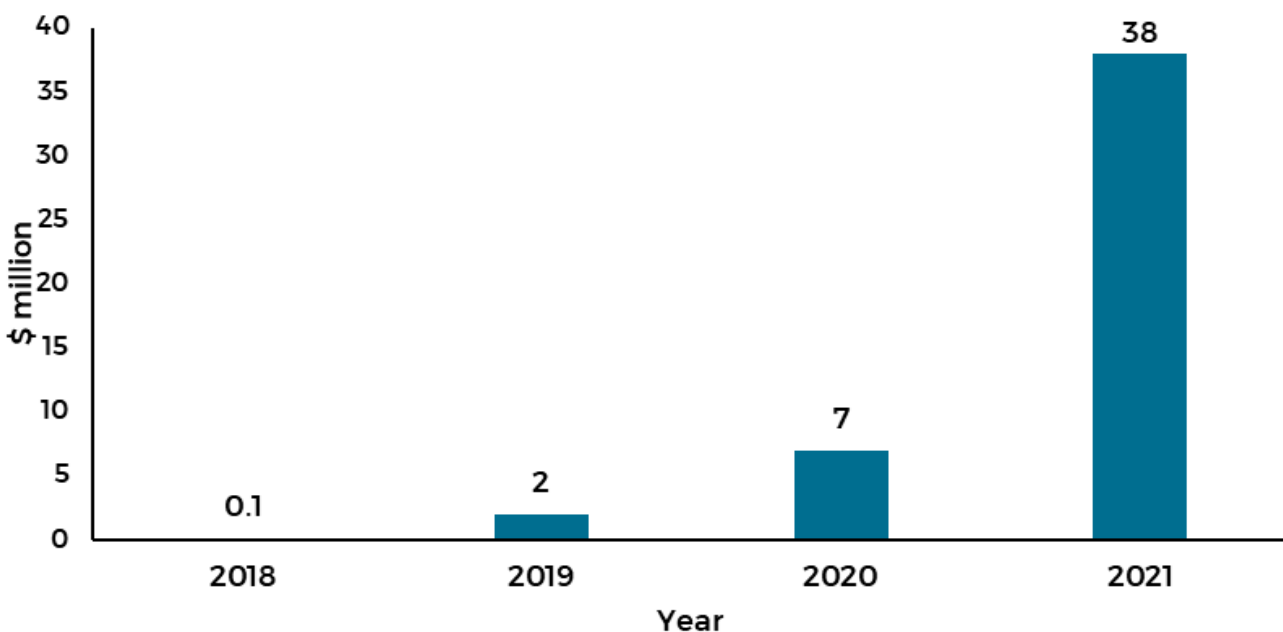
Source: Agpaytech



GhIPSS Transactions

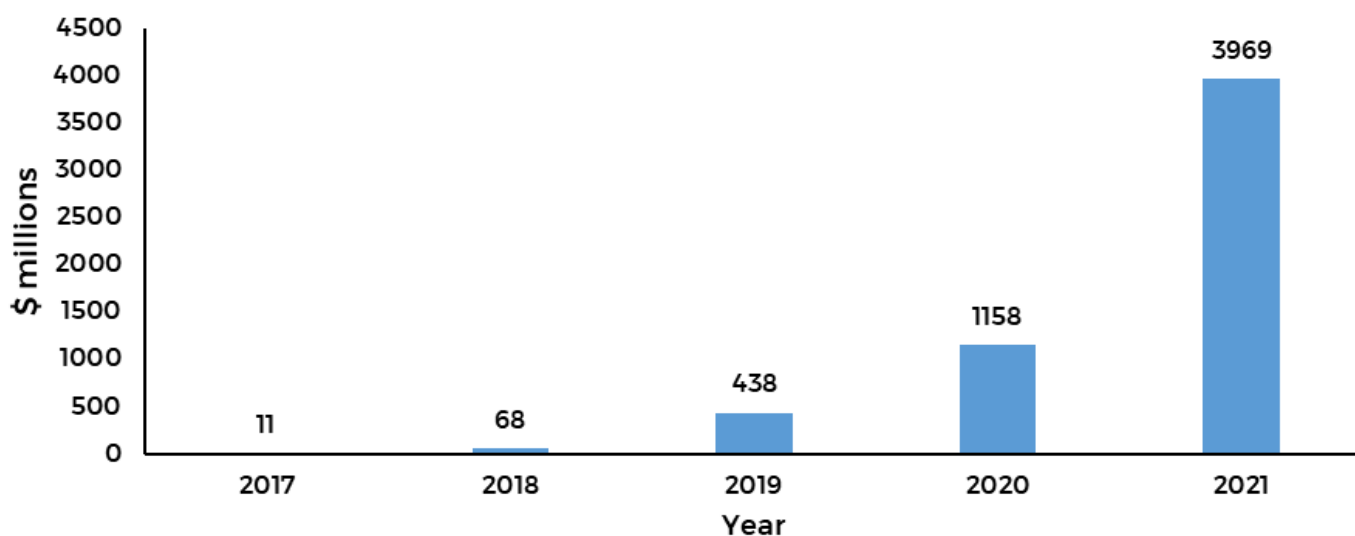
Rapid growth in usage since 2019. As shown in Figure 8, while the system had slow uptake in transaction volumes and values from 2017 to 2019, GIP has shown a substantial increase in both metrics from 2019 onwards. In the wake of the COVID-19 pandemic and in line with the Digital Financial Services Policy 2020, the Bank of Ghana published measures aimed at promoting digital forms of payments that were retained for the duration of 2020; these included simpler, minimum KYC requirements for mobile money accounts and increased transaction limits (Bank of Ghana, 2020). The average transaction size per year has decreased from USD 253 (GHS 1,998) in 2019 to USD 105 (GHS 829) in 2021, which indicates that end-users are transitioning smaller ticket sizes to GIP.

Figure 8: GhIPSS transaction in volume



Source: GhIPSS

Figure 9: GhIPSS transaction in value



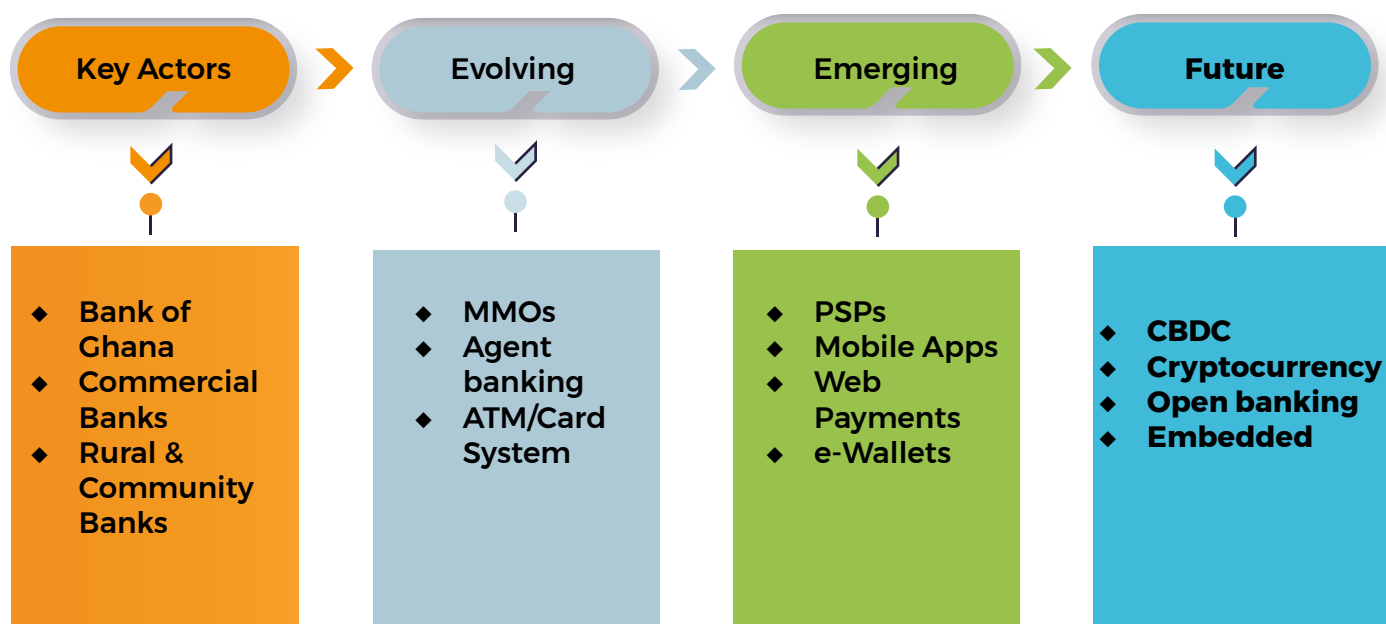
Source: GhiPSS

The Changing Payment Landscape of Actors in Ghana

Over the past decades, the Ghana payment landscape was mainly central banks, commercial banks, rural/community banks, microfinance, and savings and loans or credit unions. However, the emergence of advanced technologies, changing from bank-led to telecommunication-led mobile, and the rise of fintech startups have revolutionized the financial sector. These actors have collaborated with GhiPSS, the National Communication Authority, the Bank of Ghana, SMEs, and other agencies to provide a secure and convenient payment environment.

Currently, banks, mobile money operators, and fintechs are connecting more than ever. Across the African continent, banks, fintechs, and mobile money operators (MMOs) are key participants in the instant payment system in Ghana. Fintechs are also increasing in prominence as direct participants, third-party service providers, or aggregators. Commercial banks are partnering with fintech and MMOs to share data and improve financial stability by providing real-time and secure financial services to consumers. Besides, Non-financial institutions like universities, hospitals, government agencies, transport stations, e-commerce platforms, insurance companies, shopping malls and others are associating with fintechs, MMOs, and banks to ensure safe, instant, and convenient transactional services to their user (students, patient, passengers, employees, etc.). Furthermore, wholesale and retail businesses are engaging the service of fintechs, banks, and MMOs to ensure that their business enjoys modern financial transaction services like QR codes, mobile money, debit card, POS, buy now pay later (BNPL), request to pay, e-wallets, etc.

Figure 10: The evolving landscape of the actors



Key playing factors: convenience, number of services, speed, security, privacy, availability, cost etc

Source: Agpaytech

The participating actors are providing different kinds of services to businesses and customers to drive revenue and gain a larger market share depending on factors such as convenience, number of services, speed, security, privacy, availability, cost, etc. The emerging payment is developing around mobile applications, web payments and e-wallets. In the future, more digital wallets are expected to dominate the Ghanaian payment landscape whereas non-financial institutions will be engaged in the open finance ecosystem to provide transactional convenience to users or customers.



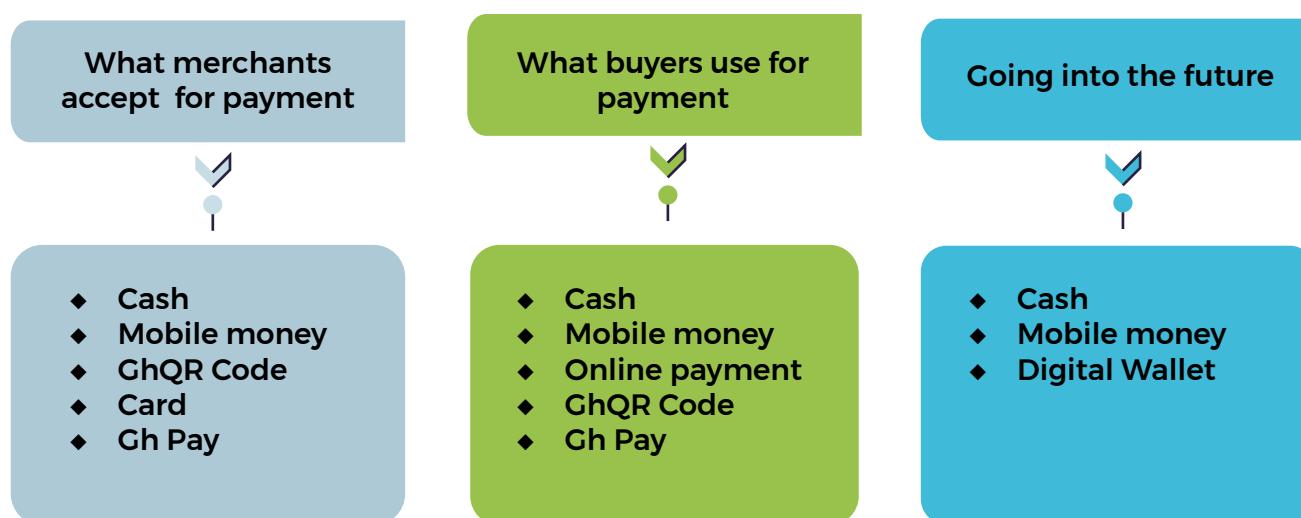
Digital payment for SMEs

Ghana's institutional infrastructure arrangements and processes that enable individuals, businesses, organizations, and the government to initiate and transfer monetary claims have evolved quickly in recent years. The major digital payment channels in the country are mobile money platforms and mobile apps, internet banking, digital wallets, and e-checks. The payment methods are contactless, cashless, and paperless. Unstructured Supplementary Service Data (USSD), and electronic funds transfers. MasterCard and Visa offer debit/credit cards that deduct from bank accounts, as well. These digital payment channels are being used for Payment to Government (P2G, B2G), Government Payments (G2P, G2B), Business to Business (B2B), Merchant and Retail Payment (P2M), Public Utility Payments, and Person-to-Person (P2P) payments.

Given that cash transactions often have no implicit attached fees or are perceived to be free, consumers are highly sensitive to transaction charges and consistently noted them as a major barrier to digital payment usage. Network outages result in negative customer experiences, deterring individuals and MSMEs from using digital payments. They also introduce transaction failures or delays and undermine the instant component of IPS design.

Furthermore, digital payment users are concerned about their ability to quickly reverse transactions that they made in error and are frustrated when systems do not support key use cases that they value. Yet both consumers and merchants mainly use cash for transactions. In the wake of technologies, some merchants and consumers are now becoming familiar with mobile money, QR codes, debit or credit as well as the digital wallet system.

Figure 11: Payment with SMEs



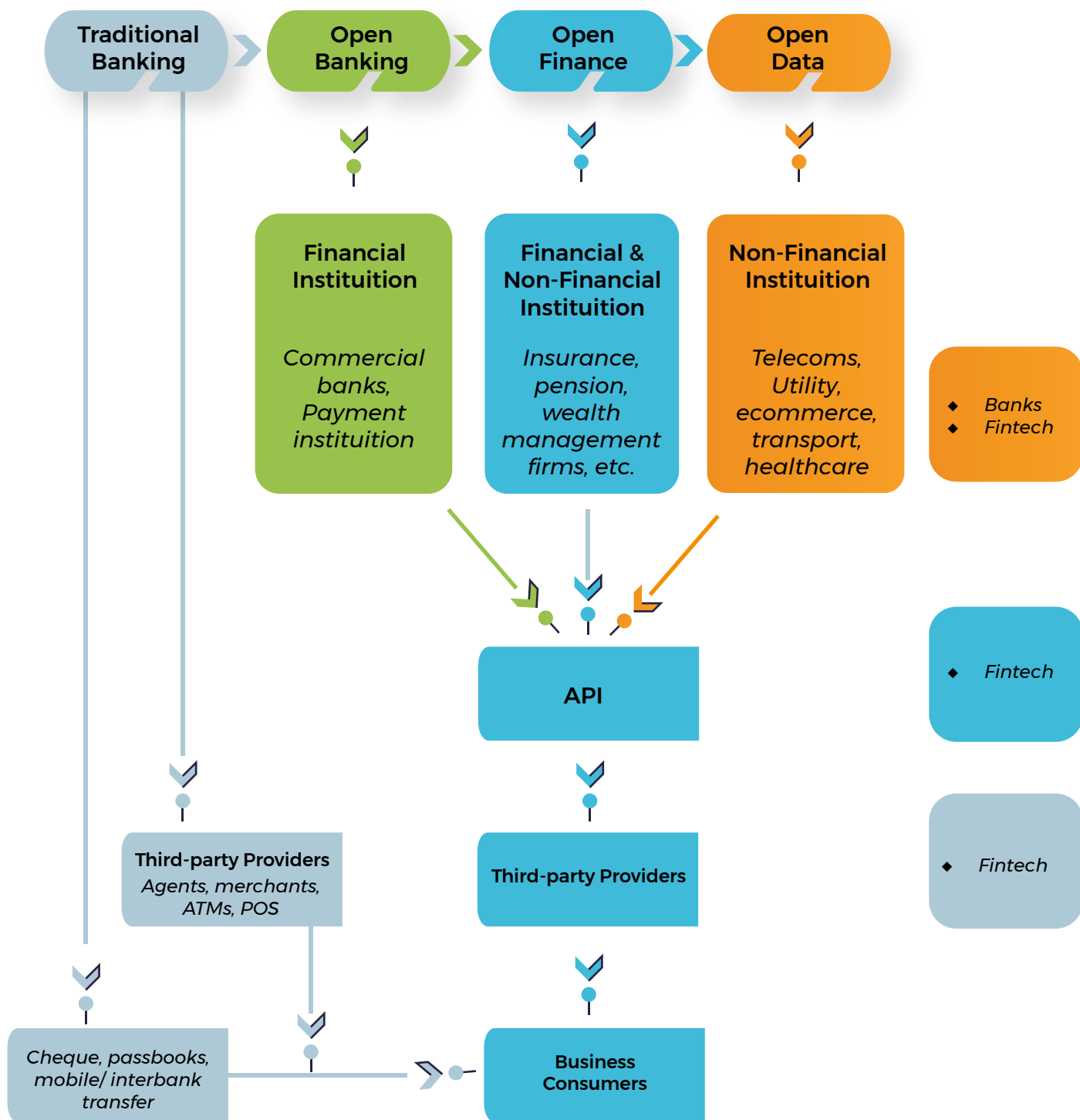
Source: Agpaytech

The pathway toward digital payment usage in Ghana

The pathway toward digital payment in Ghana is bedrock in three elements; infrastructural recapitalization, regulatory environment, and innovation management. First, the roadmap for recapitalization of GhIPSS should be developed to explore the possibility of Payment Service Providers' ownership of the processing infrastructure (i.e. GhIPSS) in a phased manner while unlocking value derived from multiple payments through the network. Various modern payment gateways, developing domestic card payments, and involving non-financial institutions with large citizens' data can set a pathway to surge digital payment in Ghana. For the regulatory environment, the Bank of Ghana has already introduced guidelines on electronic channels and regulatory sandbox, but more is needed on the open data, and open finance to standardize the digital ecosystem. In the aspect of innovation management, the central bank and the monetary authorities should consider local talents, startup inventions, and fintech venture ideas that will make the financial payment system more inclusive, robust and sustainable. Following the pathway provided in the diagram below, traditional banking services are evolving, and fintechs have emerged to support and bridge several gaps. Going forward, fintechs will act as providers, collaborators, and enablers to banks to provide ultimate digital payment solutions to individuals, businesses, governments, autonomous institutions, and non-governmental organizations.



Figure 12: How Fintechs are reshaping the payment business models



Source: Agpaytech

Recent innovations in money and payments

Recent years have seen innovations in payment infrastructure and instruments in Ghana, especially in the retail and wholesale payments, and cross-border payments. Some of these innovations build additional user functionality on top of existing payment systems, but two innovations (mobile money interoperability and central bank digital currency) are more fundamental and therefore may have farther-reaching implications

◆ Mobile money interoperability

The introduction of Electronic Money Issuers Guidelines (EMIG) & Agent Guidelines (AG) permitting a non-bank entity (telecommunication company) to establish a subsidiary to be licensed by the Bank of Ghana to issue electronic money has accredited the bedrock of mobile money growth in Ghana. Besides, the Ghana Chamber of Telecommunications together with the Government of Ghana, Central Bank, GhIPSS, and commercial banks on Thursday 10th May 2018 launched the mobile money interoperability system. The Mobile Money Payment Interoperability is the service, which allows the direct and seamless transfer of funds from one mobile money wallet to another mobile money wallet across networks (MTN Ghana to Vodafone Ghana), which was developed by Ghana Interbank Payment and Settlement Systems (GhIPSS) with the active collaboration of the mobile industry.

It creates convenience for mobile money users to transact business and drives financial inclusion, lowers the cost of transactions, increases service reach, and reduces reliance on cash for payments. It also provides a financial transaction engine that is versatile, efficient, and robust and enhances patronage by both banked and unbanked segments of the population.

◆ GhanaPay

The Ghana Interbank Payment and Settlement Systems (GhIPSS) collaborated with the Ghana Association of Banks (GAB) for the development and launch of a bank-wide mobile wallet named GhanaPay (GhPay). The move is an attempt by the GAB to extend financial inclusion to low KYC customers using existing familiar channels like the mobile wallet solution. GhPay is an open application that leverages the network infrastructure of the entire banking industry. GhanaPay is a bank-led mobile money service provided by universal banks, rural banks, and savings and loans. Like all existing mobile money services, GhanaPay allows all customers to perform both mobile money and banking services (GhIPSS).

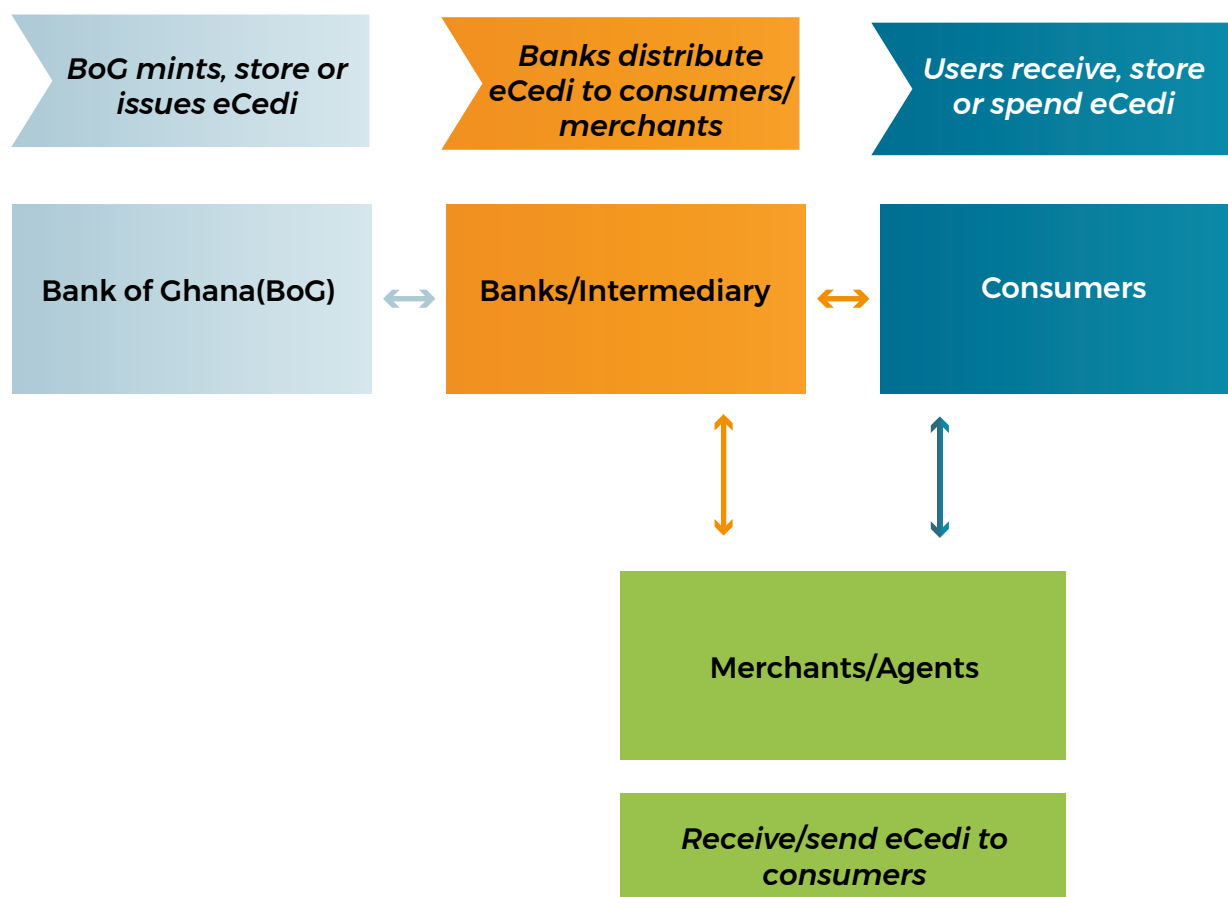
◆ **Ghana QR Code**

GhQR is a new and easy way to make payments to a merchant by scanning a QR Code displayed by the merchant with your mobile phone. GhQR is universal because, with a single QR Code image displayed in their shop, a merchant can receive payments from customers with bank accounts, wallet accounts, or card accounts from different banks and payment service providers across the country. The merchant gets the money instantly, just like paying with cash. The use of GhQR to make payments attracts no charges and it is considered a game changer in the cash-lite agenda, as it is easier to set up, less expensive to manage, and payments made on the GhQR platform hits the account of the merchant or receiver instantly. With the GhQR, business owners need to contact their banks or mobile money service providers to set them up in order to receive payments via the GhQR platform.

◆ **Central Bank Digital Currency (eCedi)**

Central banks worldwide are exploring digital currencies that would be issued and regulated by the state like fiat money. CBDC is a digital form of a country's sovereign currency. The central bank digital currency (CBDC) could have important implications for the worldwide banking and payment industry. The Bank of Ghana has been researching and piloting CBDC. Dubbed as eCedi (digital Ghanaian Cedi), the BoG has partnered with G+D (technology service provider) to provide both online and offline functionality of the digital currency. Currently, the BoG has conducted some pilot studies involving a few participants to improve the online and offline retail CBDC. The optimal choice for eCedi adopted by BoG was a two-tier architecture model, where a central bank is the only issuer of eCedi, owner, and operator of the core eCedi infrastructure. The eCedi is a direct claim on the Bank of Ghana. Banks act as the intermediary and they are in charge of the distribution of the eCedi and will be able to offer value-added services. Banks, mobile money operators, special deposit-taking institutions, and other non-bank financial institutions provide services, such as custody, mobile applications, and user-friendly presentation of information on customer transactions, etc. They already have experience in processing Know-Your-Customer (KYC) checks and providing customer support. According to the BoG, merchants accept payments in eCedi from hardware and hosted wallets in the same way they accept card and mobile payments today.

Figure 13: Retail eCedi architecture design

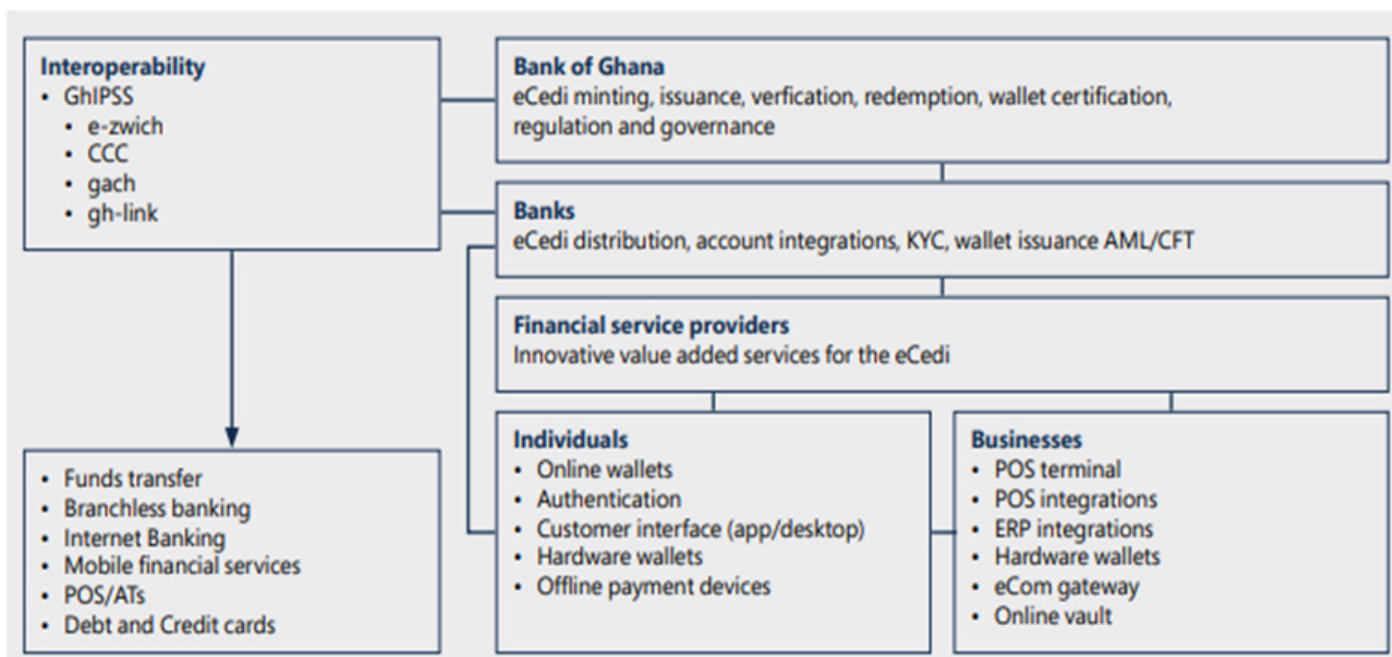


Source: Agpaytech

Connecting digital currency to existing payment infrastructure

According to the Bank of Ghana, one of the pillars of eCedi interoperability is its interconnection with the GhIPSS. GhIPSS' payment infrastructure is currently used by all banks in Ghana including the ARB Apex Bank and its affiliates, savings and loans companies, and third-party payment providers. In line with its mandate, GhIPSS has implemented and manages the following; National Switch & Biometric Smart Card Payment System (e-zwich), Cheque Codeline Clearing System, Ghana Automated Clearing House systems (Direct Credit & Direct Debit), National Switching and Processing System (Ghlink). Consequently, eCedi's integration with GhIPSS provides great opportunities. On the one hand, it allows eCedi to utilize ready-to-wear infrastructure as well as addresses the existing pain points of the Ghanaian payment market.

Figure 14: Interoperability of the eCedi ecosystem with external systems



Source: Bank of Ghana

Regulation in the Payment Landscape of Ghana

The Bank of Ghana has overall supervisory and regulatory authority in all matters relating to deposit-taking business, non-depositing business, payments as well as clearing and settlement systems. The Bank’s mandates are enshrined in the Constitution of Ghana and the Bank of Ghana Act, 2002 (Act 612) as amended. The regulatory and legal framework that governs institutions involved in the above-mentioned activities includes but is not limited to regulations in the table.

Table 3: Financial regulations in Ghana

Act	Purpose
Bank of Ghana (Amendment) Act, 2016 (Act 918)	It covers the monetary supervision, economic growth and policy enactment, etc of the country to provide a sound stable and robust economic and financial system
The Payment Systems Act, 2003 (Act 662)	Provided the legal foundation for the digitalization of the interbank payment ecosystem Real Time Gross Settlements system (RTGS) called the Ghana Interbank Settlement (GIS) system e automated clearing House (ACH) platform, and instant payments.
Foreign Exchange Act, 2006 (Act 723)	An Act to provide for the exchange of foreign currency, for international payment transactions and foreign exchange transfers; to regulate foreign exchange providers, etc.
Branchless Banking Guideline	Provide regulatory support for banks to utilize mobile phone networks to provide financial services in partnership with telecommunication companies
Non-Bank Financial Institutions Act, 2008 (Act 774)	An Act to provide for the regulation of non-bank financial institutions and for related purposes
Data Protection Act, 2012 (Act 843)	Prevent breaches of customer data and privacy
Electronic Money Issuers Guidelines (EMIG) & Agent Guidelines (AG), 2015	Permitting a non-bank entity (telecommunication company) to establish a subsidiary to be licensed by the Bank of Ghana to issue electronic money
Banks and Specialised Deposit-Taking Institutions Act, 2016 (Act 930)	An ACT to amend and consolidate the laws relating to deposit-taking; to regulate institutions that carry on deposit-taking business, and to provide for related matters.
Ghana Deposit Protection Act, 2016 (Act 931)	An Act to provide for the establishment of a Deposit Protection Scheme, a Deposit Protection Fund, a Deposit Protection Corporation, and for related matters

Act	Purpose
The Payment Systems and Services Act, 2019 (Act 987)	An enabling regulatory environment that permits the participation of diverse service providers including banks, SDIs, EMLs, and FinTechs.
Development Finance Institutions Act, 2020 (Act 1032)	This Act provides directives on license and capital requirements for Development Finance Institutions in Ghana.
Borrowers and Lenders Act, 2020 (Act 1052)	AN ACT to regulate transactions between borrowers and lenders, to establish a Collateral Registry, to provide a legal framework for the registration and enforcement of security interests in collateral, to establish an order of priority of security interests, to provide for credit agreements generally, and provide for related matters.
Anti-Money Laundering Act, 2020, (Act 1044)	This Act aims to consolidate the laws relating to the prohibition of money laundering and provide for the establishment of the Financial Intelligence Centre and other related matters.





Conclusion

While financial innovations are increasingly becoming common worldwide, their applicability is not fully utilized across Ghana as a result of low financial literacy, technologies, regulations, and internet challenges. Although Ghana has advanced its financial journey from cash centered to cashless agenda, the adoption rate by businesses/merchants and individuals is discouraging. For instant, GhanaPay and GhQR Code have witnessed low usage. Digital wallets and banks' mobile apps are not widely used, meaning consumers prefer holding cash due to its long usage intrinsic value.

As global payment trends are changing, new, secured, and fast payments are emerging which requires Ghana, businesses, corporate organizations, and individuals need to adopt and compete with other businesses in the international market. Banks and other financial institutions have stayed alert, being more dynamic than ever, and embracing financial innovations to meet consumers' needs. Most financial institutions are going paperless (e.g. ABSA Bank), providing near real-time payment (RTP) or instant payment service (IPS) due to GhIPSS infrastructural development.

Furthermore, there are more gaps to discover and improve in the Ghana financial landscape, especially with cross-border payment efficiency and associated cost. Adopting full synchronization of IPS with nearby countries or international market payment providers is worth achieving through infrastructural upgrading and development as well as a strong regulatory environment.

References

AfricaNenda, ECA, & World Bank (2022). The State of Instant and Inclusive Payment Systems (SIIPS) in Africa 2022.

Alfonso Siano, A., Raimi, L., Panait, M. C. (2020). Mobile Banking: An Innovative Solution for Increasing Financial Inclusion in Sub-Saharan African Countries: Evidence from Nigeria. Sustainability. doi:10.3390/su122310130.

Bank of Ghana (2018). National Financial Inclusion and Development Strategy for 2018-2023.

Bank of Ghana (2019) National Payment Systems Strategic Plan (2019-2024)

Bank of Ghana (2020). Digital Payments Roadmap. Toward a Cash-Lite Ghana. Building an Inclusive Digital Payments Ecosystem.

Bank of Ghana (2021). Bank of Ghana partners with Giesecke+Devrient to pilot first general-purpose Central Bank Digital Currency in Africa. [Press Release]. <https://www.bog.gov.gh/news/press-release>

Bank of Ghana (2022). Design paper of the digital Cedi (eCedi)

Dunn, M., & Johnson, C. (2020). Payment facilities underpin scaling of Africa's digital platforms. i2ifacility.org

Euro Banking Association (2016). Understanding the business relevance of open APIs and open banking for banks.

GHIPSS (2022). GHIPSS moves GHQR adoption drive to major shopping centres. <https://www.ghipss.net/>

GPSS (2020). Payment systems worldwide: a snapshot. www.worldbank.org

World Bank (2021). Developing Digital Payment Services in the Middle East and North Africa : A Strategic Approach. <https://openknowledge.worldbank.org/handle/10986/36000>

World Bank Group (2020). Global Financial Development Report 2014: Financial Inclusion; World Bank Publications: Washington, DC, USA.

About Agpaytech

Agpaytech Ltd. is a company pioneering in the Fintech Space with a focused approach to building robust technologies for eCommerce Card Processing Solutions for Payment Service Providers (PSPs). Additionally, we provide Compliance and Regulatory Umbrella, Remittance-as-a-Service White-Label Solution, Foreign Exchange, Cross Border Payments, and digital currency technology. We have partnered with multiple banks, non-banking financial institutions, and corporate organizations to create a solid service delivery model for them and their customers to ease their international remittances and payments concerns. Website: www.agpaytech.co.uk

United Kingdom
AGPAYTECH LTD.
3rd Floor, 86-90 Paul Street
London, EC2A 4NE, UK

Email: info@agpaytech.com

United States of America
AGPAYTECH USA LLC
9701 Apollo Dr Suite 100
Largo MD, 20774, USA

Email: usa@agpaytech.com