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ROSHAN AND M-PAISA: THE PROMISE OF MOBILE MONEY IN AFGHANISTAN

Farah Kurji wrote this case under the supervision of Professor Ning Su solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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It was September 2011, and Karim Khoja, chief executive officer (CEO), and Altaf Ladak, chief operating officer, of Roshan, Afghanistan’s leading telecommunications operator, sat on the hot and dusty runway at Kabul International Airport, waiting for their flight to take off. The executives had just finished a gruelling two-day mid-year review with their company’s board of directors. While Roshan was continuing to grow amid competition and a challenging operational environment, its mobile money transfer service, M-Paisa, had yet to generate a profit. Khoja and Ladak knew that they needed to present a plan in the next couple of weeks to turn M-Paisa around, or they would be forced to shut down the service entirely.

When Roshan began operations in 2003, the country had operated as a largely cash-based society. Under Taliban control, all the country’s banks were nationalized, and a large percentage of the population lost everything they had. After 30 years of war, the population had little, if any, trust in institutions such as banks, and increasingly focused on the short term, given the country’s continued instability. The main mechanism to move funds was the trusted *hawala* system; these informal moneylenders financed more than 90 per cent of the economy.

The banking system in Afghanistan was still in its early stages of development, and it continued to face trust issues. As of mid-2011, the country had 17 banks, 300 bank branches, and approximately 45 automated teller machines for a population of approximately 30 million people.[[1]](#endnote-1) Since launching the mobile service, which was Roshan’s core offering, the company had built relationships with its customers and gained the trust of the Afghan people. As mobile penetration rates continued to rise and banking penetration rates remained stagnant, the company saw a unique opportunity to bridge this divide. With more than 90 per cent of the population unbanked, Khoja and Ladak believed Roshan could use its technology to further contribute to Afghanistan’s long-term development.

In 2008, Roshan introduced M-Paisa, (*m* meaning “mobile,” and *paisa* meaning “money” in Dari, the Persian language spoken in Afghanistan), as part of its social development products portfolio, as a way for Afghans to transfer funds, receive and repay microfinance loans, make purchases (including airtime), and disburse and receive salaries. In its first three years of operations and after several successful pilot projects with microfinance institutions (to distribute loans and receive loan repayments) and with the Afghan National Police (to pay salaries), Roshan still faced a myriad of issues with scaling the service.

Since 2008, Roshan had invested nearly US$8 million[[2]](#endnote-2) in developing M-Paisa but was losing close to $2 million a year in operating the service. Khoja and Ladak wondered whether M-Paisa could have a transformative impact in the country or if Roshan had introduced the service too early, given the current economic climate. Could Khoja and Ladak turn M-Paisa into a viable business that would have a socio-economic impact on the country, which was central to Roshan’s mission? Or should they abandon the idea of M-Paisa altogether and focus their efforts elsewhere?

**MOBILE MONEY WORLDWIDE**

The global mobile banking landscape had seen growth in recent years and was projected to continue to grow, especially in emerging economies. According to a report published by Ernst and Young, the value of worldwide mobile payment services was expected to reach $245 billion by 2014. At the same time, global mobile money users were projected to total 340 million, equivalent to 5 per cent of global mobile subscribers.[[3]](#endnote-3)

According to the Groupe Speciale Mobile (GSM) Association, which represented the interests of 800 mobile operators worldwide, mobile money was defined as a “service in which the mobile phone is used to access financial services.”[[4]](#endnote-4) Mobile payment technologies could be divided into three types: short message service (SMS), near-field communication (NFC), and mobile Internet services. SMS was the most recognized mobile technology worldwide (see Exhibit 1). Mobile and SMS-based applications were poised to see the greatest growth in the next five years.[[5]](#endnote-5)

SMS-based services included peer-to-peer transfers, airtime top-ups, purchases, mobile remittances, and salary disbursements, and relied on a robust agent network to serve as cash-in and cash-out points. Consumers did not require a bank account but a subscriber identification module (SIM) card with a telecommunications provider that offered the service, which linked their phone number to their account.

Approximately 2.6 billion people worldwide lacked access to formal financial services, but one billion of them had mobile phones.[[6]](#endnote-6) Mobile money could be a catalyst for providing safe, quick, reliable, and low-cost access to financial services. Furthermore, mobile money could be a tool to enable those who were unbanked to access microfinance loans and even encourage savings, which was especially important in cash-based societies, where saving for the future was not the norm. While many believed that customers in rural areas or developing countries could be costly to serve, mobile money had the potential to bridge the infrastructure gap by bringing financial services to the masses and encouraging local economic development. Research had shown that a 1 per cent increase in mobile payment usage generated a 0.039 per cent increase in consumption and a 0.024 per cent increase in gross domestic product (GDP).[[7]](#endnote-7)

**M-Pesa and Kenya**

In 2002, Kenya’s Department for International Development (DFID) introduced the Financial Deepening Challenge Fund to encourage the private sector to improve access to financial services. The idea was to encourage companies that had the ability to make an impact but could not make a business case in the short term to invest in developing a solution. Vodafone Group PLC (Vodafone), one of the world’s leading telecommunications groups, was awarded a grant of nearly £1 million,[[8]](#endnote-8) which the participating company needed to match.

Following Kenya’s independence in 1963, most heads of households moved to cities to find employment. This mass wave of urbanization led to a remittance corridor between major urban centres and rural areas, accounting for 70 per cent of all domestic remittances. To send money home, workers often travelled in person to deliver cash to their families, which was inefficient. A large portion of the population also sent funds by bus, post, or money order, options that were generally unsafe and took time.[[9]](#endnote-9) The banking system was virtually non-existent, with only 1.38 branches per 100,000 inhabitants. Vodafone, through Vodacom, owned a majority stake in Safaricom, a leading Kenyan GSM operator, and worked with Safaricom as a starting point to refine the service in an effort to meet the needs of the population.[[10]](#endnote-10) M‑Pesa was a critical part of Vodafone’s rapidly developing portfolio of social development products.

In March 2007, Safaricom unveiled M-Pesa, which primarily focused on peer-to-peer transfers and airtime purchases. Within eight months, 1.1 million Kenyans had registered to use M-Pesa and more than $87 million had been transferred through the system. By September 2009, more than 8.5 million Kenyans had registered to use the service and $3.7 billion, roughly 10 per cent of Kenya’s GDP, had been transferred since inception. Similarly, the M-Pesa agent network grew from 450 locations in mid-2007 to 18,000 locations by 2010.[[11]](#endnote-11)

While the service offered significant economic benefits for the country, it also helped Safaricom decrease customer churn and increase stickiness amid a competitive environment. By 2011, M-Pesa represented 50 per cent of Safaricom’s non-voice revenue.[[12]](#endnote-12) Even with significant growth following its launch, M‑Pesa broke even for the first time only at the beginning of 2009.[[13]](#endnote-13)

Today, more than 88 per cent of live mobile money deployments were found in developing markets, and the industry doubled in size in 2011.[[14]](#endnote-14) Africa, which was termed the “heartland” for mobile money, had seen the deployment of 60 per cent of the world’s mobile money, and M-Pesa was being touted as the most successful deployment worldwide.

**AFGHANISTAN**

Afghanistan was a landlocked country located in Southern Asia, west of Pakistan and east of Iran, with a population of approximately 30 million people. The multi-ethnic population, who spoke Dari and Pashto, lived mostly in rural areas; the country had one of the world’s youngest populations, with a median age of 18.0 years.[[15]](#endnote-15)

Approximately 36 per cent of the population lived below the poverty line, and the country ranked at the bottom of the list on multiple key social and health indicators. In particular, the country’s literacy rate stood at 28 per cent, and Afghans had limited educational and employment opportunities.[[16]](#endnote-16) An average monthly household budget ranged from $158 for a low-income family to $448 for a middle-class family (see Exhibit 2). According to Transparency International’s 2010 Corruption Perspectives Index, Afghanistan was the world’s third most corrupt country.[[17]](#endnote-17)

After decades of conflict, Afghanistan’s economy was recovering, and in 2010, it had a GDP of $15.32 billion. The country was highly dependent on foreign aid; since 2002, the international development community had pledged more than $67 billion through four donor conferences. Although Afghanistan exported wool, fruits and nuts, and handwoven carpets, it was also the world’s largest producer of opium and supplied more than 90 per cent of the world’s opium.[[18]](#endnote-18)

Decades of war had left Afghanistan devastated and with limited infrastructure. The country required significant resources to rebuild; improve its electricity system; build roads and additional air transport facilities; and secure investments in banking, education, and health care services. In 2010, only 47 per cent of Afghans felt the country was moving in the right direction; insecurity was the biggest issue facing the country, with more than 54 per cent of Afghans fearing for their personal safety in their local area.[[19]](#endnote-19) Insecurity and weak governance systems continued to impede the country’s growth prospects. The year 2010 was also regarded as the deadliest for US troops, with one American killed every 18 hours.[[20]](#endnote-20)

The “cash-under-the-mattress” phenomenon was evident in Afghanistan, with many Afghans using formal and informal methods of storing monetary value, from banknotes to mobile airtime to goats to gold. The country operated as a cash-based society and had no formal mechanism to track funds. Historically, money was transferred through couriers or hawala brokers who worked on generations of established trust.[[21]](#endnote-21) The home-grown hawala channels charged prohibitive fees, and borrowers often needed to manage both financial and social burdens when seeking alternative borrowing channels.

Afghans had limited access to savings accounts, insurance mechanisms, payment services, and lines of credit.[[22]](#endnote-22) In 2010, Kabul Bank, the country’s leading financial institution, nearly crumbled after allegations that the bank’s leadership team had been running a giant pyramid scheme that had led to $1 billion being unaccounted for. The Ministry of Finance financed an $820 million bailout to prevent a collapse, which further reduced Afghans’ trust in the banking system.[[23]](#endnote-23)

One bright beacon of hope was Afghanistan’s telecommunications industry, which was the country’s largest private-sector success story. The telecommunications industry had made great strides in building infrastructure, providing basic telecommunications services, creating jobs, spurring entrepreneurial spirit, and contributing to the country’s socio-economic development. Afghanistan had five telecommunications service providers, including four GSM operators—Roshan, MTN Group Limited (MTN), Emirates Telecommunication Group Company PJSC (Etisalat), and Afghan Wireless Communication Company (AWCC)—and one fixed-line operator. Of the GSM operators, Roshan’s market share was approximately 35 per cent, followed by MTN at 29 per cent, Etisalat at 22 per cent, and AWCC at 14 per cent.[[24]](#endnote-24)

Approximately 10 million Afghans now had access to telecommunication services, compared with 20,000 in 2001; mobile penetration rates were approximately 30 per cent. The average customer had two or three SIM cards from different operators to take advantage of promotional rates and coverage. Price, coverage, and quality were key differentiators. Service currently reached approximately 80 per cent of the population, or 24 million people. According to the Afghanistan Telecommunications Operators’ Social Association, the industry had created more than 100,000 indirect jobs; invested more than $1.2 billion in building a network; and paid more than $500 million in taxes, duties, and fees, which represented more than 10 per cent of government revenues.[[25]](#endnote-25) The telecommunications industry, while growing rapidly, was not immune from the security issues plaguing the country.

**ROSHAN**

Roshan, which meant “light” and “hope” in Dari and Pashto, was the country’s leading telecommunications operator, with more than five million subscribers. The company was awarded the country’s second GSM licence on January 5, 2003, and began commercial operations on July 27, 2003. Roshan entered the market with the mandate of improving the lives of the Afghan people at a time when Afghanistan had virtually no telecommunications infrastructure and fewer than 100,000 people had access to mobile phones.

Today, the company’s coverage spanned 230 cities and towns in all 34 provinces, reaching more than 60 per cent of the population. Roshan was committed to Afghanistan’s socio-economic development and had invested more than $500 million in the country, making it Afghanistan’s largest investor and taxpayer.[[26]](#endnote-26) Since its inception, Roshan’s mission was to be the “benchmark emerging market telecommunication company focusing on customers, stakeholders and employees, providing quality and value in an ethical manner, while contributing to the social and economic development of Afghanistan within the region.” In 2010, the company generated approximately $280 million in revenue, a 20 per cent increase from 2009.

The company’s shareholders included the Aga Khan Fund for Economic Development (AKFED) at 51.00 per cent, Monaco Telecom International (MTI) at 36.75 per cent, and TeliaSonera at 12.25 per cent. AKFED was part of the Aga Khan Development Network (AKDN), a network of development agencies that worked in some of the most impoverished parts of Asia and Africa and aimed to improve peoples’ quality of life (see Exhibit 3). The AKDN’s work spanned several areas of social development: education, health, humanitarian, and microfinance initiatives; cultural programs such as architectural and restorative projects; and economic development that promoted entrepreneurship and infrastructure in areas lacking foreign direct investment.

AKFED had a long-established history working in Africa, South Asia, and Central Asia over the past 70 years; AKFED companies were active in 16 countries in the developing world. Profits generated from AKFED ventures were reinvested in other development programs under AKFED, or the AKDN more broadly, in an attempt to make a long-term sustainable impact.

While social impact was intrinsic to the company, Roshan focused on being a best-in-class company and not just being best in the market. The company sought to differentiate itself through its high-quality network and innovative product portfolio. Roshan was the first to segment the market and develop a range of offerings, and it was the first to launch data services, including BlackBerry, interactive voice response, SMS games, ringtones, and emergency services. Roshan’s product portfolio also included a range of social development products, including Malomat, which provided daily market prices to farmers, and M-Paisa, the country’s first mobile money transfer service.

When Roshan began operations, Khoja and Ladak believed it was critical to empower Afghans, who were entrepreneurial at their core, rather than to manage distribution internally. They believed that working with entrepreneurs would have an economic multiplier effect, creating jobs in communities that offered few economic opportunities. Currently, the company had more than 3,300 points of presence nationwide and had created more than 25,000 indirect jobs.

From the onset, the company also wanted to contribute to local development beyond its core business and so established the Roshan Community. The company’s dedicated corporate social responsibility arm focused on programs that benefited children, women, and the community and built human potential and capacity. Roshan also directly invested 1 per cent of its revenues in corporate social responsibility initiatives, working in partnership with the Afghan government, including the Ministry of Education and the Ministry of Communications and Information Technology, AKDN sister agencies, internationally recognized and local non-governmental organizations, and the private sector. Roshan Community’s programs included building schools and playgrounds and investing in female enterprises, technical training, and its flagship telemedicine initiative, which connected hospitals in the region to support diagnostic consultations, radiology evaluations, and continuous medical training.

**M-PAISA**

Given the company’s fundamental desire to contribute to Afghanistan’s socio-economic development, Roshan’s senior management team began to look at products and services that would have a transformational impact. Khoja and Ladak believed that, as a relatively small player in the global telecommunications space, the company’s best option was to form a strategic partnership with a major industry player.

Through extensive discussions with Vodafone and the Vodafone Partner Markets Program, Khoja and Ladak learned about M-Pesa, which was part of Vodafone’s social development portfolio and had recently been launched in Kenya. Khoja and Lada understood the challenges faced by microfinance providers and the endemic corruption in Afghanistan, and mobile money seemed to be a powerful way to leverage Roshan’s technology to make a social impact. The company believed that partnering with Vodafone would also bring best practices to Afghanistan.

Over six months, a cross-functional Roshan team—consisting of specialists in information technology, product development, marketing, legal issues, and customer care—worked to refine the platform for the Afghan market. The team participated in several workshops with Vodafone to understand best practices for the service based on Vodafone’s and Safaricom’s experiences in Kenya. In addition, several members of the Roshan team met with Kenya’s implementation team to better understand the challenges ahead. The team also spent considerable time to develop reporting systems to ensure the service met regulatory requirements. These systems were revolutionary for the country but were required to ensure best-in-class compliance systems.

**Marketing and Initial Launch**

In March 2008, Roshan launched M-Paisa at the global telecommunications industry’s flagship event, the Mobile World Congress. Although M-Pesa was built on a similar service in Kenya, in Afghanistan, M‑Paisa had a different focus in the pilot phase, operating as a vehicle for microfinance institutions (MFIs) to disburse and receive loan payments. Khoja and Ladak felt it was important to focus on microfinance at the outset, given the company’s intention to contribute first to socio-economic development and then later to broaden the service to the mass market. M-Paisa could help MFIs expand into rural areas to reach the ultra-poor, reduce interest rates, and enable these institutions to move beyond bricks and mortar. Khoja remarked,

We tracked what working in that industry would cost—how much did it cost to give a customer a loan? People don’t understand why microfinance institutions will typically charge around 25 per cent in interest rates. What people are not aware of is the cost basis associated with giving out the loan—travelling out to the customer to make the loan and then travelling back every month for $1 or $2 repayments. There is actually a huge cost base for the customer to pay back the loan. And these are practices that haven’t changed in many years and were unimaginable to be changed. But what M-Paisa has done is actually turn the whole situation on its head.[[27]](#endnote-27)

Through a partnership with the First MicroFinance Bank, M-Paisa piloted the service with 2,000 clients, who made loan repayments and also provided feedback on the service.[[28]](#endnote-28) The pilot highlighted the reduction in the cost to First MicroFinance Bank as MFI clients started paying off their loans using M-Paisa; loan officers had real-time information and no longer needed to make lengthy trips to visit their clients, and MFIs saved by not having to open offices in remote areas. Ultimately, these reduced costs presented an opportunity to lower interest rates, which could make a considerable impact on the typical ultra-poor MFI customer.

Nearly a year later, Roshan looked to launch M-Paisa more broadly beyond its work with MFIs. Prior to launch, the company undertook market research, through focus groups and in-depth interviews with Afghans from diverse backgrounds, to understand the best ways to communicate the value of M-Paisa. The focus groups, as well as the initial pilot with the First MicroFinance Bank, confirmed the importance of creating an interactive voice response (IVR) system in three languages: English, Dari, and Pashto. Ladak emphasized,

We learned pretty quickly that if we did not have the IVR [system], we would not be able to reach all Afghans, and in particular the Afghans who could benefit the most from M-Paisa. Working with Vodafone, we were able to create a solution customized for the Afghan market. Instead of having to read a text message that came to your phone, you could dial into the IVR system and be walked through a voice-activated menu to make a transaction in one of three languages. This [functionality] was especially important when you are working in a market where 70 per cent of the population cannot read or write.

The focus groups also highlighted the importance, from an educational and market awareness perspective, of building the M-Paisa brand around the “send money” feature and “mobile hawala” platform. The goal of the mass-market launch was to instill trust in M-Paisa by linking it with the established hawala network. Roshan also sought to emphasize M-Paisa’s benefits in terms of safety, security, and convenience. Following the launch of an extensive television, radio, billboard, and print campaign, the M-Paisa hawala campaign was the most widely recognized of any mobile operator in the country in that period (see Exhibit 4). The campaign was further complemented at cash-in and cash-out points by trained M-Paisa agents who could educate customers on how the service worked.

Although the service offered time-saving and safety benefits, the marketing team struggled to explain what convenience meant, given that, after decades of conflict, the Afghan population had no idea what convenience really was. Subsequent campaigns after the launch focused on showcasing the service’s lifestyle benefits, which were more tangible for prospective users. While more than 86 per cent of the population was aware of M-Paisa, only 3 per cent of the population understood how it worked. By mid-2011, M-Paisa had 50,000 active users, but less than 1 per cent of Roshan customers were using the service. Roshan continued to be the only operator to offer a mobile money transfer service in Afghanistan, which had few alternatives.

**Information Technology Infrastructure and Operations**

M-Paisa relied on Roshan’s nationwide GSM network to process transactions and to provide the front-end user interface to the customer. The M-Paisa application was embedded in a SIM card and sent a secure SMS message each time a transaction was made. The SMS interface made it easy for those without access to sophisticated data services to conduct real-time and secure transactions. A customer could also choose to use the IVR system to conduct a transaction. Minimal information technology (IT) hardware was required to deploy the product, both at the operator and agent sites. Agents who served as cash-in and cash-out points needed only a handset and a Roshan SIM to provide the service.

While the IT infrastructure was critical to ensuring the success of M-Paisa, equally important was a well-dispersed network of agents. Agents could be local businesses, banks, microfinance institutions, kiosks, or even hawalas, but they needed to be established businesses that had cash flow. Roshan had the largest distribution network in the country and sought to leverage its network of Afghan entrepreneurs, who provided Roshan products and services across the country and especially in rural areas, to support the rollout of M-Paisa.

Even with this network, onboarding an agent was associated with significant costs, including training and branding the locations to ensure visibility. The average agent-onboarding process cost approximately $300–$500, depending on where the agent was located. Training included educating agents on anti-money laundering (AML) and know your customer (KYC) processes, which were based on central bank regulations and international best practices. Roshan conducted biweekly visits to agents to ensure they were following appropriate float and cash management as well as merchandising standards; mystery shoppers were also employed to ensure KYC- and AML-compliance.

Agents also needed to be literate and able to read in English or phonetic Dari and Pashto to conduct transactions; they needed to understand the service and be trusted members of the community who could explain the service and increase adoption. Agents were currently paid commission fees based on the value of each transaction. The agents also struggled with perception issues and building trust in a system that was so new.

Agents needed to carry a minimum balance ($250–$2,000) to facilitate cash-in and cash-out transactions. As the service grew, Roshan also faced issues around liquidity and having sufficient cash available both nationwide and especially in high-risk areas. Agents needed to be incentivized to hold cash in a country that was cash-poor. It was not a problem that Roshan faced in isolation, but it was typical of many mobile providers operating in emerging economies. For instance, in 2008, a year after launching in Kenya, 20 per cent of M-Pesa customers could not withdraw funds when they visited an agent; in 70 per cent of those cases, the agent lacked sufficient funds.

As of mid-2011, 150 M-Paisa agents were spread across Afghanistan. Given the investments made in building Roshan’s agent network, Khoja and Ladak wondered whether they could leverage the trust these agents had in the community to show customers the value it could provide.

Within the Roshan organization, the company had limited resources to dedicate solely to the growth of M‑Paisa, especially as its traditional telecommunications business was both dynamically changing and rapidly growing.

Since 2009, M-Paisa had been a stand-alone business unit with its own distinct sales, legal, and product development teams, and it continued to share customer care, marketing communications, human resources, and information technology resources with Roshan; 15 individuals were solely dedicated to the M-Paisa business. Decisions within the M-Paisa organization were made by its management team and overseen by a CEO who reported to a board of directors composed of Roshan senior management, including Khoja and Ladak. Khoja and Ladak wondered whether they needed to organize M-Paisa differently to ensure that it was not only a priority for the company but could also scale and have a social impact.

**Regulation**

When Roshan launched M-Paisa, it was awarded a mobile service provider (MSP) licence that was regulated by Afghanistan’s central bank, Da Afghanistan Bank (DAB). DAB’s mission was to “uphold international best practice in fostering price stability and a sound financial system conducive to macro-economic stability, favorable investment climate, private sector development and broad-based economic growth.”[[29]](#endnote-29)

The service was both KYC- and AML-compliant. To register, customers needed to provide basic information, a recent photo, and identification (national identification or a passport); few people, especially in rural areas, possessed the type of identification required. To discourage illegal activity, a maximum of $2,000 per person per day could be transferred. Accounts were monitored on a daily basis for suspicious activity, both by Roshan’s anti-money laundering officer and through DAB, which required significant trained resources. Any suspicious activity was immediately flagged to DAB, and the account was suspended.

Roshan was the first and only operator to launch a mobile money service in Afghanistan. However, it was anticipated that other industry participants would soon follow suit (see Exhibit 5). Khoja and Ladak noted that Roshan’s competitors had not been proactive in rolling out mobile money services in Afghanistan; however, both MTN and Etisalat had launched mobile money services in other geographic markets.

Anticipating the potential demand, DAB released new regulations to govern the industry. In April 2011, Roshan was issued the country’s first electronic money institution (EMI) licence. The regulations provided additional security and protection for customers, agents, and partnering businesses.[[30]](#endnote-30)

**TODAY: SALARY DISBURSEMENTS**

As M-Paisa struggled to gain traction in the mass market, Khoja and Ladak wondered how they could increase adoption to not only have a social impact but also create an ecosystem to scale and become Afghanistan’s mobile wallet.

Salary payments seemed like a good way for the company to meet its dual goals of scaling the service and making a social impact. To pay employees, organizations in Afghanistan typically needed to disburse salaries in cash, which meant a multitude of issues around security and handling costs that often delayed payments. With M-Paisa, employers had a centralized system to disburse salaries that was convenient and transparent and that reduced cash-handling costs. Employees in turn received 100 per cent of their salary on time.

In mid-2010, M-Paisa commenced a pilot with the Ministry of the Interior to pay salaries to the Afghan National Police (ANP). Traditionally, the ministry had physically distributed the payments in cash, passing through multiple hands, where the cash was vulnerable to a heightened risk of robbery and skimming, due to the system being plagued by corruption. After receiving their pay, ANP officers often went absent without leave (AWOL), abandoning their posts to return to their villages to physically deliver the money to their families. Now, the officers could instead receive their salaries via M-Paisa and visit an authorized agent to either withdraw or transfer funds to family members. Khoja noted,

When we first paid salaries to police officers using M-Paisa, many of the officers assumed they had been given a raise or thought that we at Roshan had made a mistake. They flooded our customer care lines. What we learned was that when they had been paid in cash, their superiors had been skimming more than 30 per cent of their $150 monthly salary. This meant that for 90,000 police officers nationwide, the economy was losing $4 million a month. It was just disappearing!

With the pilot recently completed, Khoja and Ladak pondered whether they could they scale the program to reach all 90,000 police officers and 140,000 army officers; the social impact would be astonishing. Ladak emphasized, “M-Paisa has a trickle-down effect. As money moves through a centralized system, rural communities and businesses benefit.”

Khoja and Ladak’s conversations with the ministry to date, albeit encouraging, indicated that progress would be slow. They also believed that other government ministries, non-profit organizations, and private companies could benefit from M-Paisa. The Ministry of Education, for instance, could use the service to pay teacher salaries; or Afghans could use the service to pay their electricity bills, as electricity became more stable in the major cities.

**THE FUTURE OF M-PAISA**

Since 2008, Roshan had invested nearly $8 million in developing M-Paisa and had yet to turn a profit. Khoja and Ladak wondered, could the company overcome the insurmountable challenges that lay ahead, or should it abandon its efforts and focus its attention elsewhere? More importantly, could Roshan scale the service to transform the country and contribute to its socio-economic development?

**EXHIBIT 1: overview of the three MOBILE PAYMENT TECHNOLOGIES**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **SMS** | **NFC** | **Mobile Internet** |
| **Payment Type** | * Person-to-person * Person-to-business * Business-to-person | * Person-to-business * Business-to-business | * Person-to-person * Person-to-business |
| **Use Case** | * Domestic remittance * International remittance * Branchless banking | * Contactless payments * Identification- and marketing-related services | * In-app payments * Mobile wallet transactions |
| **Characteristics** | * Payment services for the unbanked and underbanked | * High levels of cross-industry collaboration | * Extension of online payment services |
| **Examples** | * Salary payments (Roshan, Afghanistan) * Money transfer (M-Pesa, Kenya; Obopay) | * Transit payments (Mobile FeliCa, Japan) | * Mobile wallet (PayPal, Zong, Starbucks) |
| **Payment Providers and Enablers** | * Start-ups * Mobile operators * Money transfer companies * Handset manufacturers | * Card issuers * Mobile operators * Handset manufacturers * Merchants * Start-ups | * Web services players * Start-ups * Mobile operators * Merchants |
| **Mobile Operator Participation** | * High | * Medium | * Low |

Notes: SMS = short message service; NFC = near-field communication.

Source: Created by the case authors using data from Ernst & Young, “Opportunities for Telcos in Mobile Money: 2011,” accessed October 5, 2016, www.ey.com/gl/en/industries/telecommunications/opportunities-for-telcos-in-mobile-money--2011---the-growth-in-mobile-payments/.

**EXHIBIT 2: SAMPLE MONTHLY HOUSEHOLD BUDGET IN AFGHANISTAN**

|  |  |  |
| --- | --- | --- |
| **Item** | **Poor Family** | **Middle-Class Family** |
| Rent | 2,000 | 5,000 |
| Electricity | 500 | 1,000 |
| Food | 2,200 | 6,000 |
| Gas for Cooking | 600 | 1,000 |
| Street Security | 70 | 100 |
| Local Mullahs | 30 | 50 |
| Transportation – Public | 1,200 | - |
| Transportation – Taxi | - | 2,500 |
| Airtime | 500 | 2,000 |
| Internet | - | 500 |
| Misc. | - | 2,000 |
| Total | AFN7,100  US$158 | AFN20,150  US$448 |

Note: AFN = Afghan Afghani; US$1 = AFN45 as of January 2011.

Source: Created by the case authors using data from Jan Chipchase and Panthea Lee, *Mobile Money Afghanistan*, Institute for Money, Technology & Financial Inclusion, accessed October 18, 2016, www.janchipchase.org/fp/wp-content/uploads/presentations/ChipchaseLee\_MobileMoney\_Afghanistan.pdf.

**EXHIBIT 3: THE AGA KHAN DEVELOPMENT NETWORK**

Aga Khan Fund for Economic Development (AKFED), under the economic umbrella, operates businesses across a variety of industries, including agriculture, financial services, tourism, media, and aviation. Its portfolio includes more than 90 companies employing over 30,000 people, with annual revenues of more than US$2.3 billion in 2010. The organization’s investment criteria include the following:

* Long-term investments with strong equity positions and a controlling interest.
* Hands-on approach, where it can provide managerial and technical expertise.
* Ability to collaborate with civil society actors to make a socio-economic impact.

Source: Created by the case authors using data from Aga Khan Development Network, “Organisation Information,” accessed November 1, 2016, www.akdn.org/about-us/organisation-information/; company information.

**EXHIBIT 4: HAWALA ON YOUR MOBILE—ENGLISH CAMPAIGN**



Source: Company materials.

**EXHIBIT 5: COMPETITIVE POSiTIONING of Roshan and its major competitors in afghanistan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Operator** | **overall positioning in the market** | **mobile money in other emerging markets** | **expected rollout plan** |
| **Roshan** | * Afghanistan’s mobile wallet: transparent, safe, convenient, value | * M-Paisa, powered by Roshan, was available only in Afghanistan. | * In-market: licensed April 25, 2011 * Focus on salary payments and merchants * Mass market (P2P) targeted for Kabul and Mazar in August 2011 * Leveraging Roshan’s 5 million customers |
| **AWcc** | * Positioned through the banks and AWCC as a provider versus being MNO-led | * None | * August–September 2011; licence pending * Focus through BMA and Pashtany state-owned banks * Primary products are electricity payments and bank transfers |
| **Etisalat** | * Key differentiator is price | * Active in the United Arab Emirates; not targeted at the unbanked | * August–September 2011; licence pending * Focus on government salary payments and P2P |
| **MTN** | * Key differentiators are distribution (convenience) and trust | * Active in Uganda, Ghana, Rwanda, South Africa, and other African countries * Most successful deployments are in Uganda and Ghana with a focus on airtime purchases. * MTN Mobile Money brand | * August–September 2011; licence pending * Focus on airtime purchases using the wallet with a bonus of up to 50% in airtime |

Notes: P2P = peer to peer; UAE = United Arab Emirates; AWCC = Afghan Wireless Communication Company; MNO = mobile network operator; BMA = Bank-e-Millie Afghanistan.

Source: Case writer’s analysis.

**ENDNOTES**

1. Company estimates. [↑](#endnote-ref-1)
2. All currency amounts are in US$ unless otherwise specified. [↑](#endnote-ref-2)
3. Ernst & Young, “Opportunities for Telcos in Mobile Money: 2011,” accessed October 5, 2016, www.ey.com/gl/en/industries/telecommunications/opportunities-for-telcos-in-mobile-money--2011---the-growth-in-mobile-payments/. [↑](#endnote-ref-3)
4. GSMA, Mobile Money for the Unbanked, *Mobile Money Definitions: July 2010*, accessed October 6, 2016, www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/06/mobilemoneydefinitionsnomarks56.pdf. [↑](#endnote-ref-4)
5. Ernst & Young, op. cit. [↑](#endnote-ref-5)
6. Ahmed Dermish, Christoph Kneiding, Paul Leishman, and Ignacio Mas, “Branchless and Mobile Banking Solutions for the Poor: A Survey of the Literature,” *Innovations: Technology, Governance, Globalization* 6, no. 4: (2011): 81–98. [↑](#endnote-ref-6)
7. Ernst & Young, op. cit. [↑](#endnote-ref-7)
8. £ = GBP = British pound sterling; US$1 = £.6914 on January 2, 2002. [↑](#endnote-ref-8)
9. GSMA, Mobile Money for the Unbanked, *What Makes a Successful Mobile Money Implementation? Learnings from M-PESA in Kenya and Tanzania*, accessed October 6, 2016, www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/06/mpesa\_case\_study9983.pdf. [↑](#endnote-ref-9)
10. Tamara Cook, “An Overview of M-Pesa*,*” FSD Kenya, August 12, 2015, accessed October 15, 2016, http://fsdkenya.org/an-overview-of-m-pesa/. [↑](#endnote-ref-10)
11. Isaac Mbiti and David N. Weil, “Mobile Banking: The Impact of M-Pesa in Kenya,” (Working Paper 17129, National Bureau of Economic Research, June 2011). [↑](#endnote-ref-11)
12. GSMA, Mobile Money for the Unbanked, *Annual Report 2011*, accessed October 6, 2016, www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/06/mmu\_report.pdf/. [↑](#endnote-ref-12)
13. GSMA, Mobile Money for the Unbanked, *What Makes a Successful Mobile Money Implementation?*, op. cit. [↑](#endnote-ref-13)
14. GSMA, Mobile Money for the Unbanked, *Annual Report 2011*, op. cit. [↑](#endnote-ref-14)
15. Central Intelligence Agency, “World Factbook 2010, Afghanistan,” accessed October 15, 2016, www.cia.gov/library/publications/resources/the-world-factbook/geos/af.html. [↑](#endnote-ref-15)
16. Ibid. [↑](#endnote-ref-16)
17. “Corruption Perceptions Index 2010,” Transparency International, accessed October 18, 2016, www.transparency.org/cpi2010/results/. [↑](#endnote-ref-17)
18. Central Intelligence Agency, op. cit. [↑](#endnote-ref-18)
19. The Asia Foundation, *Afghanistan in 2010: A Survey of the Afghan People*, 2010, accessed October 18, 2016, https://asiafoundation.org/resources/pdfs/Afghanistanin2010survey.pdf. [↑](#endnote-ref-19)
20. Edwin Mora, “2010 Was By Far the Deadliest Year for U.S. Troops in Afghanistan—One American Killed Every 18 Hours,” CNS News, December 31, 2010, accessed November 22, 2016, www.cnsnews.com/news/article/2010-was-far-deadliest-year-us-troops-afghanistan-one-american-killed-every-18-hours. [↑](#endnote-ref-20)
21. Jan Chipchase and Panthea Lee, *Mobile Money Afghanistan*, Institute for Money, Technology & Financial Inclusion, accessed October 18, 2016, www.janchipchase.org/fp/wp-content/uploads/presentations/ChipchaseLee\_MobileMoney\_Afghanistan.pdf. [↑](#endnote-ref-21)
22. Ibid. [↑](#endnote-ref-22)
23. Jon Boone, “The Financial Scandal That Broke Afghanistan’s Kabul Bank,” *Guardian*, June 16, 2011, accessed October 15, 2016, www.theguardian.com/world/2011/jun/16/kabul-bank-afghanistan-financial-scandal/. [↑](#endnote-ref-23)
24. Company estimates. [↑](#endnote-ref-24)
25. Afghanistan Telecommunication Operators’ Association, “Telecommunication Operators Launch Afghanistan Telecommunication Operators’ Association,” press release, April 13, 2010, accessed October 16, 2016, www.prnewswire.com/news-releases/telecommunication-operators-launch-afghanistan-telecommunication-operators-association-90766824.html. [↑](#endnote-ref-25)
26. Company estimates. [↑](#endnote-ref-26)
27. Adam Unsworth, “MMT Explained—M-Paisa Afghanistan,” Mobile Payments World, October 17, 2009, accessed January 10, 2017, www.mobilepaymentsworld.com/mmt-explained-m-paisa-afghanistan. [↑](#endnote-ref-27)
28. Vodafone Group, “Vodafone and Roshan Launch First Mobile Money Transfer Service in Afghanistan,” press release, March 10, 2008, accessed October 25, 2016, www.vodafone.com/content/index/media/vodafone-group-releases/2008/vodafone\_and\_roshan.html. [↑](#endnote-ref-28)
29. “About Us,” Da Afghanistan Bank, accessed November 1, 2016, http://dab.gov.af/en/. [↑](#endnote-ref-29)
30. Mobile Payments Today, “Central Bank of Afghanistan Issues License to M-Paisa,” May 2, 2011, accessed November 3, 2016, www.mobilepaymentstoday.com/news/central-bank-of-afghanistan-issues-license-to-m-paisa/. [↑](#endnote-ref-30)