INCLUSIVE INNOVATIONS

Mobile Money – Transforming Financial Inclusion

Providing access to financial services to the “unbanked” population through mobile technology

HIGHLIGHTS
• Mobile money model is the provision of financial services through a mobile device, including payments, finance and banking.
• It helps improve productivity by increasing the efficiency and lowering the cost of transactions, improving security, generating new employment opportunities, and creating a platform on which other businesses can grow.
• Companies provide training to potential customers through their agent network.

Summary
Mobile money platforms allow people with no, or limited, access to formal banking facilities to use a range of financial services through their mobile phones. These platforms enable people to set up bank accounts, send and receive payments, pay utility bills, and more without having to go to “brick and mortar” banks, which are often out of reach for low-income people because of geographic inaccessibility, lack of infrastructure, and legal formalities, among other reasons. These platforms can be accessed through the most basic mobile phone, have low transaction costs, and are distributed by vast networks of agents that provide person-to-person contact and training to those unfamiliar with the technology.

Development Challenge
Poverty is more than just a lack of money. It involves a lack of access to the instruments and means through which the poor could improve their lives. Exclusion from the formal financial system has increasingly been identified as one of the barriers to a world without poverty. In many developing countries, more than half of households lack an account with a financial institution, while small firms frequently cite difficulty in accessing and affording financing as a key constraint on their growth.

Business Model
Components of the Model
Mobile banking is conducted through a technology platform developed by a mobile financial service (MFS) provider. The platform allows customers to conduct a range of financial services in an easy-to-use and affordable manner. With money in their mobile “wallet” or account, customers can make simple transactions such as money transfers and bill payments directly through their phone via SMS or an application. In some cases, customers set up full-fledged bank accounts via applications on their phones.

While mobile banking is more easily conducted on smartphones, this model has a simple interface that can be used on the most basic mobile phone, making it accessible to people living at the base of the pyramid (BoP). Most services can be accessed through SMS, so people are not reliant on an Internet connection. MFS providers are for-profit businesses. They can be mobile network operators (MNOs), such as Vodafone, which provides the M-PESA service globally, or they can be companies that develop the platform and then partner with MNOs to provide connectivity to the end user, such as MoMo in Vietnam, which allied with Vinaphone, one of the largest MNOs in the country. These companies then partner with banks, service...
providers, the government, and others to allow customers to carry out a range of transactions. The MFS providers generate revenue via end-user transaction fees. In most cases, no user fees are charged for registration or making deposits. Transfers and cashing-out services, however, are chargeable.

Effective distribution is critical to this model. It takes place through a network of agents or franchisees who help customers set up their accounts, and sometimes also help customers to make transactions. In the case of Wizzit (operating in South Africa and eight other countries), agents help customers set up their accounts and train them on using it. These agents are entrepreneurs themselves; they are paid a commission for every account they set up or transaction they facilitate. Zoona, a mobile money service in Zambia, uses a franchisee network. Local entrepreneurs act as franchisees and set up Zoona booths where customers can register for the service, withdraw and deposit cash, and make transactions. bKash in Bangladesh has set up a similar network of franchisees. Agents and franchisees are an important part of the business model, as customer care, service quality, and cash management will depend on them.

Figure 1. The mobile money model

Cost Factors
The up-front and operational expenditure can be high for MFS providers: a number of aspects have to be developed, including the technology platform, an agent network, marketing, and awareness strategies. A GSMA study found that in the early stages of operation providers need to invest seven to eight times the
amount of revenue they generate (Almazán and Vonthron, 2014). Mobile banking services, however, are still cheaper than traditional banking services. According to CGAP, setting up a full-fledged bank costs US$250,000, whereas it costs around US$2,000 to equip a local agent with the equipment and skills needed to conduct transfers, deposits, and withdrawals.

Revenue Streams and Financial Viability
Despite the high expenditure, several providers are generating high revenues and are profitable. In GSMA’s 2014 survey, at least 11 providers reported revenue of more than US$1 million during the month of June 2014 (GSMA, 2015). Further research finds that mobile money services can expect to reach breakeven after 36 months of operation (Almazán and Vonthron, 2014). As many providers continue on a high-growth trajectory and scale quickly, they are reporting substantial earnings: M-PESA reported growth of 24.7 percent in 2014 (up to September), accounting for almost 20 percent of Safaricom’s total revenue (Safaricom, 2015); MTN Uganda recorded a 39.4 percent increase in mobile money–related revenue in the first half of 2014, adding 14.7 percent to the company revenues (MTN Group 2014).

Partnerships
The MFS providers set up and develop the technology platform to enable provision of mobile money services, but this model is reliant on a number of critical partnerships to work successfully:

- **Mobile network operators (MNOs).** If the company is not an MNO itself, then partnering with operators is critical. Most MFS providers partner with several operators to ensure their service is available as widely as possible.
- **Financial regulator of the country where the service is in operation.** It provides a license to the company to offer the mobile financial service.
- **Local banks.** Businesses that offer banking services need to find banking partners. For example, Wizzit has a license from the SA Bank of Athens in South Africa to function as its banking partner.
- **Government.** Mobile money platforms are being seen by governments as a key way to distribute G2P payments (welfare payments, salaries, and so on). The Indian government, for example, is working with major MNOs to send payments for welfare schemes directly to people’s mobiles.
- **Other service providers.** Companies are increasingly partnering with other organizations that want to use their platform. In Bangladesh, bKash has partnered with a number of private hospitals to allow customers to pay for medical services through their mobiles.

Implementation: Delivering Value to the Poor

Awareness
Building trust is critical to the success of this model because people are not used to the idea of virtual money or even banking. Companies provide training to potential customers through their agent network. Beam Money, a mobile wallet service in India, conducts live demonstrations of how the system works—and as their CEO Anand Shrivastav says, “when customers see a successful transaction in front of their eyes, they start trusting.” They also provide financial literacy programs in vernacular languages.

Acceptance
Companies have designed their platforms to work with even the most basic phones, and in some cases voice-based systems are integrated into the service to ensure that people who are not tech-savvy or are illiterate can also benefit. Registration for accounts is easy and does not involve the same cumbersome formalities as setting up a bank account. For example, to register for an M-PESA account in Kenya, customers need just one form of identification (usually a national ID card held by all Kenyans), but no other validation documents as required by banks (Jack and Suri, 2010).

Accessibility
Agents and franchisees are key to the distribution of these services. Agent networks help companies reach rural populations where a large proportion of low-income people live. They allow easy access for
customers who would otherwise have to travel long distances to send and receive money or pay bills. bKash in Bangladesh, for example, has 30,000 agents, meaning roughly one per every two villages (GSMA 2012).

**Affordability**

These companies have much lower capital costs than traditional banks or money transfer providers: they do not have on-the-ground infrastructure such as branches, ATMs, and so on. This allows them to charge lower transaction fees to the customer. Wizzit estimates that their mobile banking service can be up to 30 percent cheaper for customers than regular banks. Customers also save time and money: they no longer need to travel far to bank branches to make transactions or to other service providers to pay bills.

**Results and Cost-Effectiveness**

**Scale and Reach**

Millions of people use mobile money services around the world. GSMA’s 2014 *State of the Industry* report estimates that there were 103 million active mobile money accounts in December 2014. Of the models analyzed in this paper, M-PESA and bKash have the most registered subscribers: 15 million and 16 million, respectively (Cisco 2013). Many others, such as Beam Money, reach more than 2 million people and are scaling up rapidly. A majority of the people reached didn’t previously have access to formal financial services.

**Improving Outcomes**

Mobile money services have reduced customers’ reliance on cash, thus increasing their financial security and reducing the inherent risks of cash handling, such as loss, theft, or fraud. In many countries, customers needn’t use middlemen for money transfers anymore and therefore experience increased transparency (WEF, 2012).

Mobile money also facilitates trade, making it easier for people to pay and receive payment for goods and services. The FITS Tanzania study shows nearly 20 percent of mobile money users were using it for business, mainly for transactions between the supplier and the retailer (Intermedia 2013).

Mobile money has strong appeal and uptake among women. Research in East Africa shows that 85 percent of women in the study received income this way, and it accounted on average for 33 percent of their income. In contrast, men were less likely to receive payments this way, and where they did, it made up just 4 percent of their income (Financial Access Initiative, 2012).

There is evidence that access to mobile money is facilitating greater access to health care and education. For example, people are more likely to seek immediate treatment for illnesses because they are able to call on their social networks to provide immediate funds for transport and medical bills. Similarly, children sent home from school for lack of fees, common in East Africa, spent a minimal amount of time at home because their families could immediately rectify the situation.

Due to the vast distribution networks required, these services also provide employment and entrepreneurship opportunities to tens of thousands of low-income people in urban and rural areas. bKash has 30,000 agents in Bangladesh and M-PESA has more than 40,000 in Kenya alone.

The rate of replication of this model across continents has been remarkable. “At the end of 2013, there were already more registered mobile money accounts than banks accounts in Cameroon, the Democratic Republic of the Congo, Gabon, Kenya, Madagascar, Tanzania, Uganda, Zambia and Zimbabwe. In 2014, Burundi, Guinea, Lesotho, Paraguay, Rwanda, the Republic of the Congo and Swaziland passed this threshold, bringing it to a total of 16 countries.” (GSMA, 2015)
Cost-Effectiveness

Mobile money has been found to be cheaper than other financial services. A 2012 CGAP international comparison of 26 banks estimates that branchless banking (including mobile money) is 19 percent cheaper than traditional banking services (Mckay and Pickens, 2010). Most services offer registration and deposit services for free; tariffs on transfers, withdrawals, and other transactions vary depending on the provider. Table 1 compares the end-user costs of some of the MFS providers analyzed for this paper.

Table 1. Comparison of end-user costs across mobile money models

<table>
<thead>
<tr>
<th>Example</th>
<th>Service provided</th>
<th>End-user costs</th>
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<tbody>
<tr>
<td>M-PESA, India</td>
<td>Mobile wallet service used primarily to send and receive funds</td>
<td>No charge for depositing funds. A sliding tariff is levied on withdrawals (e.g., withdrawing $100 costs about $1).</td>
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<tr>
<td>BKash, Bangladesh</td>
<td>Mobile wallet service used primarily to send and receive funds</td>
<td>Registering for bKash and cashing-in services free of charge. For person-to-person transfers, customers pay a flat fee of US$0.02 irrespective of the size of the transaction. There is a flat cash-out fee of 1.85 percent on the amount withdrawn.</td>
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<tr>
<td>Wizzit, Sub-Saharan Africa, Central America</td>
<td>Mobile banking service where customers can set up full-fledged bank accounts and make transactions</td>
<td>Customers pay a US$0–$10 account setup fee. There are typically no monthly fees or minimum balances. Transaction fees vary from US$0 to US$0.59, depending on the transaction.</td>
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<tr>
<td>FINO, India</td>
<td>Mobile platform that enables institutions to provide financial services to reach the underserved and unbanked</td>
<td>Free registration, deposits, and withdrawals. Fee of US$0.50 per transaction of up to US$200.</td>
</tr>
<tr>
<td>Globe GCASH, Philippines</td>
<td>Mobile wallet service used to make payments, transfers, and remittances</td>
<td>Money transfers at the cost equivalent to an SMS. Fee for cashing out is at least 1 percent of the cash-out value.</td>
</tr>
<tr>
<td>Orange Money, Botswana</td>
<td>Mobile wallet service used to make payments and transfers</td>
<td>Money transfers to another Orange account cost approx. US$0.50 per transaction. Fees for money transfers to non-Orange accounts vary from US$1.55 for up to US$49 to US$12 for US$193 and above. Withdrawal fees vary from US$0.80 for up to US$49 to US$9 for US$193 and above. Each bill payment costs US$0.60.</td>
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Scaling Up

Challenges

Low levels of financial and technological literacy among target customers have made building demand a difficult proposition for businesses. Person-to-person interactions and demonstrations, integrated training, and developing easy-to-use products have helped overcome this.

The lack of interoperability between networks is a key constraint in some areas. Being able to use the service on only one network restricts reach and makes transactions cumbersome.

Government regulation, as mentioned above, has been a challenge for MFS providers and explains differences in scaling patterns between countries.

Entrenched cultural or economic norms have been an impediment to the growth of this model in some countries. In India, traditional banks, unwilling to allow software solutions to “eat into” their transaction fees, have resisted and lobbied against mobile payment solutions (Amberber, 2015).

Drivers

The market size of this model has been the major driver of its success. Of an estimated 2.5 billion people in the world still lacking access to formal financial services, 1 billion of them have mobile phones (GSMA, 2015). The International Telecommunications Union estimated that mobile penetration in the developing world reached 89 percent by the end of 2013. Studies have found that people at the BoP are willing to make real sacrifices in order to buy mobile credit. (Business Call to Action, 2014)
The ease of use for target consumers has been another critical driver. The simple interface that allows customers to easily conduct financial transactions, similar in use to how they buy mobile credit on a phone or from a local store, has made it easy for low-income people to buy in to these services.

Role of Government and Public Policy
Governments are increasingly recognizing the role that non-bank providers of mobile money services can play in improving financial inclusion and are setting up more enabling regulatory frameworks. Several regulatory measures have allowed mobile money to flourish:

- **Providing an open and level playing field that allows non-bank mobile money providers to operate freely in the market.** A majority of the fastest growing models operate in countries where banks and MNOs can offer mobile money services.
- **Safeguarding customer money held by non-bank providers.** Regulations have been put in place to ensure customer funds are protected in countries where non-bank providers are licensed to provide mobile money services. Often the total stored value of customers is required to be pooled and held by a bank in the name of the provider. Sometimes providers have to establish a “trust” or fiduciary agreement, under which funds are held on behalf of the clients.
- **Flexible due diligence.** Unbanked customers often do not have a permanent address or any form of official identification, which is why regulators have to allow some leeway on generally strict “Know Your Customer” (KYC) rules.
- **Light touch regulation on third-party agents.** Since agent networks are so critical to the success of this model, it is important that regulators do not impose too many requirements on mobile money agents who serve as cash-in and cash-out points for customers, which may discourage a number of potential agents or franchisees.
- **Working with providers to allow interoperability.** The GSMA 2014 State of the Industry states that allowing interoperability “will accelerate transaction growth … and enhance the customer experience by making it easier for consumers and businesses to send money across networks.” However, there are regulatory risks involved with interoperability, such as ensuring compliance and KYC rules; it is critical that regulators work with providers to find the right solutions.

The establishment of a collaborative and consultative environment between regulators and private providers has been found to be an important precondition for a successful regulatory framework. “Regulators need to understand the distinctive characteristics of mobile money, including client behavior and needs, the characteristics of products and services, the implementation challenges that providers face, and the potential solutions they can employ.” (Di Castri, 2013)

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<th>Table 2. Mobile money models</th>
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<tr>
<td><strong>Company</strong></td>
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<td>Beam money</td>
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<tr>
<td>bKash</td>
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<td>EcoCash</td>
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<td>FIA</td>
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<td>Hello Paisa</td>
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receive money, pay bills, receive government benefits, and access other financial services. They partner with banks and the government to provide banking services and government payments.

Inovapay | Burkina Faso | Inova has created an “electronic wallet” called Inovapay, a virtual account linked to a mobile phone number. Unbanked customers can register for it on any mobile phone and on any of the three networks operating in Burkina Faso. They can make cash deposits and withdrawals, send and receive money, pay utility bills, and more.

MoMo | Vietnam | MoMo provides new channels for customers to access traditional retail financial services via an extensive distribution network of mobile operators. With mobile financial services, customers can leverage mobile money platforms (MoMo) to make payments, withdrawals, and cash transfers among others. The M_Service business model is very similar to M-PESA in Kenya.

M-BIRR | Ethiopia | M-BIRR provides a mobile platform for banks and microfinance institutions (MFIs) in Ethiopia to reach people with limited access to financial services.

M-Pay | Vietnam | M-Pay aims to bring financial services and mobile eWallet payment services to low-income people working in the industrial zones—and others—in Vietnam who are not well served by traditional banks, and which are not available at their location.

MTN Mobile Money | Uganda | MTN Mobile Money was launched in partnership with Stanbic Bank in Uganda. Customers can send and receive money domestically and buy airtime using their mobile phone.

M-PESA | Kenya | Launched in 2007, M-PESA quickly became a mobile money pioneer. It provides customers with basic financial services. Customers send money quickly and easily using the pay-as-you-go service. M-PESA started as a simple mobile wallet, but now it also partners with banks and MFIs to provide other banking services.

Wizzit | South Africa | Wizzit is the first company in South Africa to develop a mobile technology platform and a branchless banking model that allows people to open full-fledged bank accounts through their mobile phones. Account holders can conduct financial transactions, remit money, pay bills, and get their balance through their phone 24–7.

Zoona | Zambia | Zoona’s core product is a mobile-based Zoona Account. Transactions are processed through a network of Zoona Entrepreneurs, enabling them to process money transfers, pay suppliers, and access working capital financing. The Zoona Entrepreneurs provide members of the public—the service’s end users—with a quick and safe money transfer service, along with third-party cash-in/cash-out services.

Notes

References


PROFILE: bKash

Easy-to-use mobile phone–based method of payment and transfers brings banking services to the “unbanked”

Challenge

Only 15 percent of the population has access to formal financial services in Bangladesh (IFC 2013). People living in rural areas remain largely unbanked, and the growing number of migrant workers in urban centers are unable to send money to their families in a quick or affordable way.

Innovation

bKash, launched in 2011 as a subsidiary of BRAC Bank (a private commercial bank in Bangladesh that lends to small and medium-size enterprises), is a mobile wallet service that allows customers to send and receive money without access to a bank account. They can also earn interest on their balance. bKash has established a vast network of agents, typically owners of local stores or mobile airtime kiosks, who act as bKash retail points. Customers deposit and withdraw cash at these retail agents in exchange for electronic money.

The company operates on a low-cost, high-volume model. Fees are low, and monthly transactions number about 80 million and continue to increase. Registering for bKash and making deposits are free of charge. For person-to-person transfers, customers pay a flat fee of US$0.06. To withdraw cash, customers pay a fee of 1.85 percent of the amount withdrawn; a portion of this amount goes to the agent as a service fee.

To ensure that the service is accessible to people on all mobile networks and that there is interoperability between them, bKash has set up revenue-sharing partnerships with all four of the major mobile network operators in Bangladesh. This affords them access to more than 98 percent of the country’s 100 million mobile phone subscriptions.

Impact

bKash gained more than 16 million registered subscribers between 2011 and 2015. Seventy-six percent of rickshaw pullers in Dhaka use mobile money to send money to their families in rural Bangladesh, with the majority using bKash (OneWorld 2014). bKash also provides additional income-earning opportunities to the more than 100,000 local business owners who operate as its agents.

Scaling Up

Mobile penetration has been a critical driver of success for bKash as has a favorable regulatory environment and bKash’s ability to capitalize on the resource base of a diverse set of investors (BRAC Bank; the bank’s parent organization, BRAC; Money in Motion; and the IFC and the Gates Foundation, minority investors since 2013). A key challenge for bKash has been the low levels of awareness of financial services and technology among low-income people.

bKash has partnered with local private hospitals since 2013 to enable customers to pay for health care services via their phones. But few businesses have adopted this method of payment; unfamiliar with how the technology works, they are reluctant to move away from cash payments. To increase their awareness and change behavior, bKash has developed education programs, including one-to-one training sessions.

References


OneWorld South Asia. 2014. 76 Percent Rickshaw Pullers in Dhaka Use Mobile Banking. New Delhi.
PROFILE: Wizzit
“Unbanked” people can now open full-fledged bank accounts via their mobile phones

Challenge
An estimated 2.5 billion people in the world lack access to formal financial services (GSMA 2015). Most of them are low-income people excluded from the formal banking system by geographic inaccessibility, lack of infrastructure, the high cost of services, and legal formalities. Many of them are unaware of formal financial services.

Innovation
Wizzit is the first company in South Africa to develop a mobile technology platform and a branchless banking model that allows people to open full-fledged bank accounts through their mobile phones. Account holders can conduct financial transactions, remit money, pay bills, make purchases, and obtain their balance via their phones 24–7. The technology works on any mobile phone and across all networks. Wizzit provides the technology platform and the model to its partner banks. It receives a one-time implementation and installation fee and per transaction fees made through the mobile platform.

Banking on the Wizzit platform can be up to 30 percent less expensive than banking with a traditional bank; users also save the cost of traveling to a traditional banking outlet. Each partner bank sets its own fees. Customers pay a US$0–$10 account setup fee. There are typically no monthly fees or minimum balances. Transaction fees range from US$0 to US$0.59, depending on the type of transaction.

Through a network of financial agents called Wizzkids, clients can open a bank account in just two minutes. Once they do, they receive a debit card, which is used in much the same way as pay-as-you-go airtime cards. The Wizzkids, who come from the same communities as the target beneficiaries, are trained to help build awareness about the brand and improve financial literacy among potential customers. They receive a commission for every new customer they sign up. Wizzkids go door-to-door to sign up potential customers, and they operate outlets where people can set up their accounts.

Impact
Wizzit has reached more than 6 million low-income people in the nine countries in which it operates. In South Africa, it has trained and employed more than 8,500 previously unemployed youth as financial agents, providing steady income as well as financial and customer skills that allow them to move on to higher-paying positions outside the company.

Scaling Up
The company has achieved scale and is profitable. After scaling in South Africa, it took its model to eight other countries, partnering with leading banks in Botswana, Honduras, Namibia, Nigeria, Romania, Rwanda, Tanzania, and Zambia. It is targeting expansion to 30 countries in the near future. Lack of capital is constraining expansion, however. The company raised initial funds internally and then brought in shareholders, including the International Finance Corporation, Oiko Credit, and Africap. Different rules and regulations for both banks and mobile network operators in different countries have also hampered Wizzit’s growth. In some countries, the requirements to open a simple bank account are a significant constraint to the Wizzit model, which aims to provide customers with a quick one-stop solution.

Reference