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Edition 12 | December 2018

THE DIGITAL FINANCIAL SERVICES GUIDE

CONTENTS

Blurb

Banks are facing stiff competition from fintech companies. Hence, for banks, going digital is a reality today and providing a differentiated digital banking experience to consumers across segments is the norm. We look deeper into this trend and explore how digital banking is growing in Middle East and Nigeria in articles – 'Digital Banking Making Inroads into Middle East' and 'Leading Nigeria to Digital Banking Age'

Next, we shift our focus to mobile money and discover the smartphone's potential to transform mobile money services in Africa in the article 'Increasing Smartphone Penetration in Africa: Tremendous Scope to Revolutionize the Mobile Money Market'.

Lastly, we find out how mobile money services are helping mid and low income people to invest in capital market and grow their money in the article 'Mobile Money: From Financial Inclusion to Financial Enrichment'

I hope you like reading these articles, as much as we loved creating them.

Happy Reading!

Srinivas Nidugondi
SVP and Head of Mobile Financial Solutions
at Mahindra Comviva

DIGITAL BANKING

MAKING INROADS INTO MIDDLE EAST

Customers in the Middle East are going digital. This, in turn, unearths the requirement to infuse increased innovations in the financial services space, to disrupt the face of banking in Middle East.

The digital revolution that is transforming industries across the globe is now being witnessed in the banking industry as well. Leading banks in the region are taking the lead, spurred on by the advent of digital payments in the region and increased access to mobile internet. Smartphones, tablets and wearables have made it possible for customers to execute a plethora of activities, such as ecommerce transactions, merchant payments in-store, money transfers, etc. Thanks to initiatives taken by the schemes in the region and solutions provided by fintech companies, consumers have already started tasting the benefits of going digital.

— Ramkumar M

Trends accelerating the uptake of Digital Banking

Increase in Cost Optimization:

Traditional obstacles notwithstanding, banks are increasing leveraging "digital" assets to optimize costs. In fact, this works in favour of players planning to enter this space, as it would entail lower capex. Laggards will find it extremely difficult to cope, as new age banks would be able to deliver engaging digital experiences, thereby causing the former to lose considerable market share in short time span of time.

Personalization Comes to the Fore in Experience and Communication:

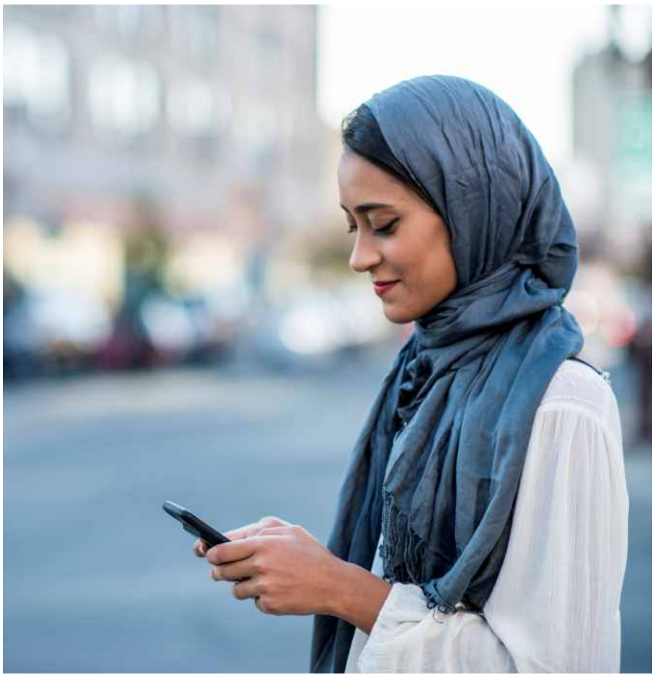
The concept of digital banking itself is undergoing transformation. What started as a means to build, manage and control the omni-channel experience is changing into a tool for customer engagement. Segmentation, instant configuration capabilities, marketing automation, personalization and experimentation engines are the buzzwords in today's digital banking world. A right mix of these tools and capabilities are highly effective in enhancing consumer engagement and retaining them.

The Customer's Affinity to Pure Digital Propositions:

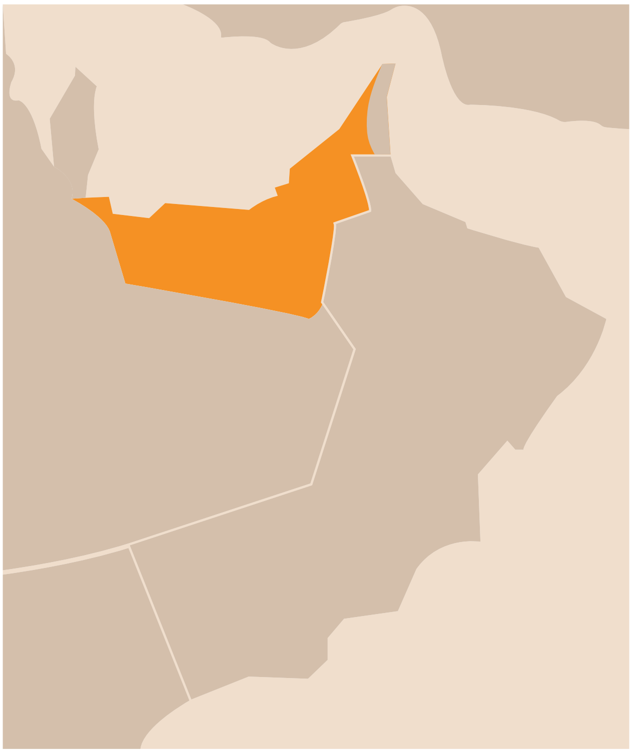
According to McKinsey, 80 per cent of consumers surveyed said that they were willing to shift at least a portion of their holdings to a bank that offers a compelling digital-only proposition.

What Customers Want

What customers require from digital banking, as per a study conducted by McKinsey, are simplicity and security. In a more physical brick and mortar banking processes what customers are looking out for is simple and secure digital way of getting over their day to day banking needs. As per the report, while banks typically focus on digitising high-cost processes such as loans, customers tend to value vanilla features as well. This may be, partly, due to the absence of seamless, easy-to-use, end-to-end loan-related solutions. If banks start offering quick loan applications, for example, they might raise customers' interest and increase digital sales.



UAE Leads on the Regional Stage



The United Arab Emirates has arguably the most favourable of ecosystems for the growth and sustenance of digital banking. The advancement digital technology infrastructure, the higher percentage of internet users, social media users, smart phone penetration etc are key factors driving this. In fact, select leading banks have already begun paving the way. According to EuroMoney, for instance, over 90 per cent of transactions executed at Mashreq Bank are being done through digital channels.

The Road Ahead for Banks

It is evident that Digital Banking is the next big wave in the finance sector and before we conclude, it is imperative that we see how banks shall respond to this shift.

To retain their market position, large incumbent banks should **take the lead in transformation to Digital.** Banks should start looking at this as a significant measure to increase their face value. This is no more an innovation stunt.

Collaborate, not compete. Banks ought to tie-up with prominent fintech and/or technology providers. The agility and vision that these firms might bring to the banks is momentous.

Regulate the need for branches. From a servicing platform, branches should transform to become an advisory and sales accentuation platform

Let consumers define what the banks offer. Data and advanced analytics ought to be leveraged to gain useful customer insights. Research shows that Mastering of digital media, content marketing and marketing operations are going to be critical to a Bank's journey in Digital Banking.

The saying, “banks will disappear, banking will not” is clearly coming to the fore. Time will tell how the Middle East is gearing to cope up with this shift.

About the author: **Ramkumar M** is Engineer turned Management Graduate and has around 5 years of experience in Business Development. At Mahindra Comviva, he leads Middle East and North Africa's Enterprise Business Development of Mobile Financial Solutions Products. Prior to Comviva, he has worked as a developer at Cognizant Technology Solutions.

— Sreehari J

Digital banking is the latest buzz in the African market, notably in Nigeria, Kenya, Ghana and South Africa. Banks have woken up to the fact that the most appropriate method of acquiring customers is by going digital.

LEADING NIGERIA TO DIGITAL BANKING AGE

Digital banking is not a single solution, but a combination of various solutions to reduce dependence on traditional brick and mortar branches and core banking systems. These can be classified into four categories.

1

The first is offering banking services through various channels, such as mobile applications, USSD, internet banking, Facebook and WhatsApp chatbots.

Though internet and mobile banking are not new concepts, their full potential is yet to be leveraged. In Nigeria, for instance, select banks have launched chatbots to address any queries a customer may have. Examples include ADA from Diamond Bank Nigeria and Chatbot Leo from the United Bank of Africa.

2

The second aspect of digital banking is enabling customers to open a bank account without stepping into a branch.

An appropriate example in this context is ALAT from Wema Bank in Nigeria. The player enables customers to open accounts and avail of various products in very short timelines.

3

The third aspect of digital banking is enabling omni-channel connectivity.

Simply put, banks ought to have a common back-end and should enable multiple channels to latch on to this. The advantage of this architecture is that services need not be created in silos. For examples, earlier a loan service had to be developed separately for each channel. However, with the omni-channel approach, loans service has to be created once in the back-end and can be offered to consumers through all channels. Various leading banks in Nigeria, such as Ecobank are already offering or deploying this.

4

The fourth and the most recent aspect in the digital banking space is the hyper-personalization of customer experience.

This, in fact, entails two aspects-what the customer sees and the communication they receive. Hyper-personalization will allow different consumers to see the banking app differently. For example, consumer A can see a different banking app menu than consumer B. Additionally; banks will be able to send more targeted messages and campaigns rather than following a carpet-bombing approach. These initiatives are expected to enable banks to increase their active customer base in digital channels and also gradually move customers from an acquired status to a revenue generating status.

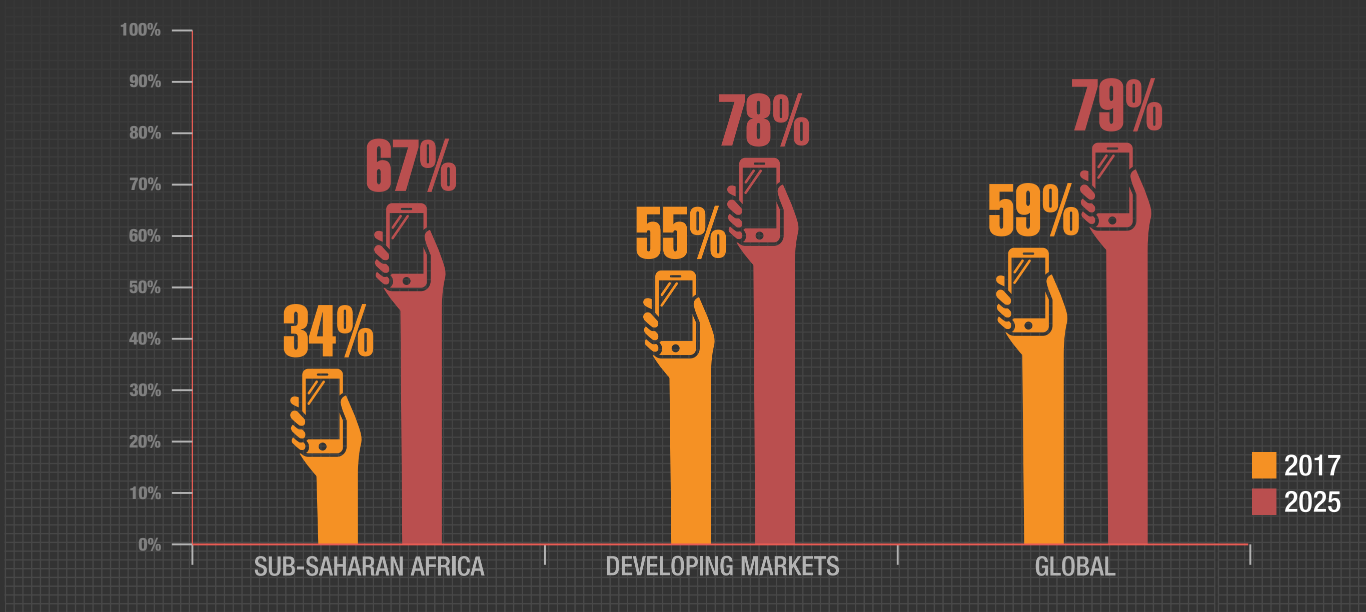
Digital banking in Nigeria is booming and a lot of action can be expected in the years to come.

About the author: Sreehari J has over 6 years of work experience in sales and business development and four years' experience in working with clients across LATAM , Africa and SSEA . At Mahindra Comviva, he is serving as Senior Manager in Business Development for the mobile financial solutions portfolio. He primary role includes working along with prospective enterprise customers to help them achieve their business objectives by utilizing products from the MFS portfolio.

INCREASING SMARTPHONE PENETRATION IN AFRICA: TREMENDOUS SCOPE TO REVOLUTIONIZE THE MOBILE MONEY MARKET

— **Puneet Takyar**

Smartphone adoption (Percentage of connections)



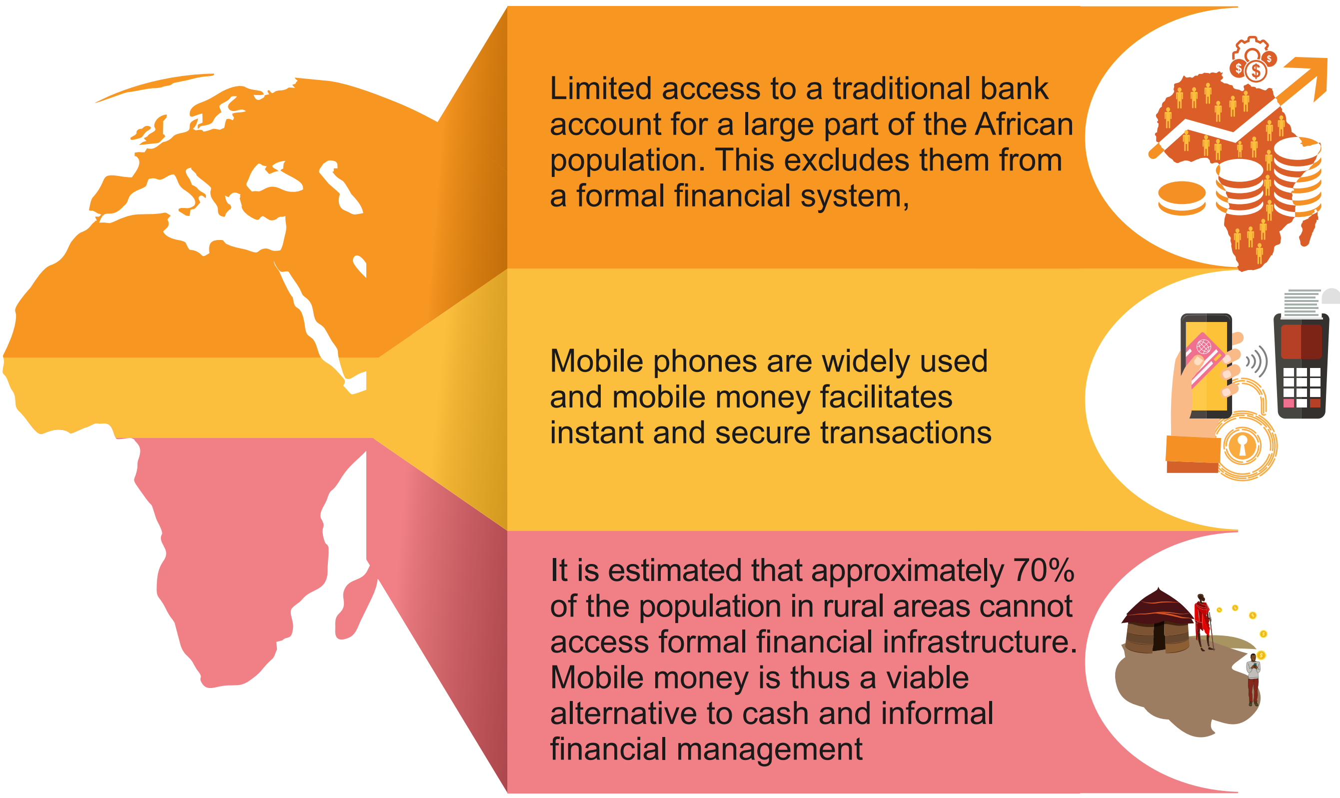
Source: GSMA Intelligence

Smartphone penetration in Africa will double by 2025. With increasing penetration of smartphones in Africa and the rapid development of new services, a plethora of opportunities arise. Smartphones have the potential to further revolutionize the mobile money space in Africa.

The pioneer of mobile money, Sub-Saharan Africa, still leads the space, accounting for almost half of all registered customers globally. Last year, mobile money transactions in Sub-Saharan Africa reached $19.9 billion or 63 per cent of the global figure and represented two-thirds of the total transaction volume.

Ten years ago, a prominent telecom operator launched mobile money in Africa. This has, needless to say, transformed the African economy. In areas with low levels of bank usage, mobile money provides financial services to almost 50 per cent of users.

Key factors contributing to the success of mobile money in Africa are:



Initially focused on peer to peer transfers and mobile phone top-ups, mobile money now caters to extensive set of financial needs such as international transfers, bill and merchant payment bill, salary payments and financial-aid disbursement. Telecom operators are going one step further by providing services such as loans and savings via the mobile handset.

Proximity payments are also making their way to African market. Near-field communication (NFC) and QR code-based payments would further add to the ease of using mobile money.

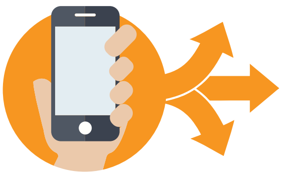
Major access channels used for mobile money solutions have been USSD, SMS and IVR. However, there are certain limitations to these access channels. For instance, in the case of USSD, it is cumbersome to go back and forth across the menu and involves multiple steps to move from various categories.

Future Opportunities

According to research by the Pew Research Centre conducted in Kenya, Tanzania, Senegal, Nigeria, Ghana and South Africa, sub-Saharan Africa's smartphone penetration stands at 33 per cent, which is significantly higher than the 15 per cent recorded in 2014. In fact, market analysts predict that this will double by 2025. With increasing penetration of smartphones in Africa and the rapid development of new services, a plethora of opportunities arise.

Users with smartphones are much more likely to use their phones for multiple activities, compared to users with feature phones. An example to substantiate this is Ghana where 79 per cent of smartphone users sent text messages in the last 12 months, compared to 33 per cent sent by feature phone users.

Smartphones have the potential to further revolutionize the mobile money space in Africa. One of the fundamental advantages of smartphones is that mobile money systems can have their mobile application which will enhance the user experience by catering to all limitations of USSD, SMS and IVR mentioned above. For instance:



Enhanced user experience

By developing an application, one can ensure an improved user experience. However, this may entail the customer signing in, creating an account or subscribing to a service or for daily transactions. The registration process can be digitized via the mobile application.

The mobile app can digitize the complete registration process, where customer can open the app, enter mobile number and verify it using OTP (One Time Password), enter personal details for KYC, click photo of Identity documents and submit them digitally and take a Selfi and submit it as the photo proof. Thus the entire registration or KYC process can be automated.

Going a step further, mobile money applications can also ensure delivery of a “connected” experience. The Orange Money application deployed in Côte d’Ivoire is an appropriate example. Orange discovered that after executing a person-to-person money transfer, the sender and receiver connected with each other either through a call or SMS to confirm payment. Hence, Orange made it possible for customers to call or text without leaving the Orange Money application. Going forward, Orange plans to include a chat service that displays an individual’s transaction history.

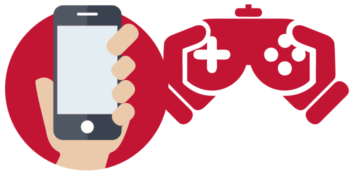
Expand reach

Compared to conventional channels such as USSD, mobile-based applications enable customers belonging to other networks to register as well. For example, in Zimbabwe, Netone and Telecel customers can register for Econet Wireless’ EcoCash mobile money service, via the EcoCash app.

Revenue Generation via Mobile Applications

The monies entailed in developing an application can be mitigated via multiple means. For example, mobile ads can be added to the application with other non-competitor businesses paying for the chance to be featured. The application itself can be linked to an online payment platform, which can lead to faster transactions and higher conversion rates.

Sources: GSMA Intelligence, Qelp, Itwebafrica



Gamification to Increase Participation on the Mobile Application

Gamification deploys data-driven techniques that game designers use to engage players, and applies them to non-game-based experiences. This is expected to motivate actions that add value to one's business.

Only time will tell what telecom operators are able to actually leverage smartphone penetration. Having said that, however, opportunities abound, if executed appropriately by operators.

About the author: Puneet Takyar has 1.5 years of experience in Business Development. At Mahindra Comviva, he is a key account manager for a leading multi-country telecom operator. Puneet is currently recently focusing on South East Asia as a region for Business Development of Comviva's Mobile Financial Solutions Products. He is a post-graduate in Management from Management Development Institute (MDI), Gurugram, India.

MOBILE MONEY:

FROM FINANCIAL INCLUSION TO FINANCIAL ENRICHMENT

— By Mohit Bhargava

In the past decade, mobile money has transformed the financial landscape in many developing countries helping many to rise above crippling poverty and live better lives. It has brought millions of people who transacted through informal channels like bus drivers and stacked money at home into formal financial mainstream creating financial inclusion.

During the formative years of mobile money, it was largely used for transactional services like person to person transfers and bill payments; however, it is now increasingly used for advanced activities like business payments, savings, accessing loans, insurance payments, and purchasing bonds and shares. Thus mobile money is slowly evolving from a financial inclusion and transactional tool to financial enrichment tool that allows customer to save, borrow, invest and grow money. In this article we will discuss how mobile money services are helping people to invest in capital market by enabling them to purchase bonds and shares easily.

M-Akiba, Kenya

Mobile Money forayed into bond purchase, when Kenya launched M-Akiba, a mobile-only government bond in 2017. Kenya being the most widely penetrated mobile money market with 45 million accounts was the perfect place to introduce this service.

In order to subscribe to M-Akiba, the customer had to follow a two-step process – in the first step, the consumer registers their mobile money account with the service, and next, in the second step, the customer purchased the bond. Safaricom M-Pesa and Airtel Money integrated their USSD channel and payment functionality to the M-Akiba platform to enable customers to purchase bonds and receive interest.

M-Akiba allowed a minimum purchase amount of KShs 3,000 (about US$30), far less than KShs 50,000 (about US$500) previously required for purchasing a bond, which allowed people with humble means to access the capital market. The bond earned 10 percent annual interest, which was paid into the customer's mobile money account every six months. By issuing bond via mobile money and lowering the minimum purchase amount, the government aimed to lower the cost of raising money, while at the same time increasing access to capital market for ordinary citizens.

The results of M-Akiba were a mixed bag. A total of 303,534 people registered for M-Akiba, but only 4 percent (11,697) of the people who registered actually purchased the bond. However, the picture looks better if we look at historical data. Prior to M-Akiba there were only 10,000 retail investors in government bonds. M-Akiba alone was purchased by 11,697 people thus bringing in many new retail investors.

The government raised KShs 247 million (about US$2.47 million) against the target of KSh 1billion (about US$10 million) - a success rate of 24.7 percent. While the money raised did not meet the government's expectation, a study by FSD Africa showed that M-Akiba was successful in broad-basing the reach of capital market to ordinary citizens. **85 percent of M-Akiba buyers had never bought a bond before with the buyers distributed across all of Kenya's 47 counties. 78 percent of M-Akiba buyers invested less than KShs 6,000 (about US$ 60), indicating that by lowering of the minimum purchase amount the government had encouraged low and mid income Kenyans to invest in capital market.** The majority of M-Akiba buyers liked the product. 84 percent of buyers would recommend it to others and 80 percent would invest again, if the bonds were issued once more.

In addition to above data, the FSD Africa survey provides key information on the factors that restricted M-Akiba's uptake. The survey highlighted that while registration process was simple, the purchase process was confusing to many. Many registered users did not realize that their purchase process was not complete thus hindering conversion from registration to purchase. Moreover, agents associated with the service focused on the registration process neglecting to drive investments after registration. Also, the service was not backed up by adequate and timely communications on offers and updates which was one of the factors affecting service uptake. More than 60 percent individuals surveyed did not receive any reminder message after registering (lack of prompt to purchase). Many people were unaware of interest rate, tenor, closing date and other details about the product. The customer care line was a landline number, which was difficult to access. Thus, for improving the uptake of mobile money bond services in the future, it will be critical to simplify the purchase process, improve product awareness and understanding, communicating frequently with the users and delivering robust customer care support.

U-Gain, Zimbabwe

Untu Capital, a micro-finance company in Zimbabwe launched U-Gain, Zimbabwe's first mobile based retail bonds in December 2017. Untu aimed to raise US$ 1 million in debt financing for start-ups and small businesses. Customers were able to purchase U-Gain bonds over a 30 day period using mobile money services like EcoCash and Telecash. Customers could invest a minimum of US$50 for 1 year period. The annual interest rate was 9 percent payable every six months.

EcoCash, Zimbabwe's largest mobile money service launched U-Gain under its EcoCash I-nvesta bouquet of services. EcoCash customers could register for the service by simply agreeing to term and conditions by entering EcoCash PIN. The purchase process was also easy, where customers had to enter the number of units to purchase and Central Securities Depository number. EcoCash also provided option to trade the U-Gain bonds on the Financial Securities Exchange and dispose of the bonds before the expiry of the 12 months.

U-Gain bonds were highly successful. **They were oversubscribed by 73 percent as they raised US$1.75 million against a target of US$1million.** In cash-strapped economy of Zimbabwe, Untu Capital was able to include many more Zimbabwe in the retail bond purchase by eliminating the need to pay in cash or have a bank account and making the minimum investment as low as $50,

MTN Ghana IPO, Ghana

MTN, Ghana's largest mobile operator launched its Initial Public Offer (IPO) on 29th May 2018. It aimed to raise GH¢3.47 billion (US$ 711 million) by selling 4.63 billion shares at per unit price of GH¢ 0.75 (US$ 0.15), representing 35 percent of MTN Ghana's total shares. The minimum number of shares to be sold for IPO to be successful was 463 million representing 10 percent of the total shares on offer.

The IPO was historic because it was the largest undertaken in Ghana and for the first time public was able to buy the shares using mobile money (MTN MoMo Wallet). Customers were allowed to buy shares in multiples of 10 and a minimum of 10 shares.

MTN Ghana was able to successfully close its IPO on 31st July 2018. It raised US$ 1.14 billion (US$ 234 billion) by selling 1.53 billion shares, representing 32.97 percent of the total offer. A total number of 128,152 applicants purchased the share out of which 99.7 percent were Ghanaians. MTN Ghana has largest number of Ghanaian shareholders on the Ghana Stock Exchange. Interestingly**, 108,434 applicants that is 84.6 percent of all applicants purchased share through MTN MoMo Wallet.** Use of MTN Mobile Money platform, strong awareness creation and use of several media platforms through the 10 regions contributed to success of IPO and bringing in many first time users in capital market.

The IPO was officially listed on the Ghana Stock Exchange in September 2018. After listing customers were also allowed to trade MTN shares using MTN MoMo Wallet.

The below examples illustrate that mobile money is a powerful tool to encourage and enable ordinary low and mid income people to invest in capital market. However, to make this use-case successful, service providers have to offer a simple user journey (for registration, purchase and trading) and invest in consumer education and promotion.

In future mobile money wallets will become a key instrument for buying bonds/shares and trade them, especially in Africa. Indications of this have already started coming. The government of Ghana has announced a plan to introduce an electronic platform in 2019 that will enable investors to use mobile money to buy shares and trade on the secondary market.

The use of mobile money for trading will further leads to its evolution. Mobile money app can evolve to provide real-time share prices. Machine learning and artificial intelligence can be employed to offer automated advice to consumer on right time and price to buy bonds and shares. The possibilities are endless!

Source: FSD Africa, TechZim, BusinessGhana, pulse.com.gh'

About the author: Mohit Bhargava has ten years of work experience in product marketing and research in the telecom domain. At Mahindra Comviva, he is serving as Manager in product marketing for the mobile financial solutions portfolio. His areas of function primarily include evangelizing Mahindra Comviva's mobile financial products and their impact on transforming the financial landscape globally.

IN THE MEDIA
Interviews and Articles

How Mobile Money is helping Financial Inclusion in Africa
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Irish Tech News
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EcoCash declared winner at Banking Technology Award 2018 in 'Best Fintech Partnership' category
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Orange Mali and Comviva highly commended for Orange Money Rapido at the CommsMEA Awards 2018 in 'Business Service Initiative of the Year' category
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ANALYST MENTIONS

Global Info Research
Global Mobile Money Market 2018 by Manufacturers, Countries, Type and Application, Forecast to 2023

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About Mahindra Comviva

Mahindra Comviva is the global leader of mobility solutions catering to The Business of Tomorrows. The company is a subsidiary of Tech Mahindra and a part of the $17.8 billion Mahindra Group. Its extensive portfolio of solutions spans mobile finance, content, infotainment, customer value management, messaging, mobile data and managed VAS services. It enables service providers to enhance customer experience, rationalize costs and accelerate revenue growth. Mahindra Comviva's solutions are deployed by over 130 mobile service providers and financial institutions in over 90 countries and enrich the lives of over a billion people to deliver a better future. In January 2016, the company acquired a controlling stake in Advanced Technology Solutions (ATS), a leading provider of mobility solutions to the telecom industry in Latin America to strengthen its in-region presence.

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