Tsa Tuelano

The Botswana National Payments System Newsletter

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BANK OF BOTSWANA

Editor's Note

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 NPS is one of the pillars of financial stability of an economic system. It presents the infrastructure that enables consumers and businesses to make financial transactions, including making payments by means of accounts and payment instruments issued by banks and other financial institutions and payment services providers. A well-functioning NPS also helps countries achieve broader societal objectives, such as improving access to financial services for all citizens.

This edition covers areas of interest, such as innovation to improve financial activities, in particular for retail payment instruments, highlights of the recently held retreat for heads of payments in the Macroeconomic and Financial Management Institute (MEFMI) region and the issuance of the NPS framework and strategy.

Financial inclusion is one of the key strategic priorities for financial sector development in Botswana. In recognition of this developmental impact, financial inclusion is becoming a priority for policymakers, regulators and development agencies. In this regard, there is recognition that developments in financial technology, Fintech involve new, more efficient, accessible and convenient delivery channels in financial products and services. Therefore, Fintech can potentially contribute to enhanced financial inclusion, improvements in policy transmission, as well as financial stability.

The authors for articles in this edition are Bank of Botswana staff. The Bank would like to encourage the wider stakeholder community, including banks, other financial institutions, and financial sector regulatory authorities, as well as relevant government agencies to contribute articles for possible publication in future editions.

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Innovations in Retail **Payments Instruments**

Introduction

Over the past decade, many retail payment innovations have emerged. These have significantly affected payment in the retail market by influencing the consumer's choice of payment instrument and thus reshaping the payment processes. Retail payments are day-to-day payments of relatively low value between consumers and businesses. The change in the retail payment landscape is driven by technological advancement that responds to increasing demand for faster, more convenient, safe and flexible means of payments and comes with differentiated financial products that meet consumer needs for savings, investment, insurance and credit delivery, among others. Furthermore, payment services have become a gateway for other innovations in financial services and are therefore considered critical for the extension of improved financial services in general. Retail payment innovations enable customers to make payments in more diverse ways, while also altering the consumer behaviour in consumption of financial services.

While cash and other traditional instruments such as cheques continue to play an important role in day-to-day payment transactions, technology has, nonetheless, become increasingly integrated with finance, giving rise to the innovative financial technology (fintech) products. Transaction cost, speed, convenience and security are the primary factors affecting decisions of customers and businesses in the selection of payment instruments. The emergence of new payment instruments and non-bank payment service providers has intensified competition, which helps to lower transaction cost, enhance efficiency, and reduce risk and promote financial inclusion. Traditional payment instruments and other emerging innovations at consumers disposal are highlighted below:

Cash

There is an ongoing debate regarding the use of cash and its future relevance in the light of rapid technological developments in non-cash and other electronic forms of payment. One school of thought is that cash is losing relevance and will soon disappear, while the opposing view is that cash is here to stay. Cash is the preferred method for small payments because it provides immediate payment settlement and it is available as a means of payment to everyone regardless of stature. With cash, one can purchase goods and services easily because it is widely accepted.

People carry cash for the convenience and flexibility it offers. From the payee's point of view, transactions are completed immediately and this cash can be re-used for other transactions for which payment is required. Its characteristic of being the most liquid form of payment makes it the preferred instrument in retail payments. However, the biggest disadvantage of cash is the risk of theft and loss. Modern technologies also make it prone to counterfeiting although its risk is always mitigated by issuance of central bank notes and coin with enhanced security features such as watermarks, micro lettering, and blind recognition features, all of which are included in Pula banknotes.

Cheques

A cheque is an order to transfer funds from the payer's bank to the account of the payee in the same bank or another bank. All commercial banks in Botswana avail individual and business customers the option of a current account to draw funds or make payments by cheque. A cheque takes two days to settle and for the payee to receive payment and therefore does not provide the payee with immediate liquidity. In rare circumstances, cheques can be forged by those who engage in illicit transactions. There is also a risk that a cheque can be dishonoured for lack of funds in the payer's bank account. The use of cheques as a means of payment has been decreasing due to increase in the use of the modern electronic payments systems brought about by fintech innovations, which, unlike cheques, provide a more secure method of payment.

Cheques processed through the Botswana Automated Clearing House (BACH) decreased by 12.5 percent from 930 000 in 2018 to 810 000 cheques in 2019; the value of transactions decreased by 8.7 percent from P20.4 billion in 2018 to P18.7 billion in 2019.

The National Clearance and Settlement Systems Act in Botswana criminalises issuance of a cheque against which there are no sufficient funds in the payer's account.

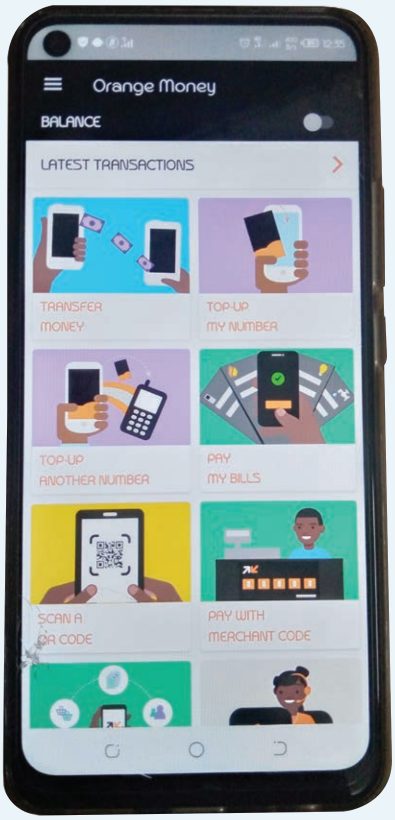
Electronic Funds Transfers

An electronic funds transfer system (EFTs) is a transfer system in which money can be transferred to a business or an individual bank accounts without cash or cheques changing hands. The accounts can be at the same or different banks. EFT systems are used for payroll payments, debit or credit transfers, mortgage payments, among other payments. EFTs have a number of benefits. The process in the EFT system involves the payer initiating the funds transfer by issuing an instruction to his/her bank. The credit to the payee depends on the payee's bank back-end processes. EFTs are a more efficient and safer method of payment. Just like cheques, however, this payment method excludes people who do not have a bank account.

EFT payments are processed through the BACH network. BACH is a secure system that connects all commercial banks in Botswana. Since the banking institutions are connected through the BACH, the payer can authorise the EFT at his/her bank and the payment amount will be debited from his/her account and credited to the recipient's account.

EFTs clearance and settlement in Botswana range from one to two days. Between 2018 and 2019, the EFT transactions processed through the BACH increased by 7.6 percent in volume, from 8.5 million in 2018 to 9.2 million transactions in 2019 and 16.2 percent in value, from P178 billion to P209 billion.

Mobile Money



Mobile money is a technology that allows customers to receive, store and spend money using a mobile phone. Mobile money is a popular alternative to both cash and bank EFTs because it is easy to use, secure and can be used by anyone with access to a mobile-phone network. Mobile money allows customers to get cash from authorised agents and automated teller machines as well as make cashless payments to selected merchants and other individuals through mobile phones. To enjoy the benefits of mobile money, a customer has to register and open an account with a mobile money service provider.

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, credit/ debit card to another person with or without a mobile money account.

Existing mobile money services in Botswana include Smega by BTC, Orange Money by Orange Botswana and Myzaka by Mascom. Mobile network operators have partnered with banks and fintech companies to provide these services that can be extended to the non-banked population.

The service allows users to store, send, and receive money using mobile phones. They can buy goods in shops or online, pay bills, school fees, and top up mobile phone airtime. If a user wants to pay a bill or send money to another person, they simply select the relevant service from the mobile money menu. Anyone who has a mobile phone can have a mobile money account provided they meet all conditions specified by service providers. The service is so accessible, which makes it convenient in remote areas, where access to banks is not easy.

Payment Cards

Payment instruments include payment cards, whose holders can use for withdrawing cash at an Automated Teller Machine, for payment at a point-of-sale (POS) terminal, or online. A payment card has a built-in electronic data medium that enables the user to make a payment at a POS terminal by charging it to the funds in his/her transaction account, under the condition that the user knows the unique personal identification number (PIN) or verifies that he/she is the legitimate holder of the payment card by his/ her signature.

There is a distinction between a debit card and a credit card in terms of sources of funds set aside for settlement purposes. A debit card allows the holder to execute payments directly from own funds held in the bank account, while credit cards allow payments through rolling credit lines provided by a bank to a credit limit agreed in advance. Credit card holders settle the liabilities or in part at the end of the accounting period, with the issuing bank charging interest on the unsettled amount. Payment cards in Botswana are mainly Visa cards issued by banks and mobile money providers. However, both Visa, MasterCard and China UnionPay cards are accepted in most of ATMs and Point of Sale devices across the country.

Online and Mobile Banking

Online and mobile retail payments, though often referred to as one and the same, differ by the type of service that can be accessed. Online banking refers to any banking transaction that can be conducted over the internet, generally through a bank's website under a private profile, and with a desktop or laptop computer. Online banking is a real-time service platform for customers; it is a blend of internet and telecommunications services. It provides a variety of products and services for end users as it presents a set of information related benefits. It allows customers to have control over their bank accounts at any time and any place. It basically provides services that are efficient, rapid and that enhance banking services including payments.

Payments can also be made with a single click online from user accounts straight to the recipient account, thereby saving time and costs. These transactions include services traditionally offered at local branches without having to physically visit one. Online banking is defined generally to include the following characteristics:

- Financial transactions are conducted over the internet through a bank's secure website;
- The user must be registered with a financial institution online and created login details;
- Customers can perform financial transactions, including payments while banking online, and transfer money from one account to another;
- Viewing account balances at any time of the day;
- Viewing or printing statements; and
- Applying for loans or credit cards online.

Mobile banking is a service provided through the combined effort of a bank and a mobile service provider to perform common banking transactions. An active bank account is needed and a mobile phone equipped with features required by the bank. The mobile banking service is secured to ensure user information is available anytime and offer fast and convenient services. Payments may be made from anywhere as long as there is mobile network coverage. It also saves time in service delivery more especially for people in rural areas who are far from banks and other banking facilities.

Mobile banking allows customers, using a smartphone or tablet, to perform many of the same activities as online banking. Notably, simply accessing the bank's website on a mobile device is not the only method of mobile banking. Mobile banking's versatility includes:

- logging into a bank's mobile website
- using a mobile banking app
- text message (SMS) banking

While more banks are making their sites easier to use on mobile devices, mobile banking is more commonly associated with accessing accounts through a banking application commonly referred to as an app (for application). Apps can offer a wide range of services that are not limited to account access and include the following:

- transferring money
- paying bills
- locating ATMs

In essence, a customer can perform just about any activity online that he or she would normally require visiting a bank branch. Mobile and online banking provides convenience to customers who want to manage their finances while on-the-go; both options allow a person to conduct financial business from outside a banking establishment.

Customers interested in using these methods of doing banking transactions should familiarise themselves with both their banks' mobile banking app and online banking website to better manage their finances.

Automated Teller Machines

Automated teller machines (ATMs) are cash-dispensing machines which afford customers an opportunity to access their funds on need. The amount withdrawn is simultaneously debited from a customer's bank account. Nowadays, ATMs have been enhanced to not only dispense cash, but also allow customers to deposit money into their bank accounts. Customers are freed from the hustle and bustle of queuing at banks to pay money into their accounts. ATMs are usually placed within the banks or designated secure locations and can therefore be easily and safely accessed.

Role of Bank of Botswana in the Retail Payment System

The Bank of Botswana plays a catalyst and oversight role to facilitate development of a safe, efficient and convenient retail payment system that meets the needs of customers. The strategic objective is to build a retail payment system that gives customers the widest possible choice of payment instruments for conducting day-to-day payment transactions across the country and beyond national borders, especially within the Southern African Development Community (SADC) region.

Conclusion

The payments space is continually innovative and consumers continue to enjoy the benefits of improved payments and other financial services. The innovations taking place are driven by financial technologies applied to existing market infrastructures and networks. The Bank of Botswana will continue to play a catalytic, operator and oversight role to foster and promote the establishment of a safe, efficient and convenient retail payment environment.

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Financial Technology **at a Glance**

Financial technology (fintech) is "technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services" (Basel Committee on Banking Supervision (2017). Broadly defined, fintech is about technological innovations in financial services. Fintech can be compared with previous waves of innovation, such as the emergence of credit cards and automated teller machines (ATMs) in the 1960s, videotext, electronic payments and internet banking. These have cumulatively changed the face of banking. The modern era innovation comprises financial services that are centred on the use of computers, mobile telecommunication devices and the internet. Broadly, some of the fintech business activities fall in one or more restricted activity categories, such as banking, payments, securities markets, mutual funds, insurance, investment and other activities. Generally, financial innovations are motivated by different factors such as:

- Shifting consumer preferences: consumer prefer products and services which offer high speed and user-friendliness;
- evolving technology;
- changes in regulatory and supervisory requirements;
- changes in business incentives of incumbents and new players; and
- greater connectivity among people.

Fintech companies utilise technology as widely available as payment apps to more complex software applications such as artificial intelligence and big data. Fintech companies consist of both start-ups and established technology companies trying to replace or enhance the usage of financial services provided by existing financial companies. The use of smartphones for mobile banking, open banking, investing services, blockchain, cryptocurrencies, insurance are examples of technologies aiming to make financial service more accessible to the general public. Fintech developments penetrate the intermediation role which is traditionally played by the financial system, thus enhancing competition. Fintech enables consumers to obtain funding for investments, save excess funds, get insured and get financial advice without having to go to a financial institution or meet an intermediary (illustration in Box 1).

BOX 1: TRADITIONAL BANKING SERVICES VS FINTECH SOLUTIONS

USER NEEDS	TRADITIONAL MODEL	FINTECH SOLUTION
PAY	Cash/ATM cheque, debit and credit cards	Virtual currencies, remittances, mobile payments, mobile POS, P2P payments
SAVE	Bank deposits, mutual funds, bonds, equities	Virtual currencies, mobile money market funds, block chain bonds
BORROW	Bank loans, bonds, mortgages, trade credit	Credit modelling, platform lending, crowd funding, block chain bonds, P2P lending
MANAGE RISK	Brokerage underwriting structured products, compliance KYC	Regtech, smart contracts, Suptech, crypto-asset exchanges, EKYC, digital IDs
GET ADVICE	Financial planner, Investment advisor	Robo-advising, automated wealth management

Source: International Monetary Fund (2019)

Types of Fintechs

The most common innovations are found in the following categories:

- Payments, clearing and settlements include: mobile banking, digital currencies, value-transfer networks, foreign exchange wholesale, digital exchange platforms and mobile point of sale (mPOS);
- Credit, deposit and capital raising services include crowdfunding, lending market places, mobile banks, credit scoring, peer-to-peer lending (P2P), business to business lending (B2B);
- Insurance: InsurTech;
- Investment management services include copy trading, e-trading and high-frequency trading, Robo advice; and
- Market activity enhancing such as portable and data aggregators, cloud computing, artificial intelligence and data applications, electronic signatures, electronic know your customer (eKYC)

In Botswana, some fintech companies already provide various services that are traditionally the preserve of banking institutions. For example, there is collaboration between mobile money providers and banks to provide electronic money services such as Mascom MyZaka by Mascom, Smega by BTC Mobile and Orange money by Orange Botswana. The mobile money accounts do not require the user to have a bank account. In addition, most banks have mobile-banking facilities, such as e-wallet, pay-to-cell and internet banking services that allow customers to make transactions online and through the mobile phone. Some firms allow consumers to apply for loans online.

Fintech innovations hold potential benefits for all users of financial services. These include expanding access to financial services, reaching under-served consumers, reducing transaction costs, providing greater transparency with simpler products and clear cost disclosures, providing greater convenience, efficiency and enabling tighter controls over spending and budgeting. Collectively, these can result in an enhanced customer experience by providing a better understanding of products and terms. The opportunities offered by fintech developments also entail new risks to the financial markets. The opportunities and risks are highlighted as follows:

Opportunities Presented By Fintechs

- Financial inclusion: fintech has levelled the financial playing field for customers, giving them access to services previously only selectively available.
- Improved and more efficient banking services: banks are able to reach more people and offer services faster and at any given time.
- Innovative use of data for marketing and risk management: through the e-KYC platforms and credit scoring, consumers are able to comply with regulatory requirements and assess their credit-worthiness respectively online.
- Enhanced innovation, job creation and diversification in the financial sector: fintech provides more options for people to access financial services and offers competition to the traditional banking service providers. It is a new market that offers new opportunities for entrepreneurs.
- Increased efficiencies and reduction of costs for market participants: fintech offers financial services at a lower cost compared to traditional financial intermediaries.
- Convenience: people are able to partake in the financial system from the comfort of their homes and work places.
- Insurance: fintech offers convenience in accessing insurance products.
- Robo-advisers: digital platform where consumers get tailor-made investment plans online with moderate to minimal human intervention. This enables diversified and informed investment opportunities.
- Regulatory technology (Regtech): fintech may help financial institutions, interpret and comply with regulatory requirements. The main priorities of Regtech is automating and digitalising anti-money laundering (AML/CFT) rules which aim to reduce illicit financial transaction, and know your customer (KYC) processes which identify and verify clients of financial institutions to prevent fraud.
- Online lending and financing offers funding opportunities for start-ups and small businesses.

Concerns around Fintech

- Cyber risk: technology presents an opportunity for cyber criminals to hack accounts, threaten business operations and commit all kinds of fraudulent activities, including identity theft.
- Data privacy and security risk: some innovations, such as Robo-advisers need personal information to operate and if this data is not well protected, it could be seen and misused by others for malicious and criminal purposes.
- Increased interconnectedness: interconnectedness between financial

participants and institutions has the potential to amplify contagion risk, more especially during a crisis.

- High operational risk: this risk may arise due to inadequate or failed internal processes or technology failure.

- Discontinuity: banking services may fall out as more innovations take effect. This has implications for regulation and ability to supervise the financial system.

- Money laundering and the financing of terrorism: The higher level of automation and distribution of the financial product or service among financial institutions and companies the higher the chances of financial crimes. This is because of the lack of transparency in how transactions are executed, low or no identity for users and limited compliance responsibilities.

- Volatility of bank funding sources: fintech firms offer more competition for deposits.

A positive story from the emergence of fintech is that it presents new technology, new ideas and new business models that produce new opportunities. The distinction between telecommunication services providers, payment services providers and financial institutions is breaking down as far as provision of financial services are concerned.

Fintech players have the ability to accelerate the digital transformation of financial services and, in turn, spur the banking institutions to rapidly scale up their own innovative approaches to meet the financial needs of under-served markets across the continent. Banks are now harnessing technology to meet market needs and are also collaborating with fintech companies to help them connect with under-served consumers, improve financial inclusion and provide a platform to scale much faster.

The fintech industry has implications for the financial institutions as well as their regulators. In addition, these technologies have a bearing on financial stability and soundness of the financial sector. It is therefore imperative for regulators to be familiar with fintech developments and their regulatory responses to guard against associated risks.

Conclusion

Different jurisdictions have different regulatory perspectives and approaches towards fintech developments. The Bank has over the years encouraged greater use of electronic payments to provide a payment system that combines the attributes of safety, security, enhanced convenience and accessibility, leveraging technological solutions that enable faster processing. Affordability, interoperability, customer awareness and protection have also been other focus areas. Banks have been the traditional gateway to payment services, however, with technological changes, this is no longer the domain of banks. Non-bank entities are cooperating as well as competing with banks, either as technology service providers to banks or directly providing retail electronic payment services. The relevant regulatory framework, the Electronic Payment Service Regulations, 2019, which adopts a functional approach to regulation, also encourages this enhanced participation of non-bank entities in the payments domain.

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The Fourth Industrial Revolution and Financial Inclusion in the Age of Fintech

Today we stand on the brink of technological revolution that dictates the way we live, work and relate to one another. Artificial intelligence (AI) is all around us, with innovations such as drones, self-driving cars and robotics; this is the fourth industrial revolution. It uses digital technology to facilitate and further automate systems and processes that require physical and human capital. It is driven by growth in computing power and the vast amount of data, along with processes used to predict our cultural interests and buying or other behavior.

The first industrial revolution used water and steam to power transportation and mechanise production. The second revolution occurred with the discovery of electricity to further expansion and mass production. The third industrial revolution used electronics and information technology to automate everything from production to business processes. Much of it was powered by the invention of a personal computing system. The fourth industrial revolution is more of an extension of the third revolution in that it fuses technologies between the physical, digital and biological spheres.

The fourth industrial revolution has the potential to raise global income and improve the quality of life across the globe, including addressing inequality through more inclusion. Technology has made it feasible to increase the efficiency and pleasure of our personal lives via new digital products and services. It is now possible to order a taxi online (Uber), watch a movie online (Netflix) and many more services made available on the internet through software engineering (creation of applications, "Apps"). Customer experiences have been simplified since all kinds of solutions are on the palm of our hands via smartphones, tablets and notebooks.

Technological advancements have their challenges that affect people, businesses and governments. Automation by nature translates into disruption of the labour market. As automation substitutes for labour, across the economy, the net displacement of workers by machines might worsen the gap between returns to capital and returns to labour. The main effects of the fourth industrial revolution on businesses are customer expectations, product enhancement, collaborative innovation and organisational reforms. Customers are now at the centre of the economy and physical products and services are now enhanced through digital capabilities that enhance their value. This has created new business opportunities and equally pose a threat to businesses that fail to adapt. The financial services sector has not been immune to the development of the digital economy and it is benefitting from these technological advancements.

Financial technology (fintech) has experienced growth since the setting in of the fourth industrial revolution. The fintech industry has expanded exceedingly above its early stages, being visible in the mainstream of all markets around the world. According to the EY research, emerging markets such as China and India are leading the way with the adoption rate of 87 percent, followed by South Africa and Russia with 82 percent of the adoption rate. Among the industrial countries, Ireland, the United Kingdom and the Netherlands lead in the adoption of fintech. Fintech has brought a new paradigm to the design and implementation strategies for financial inclusion. For instance, new players, including non-banks increasingly offer financial products and services directly to customers. Thus, recent technologies such as smartphones for mobile banking are making financial services more accessible to the general public.

In Botswana, some commercial banks have integrated with mobile money service providers for the provision of electronic money services. These services are critical to financial inclusion as they do not need the use of a bank account. Fintech is essential to the under-served and unbanked population as it comes with reduced fees.

Locals are also engaged in cross-border payments that attract charges, which differ for several reasons, including destination, value, and purpose of payment. With fintech, customers and suppliers are provided with cost-effective services that deliver in real-time. Another aspect is that fintech can help reduce monopolistic power of existing markets in the financial service industry. This results in increased competition in the remittance realm and thus an added advantage to customers as far as fees are concerned.

Although fintech has been identified as ''disruptors'' by traditionalists in the delivery of financial services, they are an important tool for financial inclusion and inclusive growth. In its 2018 Annual Report, Bank of Botswana indicates that fintech is a necessary agent for financial development, noting that it has great potential to deliver economic benefits by enhancing competition and lowering the cost of operations, thereby fostering financial inclusion and shifting economic paradigm leading to a digitalised economy. It is important to note that fintech permeates all areas of economic and social activity even at the global level.

Although there is rapid change and innovation in technology that drives financial inclusion in some countries, it has been reported that Botswana lags behind, in institutional and market depth, financial access and size relative to the economy when compared to other peer economies. For instance, in the rural areas of Botswana, 64 percent of the population has access to formal financial products and services as compared to 90 and 81 percent in Mauritius and South Africa, respectively. This clearly shows that Botswana has a gap that can be filled by fintechs. There is therefore a need to develop a supportive fintech regulatory framework that particularly promote the business environment, including accelerated penetration of mobile, agency and internet banking. At the same time, there is a need to benchmark from other countries such as Rwanda and Kenya that have allowed retail sectors and non-bank institutions to offer financial products and services that create competition and make it possible to improve access for the under-served and unbanked communities.

Nledzi A Joseph and Tshegofatso Nanjunga
Settlement Supervisors
Payments and Settlement Department

Retreat for Heads
of Payment Systems

Director, Ms Patricia Tumedi, third left, Governor of Central Bank of Kenya, Dr Patrick Njoroge, fifth left and Emmanuel Molefe, third right, among others posing for a group photo outside the Crown Plaza hotel.

The Director of the Payments and Settlement Department, Ms Patricia C Tumedi and Mr Emanuel Molefe, attended the Macroeconomic and Financial Management Institute (MEFMI) Heads of Payment Systems Retreat in Nairobi, Kenya from August 6 - 8, 2019. MEFMI is a regionally owned institute currently comprising 14 member countries; the mandate of MEFMI is to build sustainable capacity for its member countries in macroeconomic, sovereign debt and financial sector management. The target group of the retreat were heads of payment systems in central banks and other authorities working in government departments responsible for the development, modernisation and reform of payment systems.

The retreat was officially opened by Governor of Central Bank of Kenya Dr Patrick Njoroge, who noted that fast changes in the payments ecosystem had become synonymous with "wasp speed". He posited that such changes were a challenge to central banks as they required them to continuously review regulatory frameworks to ensure a continued balance between benefits of innovation and economic costs arising from lack of proper risk management by industry players. Effectively, the role of sovereign regulators/payments infrastructure overseers should continue to encourage well-guarded innovation that facilitates public policy objectives of financial inclusion and inclusive growth at national level and in the MEFMI region.

The objective of the retreat was to discuss emerging themes in payments and market infrastructures with a focus on payments trends and innovations, digital currencies, cyber security, anti-money laundering and combating of the financing of terrorism issues and regulatory response to payments innovations.

Director, Payments and Settlement Department contributing to discussions.

Payment systems and market infrastructures are a core element of the financial infrastructure. The payments landscape has undergone remarkable changes, with the position of traditional financial service providers such as banks being significantly challenged by the entrance of new players.

The 2019 retreat for heads of payment systems addressed the relevant concerns, challenges, and opportunities facing central banks and their evolving role in the payments and market infrastructures. The retreat provided a centre stage for valuable exchange of ideas that could synergise transformative approaches and initiatives for payments.

The delivery method of the retreat entailed group discussions, roundtable forums and panel-discussion sessions to deliberate on the developments and innovations in payment systems.


Central Bank of Kenya Governor, Dr Patrick Njoroge officially opening the retreat.

Key Takeaways from the Retreat

(a) Regulatory approaches for financial innovations

Participants noted fintechs as key payments innovations that were paving way for technological developments in other areas in the region; notably software development and regulatory technology (RegTech). Given perceived benefits from these innovations, regulators would find it difficult not to move along with the market by embracing technologies that are aggressively pervading existing payments infrastructures. To this end, the sandbox approach was comprehensively discussed, with countries giving own perspectives on regulatory sandboxes. It was noted that countries that were embracing fintechs but had no legislative framework to regulate them were at preliminary stages of developing sandbox frameworks. The current approach allows limited operations subject to adherence to jurisdictional legislative requirements, policies and principles that embrace customer protection, data protection, anti-money laundering/counter-financing of terrorism (AML/CFT)and risk management strategies that focus particularly on cyber threats. Legislative frameworks that are supported by RegTech monitoring systems were also considered to be a good complement to sandboxes or an alternative thereof for purposes of optimising available resources.

(b) Regulation and Licensing of other Non-bank Payment Services Providers

The progressive role of mobile network operators (MNOs) in driving financial inclusion in sub-Saharan Africa (SSA), which was deemed the epicentre of mobile money, was explored. As at December 2018, SSA was driving two thirds of total global money transactions from the 866 million accounts registered globally by 272 deployments in 90 countries. It was noted that the current diversified use of mobile money has extended from mere airtime top-ups and person-to-person transfers to bill payments, bulk payments, international remittances, credit extension and merchant payments; with a huge opportunity for SMEs and e-commerce. Participants shared regulatory regimes applied in the region to this seemingly important segment of the payment system, particularly collaborative approaches among the regulators of infrastructures and payments. Countries alluded to common challenges of inadequate legislative framework, poor data aggregation, lack of interoperability of systems domestically and regionally as well as lack of collaboration between regulators even where memorandum of agreement had been signed. To this end, the consensus was for the region to work together with the view to bridging existing gaps, particularly from the policy and regulatory environment perspectives.

(iii) Central Bank Digital Currencies (CBDCs) and Crypto Assets

The discussion centred on the common view that crypto currencies are speculative assets that lack the fundamental characteristic of "store of value" and have not been able to solve some of the pertinent challenges they were originally envisioned to address. In this regard, cross-border payments are considered to remain slow, expensive and opaque, especially for retail payments such as remittances. If anything, crypto assets as deduced from their large price volatility have tended to serve as highly speculative assets for a select of investors rather than serving as a means of payment. The view therefore is that crypto assets are not an alternative to fiat central bank-issued currencies and do not, for now, warrant regulatory attention of central banks. This notwithstanding, central banks are aware of the emergence of stable coins, that, although having features of crypto assets, seek to stabilise by linking their values to a pool of assets. Despite being currently a nascent technology, which is yet to be tested, the converging view is that central banks should monitor crypto-asset developments and also explore possibilities of using existing fintech space to digitalise fiat currency. Central bank digital currencies would provide an avenue for devising appropriate policies for monitoring any "near-real" crypto currencies that threaten the existence of fiat currencies.

Conclusion

The payments industry is converging towards fintech'-abled payments in order to meet customer demands for instant payments. Central banks will have to respond appropriately as catalysts, operators and overseers of national payment systems. One of the obvious requirement is the opening up of the real time gross settlement system to other non-bank participants and ensuring efficient payment gateways that are backed by a national payment switch.

As digital financial services become more pervasive and advanced, regulatory focus shifts to addressing the issues attached to these new technologies. While it is noted that countries in the MEFMI region maintain the view that it is not the responsibility of a central bank to regulate speculative crypto assets, there is agreement that central banks should be aware of the magnitude of transactions occurring within their jurisdictions, given the impact of money laundering and financing of terrorism on sovereign states.

The retreat, which is held every two years to discuss payment related issues, is always insightful and guides national payment system development strategies of participating countries.

Emmanuel Molefe
Payments Systems Supervisor
Payments and Settlement Department

National Payments System Framework And **Strategy Vision 2020 – 2024 Issued**

In recognition of the importance of a strategic approach to the development and further enhancement of the National Payment System (NPS), the Bank of Botswana, in conjunction with the NPS stakeholders, has produced the National Payments System Vision and Strategy 2020 – 2024. The National Payment System framework and strategy vision 2024 sets goals and strategies for the national payments industry, aimed at building a world-class NPS that is safe, efficient, innovative and inclusive. A national payments system is a set of arrangements and infrastructures that enable consumers, businesses and other entities to transfer funds to one another using accounts they have at financial institutions.

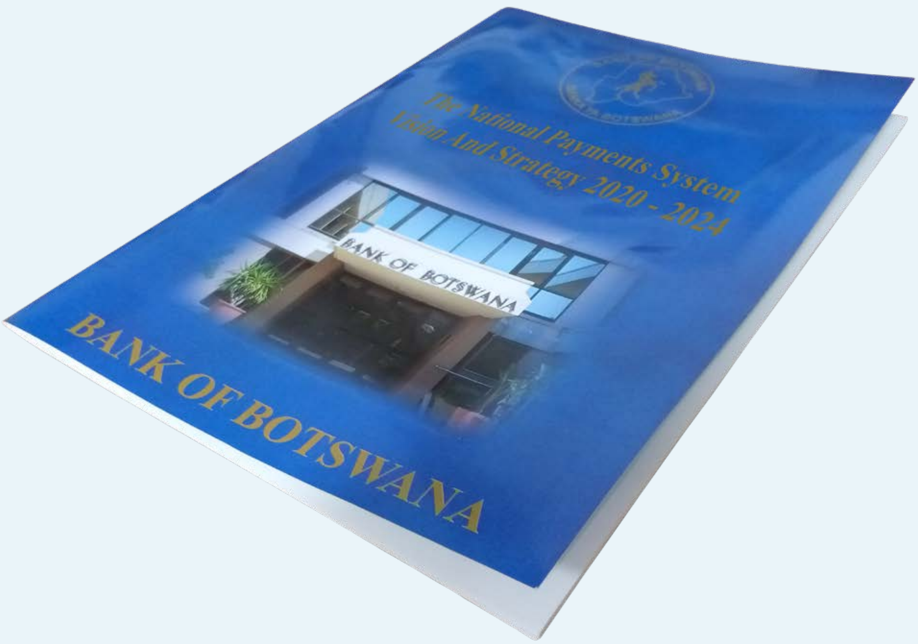
The first major step in the modernisation of Botswana NPS was the launching of the 2002-2005 NPS Framework and Strategy, which established the foundation for the current payments system infrastructure, including legislation, policies and processes.
The National Payments System Vision and Strategy 2020 - 2024 outlines the essential characteristics of Botswana's future NPS, reflecting the way forward and identifying key strategic actions in the continued development of the Botswana's payment system. The strategy document reflects the collective views of the NPS stakeholders in Botswana, gained through cooperative participation and consultations through various fora.

The strategy guides the NPS modernisation projects, resource mobilisation, infrastructure development, linkages and role descriptions required to achieve the NPS vision of a safe, efficient, innovative and inclusive NPS over the next five years. The strategy maps out an overarching vision for the industry and is anchored on the following ten pillars:

- the payment and securities settlement infrastructures
- sound legal framework
- government payments
- retail payments
- oversight of the NPS
- cooperation
- access criteria and participation
- risk management
- public education and outreach programmes
- financial technologies developments.

The successful implementation of the Strategy will depend on continued commitment, dedication and cooperation of the various NPS stakeholders. The National Payments Task Force (NPTF) will be the main forum to coordinate and monitor the execution of the Strategy.

The NPTF, is the structure established to manage the NPS modernisation programme in Botswana and also facilitate collaboration and cooperation between various stakeholders in the financial sector and entire economy.



Payment Systems Architecture

Bank of Botswana Role

- Operator
- Regulator
- Overseer
- Catalyst for change

Instruments

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

Financial Market Iinfrastructures

- Botswana Interbank Settlement System
- Central Securities Depository
- Botswana Automated Clearing House
- 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 Providers