SUSTINERI ATTORNEYS

www.sustineriattorneys.com

THE GHANA FINTECH REPORT

3RD QUARTER 2023 EDITION

A Sustineri Attorneys' Quarterly Fintech report.

TABLE OF CONTENT

01 FORWARD

Richard Nunekpeku
Managing Partner

Dear Esteemed Readers,

We are thrilled to present to you the 3rd Quarter edition of the Ghana Fintech Report. This edition represents a significant milestone in our journey, building upon the contributions, insights, and thought leadership we've shared in the previous two editions released earlier this year.

In an era where the transformative influence of financial technology (fintech) is becoming increasingly prevalent in the design and delivery of financial services globally, we have delved into a pivotal technology – blockchain in this edition, exploring the risks and opportunities that blockchain technology presents.

Furthermore, this edition casts a spotlight on the crucial roles the National Insurance Commission (NIC) is required to play in nurturing the burgeoning Insurance Technology (InsurTech) sector in Ghana. We also provide updates on Emerging Products/Services and Business Models while highlighting the prevailing trends and innovations propelling the evolution of the financial sector.

Our "insight column" features thought leadership articles on the state of the fintech sector in Ghana, shedding light on how stakeholders can collaborate harmoniously to unlock its full potential while effectively mitigating associated risks.

In keeping with our commitment to promote Ghanaian fintech companies, we celebrate the outstanding growth and profitability achieved by Zeepay Company Limited in our "Spotlight on industry players" segment.

As Ghana's fintech landscape continues to witness the design of disruptive innovations, we aspire that our documentation of remarkable initiatives like "Motito" within the Ghana Fintech Report will serve as a definitive reference point for tracking the evolution and maturation of the fintech ecosystem.

Finally, we extend our heartfelt gratitude for your unwavering support, invaluable feedback, and encouragement. Your continued engagement fuels our motivation as we persistently strive to shape the fintech landscape through our quarterly Ghana Fintech Reports.

It is our hope that you find the insights and knowledge within this edition useful for your work.

THE PUBLISHERS AND CONTRIBUTORS

02

ABOUT THE PUBLISHERS

SUSTINERI ATTORNEYS PRUC is Ghana's foremost Fintech and Start-up focused law firm, committed to providing differentiated legal services by leveraging our experience as proven entrepreneurs, business managers, and business lawyers which allows us to think and act like the entrepreneurs, business owners, and managers we work with at all times.

As a team of young legal practitioners, SUSTINERI ATTORNEYS PRUC takes pride in acting with integrity, avoiding conflicts, and working with clients to design innovative legal solutions that meet their specific needs.

At SUSTINERI ATTORNEYS PRUC, we consider every client's brief as an opportunity to use our sound understanding of Ghana's business, commercial and legal environment, professional experience, and sound commercial knowledge to provide solutions that do not only address immediate legal needs but also anticipate future challenges and opportunities.

Our pride as the foremost Fintech and Start-up focused law firm stems not only from our understanding of the potentials of emerging technologies and our belief in the ideas of many young people but also from the difference our network of resources and experience can make when working closely with founders and entrepreneurs. To this end, we operate a 24-hour policy urging our clients to reach out to us at any time and on any issue.

We strive for excellence, ensuring that our solutions provide sustainable paths for our clients' businesses by adopting a common-sense and practical approach in our value-added legal service delivery – and employing our problem-solving skills.

Our goal is to help businesses to become commercially sound and viable, as well as regulatory compliant, by engaging in legal and beneficial transactions to promote their business competitiveness for sustained operations and investments.

And as our name implies, our priority is to always leverage legal means to promote the sustainability (long-term viability) of our clients' businesses.

We are different, and the preferred partner for growth.

CONTRIBUTORS

Richard Nunekpeku,
Managing Partner

richard@sustineriattorneys.com

Cecilia Antwi Kyem,
Associate

cecilia@sustineriattorneys.com

Adwoa Birago Nyantakyi,
Associate

birago@sustineriattorneys.com

Harold Kwabena Fearon,
Associate

harold@sustineriattorneys.com

03

TECHNOLOGIES RESHAPING FINANCIAL SERVICES

BLOCKCHAIN TECHNOLOGY

Blockchain, as an emerging innovation, is causing a profound change in the design and delivery of financial services. It started as the underlying technology behind cryptocurrencies but has evolved into an innovative force in the financial sector.

The decentralized, transparent, and secure features of blockchain have profound effects on the design and delivery of financial services and as blockchain technology evolves and gains wider acceptance, its capacity to drive innovation and enhance financial inclusion is becoming boundless.

WHAT IT IS AND HOW IT WORKS:

Blockchain is a distributed ledger technology that records and verifies transactions in a secure, transparent, and decentralized manner. It stands in contrast to traditional financial systems where transactions are centralized and rely heavily on intermediaries. It operates on a peer-to-peer network, eliminating the need for third parties.

Ordinarily, this technology allows individuals who do not know each other to create a comprehensive digital recording of ownership that requires the consensus of all parties. It serves as a consistent transaction history that all network 'nodes' agree upon. Essentially, it is a public database capable of storing and transferring tangible and intangible assets. It enables parties to send, receive, and store value or information via a distributed peer-to-peer network of multiple computers. Each transaction is distributed across the entire network and is recorded on a "block" only after the rest of the network confirms the transaction's validity based on past transactions and previous blocks.

Blockchain also serves as a verification system that supports cryptocurrencies such as Bitcoin, Ethereum, and Ripple, among others. However, its potential extends beyond cryptocurrencies to include various applications, platforms, information storage, and distribution systems.

KEY FEATURES OF BLOCKCHAIN TECHNOLOGY

1. Decentralization: Blockchain operates on a decentralized network of computers, eliminating the need for a central authority or intermediary. This feature not only reduces the risk of single points of failure but also promotes trust among participants.

2. Immutability: Once a transaction is recorded on the blockchain, it becomes immutable.

" Blockchain is a distributed ledger technology that records and verifies transactions in a secure, transparent, and decentralized manner. "

The data is stored in a series of blocks, each linked to the previous one, forming an unbroken chain. This makes it exceedingly difficult for any party to alter or tamper with the transaction history.

3. Transparency: Blockchain transactions are visible to all participants in the network, creating a level of transparency that has hitherto been unparalleled in the financial world. This transparency is achieved without compromising the privacy and security of individual transactions.

4. Security: Blockchain employs robust cryptographic techniques to ensure the integrity and security of data. The decentralized nature of the network, coupled with encryption, guards against fraud, hacking, and unauthorized access.

5. Consensus Mechanisms: To validate and record transactions, blockchain networks rely on consensus mechanisms, such as Proof of Work (PoW) or Proof of Stake (PoS). These mechanisms ensure that participants in the network collectively agree on the state of the ledger.

IMPACT ON THE DESIGN AND DELIVERY OF FINANCIAL SERVICES

Blockchain technology and digital assets have gained widespread acceptance in the financial sector. While digital assets such as cryptocurrencies, stablecoins, and central bank digital currencies remain the most common applications of blockchain technology, service providers have shown significant interest in this technology. They have developed digital wallets for storing digital assets, created platforms for buying, selling, and trading digital assets, and introduced non-fungible tokens with a wide range of applications. These applications extend from tokenizing real-world assets like real estate and art to creating digital art collectibles.

" Blockchain technology and digital assets have gained widespread acceptance in the financial sector. "

Below are some ways by which blockchain technology has impacted the delivery of financial services:-

1. Enhanced Security and Transparency: One of the ways blockchain is reshaping financial services is by providing enhanced security and transparency. Traditional financial systems often rely on centralized intermediaries, making them vulnerable to fraud and cyberattacks. Blockchain's decentralized nature and cryptographic techniques ensure that data is secure, and transactions are immutable. This level of security fosters trust among participants, reducing the need for intermediaries and their associated costs.

2. Faster and Cheaper Cross-Border Payments: Cross-border payments have long been plagued by inefficiencies, delays, and high costs. Blockchain technology enables real-time cross-border transactions with significantly lower fees. Cryptocurrencies like Ripple's XRP have gained prominence for their ability to facilitate these rapid, cost-effective international transfers. This development has the potential to transform remittances, trade finance, and global commerce.

3. Smart Contracts Automating Financial Agreements: Smart contracts are self-executing agreements with the terms of the agreement directly written into code which are executed in real time without the need for third parties such as banks and lawyers. They enable automated and streamlined execution of financial processes and agreements, eliminating the need for intermediaries Blockchain-based smart contracts have applications in lending, insurance, derivatives trading, and more. This automation reduces costs, minimizes errors, and enhances transparency and efficiency.

4. Tokenization of Assets: Blockchain allows for the tokenization of various assets, from real estate and art to stocks and bonds. This process involves representing ownership rights as digital tokens on the blockchain. Tokenization enhances liquidity, lowers entry barriers for investors, and facilitates fractional ownership of high-value assets. Security tokens, for instance, offer a compliant and regulated way to digitize traditional financial assets.

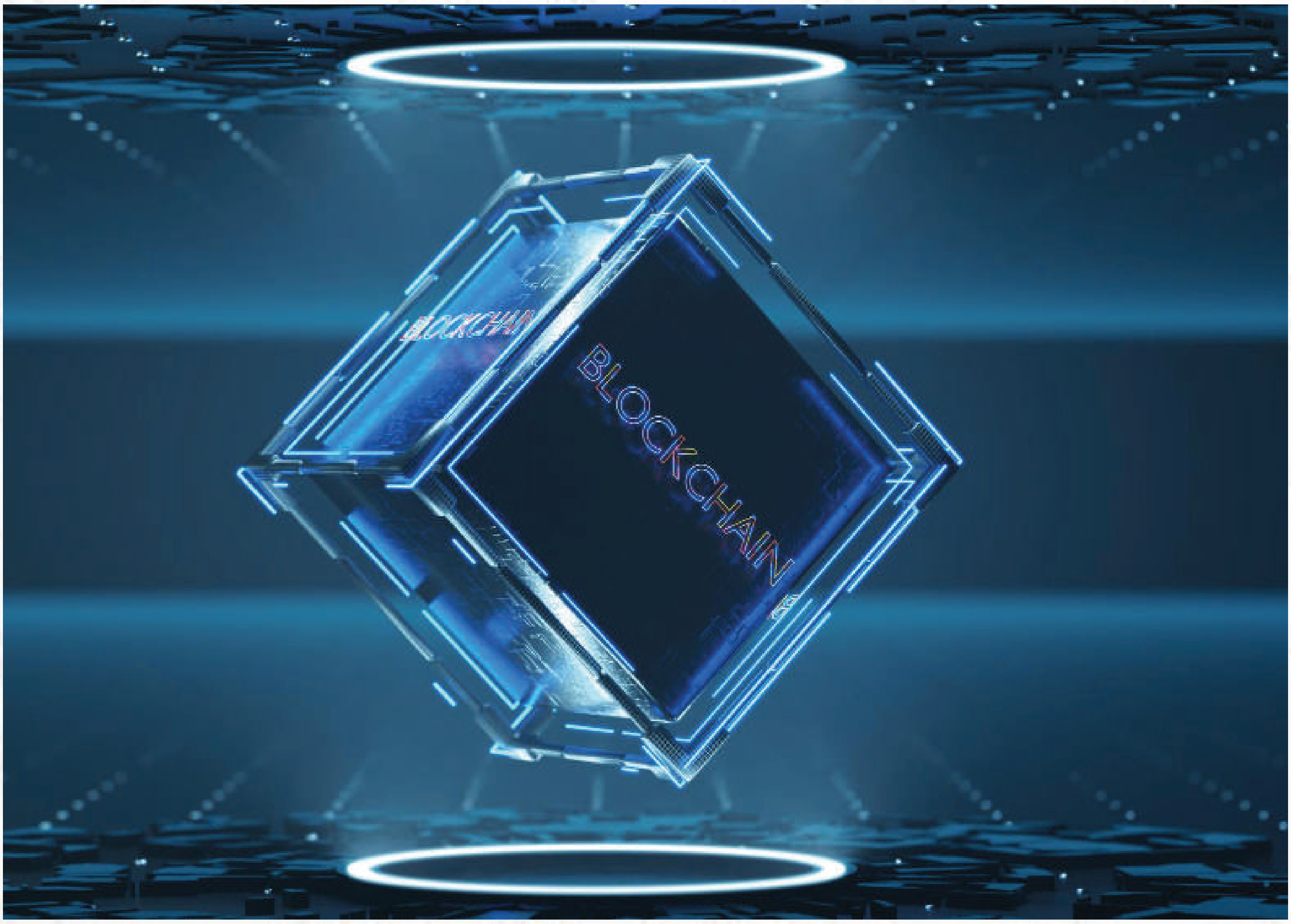
5. Decentralized Finance (DeFi): Decentralized Finance, or DeFi, is a growing sector within blockchain that aims to replicate traditional financial services using open and decentralized protocols. DeFi applications include decentralized lending, borrowing, trading, and yield farming, all of which can be accessed without intermediaries. This movement is democratizing finance, making it more accessible to people globally, regardless of their location or socioeconomic status.

6. Central Bank Digital Currencies (CBDCs): Several central banks are exploring the development of Central Bank Digital Currencies (CBDCs) on blockchain technology. CBDCs have the potential to offer a secure and efficient means of issuing and distributing digital versions of national currencies. They can facilitate faster monetary policy transmission, reduce counterfeiting, and improve financial inclusion.

7. Improved Regulatory Compliance: Blockchain's transparency and immutability make it easier for financial institutions to comply with regulatory requirements. Transactions can be tracked in real time, enabling more efficient auditing and reporting. Additionally, identity verification and Know Your Customer (KYC) processes can be enhanced through blockchain, reducing the risk of fraud and money laundering.

CONCLUSION

Blockchain keeps evolving and disrupting the fintech ecosystem by offering new solutions that are more efficient, secure, transparent, and cost-effective than traditional systems. Based on its diverse functionality, it is expected to have a significant impact on the growth and transformation of the financial sector as it has now and in the coming years to help achieve financial sector goals.



04

INCLUSIVE FINTECH

SPOTLIGHT ON THE NATIONAL INSURANCE COMMISSION

NATIONAL INSURANCE COMMISSION

The National Insurance Commission (NIC) originated from the Insurance Law of 1989 (PNDC Law 227) but is currently governed by the Insurance Act of 2021 (Act 1061). It is committed to the overseeing and governance of the country's insurance industry, which is reflected in Act 1061, enhancing the regulatory framework governing the sector. The primary aim of the NIC, as stipulated in Act 1061, is to ensure the efficient administration, supervision, regulation, and control of insurance activities within Ghana. This overarching mission encompasses a broad range of responsibilities and functions geared toward fostering a well-structured and compliant insurance sector.

The key mandates of the NIC are that they are firstly tasked with the issuance of licenses to insurance entities, ensuring that they meet the requisite criteria for conducting business in the industry. This regulatory oversight is crucial for maintaining the industry's integrity.

Secondly, the Commission is responsible for establishing industry standards and codes of conduct that insurance practitioners must adhere to. This promotes transparency and professionalism within the sector.

Thirdly, NIC helps in approving insurance premium rates and commissions. This ensures that the interests of both insurers and policyholders are protected. Also, NIC provides a platform for the resolution of complaints, serving as an intermediary between insurance providers and policyholders embroiled in disputes among other roles like public education, supervision, and enforcement of policies, etc.

The insurance industry in Ghana is poised for a major transformation with the rise of InsurTech, technology-based insurance start-ups. With the enactment of the new Insurance Act 2021 (Act 1061) and the efforts of the National Insurance Commission (NIC), Ghana is paving the way for innovation and inclusivity in the insurance sector. In this article, we will explore the key developments, regulations, and opportunities that InsurTech brings to Ghana's insurance industry.

THE NEED FOR INNOVATION IN THE INSURANCE SECTOR

The insurance landscape in Ghana has grappled with noteworthy challenges, characterized by low market penetration and a notable lack of access to insurance products among the populace. An extensive survey conducted by the UN Development Program illuminated a concerning statistic: approximately 70% of Ghanaians remain without any form of insurance coverage leaving them vulnerable to a range of financial risks. This low penetration is partly due to limited access to suitable insurance products.

However, amidst these challenges, there have been notable strides in the sector in recent years. Notably, the market value of Ghana's insurance industry has experienced exponential growth, increasing tenfold from 2011 to 2021. This remarkable expansion can be attributed, in part, to the introduction of micro-insurance. The digitization of services holds immense potential for expanding the consumer base of the insurance industry, especially in light of the significant shift toward online financial services during the COVID-19 pandemic. This innovative approach has revolutionized the sector by making insurance more accessible and tailored to the specific needs of previously underserved communities. By offering insurance products at a micro level, this initiative has helped bridge the gap between traditional insurance and those who were once excluded from its benefits. The pandemic, with its restrictions on movement and physical contact, has accentuated this gap, leading to adverse effects on business-to-consumer interactions and the revenue of the insurance sector. This growth signals a promising shift in the perception of insurance as a crucial financial tool.

THE ROLE OF INSURTECH IN TRANSFORMING THE INSURANCE INDUSTRY

InsurTechs have emerged as change agents and enablers of innovation in the insurance industry. These technology-focused start-ups have the potential to deepen access to insurance, develop the insurance market landscape, and enhance the delivery of insurance services.

The digitalization of services has become crucial, especially in the wake of the Covid-19 pandemic. While the banking sector in Ghana has embraced digital services, the insurance industry has lagged behind. The pandemic has further highlighted the need for insurance companies to adopt digital tools to make their offerings more accessible and resilient.

Insurtechs offer innovative solutions that leverage technology to enhance various aspects of the insurance sector, including risk transfer, insurance distribution, and customer experience. By harnessing the power of digital technology and data collection, insurtechs can provide personalized policies and create new, customer-centric insurance products.

REGULATORY FRAMEWORK FOR INSURTECHS IN GHANA

The new Insurance Act 2021 (Act 1061) has paved the way for the operation of insurtechs in Ghana. The NIC is in the process of finalizing regulations that will govern the activities of these technology-based start-ups. The regulations will provide appropriate safeguards to ensure fair customer treatment, governance, and security in the insurtech sector.

Under the new regulations, insurtech companies will be eligible for innovative licenses. These licenses will be granted to companies that demonstrate the capability to use new or innovative technological measures to carry out insurance business or provide innovative products and services. The issuance of these licenses will be subject to criteria such as customer protection and the ability of the NIC to supervise the licensees.

THE INNOLAB INSURTECH ACCELERATOR PROGRAMME

“ The introduction of insurtech in Ghana's insurance industry marks a significant step towards innovation and inclusivity. As insurtechs continue to develop and grow, they will play a crucial role in tackling the challenges faced by the insurance sector. ”

The NIC, in collaboration with the GIZ, launched the Innolab Insurtech Accelerator Program in January 2022. This program aims to foster the growth of insurtech start-ups in Ghana and unlock innovations that can transform the insurance industry. The program selected ten innovators who underwent a ten-week training to scale up their ideas and solutions.

As part of the program, the GIZ provided financial support to the three winning firms, with each receiving €20,000. This funding will enable the firms to further develop their innovative solutions into sustainable insurance products and services, promoting financial inclusion and driving the growth of Ghana's insurance industry.

The Innolab Insurtech Accelerator Program serves as a platform for potential partnerships between insurtech start-ups and existing insurance companies. These partnerships can leverage the innovative solutions developed by insurtechs to enhance the business processes of traditional insurance companies. The program aims to harness innovation as an essential element of the strategic objectives of the NIC and the overall transformation of the insurance industry.

THE IMPORTANCE OF DIGITIZATION AND INNOVATION

The Ghanaian government recognizes the importance of digitization and innovation in the financial ecosystem. It has formulated the National Financial Inclusion and Development Strategy (NFIDS), complemented by the Digital Financial Services (DFS) policy and a digital payment roadmap. These initiatives aim to create a robust financial ecosystem that can respond to the changing needs of the global economy. Digitization and innovation are critical for expanding access to relevant and affordable financial services. The government's efforts in promoting a digitized society align with the goals of the insurtech sector. Insurtechs leverage technology to provide tailored insurance solutions, making insurance more accessible and inclusive for the Ghanaian population.

THE FUTURE OF INSURTECH IN GHANA

The introduction of insurtech in Ghana's insurance industry marks a significant step towards innovation and inclusivity. As insurtechs continue to develop and grow, they will play a crucial role in tackling the challenges faced by the insurance sector. Through technology-driven solutions, insurtechs have the potential to revolutionize the delivery of insurance services, enhance customer experience, and drive financial inclusion.

The regulatory framework being put in place by the NIC will provide the necessary guidelines and safeguards for the operation of insurtechs in Ghana. These regulations will ensure fair customer treatment, governance, and security while promoting innovation and competitiveness in the insurance industry.

With the support of programs like the Innolab Insurtech Accelerator Program and the government's focus on digitization and innovation, the future of insurtech in Ghana looks promising. By fostering partnerships between traditional insurance companies and insurtech start-ups, Ghana can harness the power of technology to transform the insurance sector and meet the evolving needs of the population.

CONCLUSION

The rise of insurtech in Ghana presents an opportunity to revolutionize the insurance industry. With the enactment of the new Insurance Act 2021 and the efforts of the National Insurance Commission, Ghana is embracing innovation and inclusivity in insurance. Insurtechs have the potential to deepen access to insurance, develop the market landscape, and enhance the delivery of insurance services. Through the regulatory framework and initiatives like the Innolab Insurtech Accelerator Program, Ghana is positioning itself as a hub for insurtech innovation in Africa. As the sector continues to evolve, insurtechs and traditional insurance companies can collaborate to create a more inclusive and customer-centric insurance industry in Ghana.

05

EMERGING PRODUCTS AND SERVICES

A. PALMPAY

PalmPay is a mobile payment and financial services platform offering a comprehensive suite of financial services to a wide user base. Launched in 2019, PalmPay leverages the ubiquity of mobile phones in Africa to provide a wide range of financial services, including mobile payments, fund transfers, airtime top-ups, bill payments, and savings.

Its commitment to financial inclusion, combined with its user-friendly interface and forward-thinking approach, positions it as a major player in shaping the future of digital finance on the continent. Since PalmPay first launched in Nigeria and Ghana in 2019, it has provided over 5,000,000 customers with convenient and affordable digital payments.

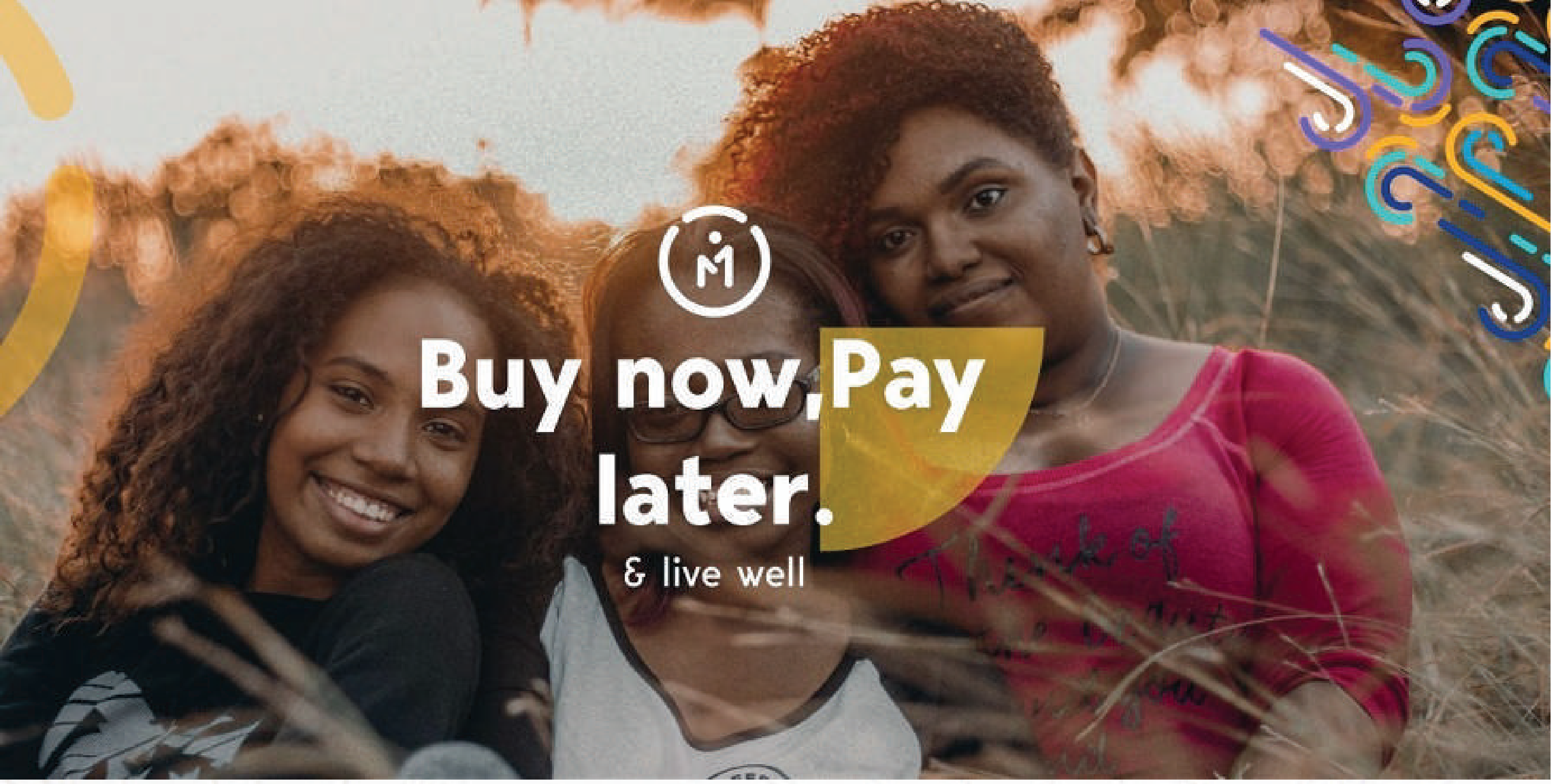
As part of its service offering, PalmPay offers users a convenient way to make payments using their smartphones. It supports peer-to-peer transfers, merchant payments, and utility bill payments. Similarly, users can create a digital wallet linked to their mobile number, making it easy to store, send, and receive money digitally.

Also, PalmPay provides users with savings and investment options, allowing them to grow their wealth by earning interest on savings and participating in investment opportunities. The platform also offers insurance products to protect users against unforeseen events, further enhancing financial security. It partners with local banks to provide banking services such as loans and credit facilities to users, bridging the gap between traditional and digital banking. Users can earn rewards and cashback for using PalmPay, making it an attractive option for consumers.

One of PalmPay's feature is its accessibility - by allowing individuals who may not have access to traditional banking services to participate in the formal financial system. This has the potential to reduce the number of unbanked and underbanked individuals in Africa. The digital platform also reduces the costs associated with traditional banking, making financial transactions more affordable for users. By enabling easy and secure payments, PalmPay supports small businesses and entrepreneurs by expanding their customer base and facilitating financial transactions.

PalmPay has already expanded its services to multiple African countries and aims to reach even more. It continues to innovate by integrating emerging technologies such as blockchain and artificial intelligence to enhance security, efficiency, and user experience.

PalmPay aims to promote financial inclusion and enhance consumer experiences by providing a secure, reliable, and convenient payment platform. PalmPay is one of the leading Pan-African fintech companies that is reshaping the delivery of financial services in the continent.



B. MOTITO

Motito Limited operates as a retail-tech platform in Ghana, aiming to make essential assets more accessible to Ghanaians. Their core mission revolves around improving financial inclusion and affordability, not only for Ghanaians but also for people across Africa.

Motito offers a range of products and services. One of their key offerings is the "buy now, pay later" (BNPL) service. This means that users can purchase various items, such as tools, sewing machines, furniture, refrigerators, and air conditioners, and pay for them in smaller installments over a period of 3 to 5 months. This flexible payment option makes it easier for people to acquire the things they need.

Additionally, Motito provides a unique service called "KeepMyPrice," which allows users to lock in prices for specific products for up to 30 days. This ensures that customers can secure items at a particular price, even if there are fluctuations in the market.

Motito's target audience primarily includes individuals in the mid-low-income bracket. This typically encompasses small business owners and members of secure groups, such as employees of companies, associations, credit unions, and banks.

By focusing on these segments, Motito aims to bring financial accessibility and affordability to those who may have limited options in traditional financial markets.

Motito is currently participating in the Regulatory Sandbox Program being run by the Bank of Ghana for approval for commercial deployment.

06

TRENDS AND INNOVATIONS

AUGMENTED REALITY (AR) & VIRTUAL REALITY (VR)

Augmented Reality (AR) and Virtual Reality (VR) are immersive technologies that have expanded beyond the gaming and entertainment industry to offer innovative solutions in other sectors, such as the financial sector. As technology continues to advance, the convergence between fintech and immersive technologies is likely to drive innovation and create new opportunities for financial service providers and consumers alike. These transformative technologies are transforming the way we interact with the world with AR adding digital elements to a live view of the physical environment, while VR replaces the physical environment with a simulated one.

HOW AR AND VR WORKS

AR works by overlaying digital information, such as images, text, sounds, or videos, on top of the real-world view captured by a camera or a sensor. AR devices can be smartphones, tablets, smart glasses, or headsets that have cameras or sensors to track the user's position and orientation.

VR operates by creating a fully artificial environment that replaces the user's real-world view. VR devices are usually headsets that have screens and lenses that block out any external light and display stereoscopic images that create a sense of depth and realism. VR devices also have sensors that track the user's head movements and adjust the images accordingly. VR apps and games can use VR features to transport the user to different places and scenarios that are not possible or accessible in reality.

The functionality of AR and VR applications requires high bandwidth, low latency, and reliable connectivity to deliver realistic and interactive experiences. The integration of 5G and VoLTE provides ultra-fast connectivity, enabling high-quality voice and video communication within virtual spaces, and enhancing the realism of AR and VR content with rich, high-definition visuals.

The widespread accessibility, support for edge computing, and applications across the financial sector highlight the transformative potential of this collaborative technology, ushering in a future where AR and VR experiences are more immersive, practical, and widely accessible, transcending entertainment and gaming into fields like healthcare, manufacturing, and training.

IMPACT ON THE DESIGN AND DELIVERY OF FINTECH SOLUTIONS

These immersive technologies can enhance the design and delivery of fintech solutions in various ways, such as:

1. **Data visualization:** Fintech companies thrive on the collection and use of customer data

" As technology continues to advance, the convergence between fintech and immersive technologies is likely to drive innovation and create new opportunities for financial service providers and consumers alike. "

in the design and delivery of tailored financial solutions. To make the best use of this data, there is a need for the proper organization, presentation, and visualization of this data for easier understanding and use. AR and VR present fintech companies with the opportunity to visualize and present huge quantities of data in 3-D format in either simulated environments or overlaid on physical environments.

With the emergence of open banking, the implication is that consumers' data will be easily shared between banking institutions and non-bank financial institutions. Making sense of this data via augmented reality will go a long way to facilitate services. AR and VR can help traders and investors visualize and analyze large amounts of financial data in a more engaging and intuitive way. For example, Salesforce uses Oculus Rift to create an immersive 3D environment for data analysis. Fidelity Labs also uses Oculus Rift to create a virtual city called StockCity, where stock portfolios are turned into 3D buildings.

2. Virtual Reality Payments: AR and VR can also facilitate payments in a virtual world, without having to leave the immersive experience. For example, MasterCard has partnered with Wearality to create a VR golf experience called Priceless, where players can buy clothing in the virtual world using MasterCard's payment system.

Currently, there appears to be a trend of fintech service providers using augmented reality in their applications for customer service and integrating payment systems into said applications so that clients can easily make payments without leaving the platform. For instance, Capital One provides a car loan app known as the Auto Navigator which allows clients to view cars and get all the necessary information about the car overlaid over the physical car by just pointing their phone camera at it. There is also an integrated system that allows the customer to immediately apply for a car loan upon identifying a vehicle of their choice.

3. Customized Customer Service: AR and VR can also offer customized experiences for fintech users, based on their preferences, needs, or goals. For example, AR applications can offer personalized recommendations based on users' financial data, such as spending habits, risk tolerance, or financial objectives. VR applications can also create tailored scenarios that simulate real-life situations, such as buying a house or planning for retirement.

It also improves customer services using AR-powered chatbots, VR assistants, or AR location-based services. For example, many banks have AR apps that help customers find the nearest banks and ATMs, using their phones to scan the area. AR-powered chatbots can also provide virtual assistance in real time, overlaying relevant information or instructions. VR assistants can also offer personalized guidance or recommendations in a virtual environment.

4. Virtual Marketplaces and Integrated Digital Payment Systems: Virtual reality provides the opportunity to facilitate the growth and adoption of FinTech services through the provision of virtual marketplaces. Virtual marketplaces refer to simulated environments in

virtual reality where consumers can purchase virtual items or other items which will be delivered to them in person.

These virtual marketplaces facilitate Fintech services by the incorporation of digital payment platforms so that consumers do not have to access third-party platforms prior to conducting transactions in the virtual marketplace. For instance, Comarch uses VR in its wealth management software to give users access to algorithms and trading tools.

The earliest examples of this one can think of would involve the performance of micro-transactions by consumers on modern gaming platforms where consumers use their credit or debit cards to make purchases of virtual in-game items. Additionally, virtual reality facilitates FinTech growth through the adoption and use of virtual/digital currencies and the purchase and sale of digital assets such as NFTs (non-fungible tokens).

5. Security: Virtual and Augmented reality help to provide a higher level of security for FinTech space. Traditionally, most modes of access for Fintech service would be passwords or pin codes which the consumer would have to memorize. The nature of these access codes would mean that forgetting them or carelessly exposing them to unscrupulous persons could pose a serious threat to one's personal finances.

However presently, virtual, and augmented reality provide higher security protection to users of Fintech services by placing access to services or sensitive data behind systems which require biodata such as facial recognition, retina scans, or fingerprint to grant access to VR bank services, ATM transactions, or payments.

For example, in a bid to incorporate biometric recognition into its credit cards Visa is adopting the advanced security technology product offered by SmartMetric to provide its customers with maximum protection such as the detection of live fingerprints to guard against counterfeit fingerprint replicas.

6. Financial Education: AR and VR can also be used as educational tools for both employees and customers of financial institutions. AR and VR can make complex financial concepts more accessible and interesting, using interactive simulations, 3D graphs, or real-time data. For example, AR and VR can help users understand investment strategies, budgeting techniques, or financial planning. Some banks provide an augmented reality platform which unlocks facial recognition of the employees. It contains the necessary features of their banking products which will help their salespersons when marketing the bank to recall the relevant details better as compared to reciting details of product features from memory.

With respect to using augmented reality for public financial literacy education purposes, Desjardins Insurance through its Omni application educates its customers on financial literacy, retirement savings, and other topics with the use of its virtual reality character known as Penny.

AR and VR are creating new opportunities and challenges for financial service delivery and would require innovative design, development, and deployment strategies that can meet the needs and expectations of financial consumers in a dynamic and competitive market.

KNOW YOUR CUSTOMER (eKYC)

Electronic Know Your Customer (eKYC) has ushered in a revolution within the financial sector, by simplifying the digital customer onboarding process. A variety of financial products, including banking, electronic payments, loans, and business insurance, now offer eKYC services through dedicated applications, enhancing accessibility and convenience for prospective clients.

It is however important to first understand the concept of KYC (Know Your Customer) which serves as the predecessor to eKYC.

KYC represents a procedure employed by financial institutions to ascertain the identity of their customers. When individuals interested in opening a new account approach a bank, they are required to complete various forms and provide a copy of their identification card. Throughout the form-filling and document submission process, a bank officer will verify their identity.

KYC becomes relevant when an individual or a legal entity engages in various financial activities, like opening a bank account, securing a loan, establishing securities trading accounts, purchasing insurance, engaging in online gambling services, or applying for a credit card, among other scenarios. KYC serves the purpose of allowing financial institutions to verify the authenticity of a client's identity. Moreover, it furnishes valuable background information that can offer insights into the individual's or company's risk profile and provide context regarding their past and ongoing financial activities. Additionally, KYC holds a significant role in conducting due diligence for anti-money laundering (AML) purposes.

In the world of fintech, KYC isn't simply a desirable feature – it is a fundamental requirement. For fintech companies that must adhere to anti-money laundering (AML) regulations, integrating risk-based customer due diligence and verification processes is a necessity. These steps are vital for preventing fraud and minimizing financial crime risks associated with their banking partners. The first step in this comprehensive strategy is KYC, which entails confirming the identity of customers.

However, the traditional KYC procedures can be quite time-consuming. Customers may find themselves obligated to visit a physical bank branch or share sensitive information via email, which can be

" In the world of fintech, KYC isn't simply a desirable feature – it is a fundamental requirement. For fintech companies that must adhere to anti-money laundering (AML) regulations, integrating risk-based customer due diligence and verification processes is a necessity. "

perceived as risky. This arduous process often leads to a decrease in user conversion rates during onboarding. Furthermore, incomplete, or inefficient KYC processes can heighten the risk of fraud for fintech companies, potentially subjecting them to fines and lost revenue. This is where EKYC comes into play.

eKYC employs secure digital verification methods, including biometrics, to authenticate customer identities and ensure adherence to anti-money laundering (AML) regulations. Through eKYC, customers can undergo verification by combining digital submission of government documents with the application of facial recognition technology. It therefore eliminates the need for in-person verification and allows customers to complete the KYC process online, enhancing convenience and efficiency.

In recent years, there has been a substantial shift in how businesses onboard their clients. The KYC process has evolved beyond its original purpose of solely identifying and preventing financial misconduct - it must now also adapt to meet changing customer preferences. eKYC emerges as a solution that harnesses technology to offer businesses a more flexible, scalable, and reliable means of conducting KYC procedures.

HOW DOES eKYC WORK

In a world where financial technology and regulatory compliance constantly evolve, eKYC emerges as a game-changer. This modern approach to confirming identities seamlessly combines advanced technologies, setting new standards for accuracy, security, and regulatory adherence.

Some of these wide range of methods and technologies include the following:

1. Biometrics: Biometric authentication is a cornerstone of eKYC, heralding a new era in identity verification. It revolves around harnessing an individual's distinct physical and behavioral characteristics to confirm their identity with unparalleled precision. Key biometric methods include:
a. Fingerprint Recognition: Analyzing the unique patterns and ridges of a person's fingerprints for authentication.
b. Facial Recognition: Employing sophisticated algorithms to compare facial features captured in real-time with those stored in identification records.
c. Iris Scans: Leveraging the intricate patterns in the iris to establish identity.
d. Voice Recognition: Verifying an individual's identity by analyzing their vocal characteristics.

These biometric technologies collectively provide a robust and highly secure means of verifying individuals, offering a level of accuracy that surpasses traditional identification methods.

2. Document Verification: Customers participating in eKYC typically upload government-issued identification documents, including passports, driver's licenses, or national ID cards. The heart of this component lies in Advanced Optical Character Recognition (OCR) technology. This advanced tool undergoes a meticulous process of scanning, extracting, and comprehending pertinent information from these documents. It transforms physical text into a digital format. This method not only

" In a world where financial technology and regulatory compliance constantly evolve, eKYC emerges as a game-changer. This modern approach to confirming identities seamlessly combines advanced technologies, setting new standards for accuracy, security, and regulatory adherence. "

guarantees precise and efficient data extraction but also serves as a safeguard against potential human errors that can occur in manual data entry.

3. Data Analytics: Advanced data analytics tools play a pivotal role in eKYC by meticulously scrutinizing the information extracted from identification documents. These tools leverage pattern recognition, anomaly detection, and data mining techniques to dissect the data and cross-reference it with extensive databases. This scrutiny serves a dual purpose:

a. Detecting Anomalies: Identifying irregularities, discrepancies, or inconsistencies in the data provided by the customer.

b. Risk Assessment: Evaluating the individual's or entity's risk profile based on historical and concurrent financial activities.

Data analytics in eKYC provides valuable insights that aid organizations in making informed decisions regarding customer onboarding and risk management.

4. Blockchain Technology: Certain eKYC solutions incorporate blockchain technology to elevate the security and integrity of customer data. Blockchain, renowned for its immutable and transparent nature, offers a secure platform for storing and sharing sensitive customer information. By utilizing blockchain, eKYC enhances data protection, mitigates the risk of unauthorized access, and reduces the potential for data tampering or manipulation. This ensures that the customer's personal and financial information remains secure throughout the verification process.

5. Machine Learning and Artificial Intelligence: Machine learning algorithms and artificial intelligence (AI) capabilities are harnessed in eKYC to monitor customer behavior patterns in real time. This continuous scrutiny allows organizations to swiftly detect and respond to suspicious activities or potential fraud. Machine learning models are trained to recognize irregular patterns, deviations from the norm, and red flags that may indicate fraudulent behavior. By employing AI-driven fraud prevention, eKYC strengthens security measures and bolsters the overall integrity of the verification process.

6. Digital Breadcrumbs: Whenever we engage with digital platforms, we unknowingly leave behind traces that can be harnessed to establish our identity. These traces encompass elements such as IP addresses, email addresses, and even the speed at which we type responses into online forms. eKYC platforms leverage these digital breadcrumbs to not only confirm the authenticity of individuals but also to assess potential risks. When combined with other verification methods like government IDs, these breadcrumbs play a pivotal role in minimizing fraud risk.

eKYC – THE TOOL TO UNLOCKING FINANCIAL INCLUSION IN AFRICA

Digital financial solutions have emerged as a game-changer, helping overcome the hurdles that have long prevented access to banking services in various African countries. These barriers range from inconsistent or informal income sources to the lack of proper identification documents and the geographical remoteness of many communities. The key to sustainable digital financial products in Africa lies in adopting an e-KYC management system integrated with intelligent biometric solutions.

One of the major challenges in

Africa is its underdeveloped infrastructure, which often hinders the effective implementation of standard KYC software solutions used globally. However, the adoption of smart biometrics empowers African financial institutions to create localized, digitized, and tailor-made e-KYC solutions designed to authenticate their customers' identities. This approach not only helps them meet regulatory requirements but also provides a crucial defense against the prevalent fraud issues in Africa, safeguarding both customers and financial assets.

Electronic KYC innovations have become a necessity in Africa in addressing some of the challenges faced in the goal to deepen financial inclusion on the continent:

1. Bypassing the need for National Identification Cards: In Africa, a significant number of people don't possess an officially registered form of identification. This is largely due to the fact that many countries on the continent struggle with inadequate birth registration processes and the issuance of physical ID cards.

The solution to this challenge could lie in implementing an e-KYC management system integrated with advanced biometric databases. However, its success hinges on collaborative efforts between financial organizations and government authorities, as they work together to bring about this much-needed change.

2. African-inspired facial recognition technology: Facial recognition technology is reshaping the way we interact with digital systems, but it hasn't always been inclusive, especially in regions like Africa. The algorithms widely used in Western countries tend to struggle when faced with faces

" Digital financial solutions have emerged as a game-changer, helping overcome the hurdles that have long prevented access to banking services in various African countries. These barriers range from inconsistent or informal income sources to the lack of proper identification documents and the geographical remoteness of many communities. The key to sustainable digital financial products in Africa lies in adopting an e-KYC management system integrated with intelligent biometric solutions. "

that don't fit the traditional Caucasian mold. Notably, their accuracy significantly drops when attempting to recognize black women.

The game-changing solution to this challenge comes in the form of 'Smile Identity,' a home-grown e-KYC software solution. What sets Smile Identity apart is its deep understanding of the unique diversity and characteristics of African populations. Unlike off-the-shelf solutions, it has fine-tuned its algorithms to significantly improve the recognition of black individuals, making facial recognition more reliable and accessible for its African customers.

3. Insufficient Address Verification Systems: Africa grapples with a widespread absence of reliable addressing systems. Many streets and buildings remain unnamed, leaving a substantial portion of the population without formal physical addresses and limited access to doorstep postal services. However, there is hope on the horizon through the adoption of a digitized e-KYC solution combined with the power of Global Positioning System (GPS) technology.

This innovative approach holds immense promise. It means that instead of physically visiting a customer's home, businesses and organizations can access location data remotely. Not only does this significantly cut costs, but it also offers a more convenient way to verify addresses in regions where traditional systems have struggled to keep up.

4. Enhancing mobile banking solutions in Africa: The financial landscape in Africa is evolving, with a growing shift towards contactless digital solutions due to infrastructure challenges. To address concerns about security and data interception, smart biometric verification has emerged as a game-changer.

Through the integration of e-KYC solutions and smart biometrics, mobile platforms now offer edge-based facial recognition. This means that the processing is done directly on your device, reducing delays associated with cloud-based approaches. Only small, encrypted templates are sent for validation to a secure server-hosted database.

This advancement goes beyond everyday banking transactions, enabling customers to apply for additional products swiftly and securely, such as loans or securities accounts, all within a matter of seconds.

5. Advancing Financial Inclusion by Strengthening Identity Verification Systems: In numerous African nations, the concept of 'identity' is not always clearly defined. However, there's a transformative opportunity here. Central banks on the continent, working alongside the respective finance ministries, can leverage an e-KYC management system to bolster financial inclusion by introducing more robust legal structures for identity verification.

This innovative KYC approach places a special focus on nurturing the digital payment ecosystem, making its services accessible to young individuals, women, small businesses, and rural communities through agent networks. Financial institutions can then adopt these updated regulatory KYC standards to reach the most vulnerable and underserved segments of the population while maintaining their capacity to combat financial crimes. It's a win-win strategy that not only enhances financial integrity but also extends the benefits of modern banking to those who need it most.

IMPLEMENTING AN eKYC MANAGEMENT SYSTEM

For companies seeking to transition from manual KYC to eKYC, the first step is considering the right technologies or combinations thereof.

Companies should carefully consider several key factors in this process:

" In numerous African nations, the concept of 'identity' is not always clearly defined. However, there's a transformative opportunity here. Central banks on the continent, working alongside the respective finance ministries, can leverage an e-KYC management system to bolster financial inclusion by introducing more robust legal structures for identity verification. "

1. First and foremost, companies must align their choice of eKYC technologies with their specific business needs and compliance requirements. Striking the right balance between operational efficiency, robust security measures, and adherence to regulatory mandates is paramount.

2. Data security plays a pivotal role in this transition. Ensuring the protection of sensitive customer information is non-negotiable. Therefore, companies should prioritize eKYC solutions that meet the highest standards of data security, safeguarding both customer trust and regulatory compliance.

3. Another critical facet is the customer onboarding experience. Simplifying and enhancing this process is essential. The chosen eKYC solution should reduce friction in customer interactions, making the onboarding process seamless and user-friendly.

4. Budget considerations

cannot be overlooked. While investing in eKYC is crucial, companies must find a solution that aligns with their available budget, ensuring a cost-effective and sustainable transition.

5. Integration capability is equally important. The eKYC solution should seamlessly integrate with existing systems, such as Customer Relationship Management (CRM) tools and data feeds. This ensures a cohesive workflow across the organization.

6. Given the diversity of regulatory requirements across regions, the selected eKYC package should not merely meet but exceed regulatory mandates applicable to the company's operations. Compliance is a fundamental aspect of eKYC implementation.

7. Real time data screening is essential to maintain the accuracy and currency of customer information. A robust eKYC solution should provide real-time screening against trustworthy data sources, ensuring that customer identities are continuously verified against up-to-date information.

CONCLUSION

eKYC is not just a digital solution – it is a transformative force that can empower Africa's economic growth, promote financial inclusion, and enhance the quality of life for its people. The necessity of eKYC in Africa is underscored by its potential to bridge the gap between traditional and digital financial services, ensuring that every African can participate in the digital economy and reap its myriad benefits. With the adoption of e-KYC, Africa can leapfrog to a new global best practice for digital financial services with proactive fraud resilience.

"AMAZON GO" – THE REVOLUTIONARY SHOPPING TECHNOLOGY TAKING CENTER STAGE IN CONSUMER SHOPPING ACROSS THE WORLD

Amazon is accelerating the rollout of its "Amazon Go" shops as the new norm in consumer shopping across the world. Launched 6 years ago, the "Amazon Go" technology uses the most advanced machine learning, computer vision, and artificial intelligence weaved into the fabric of specially designed shops to allow consumers to shop and pay without check-outs or tails.

Acclaimed as the world's most advanced shopping technology, all consumers have to do is enter an Amazon Go shop, scan their Amazon Apps at specially designed and installed scanners and they are ready to shop for anything. Shopped items are automatically added to consumers' virtual cards. Should a consumer change his or her mind about a picked product, once the consumer puts the said product back on its shelf, his or her virtual account is automatically updated.

Amazon is credited with using computer vision, deep learning algorithms, and sensor fusion just like in self-driving cars to achieve this incredible feat – creating a unique and unmatched "on the go" shopping experience.

With what Amazon described as "just walk technology", once a consumer is done shopping and walks out of the shop, the "just walk technology" adds up the consumer's virtual card and charges his or her Amazon account with purchased items.

Today, Amazon has opened 23 and 20 Amazon Go shops in the United States and United Kingdom respectively and looking to aggressively expand to other markets by the end of the year 2023.

If you ever thought "self-checking" was a revolution in the consumer shopping experience, "Amazon Go" is a miracle happening across the world and about to come to a shop near you.

07

CONSUMER INSIGHTS - WHAT CONSUMERS NEED TO KNOW

SIGNING UP FOR FINTECH SOLUTIONS?

TOP 10 THINGS TO NOTE

Fintech companies offer a wide range of services, from payment processing and lending to investment and insurance. However, with the proliferation of fintech solutions, it has become crucial for both businesses and individuals to exercise caution and diligence when choosing a fintech service provider. Here are the top 10 things consumers should look out for when patronizing fintech solutions:

01 Security Measures:

Ensure that the fintech company follows robust security measures to protect sensitive financial data. Look for compliance with industry-standard security certifications and encryption protocols.

02 Privacy Policies:

Verify the company's privacy policies and how they handle customer data and consent.

03 Regulatory Compliance:

Check if the fintech solution complies with relevant financial regulations and is licensed to operate in your region. Compliance ensures that the company adheres to legal standards and customer protections.

04 User-Friendly Interface:

Choose a fintech solution with an intuitive and user-friendly interface. A well-designed platform enhances your overall experience and minimizes the risk of errors or confusion.

05 Customer Support:

Assess the availability and responsiveness of customer support. In case of issues or questions, it is essential to have access to reliable support channels, such as live chat, email, or phone.

06 Reviews and Ratings:

Research the fintech company's reputation by reading customer reviews, checking their rating on trusted review platforms, and seeking recommendations from peers. A positive track record is a good indicator of reliability.

07 Terms and Conditions:

When using fintech solutions, consumers should thoroughly review the terms and conditions, paying attention to data privacy, user responsibilities, fees, account termination policies, intellectual property rights, dispute resolution, liability, warranties, service accessibility, potential changes to terms, and governing law to make informed decisions.

08 Integration and Compatibility:

For businesses especially, it is crucial to ensure that the fintech solution can seamlessly integrate with your existing systems and software. Compatibility with your current financial infrastructure can save time and resources.

09 Scalability:

Consider whether the fintech solution can scale with your needs. As your business or financial goals grow, the fintech platform should offer the flexibility to accommodate these changes.

10 Choose Local:

Be a Ghanaian and choose local solutions.

Fintech solutions have greatly simplified financial processes for businesses and individuals. However, choosing the right fintech provider requires careful consideration of security, compliance, user experience, transparency, customer support, reputation, compatibility, scalability, innovation, and contingency plans. Evaluating these factors, can help consumers make informed decisions when choosing fintech solutions.

08

INDUSTRY PLAYERS' SPOTLIGHT

A FOCUS ON ZEEPAY GHANA

Zeepay stands out as a rapidly expanding Ghanaian-owned fintech company extending its reach across more than 20 African markets. It holds a formal authorization from the Bank of Ghana to operate as an Electronic Money Issuer (EMI), under the oversight of the Ghana Interbank Payment and Settlement Systems (GhIPSS). Zeepay is committed to its vision of becoming the favored digital collaborator for remittances throughout Africa.

In its capacity as a frontrunner in the Ghanaian fintech sector, Zeepay provides a diverse array of products and services designed to interconnect digital assets, including mobile money wallets, payment cards, ATMs, bank accounts, and digital tokens, with an array of financial platforms.

As part of its comprehensive service portfolio, Zeepay enhances international money transfers by facilitating cross-border transactions through mobile money, bank accounts, or designated cash pickup points. The company establishes partnerships with internationally recognized money transfer operators, such as MoneyGram, Ria, Small World, World Remit, and others, to streamline remittance processes not only to Ghana but also to numerous other African nations.

Furthermore, Zeepay facilitates payment services by enabling users to conveniently make payments for goods and services through mobile money or payment cards. This entails integration with various merchants, e-commerce platforms, billers, and aggregators, ensuring the seamless execution of transactions across a broad spectrum of sectors, including education, healthcare, travel, utilities, and more.

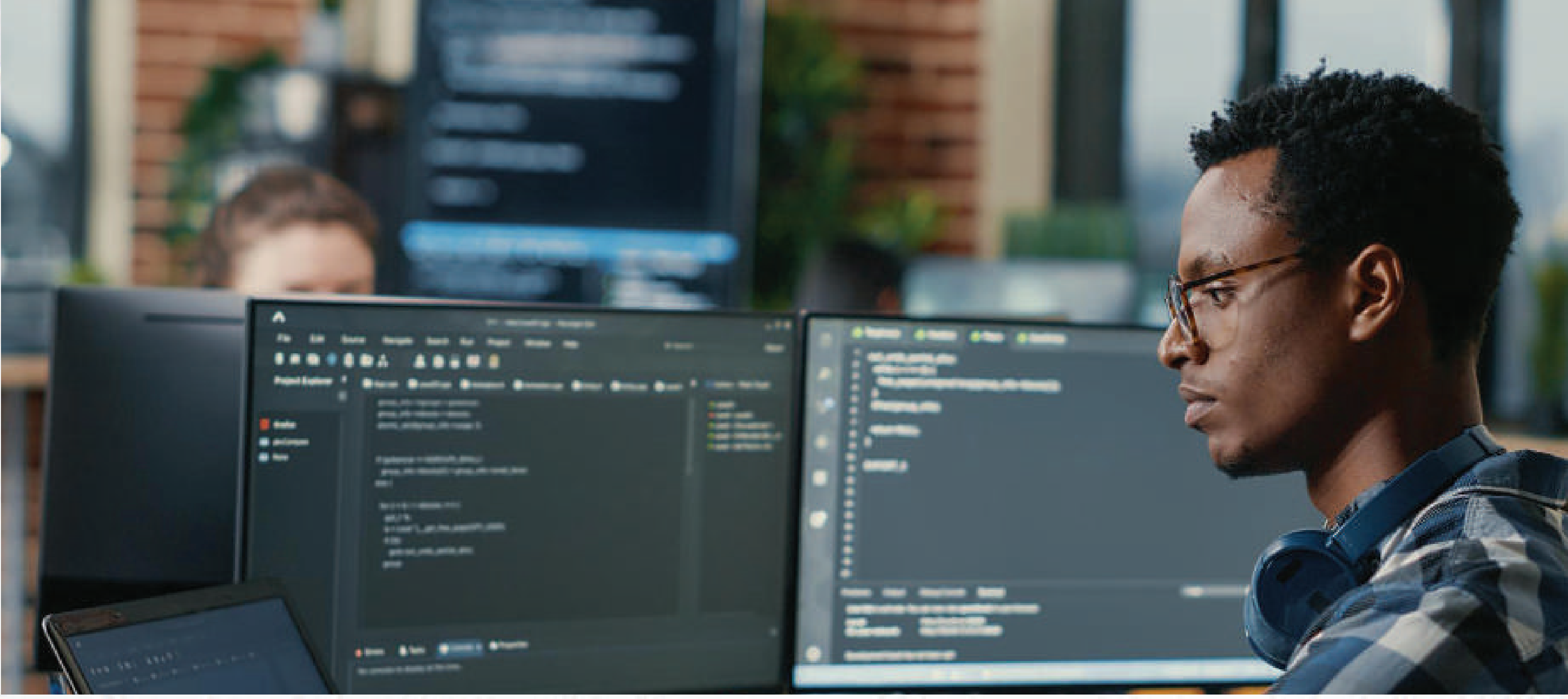
In the realm of subscriptions, Zeepay empowers users to access a range of digital services, such as Netflix, Spotify, and YouTube Premium, using mobile money or payment cards. The company also offers international airtime top-up services, enabling users to stay connected with their loved ones abroad.

Additionally, Zeepay plays a pivotal role in promoting financial inclusion by offering products like micro-insurance, mortgage remittances, and pension collections, often in collaboration with third-party entities such as insurance companies, banks, and pension trustees.


Cloud
Do
Act
Check
Success
Team
Key
Target
Production
Plan
Team
Business

09

INSIGHTS



ENHANCING SANDBOX PROGRAMS TO AID COMMERCIAL DEPLOYMENT OF FINTECH INNOVATIONS IN AFRICA

Financial technology (Fintech) innovations are becoming the mainstay of the global financial sector and user responses to these innovations have been remarkably positive and embraced at an unprecedented scale.

Today, the adoption and usage of fintech innovations particularly those facilitating payments are shown to have surpassed the volumes and values of traditional banking services in many African countries. While everyone is happy with this trend and projecting same as the future of finance, there are valid concerns about the potential use of regulations to create a barrier to the design and deployment of new fintech innovations – due to the associated risks of the emerging innovations such as data protection and privacy, cybersecurity concerns and fraud, among others if left unregulated.

The need to implement strong regulatory oversight requires a balancing act to ensure such new innovations are deployed at the seemingly same rate of development as the underlying emerging technologies. To this end, most central banks are rolling out sandbox programs as a vehicle to pilot and test such new unregulated innovations with strict oversight and to build a better understanding for their future regulations. Therefore, this article will explore how the commercial deployment of emerging fintech innovations can be facilitated through sandbox programs for the ultimate benefits of greater financial inclusions, reduced cost of financial services, financial stability, etc.

FINTECH INNOVATIONS AND FINANCIAL SERVICES

We are not experiencing for the first-time innovations in the financial services sector. Global financial services have impressively evolved since the invention of money and the establishment of the first bank in 1474 in the Tuscan city of Siena. From banknotes and coins to traveler's cheques, bank cards, ATMs, SWIFT transfers, online banking, etc., financial services have been and continue to be delivered on the strict dictates of regulations championed by central banks to regulate, supervise, and manage activities of third-party commercial financial service providers such as banks.

With advances in technologies coupled with their accelerated adoption in recent years due to factors such as the outbreak of

Covid-19, traditional means of providing financial services have been transformed at a record pace into almost digital-only financial services today. Technology has been overlaid on financial services, delivered across multiple internet-connected devices, enabling convenience, access, and a relatively reduced cost of performing financial transactions.

Today, the majority of financial services such as payments and transfers are performed by customers with the click of buttons on their connected devices without visiting traditional bank branches. Banks and non-bank institutions have embraced the advantages offered by emerging technologies such as blockchain, machine learning, artificial intelligence (AI), etc., and are designing new ways of digitalizing traditional financial services. The technological processes and outcomes have presented challenges to the regulator's role in dictating how financial services are provided and compelling central banks to react in an attempt to maintain control and reshape the future of finance using regulations. Whilst some argue that central banks must not intervene in the use of emerging technologies to democratize the issuance, use, and supervision of money and the provision of financial services, that approach may not be in the best interest of users of financial services, interests central banks are primarily set up to promote and protect.

Therefore, in finding a balance, central banks recognizing the speed of development of new technologies and their use cases, are rolling out sandbox programs to provide a launchpad for new financial innovations which do not fall within existing regulated and licensing frameworks. The rollout of these sandbox programs is additional to recent initiatives by central banks to maintain oversight over financial services following the boom in the deployment of fintech innovations such as new legislations (laws), the establishment of licensing regimes, and the setting up of dedicated oversight offices with the requisite technical personnel among others.

" Sandbox programs are considered the best-suited regulatory response to match the pace of innovations due to their ability to facilitate the continuous design of innovations that current regulatory regimes do not permit. "

THE REGULATORY SANDBOX PROGRAM

Hailed as the regulator's best response to the current pace of innovations, the regulatory sandbox program is set up as a "regulatory playground" for innovators with new innovations which are unconventional, and not within any category of existing licensing regime to on a restricted scale pilot the said innovations under the strict supervision of the central bank. In Ghana, the Bank of Ghana earlier this year launched and admitted the first cohort into its regulatory and innovation sandbox run in partnership with the private sector.

Sandbox programs are considered the best-suited regulatory response to match the pace of innovations due to their ability to facilitate the continuous design of innovations that current regulatory regimes do not permit. This means that innovators do not have to innovate to meet the demands of existing legislative frameworks but rather leverage the full extent of emerging technologies to develop what they consider the new possibilities for financial service offerings for commercial deployment. Under a sandbox program, the regulator will gain insights and a better understanding of admitted innovations, tick the boxes on its supervisory mandates, and design new regulatory guidelines for the full-scale deployment of such innovations post-sandbox test phases.

Sandboxes have become innovators' windows to test new ideas in a highly regulated financial sector. It has become the only permitted way by which new innovations will be allowed by central banks to be piloted and/or tested because the exposure to the associated risks of unlicensed innovations will be minimized and the regulator's feedback on piloted innovations can be maximized in its controlled environment. Additionally, sandboxes serve as a regulation and supervision preparedness test for central banks in building their understanding of new innovations and provide the opportunity to institute measures or guidelines on their eventual regulation.

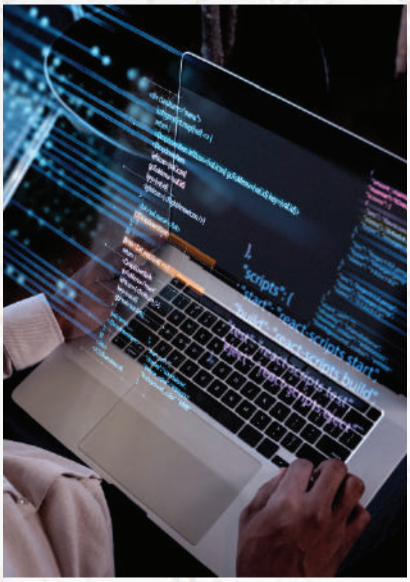
However, because they are designed as regulatory sandboxes, there is the tendency to have regulatory considerations overshadowing the review process – which may include seeking to give green lights to innovations that may provide synergies for existing approved products and services than such innovations being considered for their potential to set out new product or service lines.

LEVERAGING THE SANDBOX PROGRAMS TO PROMOTE FINTECH INNOVATIONS

While central banks like the Bank of Ghana must be applauded for rolling out regulatory sandboxes, such programs require constant reviews and accommodation of changing market demands to maintain their relevance as the licensing route for new innovations. It will be practically impossible for regulations either to be at par with innovation or stay ahead of same. Therefore, sandbox programs serving the purpose of a bridge between licensed and unlicensed financial products must be implemented in consonance with real-time industry circumstances.

In this light, the following will help enhance sandbox programs and facilitate their uses as catalysts for new fintech innovations:

a. A shift from cohort-based programs to rolling admissions: The desire to establish a regime that pilots and permits the commercial deployment of innovations which are at par with technological advances will be defeated if sandbox programs continue to be run on a cohort basis. This is because cohort-based sandbox programs set timeframes, especially for when new innovations can be submitted to the central bank for reviews for piloting. The time gap between cohorts which may be unnecessarily long may limit the potential for new innovations to seek early regulatory approvals and to be deployed in real-time.



Technology has become fluid and any delay in testing and piloting new ideas may result in them becoming obsolete by the next cohort admission time. The best chance to admit and pilot new ideas in real-time is to change the existing cohort models into rolling admissions where innovators can on an "as and when" basis submit their innovations for review and piloting.

b. Introduction of complementary innovation sandboxes: Innovation sandboxes are not the same as regulatory sandboxes. They are designed usually to test the commercial viability of new ideas than their compliance with regulations or to inform the enactment of new ones. In an innovation sandbox, innovators are given the opportunity to demonstrate product fitness, functionality, and market viability whose objectives may be different from a regulatory sandbox. So, as the first step in assessing the commercial viability of new innovations, innovation sandboxes will help filter innovations which meet the admission criteria for regulatory sandboxes. This will help in reducing the time spent by regulators to review innovations submitted for consideration under regulatory sandboxes as those eligible applicants may have gotten their innovations vetted under innovation sandboxes.

The opportunity to develop and run these innovation sandboxes must be championed by industry stakeholders such as banks, fintech companies, industry associations, etc. as a way of providing innovation pipelines for the central bank's regulatory sandbox. This can be achieved on either an incubator or accelerator models of innovation sandboxes.

c. Clarity on the sandbox review process and timelines: The application window for the 1st cohort of Bank of Ghana's regulatory sandbox ended on 14th March 2023. As of now, submissions are still undergoing review with no definitive piloting timelines. As the first of its kind, such certainty may be difficult to provide and adhere to. However, with time, efforts should be made to provide clear guidelines on the process and timelines for review and piloting of submitted innovations. The suspense and delays may not encourage future participants to submit to the program. Clarity will serve to assist innovators with their planning for piloting and engagement with the regulator on the program.

d. A simple and streamlined application process: Strongly tied to the issues of clarity on the sandbox process is the need to simplify and streamline the application process. The regulator must be guided by the fact that innovators seeking to enter the sandbox cannot predict with certainty, the regulator's approval of their innovation. Therefore, the expectation requiring such innovators to have in place some systems, processes, etc. must be assessed carefully. At worse, no compromises should be made on the technical details of the innovation which is really the product or service to be tested during the pilot phase. Other operational demands of personnel, evidence of existing contractual relationships, etc. may be deferred to such time when the regulator is confident of approving the innovation for commercial deployment.

e. Dedicated resources and partnerships: Technologies underlying new fintech innovations demand the engagement of dedicated staff with the requisite technical know-how to understand how these innovations work. Their ability to interpret how the submitted innovation works may affect which innovations are approved or rejected. Therefore, there is a need for skill upgrades, training, and tools to help such dedicated staff perform their duties effectively. Also, regulators must seek partnerships and collaborations with 3rd parties service providers and parallel financial sector regulators to build a strong resource base for the sandbox programs.

CONCLUSION

In one way, we are all beneficiaries of new financial sector innovations enabled by technology and expect more. However, regulations hold the key to how quickly new innovations can be deployed. Therefore, it is important that a regulatory response such as the sandbox program which seeks to admit, and test-run new unlicensed innovations before their commercial deployments must be enhanced to ensure we enjoy the real-time benefits of technological advances. And some of the recommendations proposed in this article will be useful

IT'S COMING: IN PREPARATION FOR THE ADOPTION OF "OPEN-BANKING" IN GHANA

In less than a decade, the global financial sector has witnessed a remarkable transformation accelerated by emerging technological advances, ushering in a new era of financial service offerings than previously offered. The results - new financial innovations and business models - have become existential threats to long-held traditional banking practices.

One such innovation seeking to democratize the practice of banking and redefine interactions between and among customers, 3rd party service providers, and financial institutions is "open-banking". And across the world, central banks are beginning to embrace its adoption as an integral part of renewed commercial banking practice in today's technological era. In Africa, the Central Bank of Nigeria (CBN) has taken the lead in rolling out a regulatory framework for its adoption in Nigeria earlier this year.

While it may be early days yet, the large-scale adoption of open banking is coming. It will become a dominant component of commercial banking practice across many jurisdictions in less than 5 years and stakeholders must begin to fashion out appropriate adoption strategies to enable seamless integrations into the existing financial services sector. It is in this light that, we aim to provide some considerations stakeholders must ensure have paramount balance in any open-banking framework rollout in Ghana.

THE CONCEPT OF "OPEN-BANKING"

Traditionally, banking services are provided on a restricted basis – data relative to customer information, transaction history, and other financial records are kept and maintained as private and confidential between the customer and the bank within the bank's closed data infrastructure systems. Ordinarily, such records are not shared with 3rd parties for any financial service provision – either complimentary or competitive. With "open-banking", financial service providers will be required to permit open access to customer records hitherto held privately using Application Programming Interfaces (APIs) in what some have termed "open bank data" sharing.

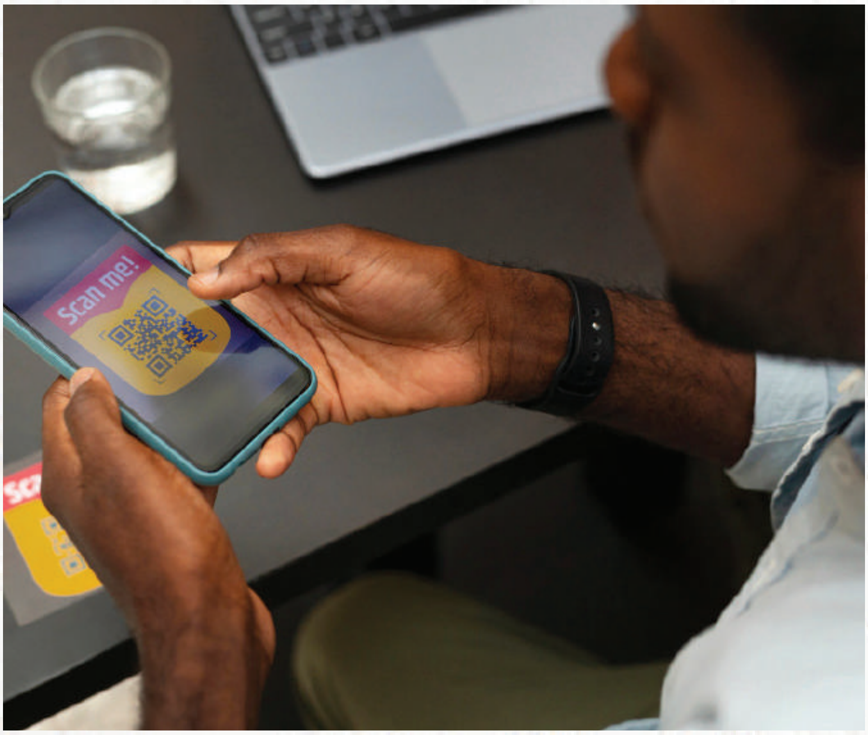
The practice of "open-banking" seeks to promote collaborative and competitive financial service offerings enabling greater customer control over their financial records. By employing secure data-sharing frameworks, customers will be able to authorize third-party providers to access their financial records, thereby unlocking scores of tailored innovative financial services and products.

This strategic sharing of data will foster a dynamic and customer-centric financial ecosystem, where personalized and tailored financial offerings can be designed to cater to the needs, preferences, and goals of individual customers. In short, open banking opens the door and helps create varied financial offerings through stakeholder collaboration and shared data-based solutions.

Technically, it permits financial and non-financial institutions such as fintech companies, to access and manage customers' personal and financial information. This process, however, is not executed without the customer's consent. Customers are typically expected to grant their consent to financial institutions before such access is granted. This consent could involve interacting with a pop-up message on a digital application and then selecting an option, indicating their understanding of, and agreement to the provided terms and conditions. Subsequently, the APIs of these third-party providers will utilize the shared customer data for specific purposes, including comparing account details and transaction histories with a range of financial services, gathering information from interconnected financial entities and their customers to develop marketing profiles, or initiating new transactions and adjustments to the customer's account on their behalf.

These possibilities are opposed to how financial institutions currently offer and perform financial services. With open banking, the following outcomes will be enabled:

1. Sound Financial Decisions: with access to historical financial data, financial service providers will now be able to accurately predict and offer tailored financial solutions to customers. Moreover, open-banking APIs will streamline the process of switching between services offered by financial institutions, making it more seamless and convenient for customers. This practice which ensures the secure sharing of financial data will foster a trustworthy and collaborative relationship between customers and financial service providers.



“ Open-banking is set to drive increased competition between traditional financial institutions with a well-established heritage and smaller, newer financial service providers such as fintech companies. ”

2. Improved Customer Lending: through networked accounts, open-banking will operate to offer lenders a clear and comprehensive understanding of a borrower's financial status, enabling them to assess risks and determine appropriate loan terms. Equally, consumers will be able to leverage open-banking to gain insights into their financial status before making loan applications, thereby affording them the opportunity to make more informed decisions.

3. Competition and Cost Efficiency: open-banking is set to drive increased competition between traditional financial institutions with a well-established heritage and smaller, newer financial service providers such as fintech companies. This competitive environment will potentially result in positive outcomes, including reduced service costs, improved technology offerings, and enhanced customer service from the differing service providers.

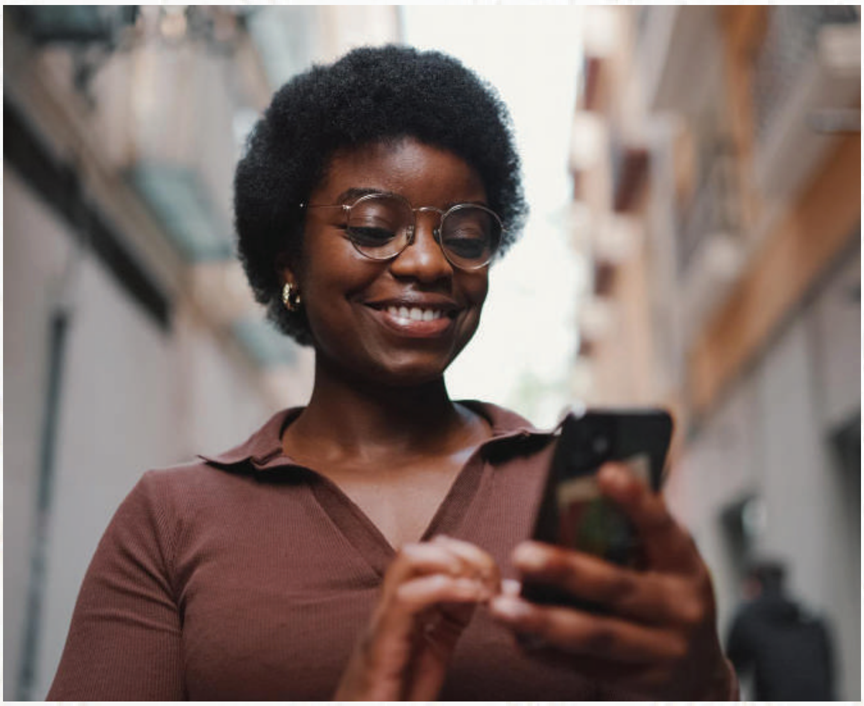
4. Fraud Detection: this lies in open-banking's functional ability to allow fraud detection tools and financial institutions real-time access to customers' financial data through secure APIs. This functionality will enable advanced monitoring and analysis of transactional information, leading to timely detection of suspicious activities and enhanced security measures.

5. Expedited Fund Transfer Services: importantly, open-banking will facilitate fund transfer by utilizing APIs to enable direct communication between financial institutions and third-party providers, eliminating the need for manual processing. This streamlined approach potentially will allow for real-time transactions, enabling faster and more efficient fund transfers, both domestically and internationally.

While open banking offers numerous benefits, its implementation may come with some risks – some of which are discussed below:

6. Data Privacy and Security: unlimited access to customers' financial data will present significant risks to both financial privacy and the security of customers' financial records, which can result in potential liabilities for financial service providers. The use of APIs may introduce serious security concerns, including the possibility of a malicious third-party app accessing and compromising a customer's account. Additionally, the interconnected nature of data in open-banking may increase the vulnerability to data breaches, hacking incidents, and insider threats, a trend observed in modern times and expected to persist as data interconnectivity continues to expand.

7. Market Concentration: despite open-banking's potential to transform the financial sector through the diversified solutions offered to customers, it also raises concerns about market concentration and pricing power, which might offset the advantages it presents. With the observation and occurrence of issues of market consolidation and data misuse in other internet-based services, like online shopping, search engines, and social media, there is a looming fear of similar issues in the implementation of open-banking. Apart from the direct costs of market concentration, there is a significant concern about the potential misuse of customers' private financial data by the various service providers.



" Open-banking will facilitate fund transfer by utilizing APIs to enable direct communication between financial institutions and third-party service providers, eliminating the need for manual processing. "

8. Fraud: increased access and financial data sharing could expose vulnerabilities to malicious hackers. Third-party service providers with weak security systems may likely result in hackers breaching their systems resulting in unauthorized access, fraudulent activities, and identity theft. Hence, a robust security system and authentication protocols are crucial for both financial institutions and third-party service providers.

THE STAKEHOLDER CONSIDERATIONS

With a mixed bag of benefits and risks, open-banking's adop-

" At present, open-banking is not practiced in Ghana and falls under the unregulated activities of the central bank. However, the central bank has shown commitment to promoting open-banking initiatives as part of its policy initiatives outlined in the National Payment Systems Strategic Plan (2019-2024). "

tion must be championed on some critical considerations. These considerations we discussed below:

1. Regulatory Framework: At present, open-banking is not practiced in Ghana and falls under the unregulated activities of the central bank. However, the central bank has shown commitment to promoting open-banking initiatives as part of its policy initiatives outlined in the National Payment Systems Strategic Plan (2019-2024).

Undoubtedly, the key to the successful adoption of open-banking in Ghana lies in the establishment of a comprehensive regulatory framework. This framework should provide clear guidelines and safeguards to protect consumer data while fostering innovation and competition in the financial sector. It is therefore important for policymakers and regulatory bodies to fully comprehend the existing regulatory landscape and identify areas for improvement to effectively implement open-banking practices.

To ensure a smooth implementation, the regulator must carefully consider the impact of open-banking on competition, innovation, and financial inclusion. Thus, the regulator should strike a balance in creating an accommodating regulatory landscape that encourages new market entrants and prevents monopolistic and anti-competitive practices. Adopting a flexible regulatory approach will allow for iterative improvements and adaptation to emerging trends while maintaining a stable regulatory environment.

Importantly so, while digital transformation has driven financial service providers to re-evaluate their product and service offerings, by embracing technological tools to enhance their financial solutions and remain relevant in the market, one critical component of a smooth adoption and operationalization of open-banking, will be the compliance with its regulatory framework and data protection laws. Adhering to the mandatory regulatory and privacy requirements will be vital to uphold responsible data-sharing practices and build customer trust.

2. Customer Consent and Control: Open-banking holds the potential to empower customers, granting them enhanced control over their financial data and access to personalized services. However, finding the right balance between convenience and protection will be vital. To this end, the regulator must adopt a customer consent and control framework which will operate to institute appropriate mechanisms and thresholds to be met by financial institutions and third-party service providers in the collection, sharing, and use of customer data. Implementing clear and transparent consent mechanisms will be critical to ensure that customers fully understand what data they are sharing, who will have access to it, and how it will be used. Additionally, the consent framework must provide for the revocation of consents by customers at any time, granting them greater control over their data.

For financial institutions and

third-party service providers, there will be the need to leverage technological tools for real-time risk management and the implementation of effective data governance principles which will be critical for managing information flow to customers and maintaining the accuracy and integrity of data shared with third parties.

Before opting into open-banking services, opportunities should be provided for the customers to thoroughly assess the security measures and data protection protocols implemented by financial institutions and third-party providers. Understanding how their financial data will be accessed, used, and protected will help win customer trust in the practice.

Further, transparency must be enhanced about related transaction fees, data usage policies, and any potential liability clauses so as to help customers to make well-informed choices.

3. Data Security and Privacy: Data privacy and security are critical aspects of open-banking that regulators must consider, as consent alone is insufficient to ensure data protection. Granting access to sensitive financial information requires robust data protection measures to prevent unauthorized access, data breaches, and identity theft. Clear and comprehensive regulatory guidelines are needed to outline the roles and responsibilities of each participant, promoting fair competition and customer protection among banks, fintech companies, and third-party providers.

It also remains an important consideration for financial institutions as they adopt and deploy advanced technologies such as artificial intelligence and blockchain. Financial service providers must implement robust security measures, and data access controls to protect sensitive information from unauthorized access and cyber threats and/or attacks. Third-party providers need to adhere to high standards of data protection, transparency, and accountability, and cooperate with banks and regulators to ensure compliance with data security and privacy.

While financial institutions will need to update their systems and processes to accommodate the new data flows and interactions, and to mitigate the risks of data breaches and fraud, regulators need to establish and enforce consistent and harmonized rules for open-banking across the financial sector and to monitor and address any emerging issues or challenges.

4. Interoperability and Standardization: A lack of standardized data formats and APIs can hinder the seamless exchange of information between various banks and third-party providers. Establishing common technical standards and protocols will be crucial to enable interoperability and prevent fragmentation within the financial ecosystem.

The regulator should therefore work at adopting standardized protocols and data formats which are essential to enhancing interoperability among open-banking platforms, ensuring efficiency, and reducing integration challenges. Cross-border data transfer regulations and agreements will also be crucial, particularly

with the implementation of the African Continental Free Trade Agreement (AfCFTA) Protocols, to uphold data protection laws across jurisdictions.
In terms of operationalization, financial institutions must develop standardized and secure APIs to facilitate data sharing with third-party providers. These APIs should adhere to industry-standard security protocols, including encryption and authentication mechanisms, to safeguard customer information during data transmission.

5. Cybersecurity and Risk Management: The increased integration of third-party systems can potentially introduce new forms of cyberattacks and fraudulent activities. The regulator in conjunction with the relevant statutory bodies responsible for cyber security concerns should consider formulating clear and comprehensive regulations that address cybersecurity and risk management frameworks. This would include the adoption and enforcement of stringent security standards and consistently monitoring third-party providers to mitigate these cyber risks and ensure that financial institutions and third-party providers adhere to robust security practices.

On the part of financial institutions and third-party providers, there will be the need for the implementation of multi-layered cybersecurity protocols such as encryption, strong authentication, and real-time monitoring to counter potential threats. A well-defined incident response plan will also be essential for addressing cyber breaches effectively.

Additionally, a risk management framework and mechanism encompassing thorough risk assessments, mitigation strategies, ongoing monitoring, and regulatory compliance will be crucial to boost the secured use and access of systems and technology.

6. Testing and Piloting: For a country looking to adopt open-banking, it is advisable to adopt a phased implementation instead of a wholesale implementation. A phased adoption strategy will provide

controlled environments for rigorous risk assessment, identification of security vulnerabilities, and collaboration with other stakeholders in devising effective risk mitigation strategies for full-scale adoption. Through testing, regulators can evaluate the efficacy of data security measures, authentication protocols, and access controls, ensuring the protection of sensitive customer information.

Further, a phased adoption will offer insights into customer experiences, consent mechanisms, and the alignment of the technical framework with user expectations. By simulating interactions between financial entities, testing will help address interoperability challenges, evaluate regulatory compliance, and enforcement mechanisms, leading to refined guidelines – which will contribute to the establishment of a secure, customer-centric, and adaptable open-banking practice.

7. Capacity Building and Education: Open-banking will drive

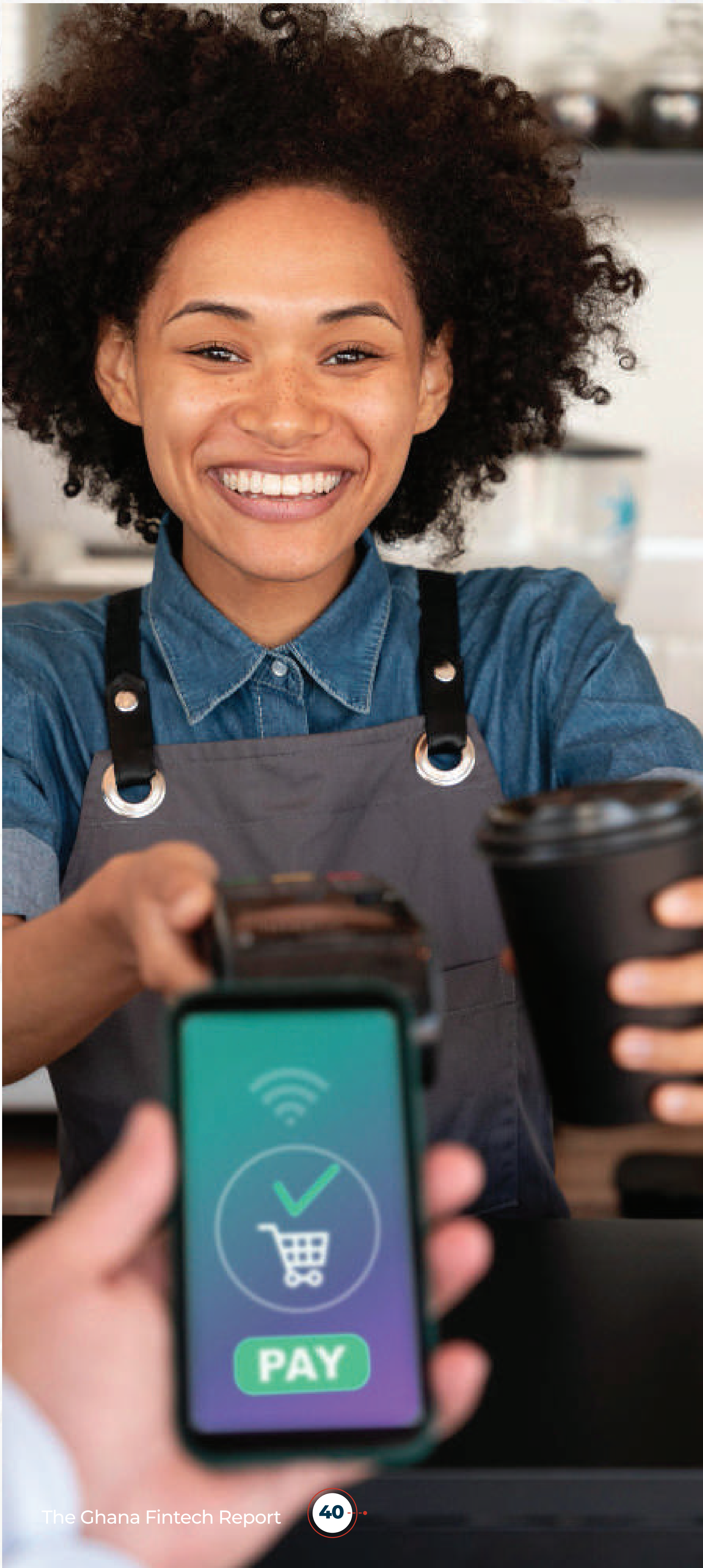
“ One expected outcome of technology in reshaping finance and the delivery of financial services is the general adoption of open-banking practices in commercial banking in the coming years. ”

new financial service offerings based on data, and this will require a basic understanding of its workings and underlying technologies. It is therefore important that new financial literacy must be designed and deployed by stakeholders to help build customer appreciation and drive participation in the new possibilities to be enabled by open-banking.

Equally, financial institutions and third-party service providers must actively drive initiatives that provide foundational understandings of this new way of banking and how customers can help build a strong compliance culture. These educational efforts must be pursued on an ongoing basis to support a compliant, secured, and innovative deployment of a customer-centric open-banking ecosystem.

CONCLUSION

One expected outcome of technology in reshaping finance and the delivery of financial services is the general adoption of open-banking practices in commercial banking in the coming years. While many central banks are preparing for its adoption, it is imperative for Ghana to begin the design of a framework that accounts for the concerns in ways to leverage its usefulness in building an innovative, resilient, and robust financial service delivery ecosystem. And we have highlighted some of these concerns in this article noting the opportunities and risks in the adoption of an open-banking framework.



DRIVING FINANCIAL INCLUSION: STRIKING A BALANCE BETWEEN INNOVATION AND CONSUMER PROTECTION

In the dynamic landscape of today's global digital economy characterized by rapid technological advancements and increasing interconnectedness, the need to promote access to financial services for all is emerging as the tool for promoting economic growth and reducing financial inequality.

And across the globe, the need to drive financial access and inclusion – in terms of adoption, use, and upgrade of financial solutions has become regulators' and policymakers' main preoccupation and influencing the realignment of regulatory frameworks to accommodate and enhance the rollout of new financial tools.

Within this context, policymakers in Ghana in 2018 adopted the National Financial Inclusion Development Strategy (2018-2023) with the primary aim of increasing the availability of a broad range of affordable and quality financial services that meet the needs of all Ghanaians – and the deployment of varied innovative financial tools has increased the need to strike a delicate balance between promoting financial inclusion and safeguarding the end users – consumers.

" Financial inclusion is a transformative concept aimed at empowering marginalized individuals and communities by granting them access to essential financial services. "

Therefore, this article seeks to delve into how innovations can be useful in driving greater financial inclusion while also emphasizing the need for robust consumer protection mechanisms to ensure equitable access and the forestalling of potential risks to financial consumers.

THE CONCEPT OF FINANCIAL INCLUSION

Financial inclusion is a transformative concept aimed at empowering marginalized individuals and communities by granting them access to essential financial services. This is in line with the International Monetary Fund's acknowledgment of the concept as being part of financial sector goals. This multifaceted concept encompasses specific target groups – unbanked and underserved communities - overarching objectives, and critical strategies for achieving broader access, usage, and the continuous upgrade of financial solutions. Its goals encompass universal access, poverty alleviation, economic growth, and social empowerment.

Broadly, in many parts of the world, lack of access to formal financial services has perpetuated cycles of poverty and hindered economic advancement – as a result of the lack of a credible buildup of financial history to access sufficient funds or even loans to expand businesses or drive economic activities. The unbanked and underbanked populations, often residing in rural or marginalized areas, face limited opportunities for savings, investments, and secure transactions. Thus, financial inclusion has emerged as a powerful catalyst to break these cycles, enabling individuals to accumulate assets, manage risks, and invest in economic activities, education, and healthcare.

The goals of financial inclusion are to empower individuals and businesses to improve their lives and livelihoods, enhance economic growth and innovation, and ensure financial stability and integrity. While access ensures the availability of services to marginalized populations, use underscores the active engagement with these tools, promoting financial literacy and informed decision-making. Moreover, the upgrading of services empowers individuals to transition from basic offerings to more advanced products as their financial needs evolve, fostering economic empowerment, resilience, and broader societal progress.

In Ghana, according to the Ghana Demand Side Survey 2021 - a survey designed to track the implementation of the National Financial Inclusion Development Strategy - the country has surpassed its 85% target of formally served individuals by 10%, emphasizing the government's commitment to promoting financial access and inclusion by all citizens.

EMERGING FINANCIAL INNOVATIONS

Innovation has become the driving force behind expanding financial services beyond the traditional brick-and-mortar model. Technological advancements, particularly the proliferation of mobile phones and internet connectivity, have transformed the financial sector. In the quest for global financial inclusion, innovative

> ***" Technological advancements, particularly the proliferation of mobile phones and internet connectivity, have transformed the financial sector. "***

technologies are transforming the way financial services are accessed, provided, and utilized.

Importantly, in Ghana and beyond, these cutting-edge financial solutions are dismantling traditional barriers, reaching underserved populations, and fostering economic empowerment. These innovations not only lower costs associated with traditional banking services but also enable financial institutions and fintech companies to reach previously inaccessible markets.

Discussed below are some of the emerging solutions that are reshaping the financial sector to drive inclusion.

1. Mobile Money: at the heart of the innovations churned out by fintech companies and financial institutions are payment services, and at the forefront of financial inclusion in Ghana is the mobile money revolution, which became operation in the country in the last decade and has paved way for other innovative payment solutions. Services like MTN Mobile Money have propelled the nation to the forefront of mobile banking adoption. These platforms allow users to perform financial trans-

" While financial innovations accelerate financial inclusion by creating new products, services, channels, and platforms that can meet the diverse and evolving needs of different segments of the population, consumer protection ensures that financial inclusion is achieved in a responsible and sustainable manner, through safeguarding the rights and interests of consumers, promoting transparency and accountability, and preventing fraud and abuse. "

actions using basic mobile phones, transcending geographic barriers, and enabling rural populations to access banking services with ease. The economic and financial data report of the Bank of Ghana indicates that there are about 59.7 million registered mobile money accounts as of June 2023 showcasing the significant impact of this innovation.

2. Digital Payment Solutions: equally, digital payment platforms like ZeePay, Slydepay, and ExpressPay have emerged as game-changers in Ghana, providing users with secure and convenient ways to make payments and conduct transactions. These platforms offer flexible payment options, from utility bills and online shopping to peer-to-peer transfers. Their user-friendly interfaces have made them essential tools for promoting cashless transactions, not only in Ghana but across the globe.

3. Peer-to-Peer Lending Platforms: peer-to-peer lending platforms are reshaping the lending landscapes, particularly for small businesses and entrepreneurs in Ghana. One of the most compelling outcomes of this innovation is the democratization of access to credit. Small businesses and entrepreneurs, who often face challenges in obtaining loans from traditional banks due to stringent eligibility criteria and other mandatory processes, can now benefit from a more inclusive lending environment. By connecting borrowers directly with investors, these platforms streamline lending processes and bridge the gap between borrowers and lenders.

4. Biometric Identification Systems: innovations in biometric identification are revolutionizing access to financial services. In Ghana, the introduction of the Ghana Card, a biometric identification system, is enabling individuals to verify their identity securely and access financial services more easily. Biometric technology enhances security, reduces fraud, and simplifies authentication processes, particularly in regions where traditional identification methods may be lacking.

BALANCING INNOVATION WITH CONSUMER PROTECTION – THE CONSIDERATIONS

Innovation and consumer protection are two key factors that influence the level of financial inclusion in a society considering that consumers are the end users of financial solutions. While financial innovations accelerate financial inclusion by creating new products, services, channels, and platforms that can meet the diverse and evolving needs of different segments of the population, consumer protection ensures that financial inclusion is achieved in a responsible and sustainable manner, through safeguarding the rights and interests of consumers, promoting transparency and accountability, and preventing fraud and abuse.

Nonetheless, innovation and consumer protection are not always aligned, and sometimes they may pose trade-offs or challenges for each other. For instance, innovation may introduce new risks or complexities that consumers may not fully understand, such as data privacy or cybersecurity. Similarly, consumer protection demands may impose regulatory or compliance requirements that may stifle innovation or create barriers to entry for new players or solutions. Therefore, finding a balance between innovation and consumer protection is crucial for driving financial inclusion in a way that maximizes the benefits and minimizes the harms for both providers and consumers.

Some approaches to achieving a balance between driving financial inclusion and consumer protection are considered below:

1. Robust Regulatory Framework: One important approach to achieving this balance is for the regulators and policymakers to adopt a risk-based and proportionate regulatory framework that can accommodate different types of innovations and consumer protection measures, depending on the level of risk and impact they entail. Thus, regulations need to be forward-thinking, adaptable, and supportive of innovation while simultaneously safeguarding consumers. For example, low-risk or low-impact innovations may be subject to lighter or no regulation, while high-risk or high-impact innovations may be subject to stricter or more comprehensive regulation. Regulators should therefore collaborate closely with industry stakeholders to understand the nuances of emerging technologies and tailor regulations accordingly. These frameworks should encourage experimentation within defined boundaries, ensuring that innovation thrives without compromising consumer rights. This can allow for more experimentation and innovation, while also ensuring adequate consumer protection and oversight.

2. Data Privacy and Security: Given the data-intensive nature of innovation, the establishment of robust data privacy regulations emerges as a necessity to safeguard consum-

" Innovations must be intentionally designed to embrace inclusivity, ensuring that they cater to the requirements of diverse user demographics - this encompasses individuals spanning various levels of digital literacy. User interfaces should be user-friendly, and capable of accommodating a wide range of users, making financial services accessible to everyone. "

er information against potential misuse. It, therefore, becomes imperative to adopt and deploy stringent measures that ensure the responsible collection, storage, and sharing of personal and financial data. This mostly entails defining precise protocols for data handling, encryption, and access controls, thereby mitigating the risks associated with unauthorized data breaches or unauthorized access.

Regulations should also provide consumers with control over their data, enabling them to make informed choices about its use. This involves creating mechanisms that allow individuals to provide explicit consent for data usage and enable them to access, modify, or delete their data as needed. Such user-centric control not only reinforces data privacy but also fosters a sense of trust in the financial sector.

3. Inclusive Financial Solutions: Innovations must be intentionally designed to embrace inclusivity, ensuring that they cater to the requirements of diverse user demographics - this encompasses individuals spanning various levels of digital literacy. User interfaces should be user-friendly, and capable of accommodating a wide range of users, making financial services accessible to everyone.

For instance, a collaborative effort among regulators, financial service providers, financial consumers, and industry experts can be initiated to recognize the potential and obstacles associated with innovations. By co-creating solutions that directly address consumer needs and preferences, as well as by actively overseeing and evaluating the outcomes and impacts of these innovations, a foundation of trust and confidence can be fostered among stakeholders. This will help make innovations better and more effective, while also making sure that consumers are well-protected.

4. Financial Literacy: Educating consumers about the benefits, risks, and responsibilities associated with innovative financial products is paramount. Financial literacy initiatives should be widespread and accessible, offering information on how to use innovative technologies effectively and securely. These educational initiatives should encompass a range of topics, from basic financial concepts to more specialized information about specific innovative products. Consumers should gain insights into how to use digital platforms securely, manage their personal data, and recognize signs of fraudulent activities. Empowered consumers are more likely to make informed decisions, identify potential pitfalls, and navigate complex financial landscapes with confidence.

5. Digital Identity Verification: Secure and reliable digital identity verification is fundamental to preventing fraud, identity theft, and unauthorized access. Robust authentication processes ensure that only authorized individuals can access financial services and sensitive information. Collaborative efforts will therefore be essential to establish harmonized standards for digital identity verification that prioritize the triad of security, privacy, and usability. Regulators and policymakers should continuously work at updating regulations and directives that mandate robust identity verification practices while safeguarding financial consumers' privacy rights. Simultaneously, financial service providers, including financial institutions and fintech companies, need to embrace these standards and invest in advanced identity verification technologies.

CONCLUSION

The pursuit of financial inclusion has the potential to bring about significant economic transformation and empowerment for the unbanked and underserved populations. There is therefore the need to leverage technological innovation, to continuously pave the way for inclusive growth and reduced financial inequality. To this end, implementing regulatory frameworks that promote responsible innovation, prioritize consumer education, and uphold ethical standards will collectively drive a seamless transformation of the financial landscape, ensuring a balanced and effective approach to advancing financial inclusion.

10

ECOSYSTEM HIGHLIGHTS

FUNDING ACTIVITIES

AgriTech startup, COM-PLETE FARMER, raises USD10.4 million pre-Series A funding round to drive expansion plans.

$10.4 million

$500 million

Nigeria secures a USD500m local funding program to support innovation and entrepreneurship in the country's digital sector.

InsurTech – TURACO acquires MicroEnsure Ghana, to make Ghana its 4th operational market.

HIGHLIGHTS

PAY

VISA partners with Kenyan banks to launch contactless payments.

₵1.190 trillion

PAYSTACK goes live in Kenya after receiving authorization from the Central Bank of Kenya (CBK).

According to the Summary of Economic and Financial Data presented by the Bank of Ghana, the total transactions in Mobile Money transactions hit a record ₵1.190 trillion in the first eight months of this year.

TRANSACTIONS

11

PAST & FUTURE EVENTS

CYBERSECURITY AND ISO TRAINING WORKSHOP

The Ghana Fintech and Payments Association (GFPA), in partnership with Innovare Africa, recently organized an extensive training workshop on Cybersecurity and ISO Certification. This workshop catered to members of the Association as well as other fintech companies operating in Ghana, under the theme, “Deriving Business Value for your Compliance Requirements”.

This workshop affirmed the Association's dedication to fostering knowledge and skill development. Its core purpose was to empower Fintech companies in Ghana with the necessary expertise to maximize the business benefits derived from their cybersecurity and compliance measures, as well as related initiatives.

Drawing the participation of over 34 professionals from various fintech companies, the workshop featured an expert team from Innovare. These experts guided participants through advanced cybersecurity strategies, ensuring that fintech professionals are well-equipped to counter emerging threats and uphold the highest data protection standards, both locally and internationally. Additionally, the workshop introduced attendees to the latest ISO certification standards, further enhancing their capabilities in the realms of cybersecurity and compliance.

MASTERCARD'S INAUGURAL “FINTECH DAY IN ACCRA, GHANA”

Mastercard for the first time in West Africa hosted its inaugural Mastercard Fintech Day in Accra, Ghana. The event which brought together key players and thought leaders in the fintech ecosystem from across the continent in one space was a huge success. Importantly, the event emphasized Mastercard's unwavering dedication to fulfilling its Environmental, Social, and Governance (ESG) objective of connecting one billion people to the digital economy by the year 2025.

The event served as an enlightening platform for all attendees, enabling them to gain profound insights into how the Mastercard digital ecosystem empowers fintech companies to deploy and deliver innovative products and services. With an impressive turnout of over 50 fintech companies and the participation of 70 individuals, the event fostered a vibrant environment for dialogue and the exchange of ideas.

As an integral component of this event, participants delved

MOTITO WINS KPMG'S GLOBAL TECH INNOVATOR COMPETITION IN GHANA

KPMG Ghana recently hosted the Ghana finals of the Global Tech Innovator competition, seeking to identify the next major player in the tech industry. This annual event is dedicated to recognizing rapidly growing and innovative tech companies. This year, the competition attracted an impressive 1,232 applications from around the world, exhibiting tech entrepreneurs from twenty-four (24) different countries from various regions who are pioneering innovations to potentially become the leaders of the tech landscape in the future.

After a careful evaluation of seventeen (17) applications in Ghana, six promising tech startups were selected to participate in the semi-finals. These startups included FXKudi, Gem Industrial Solutions, Motito, Paybox, ShaqExpress, and STEM Achievers. During the semi-finals, these six tech innovators had the opportunity to pitch their business concepts and growth plans to a panel of judges with expertise spanning Ghana and the broader African tech scene.

Following an impressive round of presentations, Gem Industrial Solutions, Motito, and Paybox emerged as the three finalists who advanced to the Ghana Finals. Ultimately, Motito emerged as the winner in the competition by delivering an outstanding and insightful pitch for their solution, which focuses on enhancing affordability within Africa's underbanked economy by offering alternative financing options for essential assets.

As the champion of the Ghana Finals, Motito is now set to represent Ghana in the KPMG Private Enterprise Global Tech Innovator competition in Lisbon, Portugal. There, Motito will compete with representatives from twenty-three (23) other countries on an international platform, for the title of the next global Tech Giant.

THE AFRICA MONEY AND DECENTRALIZED FINANCE SUMMIT

The organizers behind the Africa Tech Summit Series, a leading technology conference, hosted the Africa Money and Decentralized Finance Summit on October 3rd and 4th, 2023.

This summit, which is supported by global tech giants such as Amazon Web Services, Pivo, and Fonbnk, facilitated connections between the African Fintech and Web3 sectors and international stakeholders in Accra.

With over 500 delegates, 250 companies and 75 speakers in attendance, the summit focused on driving tech investments and fostering collaborations with industry experts, investors, and regulators including the Bank of Ghana. Innovators equally had the opportunity to engage on latest trends, challenges, and opportunities in the African fintech and Web3 landscapes, insurtech and cybersecurity.

ECOBANK FINTECH CHALLENGE 2023

Cameroon-based fintech company, Koree, has been declared the overall winner of the 2023 Ecobank Fintech Challenge, organized by the Pan-African Banking Group, Ecobank Group. Koree triumphed over seven other fintechs, all of whom presented their innovative solutions to an independent panel of five judges.
These eight finalists were chosen from a pool of over 1,400 fintechs from 64 countries. The competition has seen significant growth in popularity since its launch six years ago, highlighting the wealth of innovation and ingenuity, particularly in Africa. The finalists included Flexpay Technologies (Kenya), IPOXcap AI (South Africa), Kastelo (South Africa), Koree (Cameroon), Kori Tech (Senegal), Smart Teller Technologies (Nigeria), Rubyx (Belgium) and Wolf Technologies (DRC). Koree will receive a cash prize of $50,000 for their achievement. The first runner-up, Wolf Technologies, will receive $10,000, while the second runner-up, Flexpay Technologies, will receive $5,000.

All eight finalists were inducted into the prestigious Ecobank Fintech Fellowship program which offers fintech companies the opportunity to explore potential commercial partnerships with Ecobank.

INNOVATION VILLAGE LAUNCHED IN GHANA

In a historic moment for Ghana's tech ecosystem, the "Innovation Village Ghana Ecosystem Mixer" marked the soft launch of The Innovation Village in Accra. Set against the backdrop of the exquisite Mars Restaurant on September 23rd, this event brought together over 100 participants, including entrepreneurs, the newest cohort of MEST Fellows from the Class of 2024 representing 19 countries, and even a representative from the UN's International Trade Centre (ITC). It was an evening brimming with enthusiasm, collaboration, and the promise of a brighter future for tech innovation in West Africa.

A Vibrant Gathering of Innovators

The Mars Restaurant in Accra served as a dynamic setting for the Innovation Village Ghana Ecosystem Mixer, a vibrant platform for innovators, entrepreneurs, and ecosystem players to converge and celebrate the arrival of this influential innovation hub in Ghana. The event highlighted the diversity and dynamism of Ghana's tech landscape and set the stage for fruitful collaborations.

Support and Collaboration from Key Players

Distinguished guests at the event expressed their support for The Innovation Village's mission and their eagerness to collaborate. Among them were representatives from the Minis-

try of Environment, Science, Technology, and Innovation (MESTI), the Association of Ghana Startups, and the Ghana FinTech and Payments Association. Their presence underscored the significance of fostering a collaborative environment that promotes innovation and entrepreneurship.

The Ministry of Environment, Science, Technology, and Innovation (MESTI) reaffirmed its commitment to advancing technology and innovation in Ghana. The Association of Ghana Startups and the Ghana FinTech and Payments Association pledged their support for The Innovation Village's cause, recognizing the hub's potential to catalyze growth and innovation in the country.

Adding to the event's international flair, a representative from the UN's International Trade Centre (ITC) was also there. This global recognition emphasized the expansion of The Innovation Village's influence and its potential to contribute not only to the local tech scene but also to international trade and economic development.

A Launch Full of Promise

The Innovation Village Ghana Ecosystem Mixer and the soft launch of The Innovation Village in Ghana signify the beginning of an exciting journey. It is a journey that promises to bridge the gap between East and West Africa's tech ecosystems, share invaluable knowledge, and create opportunities that transcend borders.

With this grand entrance into Ghana's innovation landscape, The Innovation Village is set to be a catalyst for change, a hub for collaboration, and a beacon of hope for tech entrepreneurs and creatives.

As the ecosystem continues to evolve and flourish, The Innovation Village's presence in Accra will undoubtedly play a pivotal role in shaping the future of tech innovation and entrepreneurship in West Africa, with global recognition and support from organizations like the UN's International Trade Centre, Association of Ghana Startups, Ghana FinTech and Payments Association and the Ministry of Environment, Science, Technology, and Innovation (MESTI). The mixer was just the beginning, and the future holds boundless possibilities for innovation in Ghana and beyond.

FUTURE EVENTS

10TH EDITION OF THE AFRICA FINTECH SUMMIT (AFTS) 2023

The Africa Fintech Summit (AFTS) is set to host its 10th edition in Lusaka, Zambia from November 2 to November 3, 2023. This summit will serve as a platform for entrepreneurs, investors, regulators, and other stakeholders to explore, debate, and shape the future of the financial technology industry in Africa and beyond.

This event follows the 9th AFTS that was held in Washington DC in April, during which the 'Tech for Trade Alliance' was inaugurated by the US government's Prosper Africa initiative, in collaboration with other US-Africa partners. The alliance aims to support cross-border trade and e-commerce innovation in Africa.

This November summit will highlight an array of activities such as Africa's largest annual fintech exhibition and will among others feature keynote speeches, panel discussions, and networking opportunities. It will delve into topics such as Cloud Computing, Artificial Intelligence (AI), Edge Computing, DevOps, Robotic Process Automation (RPA), Cybersecurity, Neo Banking, Payments and Remittances, Lending and Microlending, and Digital Banking.

With representation from over 57 countries, 12 Deals to Date, and more than $5 billion in capital represented, The Africa Fintech Summit aims to build an ecosystem for bilateral meetings, collaborative partnerships, workshops, demos, pitch competitions, ecosystem tours, whitepapers, awards, and numerous opportunities for collaboration with investors and entrepreneurs shaping the future of African fintech.

THE 9TH EDITION OF THE CONNECTED BANKING SUMMIT - WEST AFRICA

The 9th Edition of the Connected Banking Summit - West Africa is scheduled to take place on November 15th and 16th, 2023, in Accra, Ghana, under the theme "Innovations Driving Digital Inclusion and Sustainable Transformation."

The summit will assemble high-level C-Suite Executives and key decision-makers within the financial sector, offering an

exclusive platform for networking, collaboration, and the exchange of knowledge.
The Connected Banking Summit - West Africa has firmly established itself as a leading summit in the region, providing attendees with a distinctive opportunity to connect and cooperate with industry experts who have demonstrated their expertise through exemplary practices and real-world case studies. For solution providers, participation in this summit will provide direct access to potential buyers who hold the authority to procure your products or solutions or wield significant influence over purchasing decisions.

This summit, held together with the Connected Banking Summit West Africa - Innovation and Excellence Awards, will feature leaders and experts from diverse sectors, including Banks, Insurance Companies, FinTechs, TechFins, Digital and NeoBanks, Non-Banking Financial Organizations, Cooperatives, investment funds, and Asset Management Companies. Together, they will engage in discussions and deliberations on how integrated solutions are shaping the future of the banking industry.

Distinguished global thought leaders from renowned brands will also be in attendance, sharing their experiences and insights regarding the profound impact of cutting-edge technologies such as AI, ML, deep learning, cognitive computing, digital

For more information,

visit
www.sustineriattorneys.com

or follow us on in f @SustineriAttorneys

or call **+233302553892**