

## How Fintech is Reaching the Poor in Africa and Asia: A Start-Up Perspective

*This note explores the way traditional banks and financial technology companies, or FinTechs, interact in Africa and Asia, and their ability to offer innovative digital financial services that grant unbanked individuals access to financial transactions. The FinTech sector is experiencing explosive growth in both continents, but while Asian banks have managed to efficiently integrate with FinTech solutions, African banks have been slower to adapt to this change. Still, the outlook for mobile banking remains positive, and its prevalence will boost the financial industry in both regions.*

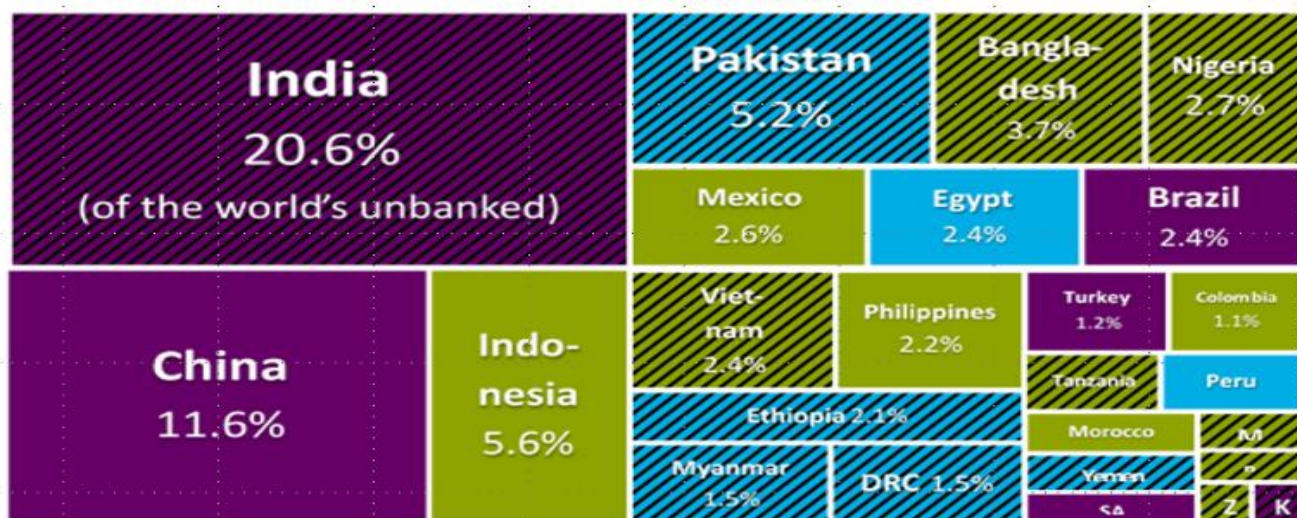
The digital age has unleashed a disruptive movement across the financial industry allowing financial institutions to attract previously “unbanked” individuals in emerging markets, while retaining already existing traditional bank clientele.<sup>1</sup> Digitalization has ushered in digital financial services, which provide innovative financial technologies that offer a greater number of individuals access to financial products and services.

This note will use the terms digital financial services, financial technology companies, and FinTech interchangeably.

Figure 1 illustrates the portions of 25 countries that lack access to banking or financial services, as of 2014. Given that more than half of the world’s unbanked live in Asia, and many more live in populous African countries like Nigeria and Ethiopia, the focus is on these regions in particular.

Although the banking sector is relatively developed in Asia, the large populations in China and India mean there are still significant unbanked populations in that region, while access to banking in Africa is generally low.

**Figure 1: Some 73 Percent of the World’s Unbanked Reside in 25 Countries, Predominantly in Asia. Access is Low in Africa.**



IDA countries: % Access: 0% - 25% 26% - 50% 51% - 100% M: Mozambique 0.4%; K: Kenya 0.3%; Z: Zambia 0.2%; R: Rwanda 0.2%

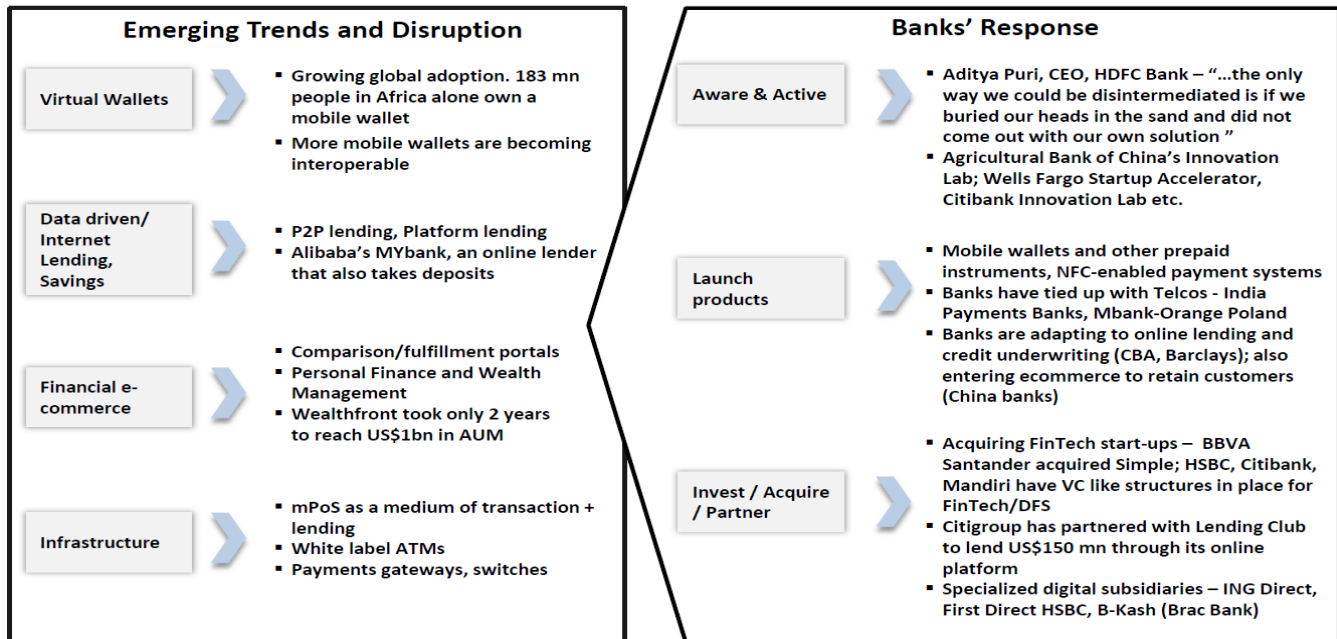
Shaded Countries = IDA International Development Association (poorest countries). Sources: Global Findex 2014, IMF Financial Access Survey 2012.

## Digital financial services, a business opportunity for emerging markets

Since approximately two billion people in emerging markets are unbanked, the provision of digital financial services is as much about creating markets for these future clients as it is about altering current bank-customer relationships. Such

services, according to the Consultative Group for the Assistance of the Poor (CGAP), have a “significant potential to provide a range of affordable, convenient and secure banking services to poor people in developing countries.”<sup>2</sup> In emerging markets, these services are instrumental to private sector productivity.

**Figure 2: Supply side: financial industry’s response to emerging trends**



**However, most banks have not yet fully responded to the emerging threats and opportunities**

Source: Holtmann, Martin, *Digital Financial Services – Challenges and opportunities for Banks*, Presentation provided at the Sixteenth Annual Conference on Policy Challenges for the Financial Sector - Finance in Flux: The Technological Transformation of the Financial Sector, June 1-3, 2016, Washington, DC. Abbreviations in figure: AUM = Assets under Management; mPOS = mobile point of sale; NFC = National Finance Center, a federal agency within the US government.

Digitalization of the traditional banking sector transforms the way banks react to their customers, offering them digital solutions such as:

- Virtual in-branch investment advisors
- Online and mobile banking products and services
- Increased use of social media and data analytics to communicate with customers, and lower operational costs.<sup>3</sup>

Figure 2 illustrates the massive disruption banks in emerging markets face—despite proactive adoption of digital financial technology—from the emergence of FinTechs.

The FinTech sector is experiencing explosive growth, attracting \$12.2 billion from investors in 2014, three times more than the previous year,<sup>4</sup> and a massive \$19 billion in 2016. The industry’s outlook remains positive.

Strongly backed by venture capitalists, FinTech companies are set to influence the financial industry in three significant ways:

First, drive efficient financial services, as more banks in emerging markets turn to FinTech innovations to improve their digital service delivery.

Second, redefine the industry’s perception of what it takes to be called a bank. FinTechs not only offer bank-like services, including receiving financial transactions and making loans, they also innovate faster and are able to rapidly grow their customer base. Unlike traditional banks, they have the flexibility to provide cheap and accessible products and services and are quicker to tailor their service offering based on changes to behavioral consumer data.

Third, become an intricate part of the banking sector, while distinguishing itself from traditional banks under international regulatory guidelines.

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## ASIA

### Asia's traditional banking sector

Asian banks were resistant to the effects of the 2008-2009 global financial crisis due to relatively fewer financial linkages with Europe and the United States, as well as lower levels of debt. As a result, they outperformed the global banking sector. Emerging middle class income, and stable macroeconomic fundamentals were further contributing factors. Headwinds created by the crisis also enabled a number of local banks to gain greater market share as they replaced deleveraging foreign banks that withdrew.

The region's banking sector has become competitive, making great strides in innovative technologies. However, shadow banking remains a major source of financing for corporates and individuals due to limited access to bank loans. For China, shadow banking made up 40% to 70% of GDP in 2017, from 35% at the end of 2015, according to *Bloomberg*.

The value of wealth management products more than tripled between the end of 2015 and three years earlier.<sup>5</sup> Part of this expansion can be linked to FinTech innovations, especially its impact on payments. Traditional banks are eager to capitalize on these innovations.

In India there is a consolidated banking sector with well-developed digital offerings. Banks encourage customers to manage their finances using mobile phones.

### FinTech market penetration and its impact on traditional banks in Asia

Digital payments used in advanced countries now reach Asia's middle-class through international and local debit and credit card networks such as India's Rupay and China's UnionPay, among others. To gain a competitive edge and respond to the growing middle-class demand to access the e-commerce space, Asian banks turned to digital technologies offered by FinTech companies.<sup>6</sup> They proactively sought ways to reduce costs and meet customer needs, choosing to partner rather than compete with FinTechs. Asian governments and regulators have been similarly supportive, encouraging FinTechs to provide funding to small businesses, and innovative solutions to banks.<sup>7</sup>

These solutions have however not adequately served unbanked or poorer households who use less formal retail outlets like street vendors and local markets and have less access to bankcards or Point of Sale devices to make payments.

In Asia, both banks and FinTechs benefit from a symbiotic relationship. While FinTechs view banks as a gateway into a panopoly of markets, banks turn to FinTechs to stay current in

### bKash, Bangladesh – Promoting financial inclusion through mobile payments

Home to 160 million people, Bangladesh has an extremely low banking penetration rate, with over 70 percent of its population having no access to a bank account. Its banking sector lacks adequate technology to reach the poor, which translates into a unique opportunity for bKash, a mobile money platform.

bKash Limited, a subsidiary of BRAC Bank Limited (Bangladesh) was launched in 2011 to provide mobile financial services, including payments and money transfers, to both the unbanked and banked populations of Bangladesh. Upon registration, each bKash user receives a mobile wallet that serves as a bank account.

Through bKash's vast agent network of over 90,000 retail points, users are able to deposit electronic money into their bKash accounts, receive disbursements, including salaries, loans, and domestic remittances, cash-out the electronic money, and perform peer-to-peer transactions. bKash's main goal is to serve lower income households in the country by offering free registration and cashing-in services. It also provides users with the cheapest handset in the world (approximately \$15) for accessing bKash's simple user interface.

Currently, despite more than 20 mobile financial service licenses approved by the central bank of Bangladesh, bKash has a clear monopoly, commanding over 80 percent of mobile banking transactions made in Bangladesh. bKash is now used by over 17 million Bangladeshis and handles more than 70 million transactions a day, according to the company. bKash CEO Kamal Quadir attributes the company's fast growth to its focus on providing mobile financial services through mobile platforms.

In 2013, the IFC made a \$10 million equity investment in bKash to help the company expand its distribution network. According to the Consultative Group to Assist the Poor, a global partnership of 34 leading organizations, 22 percent of Bangladesh's adults use mobile money and over 80 percent of transactions are made through bKash, partnering with MasterCard and Western Union. bKash announced in April 2016 that its account holders now have access to international remittances on their mobile phones, a breakthrough that will benefit 22 million people living in the eighth largest country for remittances in the world.

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## Understanding Big Data

According to the International Data Corporation, global Internet traffic will rise to 44 Zettabytes (ZB) in 2020, ten times what it was in 2013 (a Zettabyte is one trillion Gigabytes.) FinTechs are using their ability to draw insights from vast amounts of consumer data, while applying innovative solutions to monetize this data.

Two types of data analytics that help banks to minimize regulatory compliance costs and identify risky consumers are: (1) Know Your Customer analytics, which provide a history of how customers have interacted with financial products and services; and (2) Anti-money laundering and counter financing of terrorism AML-CFT applications, which use a combination of descriptive analytics and statistical techniques to prevent fraudulent activities. The second technique is termed diagnostic analytics for its ability to identify possible reasons for certain behavior or outcomes by highlighting customer habits and trends. The combination of block-chain and big data will soon create a financial ecosystem that can identify trends, track end-to-end data, make judicious decisions based on this data, and use the entire data set for financial forecasts.

the rapid unfolding of financial innovations, while keep abreast of sudden shifts in regulatory mandates, and gaining access to big data to help improve their customer relationships.

### Emerging paths for Asia's traditional banks and FinTechs

Asian banks' successful partnerships with FinTechs allow them to connect to new customers through the digital space, a less costly way to gain market share particularly in locations where they have a limited supply of physical distribution channels.<sup>8</sup> Banks can gain access to a market like China where foreign banks have a combined market share of less than two percent.

India, one of the pioneers of digital banking in Asia has successfully created an environment for FinTech innovative solutions to flourish and feed into the established traditional banking sector. India's banking sector does however refer closely to the central bank for regulation guidance with regards to FinTechs, slowing down service dissemination into the market.

FinTechs must thus find ways to test their latest innovative solutions through a Proof of Concept process required by financial institutions. Every successful Proof of Concept provides a benchmark for the industry, allowing FinTechs to offer their products to overseas markets.<sup>9</sup>

## AFRICA

### Role of traditional banking in Africa

Other than South Africa's developed financial sector, the footprints of banks in neighboring African countries have historically been low, especially in the rural areas. Bank penetration in Sub-Saharan Africa is below 35 percent.<sup>10</sup> Approximately 80 percent of Africa's 1 billion population<sup>11</sup> lack access to formal banking services.

Africa's banking sector is held back by currency fluctuations, and in particular a low supply of products for savings, insurance, credit, and payment transactions to large segments of populations in these countries. There is a prevalent

perception that banking is for the rich, in a continent where financial services such as opening a bank account can be painfully bureaucratic.

Poor infrastructure, including inadequate roads, electricity, intergovernmental data connectivity, and utilities also hampers access to bank branches and ATMs.<sup>12</sup>

In contrast, although 389 million people live on less than \$1.90 a day (based on 2013 data), the continent has one of the highest mobile penetration rates in the world<sup>13</sup>. This is making the region a fertile backdrop for the emergence of FinTech. The FinTech industry took off in the wake of the global financial crisis in 2008<sup>14</sup>, despite barriers such as poor infrastructure, and limited Internet penetration.<sup>15</sup>

### FinTech market penetration and its impact on traditional banks in Sub-Saharan Africa

Africa's FinTech revolution owes its success to the industry's deep understanding of customers at grass-root levels and adequately meeting their needs. The industry is attracting ample attention from venture capitalists with funding of the tech sector expected to rise from \$414 million in 2014 to \$608 million in 2018, according to the *Financial Times*. It has giving rise to small business solutions like Rainfin backed by Barclays bank, which is currently the largest peer-to-peer (P2P) lending business in South Africa with transactions of more than one million rand per day.

However, FinTech solutions are often country specific and serve rather narrow niche markets. With a weak distribution strategy, a FinTech solution may work successfully in one country but fail miserably in another. M-Pesa is a perfect example where its operations took off in Kenya but failed to launch in South Africa. Founded in 2007 by Safaricom, M-Pesa allows subscribed users to perform traditional banking services using their mobile phones.

The service boasts 19 million mobile subscribers in Kenya and 6 million in Tanzania, compared to a mere 76,000 active users

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in South Africa out of only one million subscribers (based on 2015 data)<sup>16</sup>. M-Pesa's timing and deployment strategies in Kenya and Tanzania were impeccable. Safaricom seized the opportunity to enter both markets based on its position as the dominant mobile network operator. It further deployed a vast agent distribution network.<sup>17</sup>

M-Pesa's difficulty to replicate its success story in South Africa was based on three factors: (1) An inadequate distribution network; (2) low mobile network subscription rates; and (3) South Africa's stricter digital wallet regulations.

M-Pesa's low adoption rate in India (operated by Vodafone, a network with 173 million customers) is another example of the difficulties to replicate its success. Only 370,000 users subscribed to the service in September 2014, after more than two years of operation.<sup>18</sup>

In 2012, Safaricom and the Commercial Bank of Africa launched M-Shwari, which provides mobile bank accounts offering savings and micro-credit products. M-Shwari, succeeded in rapid market penetration in Kenya<sup>19</sup> and expanded to other countries, including Tanzania.

#### Scenarios for Africa's traditional banks and FinTechs

South Africa's well-regulated banking sector and aggressive digital banking roadmap is already developing its own system of innovative FinTech solutions, which represents a major entry barrier for venture capital-backed FinTechs.<sup>20</sup> Banks in the rest of Africa are in direct competition with FinTech solutions, unlike Asia where both work harmoniously.

The pace of the FinTech industry in Sub-Saharan Africa is somewhat dictated by existing mobile network operators and their relationships with central banks. To enter a new market, depending on the country, mobile network operators like

Safaricom must either file a bank license, which can take months to obtain, or find an alternative route into the banking sector. Both options are expensive, and represent an obstacle for FinTechs to make a major impact on the continent.

The outlook for FinTechs in Africa remains unclear. Traditional banks remain internationally accepted entities for cross-border transactions.<sup>21</sup> However, what is clear is that FinTech companies offering global financial solutions, such as big data will play a pivotal role in boosting the traditional banking sector.

#### Conclusion

FinTechs have had a positive impact in Asia's banking sector, giving it access to a larger market at a lower cost. Countries such as China and India have successfully created an environment for assisting FinTech innovative solutions to flourish and integrate with the traditional banking sector.

In contrast, domestic FinTech innovations in Africa, often deployed by mobile network operators, operate separately from and are often in direct competition with banks. This is changing however, as illustrated by the success of M-Shwari, demonstrating the potential for integrated services.

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<sup>2</sup> Consultative Group for the Assistance of the Poor (CGAP). <http://www.cgap.org/topics/digital-financial-services>

<sup>3</sup> TLT, Digital banking: from revolution to evolution, TLT 2016.

<sup>4</sup> Julian Skan, Julian – Dickerson, James – Masood, Samad, *The Future of FinTech and Banking: Digitally disrupted or reimaged?* Accenture 2015.

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<sup>6</sup> EY, *Banking in Asia-Pacific - Size Matters and Digital Drives Competition*, EY 2015.

<sup>7</sup> EY, *Banking in Asia-Pacific - Size Matters and Digital Drives Competition*, EY 2015.

<sup>8</sup> EY, *Banking in Asia-Pacific - Size Matters and Digital Drives Competition*, EY 2015.

<sup>9</sup> KPMG, *FinTech in India – A Global Growth Story*, KPMG, June 2016.

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<sup>11</sup> World Bank World Development Indicators, retrieved March 8, 2017. <http://data.worldbank.org/region/sub-saharan-africa>.

<sup>12</sup> Beck, Thorsten – Cull, Robert, *Banking in Africa*, CSAE Working Paper, WPS/2013-16, First Draft August 2013, Centre for the Study of African Economies.

<sup>13</sup> The Economist stated at the end of Dec 2016 that there are almost 1 billion active phone subscriptions in Africa, where many people have multiple sim cards, which leads to the conclusion that ca. half of Africans have phones: N.N., *Mobile phones are transforming Africa*, economist.com, Dec 10, 2016; The GSMA estimates, similarly, for 2015 unique phone penetration rates for women to be 49% and for men 41%: GSMA, *The Mobile Economy in Africa 2015*, GSMA 2015.

<sup>14</sup> See Galat, Bonnie – Ahn, Hyung, *The World Bank Group's Response to the Crisis: Expanded Capacity for Unfunded and Funded Support for Trade with*

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