

Tsa Tuelano



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BANK OF BOTSWANA

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Tsa Tuelano is a publication issued by the Bank of Botswana for disseminating information on general and specific National Payments System (NPS) developments and related issues. The newsletter is an avenue to share views, experiences and knowledge on payment system matters. The national payment system infrastructure enables consumers and businesses to make financial transactions and helps achieve broader societal objectives, such as improving access to financial services.

The theme for this edition is 'Payments as a gateway to Financial Inclusion' and covers areas of interest, such as alternative financial services that present opportunities for financial inclusion; fintech and digital payments and how these technologies promote financial inclusion in Botswana; how the payment system infrastructure can be leveraged in the face of COVID-19; global Fintech developments and their Impact on mandates of central banks and other regulatory bodies.

Financial inclusion has become an important discussion issue for policymakers and regulators in many countries because of its potential to contribute to inclusive economic growth and welfare enhancement. Developments in the telecommunication and technology industries have enabled the introduction of innovative financial services that allow and broaden access to financial services and opportunities for participation in economic activity.

Botswana has not been spared the impact of the COVID-19 pandemic, therefore, the importance of digital financial services in enabling secure and contactless economic activity and conduct of financial transactions. The COVID-19 pandemic has amplified the urgency for digital financial services to help reach underserved and vulnerable populations and reduce risks of cash handling and enable business continuity at a time of social distancing.

Articles in this edition originate from Bank of Botswana staff; the Bank would like to encourage the wider stakeholder community, banks, financial institutions, and financial sector regulatory authorities, as well as relevant Government agencies to contribute articles for possible publication in future editions. Readers may contact the undersigned for inputs, interests, and feedback. Stakeholder contribution will keep this channel of communication vibrant, resourceful, and conducive to developing and promoting an inclusive financial sector in Botswana.

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Global Fintech Developments and their Impact on Mandates of Central Banks and Other Regulatory Bodies

Overview

The past 10 – 15 years have been marked by a rise in new Financial Technology (Fintech) companies in the financial services industry. The provision of financial services has actually been evolving since the installation of the first permanent telegraphic transatlantic cable in 1866, the introduction of the credit card in the 1950s to more recently, digital currencies and crypto assets in the wake of the 2008 - 2009 global financial crisis. This evolution has resulted in the expansion of the sector. Moreover, the potential role that digital payments have in curtailing the spread of COVID-19, intensified the importance of fintech in 2020. As such, the coronavirus pandemic could be a springboard that would accelerate and strengthen trends that were already in motion, with the long-term effect of facilitating fintech and digitalisation.

The fintech revolution has changed the way people interact with money, from how payments for goods and services are made, loans granted, investment advice provided, insurance priced, and funds channelled from investors to those in need of funding, as well as how individuals and businesses send and receive money. However, the fintech sector emergence does not only present unmatched opportunities in the provision of financial services, but also presents risks to consumers, investors, as well as the stability and integrity of the financial system. There are regulatory challenges for regulators across the different sectors impacted by fintech. This article, therefore, explores key global fintech developments, assesses the possible implications for regulatory bodies, in particular, central banks and presents relevant regulatory policy considerations that different regulators in the financial services ecosystem need to institute, implement, and enforce. The paper leverages on work undertaken by global standard setting bodies and the Financial Stability Institute (FSI), which classify fintech into fintech activities, enabling technologies, and policy enablers.

Developments Across the Different Fintech Categories

Digital Payment Services and e-Money: With the emergence of fintech, there has been a rise in real-time payment platforms that promise real innovation in the way consumers push and request for payments settled in real time. Out of a need to give unbanked communities access to payment infrastructure, Africa has become a mobile payment innovation powerhouse. Consumers are now able to use real time mobile payment platforms and integrated billing platforms to make instant direct payments to merchants, thereby eliminating the use of cash or bank cards. Digital payments, as they are commonly known, take physical payment methods such as cash,

debit, and credit cards out of the equation, creating a convenient and speedy payment experience for consumers. This reduces transaction cost and provides transparency and a money movement trail.

Regional platforms promise significant benefits to banks, consumers, and merchants, with the potential to simplify cross border payments, unlocking exciting new ways of payment for goods and services irrespective of geographical location and as such paving the way for a cashless society. The demand for cashless transactions particularly in the current COVID-19 pandemic era can reasonably be expected to create more opportunities for fintech. Digital transactions will not only boost transaction volumes but positively contribute towards payments data collection, immensely. The data can then be used to further catalyse fintech activity and the provision of new payment services. Such developments would create new revenue streams, cost-effective setups for businesses and spur economic growth. From a regulatory perspective, as transaction volumes and the diversity of payment platforms increase, so too should regulatory scrutiny and the recognition that some of the instruments and platforms being adopted should be regulated payment streams and therefore should comply with appropriate regulatory requirements.

Digital Currencies and Crypto Assets: While Bitcoin is still widely viewed as the flagship of crypto assets, this payment stream has also been experiencing a high level of proliferation, currently recording 3000+ crypto assets with a total market cap of \$360 billion as listed on coinmarketcap.com. The underlying technology for crypto assets remain, arguably, one of the biggest innovations to ever hit the financial services industry since the dawn of the Internet. While crypto assets may have gone through a boom-bust cycle, the underlying blockchain technology is likely to flourish in the years to come, with the potential for adoption by central banks as regards the design, implementation and issuing of central bank digital currencies (CBDCs).

In its annual economic report of 2020, the Bank for International Settlements noted that while central banks play a pivotal role in safeguarding the payment system, they also need to foster innovation by investigating CBDCs, which are a new payment technology that may become widely available in most central banks across the globe in the near future. In 2018 - 2019, the BIS surveyed 63 central banks on CBDCs, comprising 41 from emerging markets and 22 from advanced economies, which all together represented 80 percent of the world's population and over 90 percent of its economic output. Findings were that 70 percent of the surveyed central banks were or would soon engage in CBDC work. Mastercard has

launched a CBDC testing platform, which promises to enable the simulation of issuance, distribution and exchange of CBDCs between banks, financial service providers and consumers. Canada, China, Italy, and Thailand, among others, have taken significant steps on CBDCs, fuelled by pressure from developments in private digital currencies. In 2020, Sygnum Bank, a regulated Swiss bank and the world's first digital asset bank, launched a Sygnum Digital CHF (DCHF), a stable coin pegged 1:1 to the Swiss Franc. The DCHF settlement token has since been used for e-commerce payment.

Against this background, it is evident that the key innovation over the past 10 to 15 years has been the improvement in mobile computing power and connection speed, resulting in instant digital payments, epitomised by the underlying process technology for crypto assets. The BIS underscores the need for diversity in payment streams that are inclusive and resilient to a broad range of threats and advises that central banks should move with caution. Based on recent developments, regulators need to identify problems or challenges in the payment services industry that digital currencies could actually address, and establish policy positions on digital currencies and crypto assets as well as institute CBDC and Currency Issuance Policies for either regulating or prohibiting the use of and/or trading in such assets.

Investment/Asset Management: Latest social trading platforms and robo-advice wealth management solutions that involve artificial intelligence and machine learning offer automated client onboarding as well as the generation of investment advice through algorithm-based tools. These platforms give investors better control over their money. Platforms such as FutureAdvisor, Wealthfront, eToro, Covestor and StockTwits among others, provide the freedom to manage money without the involvement of brokers, with the option to also trade in currencies, crypto assets and other commodities other than just stocks, bonds, and mutual funds. Furthermore, leading algorithmic trading platforms such as CoolTrade, Quantopian, and QuantConnect to name a few, offer computer assisted trading. It is, therefore, paramount for regulators to institute regulatory policies that enforce robo-advisors' obligation to act in the best interest of clients, even in the absence of human interaction.

Deposits and Lending: Fintech based peer-to-peer lending, automated processing and online credit assessment platforms have made saving deposit and lending easier thereby increasing funding options available to borrowers. It is now possible to borrow from private lenders who may have less stringent deposit and lending compliance requirements. Regulators therefore, need to review existing deposits and lending regulatory frameworks to ensure that deposit taking fintechs are subjected to the same regulations as traditional banking institutions, to adhere to anti-money laundering and combating the financing of terrorism (AML/CFT), requirements, as well as safeguard client interests and the integrity of the payment system.

Machine Learning and Artificial Intelligence: Enabling technologies such as machine learning (ML) and artificial intelligence (AI) are the basis for fintech services. Smarter and faster machines are being used based on real life events to facilitate machine driven trading and market provisioning. Examples of ML and AI driven platforms include among others, Thompson Reuters and Rebellion Research. Therefore, regulators need to review existing laws and regulations to incorporate technology specific regulatory elements that would cover critical technologies underlying the provision of fintech services, which include among others, AI, ML, application programming interfacing (API), biometric based identification and authentication, distributed ledger technologies (DLTs), and cloud computing.

Insuretech Business Models: The Insurance industry today leverages on fintech to set action driven insurance rates through comparison portals and digital brokers. With Big Data, insurers are now able to set rates based on client actions, lifestyles, and client credit ratings. Evidently, technology has infiltrated every industry and changed the way business has always been done. Regulators of the insurance industry, therefore, need to take stock of existing regulatory frameworks to ascertain whether they adequately cover such technological developments in the insurance space.

Capital Raising: Fintech has made capital raising possible outside banks, hedge funds and affluent investors through crowd approved and custom business funding schemes. Using fintech, investors and borrowers are matched, excluding traditional financial institutions. Fintech platforms facilitate various forms of credit, including consumer and business lending, lending against real estate, and non-loan debt funding such as invoice financing. Regulators ought to ensure that such fintech activities are subjected to consumer protection regimes and AML/CFT requirements.

Innovation Facilitators: Regulatory sandboxes provide a controlled environment for testing new products and services to safeguard the integrity and stability of the financial system. Specific objectives include increasing the effectiveness and efficiency of digital financial services by widening the scope of choices for consumers; and using such services to increase financial inclusion. Regulators, therefore, need to establish Regulatory Sandboxing Frameworks to facilitate the testing and certification of fintech solutions in accordance with regulator prescribed requirements and standards before solutions could be licensed and released into the market for operation, to safeguard the stability and integrity of the financial system.

Conclusion and Implications for Mandates of Regulatory Bodies

The fintech revolution is driven by among others, financial intermediation cost reduction, more inclusive regulation that is conducive to fintech start-ups, and fintech's reliance on technological leverage, which

post the 2008 - 2009 global financial crises became less expensive than financial leverage and, in the process, making fintech more accessible. Fintechs have the potential to increase efficiency in the delivery of financial services, widen the range of services offered, increase competition and promote financial inclusion particularly for unbanked communities. However, fintechs also have the potential to introduce risks to the stability and integrity of the financial system. This warrants a balanced well thought out approach to the design of policy frameworks that would not stifle innovation but maximise fintech benefits while minimising potential risks to the stability and integrity of the financial system. The following are key policy considerations recommended for regulators across the financial services ecosystem in line with their mandates:

- (a) based on recent developments in CBDCs and crypto assets, central banks can no longer afford to be spectators but rather need to institute appropriate CBDC and Currency Issuance policy positions as regards whether or not to adopt and regulate digital currencies, in view of problems that digital currencies could actually address;
- (b) regulators need to establish legislative and supervisory frameworks to support the development of safe private sector innovation through prudently established regulatory responses that sufficiently cover the regulation, licensing, oversight, and supervision of fintech solutions. Emphasis should be made on how robust and reliable payment platforms are essential to financial stability, and as such, the adoption of fintech solutions needs to be done with due diligence under regulator-controlled testing environments against regulator prescribed requirements (regulatory sandboxing);
- (c) regulators and stakeholders need to assess how APIs between fintech solutions, banking platforms and merchants can be used to build value-added services for consumers and corporates to facilitate instant, real-time, 24/7 payments to spur economic growth;
- (d) to combat risks presented by fintech, relevant financial stability policy objectives should be consistent with the preservation of the stability and integrity of the financial system as well as the safeguarding of consumer interests, ensuring that fintech services are subjected to consumer protection regimes and relevant AML/CFT requirements. In that regard, technological policy responses that are geared towards ensuring a safe and secure payment system, should include but not be limited to Data Protection Policies, Cyber Security Policies, Digital Identification Policies, and Open Banking Policies.
- (e) existing deposit and lending policies need to be reviewed to ensure that deposit taking fintechs are subjected to the same regulations that

traditional banking institutions are subjected to, to safeguard consumer interests and the integrity of the financial system;

- (f) as the diversity in new technology driven financial services (artificial intelligence driven services), payment streams and platforms as well as digital transaction volumes increase, regulatory scrutiny should also be heightened and consistently carried out, with policy objectives intended to enforce the obligation to act in the best interest of clients and consumers even in the absence of human interaction;
- (g) regulators need to assess the status of fintech penetration in their respective jurisdictions and sectors, create the necessary regulatory environment that would further catalyse fintech activity as well as establishing the extent to which the adoption of different fintech services facilitates real-time payments, inclusion and open banking initiatives;
- (h) The fintech industry, although disruptive, promises financial services cost reduction and improved access. Central banks should, therefore, ensure that monetary policy formulation takes macroeconomic implications of global fintech developments and impact on financial markets, into account. Continuous monitoring of financial markets and sustained monitoring are crucial keys to sound monetary policy formulation in an evolving global environment.

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Fintech and Digital Payments Promote Financial Inclusion in Botswana

Introduction

Payments systems the world over are undergoing transformation led by technological innovations, resulting in notable improvements in financial inclusion. People are increasingly demanding faster, more convenient and flexible means of payments that come with differentiated financial products that meet their needs for savings, investment, insurance and credit delivery. Furthermore, payment services have become a gateway to other financial services and are therefore a crucial avenue for the extension of financial services.

While cash and other traditional payment instruments continue to play an important role in day-to-day payments, technology has become increasingly integrated with finance, giving rise to the financial technology (fintech) industry's innovative products. Fintech is the application of innovation in offering financial services. Fintech presents many challenges for industry leaders, unique opportunities for new entrants, and considerable pressure on regulators, who are trying to keep up with the pace of change. Despite its disruptive nature, fintech, has the potential to contribute to both financial stability and inclusion, leading to new, more efficient payments system and more accessible delivery channels for financial products and services. Fintech also enables financial sector authorities to leverage the same technologies driving fintech to support their work in ensuring a resilient financial system.

The objective of this article is to provide better understanding of the role of fintech and modern payments in achieving financial inclusion in Botswana.

Payments and Financial Inclusion

Generally, a national payments system is one of the key pillars for financial stability in many countries. It encompasses the infrastructure, which enables consumers and businesses to make financial transactions through accounts and payment instruments issued by banks and payment services providers. A well-functioning national payments system also helps countries to achieve broader societal objectives, such as improving access to financial services.

Innovation in payment services is catalytic in accelerating financial inclusion. Financial inclusion is defined as "Access to, and usage of, a range of financial products and services provided by formal financial service providers" (AFI, 2017). In the case of Botswana, financial inclusion is a prominent

component of the National Payments System Vision and Strategy, 2020 - 2024. Botswana consumers over the last decade have witnessed innovations such as mobile and internet banking payment platforms, making electronic payments and remittances possible across jurisdictions.



Fintech and Financial Inclusion

Fintech is leading to rapid innovations in the financial services industry; these innovations can enhance financial inclusion through broadened financial access and improve affordability and quality of financial services. With the increase in ownership of mobile phones, 4G internet and Internet of Things, the Fintech sector has expanded vastly. Fintech has the potential to benefit underserved individuals and communities through provision of financial products, such as, mobile money and e-wallets, crowd funding (person-to-person lending and equity crowd funding platforms), efficient credit assessments, cross-border remittances, improved due diligence know your customer process, and regulatory technology (RegTech).

Table 1 below shows that mobile money accounts are growing. In 2014, only 20.8 percent of the adult population had mobile money accounts whereas in 2017, the percentage of adult population who registered mobile money accounts grew to 24.4 percent. The increase in mobile money accounts has contributed to increase in financial inclusion. Botswana is faring better than other countries in Sub-Saharan Africa, in terms of the ratio of adult population who maintain mobile money accounts.

Table 1: Mobile money accounts in Botswana and Sub-Saharan Africa comparing 2014 and 2017

| | Botswana | Sub-Saharan Africa |
|---|----------|--------------------|
| Mobile Money account (% age 15+) | | |
| All adults, 2017 | 24.4 | 20.9 |
| All adults, 2014 | 20.8 | 11.6 |

Source: Global Findex, 2018

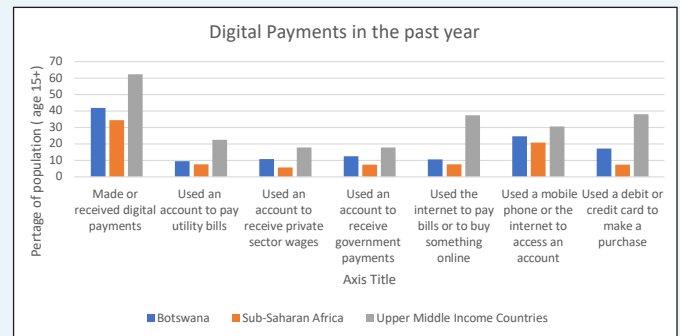
Fintech also defines the era of digital payments around the globe that extends from technologies such as artificial intelligence, machine learning, blockchain technology, biometric identification, cloud computing, and the use of big data. These are revolutionising the collection and processing of financial data by changing traditional ways of saving and borrowing. Fintechs are offering technology-enabled solutions that better address customer needs and preferences by offering enhanced accessibility, convenience and tailored products.

Fintech and Digital Payments

The rise of mobile phone and financial technology companies continues to drive the efficiency and effectiveness of the payments system by providing platforms that facilitate the provision of a variety of financial services products and timely payments in Botswana. Mobile payment services afford customers the convenience of sending and receiving money, make bill payments through mobile payment services, and carry out international remittances. Interoperability between mobile network operators, payment systems providers, and banks enables customers to transfer funds from bank accounts to mobile money accounts. Mobile and related e-money products are a major growth area with the potential to contribute to financial inclusion.

Graph 1 below shows that, in Botswana digital payments are gaining traction compared to Sub-Saharan Africa, but at a slower pace as compared to other Upper Middle-Income Countries. Out of the total adult population, who are at least 15 years, 41 percent in Botswana conducted digital payments in 2017, higher than in Sub-Saharan Africa where 34.4 percent of the population conducted digital payments, but lower than the 62.2 percent in Upper Middle income Countries.

Graph 1: Digital payments in 2017

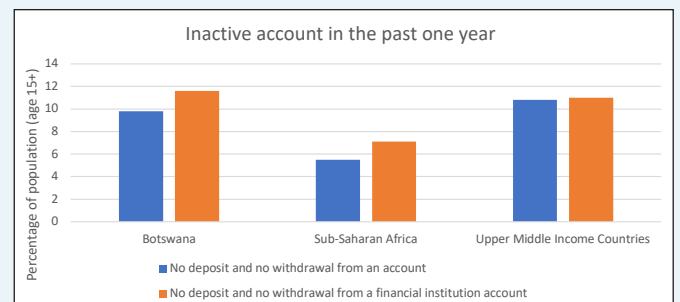


Source: Author compilation from Global Findex Data, 2018

Financial Inclusion in Botswana

Modern financial inclusion definition generally considers more than just the number of accounts, but includes other facets such as usage, convenience, affordability, consumer protection and target group. Graph 2 below shows that in Botswana account ownership is coupled with account usage. Out of total accounts owned by adults who are at least 15 years, only 9.8 percent were not used in the past one year, but this is still higher than Sub-Saharan Africa where 5.5 percent of accounts owned were not used. Therefore, this implies that financial inclusion strategy should be targeted not only towards access but usage as well.

Graph 2: Inactive accounts in the past one year.



Source: Global Findex, 2018

Fintech and payment services providers play a significant role in extending financial inclusion services. Many markets have allowed innovation, specifically with the view to achieving full financial inclusion while some are more cautious and have sought to rein in the development of new products. In Botswana as at 2019, 76 percent of the adult population was estimated to have access to some form of formal financial services. The remaining 24 percent were unbanked, do not use any financial products and do not have access to any form of financial service. Concerning infrastructure and access to modern technology, there are eight bank branches and 33 automated teller machines, on average, for every 100 000 adults. Internet connectivity is close to three quarters (72.5 percent in 2018) of the population, while mobile-telephone penetration is around one and half times the population.

The Botswana financial inclusion roadmap and strategy for 2015 - 2021 under the theme "deepening access, extending financial services to the farthest corners of Botswana", spells out national priorities to assist the excluded and often vulnerable communities to get access to basic financial services and, deepen financial inclusion for the included population through improved efficiencies and value propositions. The target is to reduce the excluded from 24 percent to 12 percent by 2021 (Bank of Botswana, 2017).

Regulatory Challenges

The regulatory environment needs to embrace innovation and development of secure financial services, thereby enhancing the potential to foster financial inclusion, which can contribute significantly to economic growth, employment creation and poverty reduction (Bank of Botswana, 2017) and (Demirguc-Kunt et al., 2018).

While appreciating the role of fintech in fostering financial inclusion, it is worth noting that fintech creates new regulatory challenges and poses consumer protection, data-privacy and cyber-security risks. Technology will continue to change consumer behaviour and preferences, as well as the nature of financial markets and infrastructure, owing to its robustness and evolving nature. This would require a corresponding change in the regulatory landscape.

Because of their mandate and role, financial services regulators are traditionally not directly exposed or closely connected to technological innovations that are emerging in financial markets. They are generally equipped to oversee well-defined players activities, but are increasingly required to be alert to financial activities that are highly complex, progressive and more risky. Therefore, regulators who have adopted technologically driven regulatory models do better in executing regulatory mandates.

Regulatory bodies in developed economies, for example, the Monetary Authority of Singapore and the United Kingdom's Financial Conduct Authority, as well as an increasing number of central banks and other financial services regulators from emerging economies, have established regulatory sandbox environments that allow for mutual learning among regulators and the industry. Such sandboxes build on the traditional test-and-learn approaches of regulators. The experimental approach also enables isolated and risk-neutral pilot-testing of regulatory responses to fintech innovations.

There is also a strong appetite from central banks and financial services regulators to explore how technological innovations can be employed for their own advantage through developing faster, more interoperable national payments systems, setting up blockchain, initiating digital currency research projects, and deploying RegTech solutions to enhance efficiency and risk management in their own regulatory and supervisory functions.

Conclusion

Despite the risks that it poses, fintech provides opportunities that should be embraced with a view to improving financial inclusion and living standards of the financially excluded communities. Botswana continues to demonstrate sustained interest in pursuing rapid integration of financial technology in economic activity and development. In that context, Botswana hosted two international conferences in partnership with international stakeholders. In July 2018, the Bank of Botswana, in collaboration with the Bank of Canada and the IMF, co-hosted a conference themed "Fintech, Payments and Financial Inclusion: Unlocking the Potential of Financial Innovation for Sub-Saharan Africa. In June 2019, the Bank hosted a conference themed "Balancing Fintech Opportunities and Risks: Implementing the Bali Fintech Agenda" organised jointly by the IMF and the Bank of Botswana.

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Leveraging Payment System Infrastructure Amid COVID-19

Introduction

The outbreak of the corona virus disease 2019 (COVID-19) poses huge and unexpected challenges to societies, organisations, governments and businesses, disrupting known ways of living and working. One of the most notable manifestations in the corporate sphere has been the rapid transition by organisations to a remote-working model. For financial institutions, key priorities have been to maintain payment operations and ensure that services and support for customers are always maintained, riding on an effective and efficient payments system infrastructure. While there may be various levels of intervention to ensure that there are no disruptions to everyday normal life, from the financial sector standpoint, the concern is the possible failure of the payments infrastructure, which lies at the core of any financial system, domestic or international. Monitoring and ensuring crisis resilience of these core infrastructures is essential, as the damage or failure in times of crisis can be devastating. As such, this article, therefore, examines how the payments system infrastructure is being, and/or can be, leveraged to overcome the immediate challenges presented by the pandemic.

Payment System Infrastructure

A national payments system encompasses all payment-related activities, processes, mechanisms, infrastructure, institutions and users. A payment system infrastructure is a network through which payments are made, cleared and settled. This network allows customers to transfer funds and make payments to other people and organisations, enabling, for example, payment of salaries into accounts, provision of cards to withdraw cash from Automated Teller Machines (ATMs) and to purchase items from retailers, including online purchases. The infrastructure entails network facilities, service providers, information and computer technologies, operating procedures and rules.

The large-value and low-value payments systems operating in Botswana, the Botswana Automated Clearing House (BACH) (owned and operated by Bankers Association of Botswana) and Botswana Interbank Settlement System (BISS) (owned and operated by the Bank), are considered generally safe and efficient. These two main payment system infrastructures have shown remarkable resilience and have positively contributed to maintaining the stability of the overall national payments system. Normal clearing and settlement of transactions through the BISS and BACH have been maintained throughout.

Other payment infrastructures extensively used in Botswana are electronic funds transfers (EFT), mobile money, payment cards, online and mobile-banking platforms. These payment infrastructures provide convenience and allow customers to adhere to social distancing protocols and transact without necessarily visiting branches and agents. An EFT is a transfer system in which money can be transferred to a business or individual bank accounts without cash or cheques exchanging hands. EFT systems are used for payroll payments, debit or credit transfers, mortgage payments, among other payments. EFT payments are processed through the BACH network.

Mobile money is a technology that allows customers to receive, store and spend money using a mobile phone. A mobile money transfer is a fast, easy and secure transaction in that a sender can transfer funds from own mobile money account, bank account, debit/credit card to another person with or without a mobile money account. The service allows users to store, send and receive money using mobile phones. They can buy goods over the counter or online, pay bills, school fees, and utilities. Existing mobile money services in Botswana comprise Smega by BTC, Orange Money by Orange Botswana, Myzaka by Mascom and Posomoney by Botswana Post. These services provide convenience during and outside a crisis, thus creating opportunities for more consistent use.

Payment instruments include payment cards, whose holders can use for payment at point-of-sale terminals or online. Online banking is a mode of transacting that is conducted through a bank's web-based payment platform under a private profile. It provides a variety of products and services for end-users as it presents a set of information-related benefits. Online banking allows customers to have control over their bank accounts at any time and any place. Payments can also be made from user accounts to a recipient's account with no physical contact between the payee and the payer. Mobile banking allows customers to perform many of the same activities as online banking. In essence, a customer can perform just about any activity online that he or she would normally require to visit a bank branch to make transactions. Mobile and online banking are efficient to use, and they provide convenience to customers. Examples of online banking in Botswana, among others, include Straight 2 Bank by Standard Chartered Bank Botswana, FNB App by First National Bank of Botswana Limited and Baroda Connect by Bank of Baroda (Botswana) Limited.

Response Measures to the Pandemic

The COVID-19 pandemic is a threat to the global economy and financial markets. The pandemic has challenged both the human capital and activities of industries. More emphasis is on the catastrophic human costs of the COVID-19 pandemic and the concerns for people to maintain and protect their well-being. The norms of social interaction are shifting owing to concerns over the spread of the virus. People have been instructed to minimise physical contact in the course of their everyday lives in order to curb the spread of the Covid-19.

The primary focus by the government, companies, employers and families is on taking care of citizens, families, friends, neighbours as well as employees. As a result, to contain the impact of the COVID-19 outbreak, several measures have been instituted. These include nationwide lockdowns, shutting down public places and transport; maintaining social distance; establishing remote-working conditions for companies that previously could not work from home. The resulting economic disruption is huge and the short-term weakening of business activities both small and large are substantial, companies across industries, including banks and financial services have taken swift action to protect both their customers and employees.

Despite the emergency measures undertaken, that restrict people's movements, the payments infrastructure continued to operate, enabling people and businesses to use financial services to conduct daily transactions. The Bank, in support of government pronouncements on measures to address the pandemic issued a media release in April 1, 2020 with the following extract that encouraged the use of digital payments, among others during the COVID-19 pandemic:

"Promoting and incentivising digital payments: the Bank generally promotes and encourages the use of digital payments infrastructure. This is broadly for purposes of financial and economic inclusion, but more especially in the COVID-19 circumstances, in support of social distancing, reduction of movement of people and cash handling. Consistent with the Electronic Payment Services Regulations, 2019, the limits on mobile money transactions were raised with a view to enabling customers to make more digital transactions. Digital payments encourage customers to transact digitally through available channels such as mobile banking and the internet, thereby reducing the number of customers in agent outlets and bank branches."

Enabling regulation: The COVID- 19 pandemic has incentivised Batswana to consider using available financial technology solutions, leveraging on the existing payment infrastructure and enabling policy and regulatory framework. Though there are existing payment system regulatory frameworks such as Electronic Payment Services Regulations, 2019 there may be a need to provide guidance for dealing with

emergencies and pandemics such as COVID-19. However, payment services providers should continue to be diligent and ensure compliance with existing frameworks on anti-money laundering and combating the financing of terrorism (AML/CFT). The special focus from AML/CFT supervisors is required to enable e-Know Your Customer and leverage the benefits of machine learning algorithms for smart detection of suspicious transactions.

Conclusion

During the ongoing COVID-19 pandemic, the payment system infrastructure was stable and ensured that services and support for customers are maintained at all times. The BACH and BISS continued to maintain normal clearing and settlement of transactions throughout the crisis. Likewise, other payment instruments such as EFT, online and mobile banking platforms continue to provide convenience and allow customers to adhere to COVID-19 protocols such as social distancing. Promoting digital financial infrastructure and enabling regulations boosts the flow of funds and allows individuals to make transactions from the safety of their homes. The new normal of enhanced use of contactless payments has proven to be more convenient, faster and more hygienic than traditional cash or card transactions. As such, COVID-19 pandemic will likely be the catalyst for even faster adoption of the use of digital financial services.

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Alternative Financial Services: A Myriad of Opportunities for Financial Inclusion



Introduction

According to the World Bank, financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs; being transactions, payments, savings, credit and insurance, delivered in a responsible and sustainable way. Traditionally, banks and other financial institutions deliver services to customers through branches, where it is possible to physically perform operations like opening accounts, deposit and withdraw cash, apply for loans, among other things. However, to reach the unbanked, banks need to be more innovative and tailor-make products and services, communication and, more importantly, delivery strategy to address and serve their needs. For unbanked consumers, a branch can be located several kilometres away from their home; and this prohibits access to many who might need services due to time and transportation costs to reach the nearest branch. In recent times, non-bank institutions are easing their way into the financial services space, particularly in retail payments service areas, providing similar and competing products to banks or alternative financial services, initially targeting the unbanked and underbanked. Alternative Financial Services in the context of this article refer to financial products delivered outside brick-and-mortar bank branches through alternative channels, such as the internet, mobile phone and non-bank financial services products.

Developments in the telecommunication and technology industries have enabled the introduction of innovative alternative financial services that allow and broaden access to financial services under the Anytime; Anywhere; Anyplace (AAA) flagship. Anytime speaks to the convenience of transacting, being unlimited to the operating hours of the service provider; Anywhere speaks to the ease of service availability and the outreach of the service, being available in previously unserved areas and reaching the previously unbanked and underbanked; while Anyplace speaks to the outreach of the service, being made available and reaching people who were previously left behind, the unbanked and underbanked. Previously, and at given times of the months, usually month-end, people used to travel long distances, usually to the nearest town or semi-urban area, to access financial services. At such times, banks would also find means to reach their customers by setting up mobile service facilities, at given times to provide banking services.

Innovative Financial Services and Products

(a) Uses of the Automated Teller Machines (ATMs)

ATMs play a critical role in the financial inclusion revolution. Nowadays ATMs are interactive, multi-channel and enabled for deposit-taking, some offering touch screen access and other activities. These broadened features and increased use of ATMs promote financial inclusion by facilitating access to formal financial services, allowing cash to circulate reliably, quickly and safely in the market, thereby facilitating financial services to merchants, the unbanked and underbanked. ATM features which may serve as a tool for driving financial inclusion are as follows:

- (i) ATMs can offer efficiency and affordability for financial institutions (offering financial services without the attached overhead costs of operating a branch), while maintaining the reassurance and reliability of the physical banking infrastructure; interoperability is availed, though at a nominal interchange fee. More can still be achieved in this area of interoperability wherein providers will be encouraged, to share infrastructure and compete in product offering;
- (ii) ATMs ease access to a range of financial products through a single touch point (for example, wallet access, accessing other banking services, cardless cash deposits, account transfers, balance checks and account activity);

- (iii) ATMs offer deposit-taking, which allows cash to recycle locally, thereby stimulate circulation of funds;

(b) Internet Banking

Internet banking provides customer a convenient way of accessing the banking platform from the comfort of their homes or offices, without accessing the bank premises. Internet banking avails banking features or transacting through a device, usually a mobile phone or computer. Features of internet banking include, but are not limited to; accessing account statements, funds transfers, bill payments, buying airtime and general payments. Internet banking offers individuals the ease of convenience of transacting where individuals can pay bills without waiting in queues.

(c) Mobile Banking

Banks are actively seeking to leverage advances in wireless telecommunications to offer financial services through mobile phones. Mobile banking is similar to internet banking, the only difference being the device and supporting technology used for mobile banking. Mobile banking is defined as a service provided by a bank that allows customers to conduct financial transactions remotely, using a mobile device such as a smartphone or the standard feature phone and can also be facilitated by an application (mobile app) downloaded onto the phone. Further, mobile banking is dependent on the availability of internet, data connection and airtime. The mobile banking feature gives users 24-hour access to account balances, transaction notifications, bill and other payments including account transfers, among others.

(d) Mobile Money

Mobile money is notably an avenue for financial inclusion. It is a technology that allows people to receive, store and spend money using a mobile phone. Mobile money is a popular alternative to cash and bank account for the lower end of the market and the youth because of its ease of use, security and convenience as it can be used anywhere, where there is mobile phone signal. Mobile money can be used for cash-in (loading funds into the account), cash-out (taking funds out of the account), money transfer to both registered and non-registered customers, and bill payments. The mobile money landscape is broadening in Botswana, with providers also offering international money transfers. Other new mobile money products or uses include group saving, where individuals come together and pool their funds, saving for a specific target, after which the group may disperse. The outreach or distribution of mobile money is by using agents who facilitate customer registration and conducting cash-in and cash-out transactions.

(e) Prepaid Cards

Prepaid cards are important for financial inclusion as they provide a means and channel that facilitates payments. Prepaid cards enable storing of funds,

online use, point of sale use and cash withdrawals at ATMs. Mobile money providers also issue VISA enabled prepaid cards linked to mobile money accounts. Prepaid cards are a safer alternative to carrying cash and they can also be used domestically and internationally through ATMs, POS and online.

(f) International Remittances

International remittances are critical to the livelihoods of people in the developing world, and mobile technology is one of the most exciting forces shaping how people send and receive remittances today. The revolution that mobile money brought for domestic payments and cash transfers is now being replicated in international transfers. Mobile money is uniquely positioned to transform formal remittance markets and to advance financial inclusion because of its reach and growing use among underserved people. Mobile money providers are at the forefront of domestic payment services in many emerging markets, enabling the recipients of international remittances to pay for goods and services digitally, in turn creating a payments history that could enable them to access credit or insurance in the future.

(g) Other Financial Services and Products

There are also innovative product developments in the insurance, micro-finance and stock-market investment sectors taking place in other Sub-Saharan (SSA) countries. However, these developments may have not yet taken place in Botswana, and may be considered in future.

(i) Micro Insurance

There has been a rapid and growing uptake of mobile micro insurance products in the insurance sector, broadly defined as micro insurance products that leverage mobile channels. Many of these schemes use mobile phones to reduce the cost of micro insurance and address challenges associated with scale-up. Mobile phones can be used to help with client enrolment, facilitate payment of claims and through mobile money platforms, offer a convenient mechanism for collecting and managing premiums from populations in remote and hard to reach areas.

(ii) Micro Finance

Over the past three decades, microfinance has given people access to financial services for the first time. Mobile money providers and microfinance institutions are starting to work together to improve further the quality and range of financial services available to the poor. It is becoming increasingly clear that the assets and capabilities of microfinance institutions and mobile money service providers are complementary. In other cases, micro finance institutions (MFI) are discovering that they can lower their costs by disbursing loans and/or receiving repayments via mobile money, eliminating some of the administrative costs that they incur. Some of these cost savings can be passed on to the customer which may actually be more important to customers: for example, it is safer and more convenient

to take out and repay micro loans in mobile money rather than cash. For the provider of mobile money service, partnering with a MFI with a large number of borrowers in this way can be a way to rapidly sign up new customers and drive usage of mobile money. A lot can be derived from experiences where this is practiced, such as in East Africa.

(iii) Stock Market Investment

The stock-market investment using alternative technology driven financial products is also undertaken in countries like Kenya, where mobile money is accepted as a form of payment for investing in the stock market. In Ghana for example, Ecobank Capital Advisors Limited, a wholly owned subsidiary of Ecobank, and MTN Mobile Money, have introduced the Ecobank Treasury Bill for All (TBill4All), designed to boost financial inclusion and investment. The Ecobank TBill4All is a self-service product that allows users to invest in 91-day and 182-day Treasury bills using the MTN mobile money platform. It is aimed to encourage savings and investments as well as ensure financial inclusion.

The Role of other Stakeholders in Financial Inclusion

Government, as the main consumer of financial services, being a main payer and receiver of payments, plays a critical role in driving financial inclusion. A national financial inclusion strategy and policy has been put in place to provide broader and long-term guidelines to both policymakers and market players. This provides for regular data collection and analysis on demand and supply-side access to finance required to form the basis for effective policymaking. There is also cooperation among regulatory authorities, government and other stakeholders to ensure minimisation of potential risks and establish policies that would reduce compliance burden on the regulated entities.

Conclusion

Technological innovations in financial services have been increasingly transforming the way financial services are provided. With the advent of technology, financial innovative solutions, both by banks and non-banks, have brought about such transformative and innovative solutions aimed at accelerating uptake and usage of financial services, with focus on inclusion of the unbanked and underbanked and enabling cross-border remittances. This transformation provides and opens opportunities for financial and economic growth by strengthening financial development, inclusion and payments services efficiency.

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Payment Systems Architecture

Bank of Botswana Role

Operator

Regulator

Overseer

Catalyst for change

Instruments

- Electronic Funds transfer
- Cheques
- Cards
- Direct Debit/Credit
- Electronic/Mobile Money
- Cash

Financial Market Infrastructures

- Botswana Interbank Settlement System
- Botswana Automated Clearing House
- Central Securities Depository
- Other Retail Payments

Payments Services:

- Interbank Transactions
- Remittances
- Foreign Exchange Payments

Government Payments & Collections

- Payments & Purchases
- Mobile Money

Channels:

- Automated Teller Machine
- Internet Banking
- Mobile Banking
- Mobile Payments
- Card Payments

NPS Players

Bank of Botswana

Banks

Other Financial Institutions/ Non Banks

Payments Providers

Ministry of Finance & Economic Development

Other Regulators

Customers

Infrastructure

**Legal Framework
Laws & Regulations**

**Standards
Messaging Standards
Security Standards**

**Contracts &
Agreements**

**Policies &
Procedures
Clearing and Settlement rules
Oversight Policies**

**Network
Operators**

