

CASE STUDY

Building a Gateway to Digital Payments in Afghanistan: The World Food Programme's E-Voucher Initiative



MAY 2016

BETTER THAN CASH
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AFGHANISTAN

Case Study

In Afghanistan, the World Food Programme (WFP) turned to digital payments to deliver food aid and has experienced many benefits by transitioning to e-vouchers and mobile money. The move dramatically increased the speed, efficiency, security and transparency of payments. E-vouchers prevent the need for long and dangerous journeys to collect cash payments or food packages, and substantially cut administrative costs. The initiative - the largest of its kind to date - also advances financial inclusion by introducing formal financial services in a country where today, only one in 10 people are in the formal banking system.

The World Food Programme's E-Voucher program draws on biometric technology such as finger-print scanning, and chip and pin technology, to overcome literacy and security challenges, and give female recipients more financial autonomy.

After a highly successful initial trial period, the initiative is now undergoing a much-expanded second trial phase. WFP has recently completed the transition from E-Voucher payments to mobile money for around 70,000 food assistance recipients. This will certainly add momentum to the Afghanistan government's efforts to pay state employees digitally, expand financial inclusion and contribute to economic growth in one of the world's poorest countries.

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1. EXECUTIVE SUMMARY

Every year the World Food Program (WFP) dedicates significant time and resources to ensuring that the right target beneficiaries are receiving food assistance or are being enabled with purchasing power to buy food locally. In a country like Afghanistan that has a number of economic, geographic and political challenges, food aid and assistance are critical. For the WFP, being able to deliver this support to targeted beneficiaries via an automated yet accessible and affordable channel is increasingly central to meeting its objectives.

WFP is currently trialing a ground-breaking initiative to take advantage of new technology in its food assistance efforts, in line with a whole host of other sectors that are turning to new technologies to achieve more flexibility, rapidity and efficiency in meeting their objectives. In the last few years, WFP has adopted a new model of food assistance in the form of cash and vouchers, thus equipping beneficiaries with purchasing power to obtain food supplies from local merchants, therefore improving program efficiency and reducing costs. This approach reflects WFP's worldwide market-based interventions strategy.

The focus of this case study is to detail the steps taken by WFP to replace paper vouchers with electronic vouchers¹ (e-vouchers) in Afghanistan. WFP streamlines its distribution logistics and makes a bigger impact by being able to support a higher number of beneficiaries across larger geographical areas in an operationally efficient way.

The advent of the mobile phone era in Afghanistan, along with the more recent emergence of mobile wallet offerings by the country's Mobile Network Operators (MNO), is not only transforming the possible uses of mobile phones, but is also encouraging a wide range of complementary technologies and services that are rapidly taking hold.

As an example of this budding ecosystem, WFP has partnered² with Afghan Wireless Communication Company (AWCC)³ to deliver its E-Voucher Program. The program not only harnesses mobile wallet technology now available, but also makes use of biometric and Near Field Communication (NFC) technologies in order to provide a user-friendly experience both for targeted food assistance recipients and participating merchants. The electronic receipt of the e-voucher directly on the recipient's mobile wallet and the cashless redemption of the voucher at the merchant location makes these transactions much easier for end users.



When appropriate systems are in place, the demand for mobile money technology services is expected to grow exponentially, because it brings more convenience to users and saves time. The National Unity Government's (NUG) adoption of mobile money payment systems will be a game-changer in terms of improving transparency and reducing corruption within the government. Electronic payment programs can give people an on-ramp to greater financial access while providing governments a more efficient, transparent, and safer means of disbursing benefits like salaries and pensions.



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The first E-Voucher pilot was carried out on a small user base of 603 recipients in Kabul for a three-month disbursement cycle from April to June 2014. The total value of e-vouchers disbursed was US \$72,360. Following the success of this pilot, WFP went on to pilot the program over a larger recipient base including areas of Kabul and as well other provinces. Unfortunately, due to unforeseen budget constraints, WFP was able to only disburse one payment cycle out of the three that were planned for this second pilot.

Based on an initial review undertaken by WFP, the potential benefits of the E-Voucher Program in terms of cost savings and operational efficiency were clearly apparent. Therefore, having received renewed funding, WFP decided to run a number of new pilots in 2015 in order to assess the e-voucher model throughout a full disbursement cycle and thus confirm the benefits of the program that should ideally flow to all stakeholders including WFP and its cooperating partners in the program.

As will be highlighted in this case study, WFP's E-Voucher Program, while not without challenges, has key advantages, such as immediate availability of funds, lower wait times in queues to receive paper vouchers, the flexibility to choose food items, merchants and purchase times. For these reasons, among others, e-vouchers are proving to be the preferred choice by end recipients. An overwhelming 82% of recipients surveyed preferred e-vouchers in comparison to in-kind food aid or cash. Nearly 100% of the respondents reported having a seamless customer experience when redeeming vouchers.⁴ E-voucher also gave recipients the choice of spending all their voucher value in one initial purchase or saving a portion for future purchases. The design and technology involved in e-vouchers makes distribution and redemption easy and less cumbersome. The successful administration of the large-scale pilot in 2015 will be vital to confirming the value for WFP of adopting the E-Voucher Program permanently and across other country programs.

The key lessons from the 2014 pilots, if acted upon, will strengthen the program's efficiency, cost-effectiveness, and overall service delivery. Areas that will require special focus are the enhanced training of WFP's implementation partners to prevent delays in registrations of recipients; refined monitoring of implementation and purchasing patterns; renegotiation of operational cost with implementation partners for service delivery and with the MNO on fee structure; and improved service to recipients by allowing authorized representatives for the elderly and disabled to access the e-voucher in their place. Additional improvements could be made by the MNO establishing a banking relationship with financial institutions that have the widest branch networks in the country for easier and faster access to merchants.



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WFP's E-Voucher Program is the first of its kind in Afghanistan to reach thousands of recipients across four provinces: Kabul, Ghor, Badghis and Bamyán. WFP's primary goal in its food assistance program is to ensure that the beneficiaries receive the e-vouchers in the most cost-effective and efficient manner possible. Importantly, WFP is also contributing to the broader goal of advancing financial inclusion in Afghanistan by acting as a catalyst to introducing digital and mobile money to thousands of beneficiaries who may never have otherwise had access to mobile financial services. As WFP expands its program to additional provinces and a higher number of recipients that change annually, the potential for outreach is in the hundreds of thousands.

While significant operational challenges remain, the mobile money sector in Afghanistan now is in a defining stage and seems set to grow for several reasons: MNO players are eager to scale; the general public in major cities has increasing awareness of mobile money features and benefits; systems interoperability is closer than ever before; numerous pilots and testing have been conducted; and the new government is eager to use mobile wallets for salary payments of civil servants as part of its commitment to transparency.

2. AFGHANISTAN'S ECONOMIC CONTEXT

Overview

Afghanistan's geography coupled with decades of war, beginning in 1978 and continuing to 2001, along with an ongoing insurgency in various parts of the country, has made it vulnerable to geo-political, economic and climatic upheavals (such as droughts and earthquakes). With annual Gross National Income (GNI) per capita of US \$680, as compared to US \$1,527 for the whole of South Asia, Afghanistan is one of the poorest countries in the region.⁵ In 2014, Gross Domestic Product (GDP) was US \$21 billion, with a total population of 31.5 million, with almost half of this population below 15 years of age.⁶

Agriculture is the most vibrant segment of the Afghan economy generating over 50% of employment in the country. Overall unemployment rate is at 8.2%, one of the highest rates in the region. Although the mining sector is yet to be fully developed, it is widely believed that Afghanistan's untapped natural resources could fuel future economic growth. For the time being, 36.5% of Afghans live below the poverty line and another 37% live just above the poverty line.⁷ This figure has been stagnant since 2007-2008 when the first National Risk and Vulnerability Assessment was conducted.

Dubbed the "Decade of Transformation" by the Afghan government, Afghans are experiencing an unprecedented time of political, security and economic transition. With a drawn-out and contentious election that brought economic growth almost to a halt in 2014, it is expected that economic confidence will return now that a unity government is in power and political uncertainty has decreased, such that the country may be able to attract private sector investment, particularly in the energy and mining sectors. According to World Bank's economic outlook, Afghanistan's economic growth will increase from a projected low of 1.5% in 2014 to 5% per year from 2016 to 2018.⁸

Banking Sector

Afghanistan has achieved many important milestones in the past 14 years towards a functioning banking sector. Prior to 2001, the banking system consisted of six state-owned banks that were largely inactive. Vital banking functions such as accepted accounting standards, appropriate risk management systems, observance of prudential requirements (for example, provisioning and loan classifications) and a formal payment system were non-existent. Further, banks had ceased lending activities because they were not allowed to pay or charge interest under the Taliban government, thus pushing people towards the informal sector. The capacities of bank managers were severely limited since they were political appointees and usually did not have a banking background.

However a new banking law based on international best practice was passed in 2003. In 2004, commercial banking sector assets were valued at US \$300 million but have grown to USD 4.3 billion in 2014.⁹ Currently, there are a total of 16 banks operating mostly in the capital, Kabul, as well as Herat, Nengarhar and Balkh. There are over 400 full-service and limited-service branches across the country, although approximately 90% of the population still does not have access to banking facilities, especially in semi-rural and rural areas. Three banks are state owned, four are branches of foreign banks and nine are private commercial banking institutions.¹⁰

One of the main reasons banks have not expanded their operations beyond the major cities is ongoing security concerns in most sections of the country outside of the main city centers. In addition, Afghanistan's complex geographical landscape makes travel to rural areas difficult and costly for banks. According to the World Bank, there are 2.65 million depositors in the banking system out of an estimated population of 31.5 million.¹¹ Although clear progress has been made from a state of dysfunction under the Taliban, Afghanistan's banking sector still needs stronger oversight, more institutional capacity, greater capitalization and a higher level of public confidence in the system.¹²

Hawala

Against this backdrop, a two-hundred year old informal banking system, Hawala, continues to flourish and is widely accessed by people across the country. Hawala is an informal, honor-based network of money transfer providers who are well known and broadly trusted by Afghans. It is a money transfer service in its most rudimentary form and one that is entrenched in Afghan society. Hawala works by transferring money without actually moving money. Working in parallel with banks, it consists of a network of mostly regionally and at times internationally affiliated money lenders and exchange agents who remit money for a lower fee than banks, and often without a paper trail. For most people, Hawala is a more efficient, accessible and convenient money transfer system in comparison to bank branches.

The prevalence of Hawala could be attributed to a lack of an extensive banking branch network throughout the country; a lack of awareness about mobile accounts and their functions; and a largely inaccessible banking system, combined with high levels of trust in Hawala dealers. Hawala is also better suited to local conditions, especially in rural areas, in that transfers are less costly and more convenient than using a bank branch, with generally no bureaucratic procedures or paperwork required, nor transaction approvals needed, as they would be in a bank.¹³ As of 2010, there were 152 Hawala dealers licensed by Afghanistan's Central Bank, however, the total number of Hawala dealers is estimated to be closer to 5,000.

Mobile Phone Landscape

While over 90% of Afghans do not have access to banking facilities, 90% of the population has mobile telephone coverage as of December 2014. Over 23 million Afghans out of a population of 31 million – or about 75% of the population – are mobile phone subscribers.¹⁴ The telecommunications sector is one of the most vibrant industries in Afghanistan and the largest source of tax revenue for the government. In the past 13 years, the Ministry of Telecommunications has issued six licenses. Four of the telecoms now dominate market share. It is estimated that US \$2.4 billion has been invested in the Afghan telecom sector.¹⁵

The four major
telecom operators
in the country

Total subscribers:
19.9
MILLION

MNO	Wallet Name
ROSHAN	M-Paisa
MTN	N/A
AWCC	My Money
ETISALAT	M-Hawala

OPERATOR	SUBSCRIBERS	MARKET SHARE	OWNERSHIP
Roshan	6 million	30.2%	Aga Khan Fund for Econ. Dev. (AKFED) 51.00%; Monaco Telecom International (MTI) 36.5%
MTN	5.3 million	26.6%	Multinational Telecom Group in 21 countries in Africa, Asia and Middle East. Listed in JS Stock Exchange 90%; International Finance Corp (World Bank Group) 9%
AWCC	4.4 million	22.1%	Joint venture with MCIT (20%) and US-based Telephone System International (TSI) (80%)
Etisalat	4.2 million	21.1%	Wholly-owned subsidiary of UAE-based Etisalat Telecommunication Corporation

Prior to 2001 there were virtually no mobile phones in Afghanistan. Since then, the country's outdated telephone landline infrastructure prompted a dramatic increase in mobile phone penetration. The dramatic decrease in the cost of a Subscriber Identity Module (SIM) card, from \$250 in 2003 to about \$1 in 2015, and cheaper call rates have made mobile phones much more affordable and accessible. According to GMSA Intelligence, there are 23.8 million mobile phone connections in Afghanistan.¹⁶

Mobile Money Transfers in Afghanistan

Afghanistan remains predominantly a cash-based society. Despite the vast growth in mobile phone usage, mobile money providers have yet to scale mobile wallet use, although several initiatives are underway to spur growth in the coming years.¹⁷ A 2013 study about mobile money in Afghanistan revealed that the majority of Afghans use the Hawala system followed

(FIGURES AS OF 2013)
Source: IFC Mobile Money Scoping Country Report, September 2013

The Afghan government has put a limit of AFN 150,000 (US \$2,586) on mobile wallet balances and transactions can only be conducted in local currency.

by bank branches for domestic transfers. Over half of the respondents in the study were not even aware of telecom companies offering mobile money, but 56% of those not using mobile money stated that they would be interested if they knew more about its uses and benefits.¹⁸ To date, most mobile money transfers have been for employees of organizations who (involuntarily) receive their salaries on a mobile wallet, and a few thousand microfinance loan repayment installments.

The government of Afghanistan first pioneered the use of mobile wallets in 2010 through a partnership with Roshan (an MNO) to pay police salaries. That program lasted for two years with a total of 1,300 police officers enrolled in mobile wallet accounts.¹⁹ In 2013, the Ministry of Education and Finance also piloted payment of teacher salaries via mobile wallets. At present, an interpretation of Afghanistan's Public Financing Law prohibits government payments to mobile wallet accounts directly and requires a bank intermediary to partner with an MNO. The requirement of a banking partner means that MNOs and banks not only need to align their systems technically but also accept a profit-sharing agreement that can delay the implementation process and add an extra step for the end-users where they would first need to transfer funds from their bank accounts to their mobile wallets before being able to make payments, transfers, top-ups or cash out.

The government maintains that the requirement of a bank account linkage increases trust in the mobile money sector, as well as increasing the number of banked people among the low-income population.²⁰ Given that a perceived lack of trust in financial institutions is often cited as an obstacle to increasing financial inclusion, requiring a mobile wallet linked to a bank account may reinforce trust in the system by people who might otherwise be resistant to using bank accounts.

From a regulatory standpoint the Electronic Money Institutions (EMI) regulations do not specifically prohibit transfers from government entities to mobile wallets. The EMI regulations also cap the maximum balance of mobile wallets at AFN150,000 (US \$2,586)²¹ thereby making them unworkable for high salary employees.

In June 2015, a Memorandum of Understanding was signed between the Ministry of the Interior, the Ministry of Finance and the Combined Security Transition Command Afghanistan (CSTC-A) to pay 100% of Afghan Local Police (ALP) salaries using mobile wallets.²² It is estimated that there are 28,000²³ ALP members across Afghanistan, often working in remote areas, and currently being paid by authorized agents of the Ministry of the Interior. The program will be launched in Kapisa province and is expected to extend to other Afghan provinces after a three-month pilot. This is a significant step towards promoting mobile wallet usage, with the Afghan government acting as a key catalyst to increase digital payment usage.

Since its inception five years ago, the program has required the collaboration of a wide group of stakeholders including relevant government ministries, CSTC-A (which is funding the first year and half of the project), financial institutions that will provide access to bank accounts linked with mobile wallets, MNOs that are integrating their systems with the partner banks, agents and ALP members. If the program is successful, the government expects to transition the rest of the Afghan security forces to mobile wallet salary payments in the coming years.

One of the biggest barriers to advancing mobile money payments is the cost per transaction of the current agreement – currently AFN160 (US \$2.66) per transaction and an initial registration cost of AFN150 (US \$2.50). It is expected that competition between MNOs and economies of scale will decrease the overall costs over time.

Overall there are still a number of barriers to broader mobile wallet uptake including social, technical and regulatory barriers, as set out in the table below:

SOCIAL BARRIERS	TECHNICAL BARRIERS	REGULATORY BARRIERS
Lack of awareness about uses and benefits of mobile wallets	Lack of interoperability across a common platform between MNOs and banks	The cap of AFN150,000 imposed on mobile wallet accounts prevents companies from using mobile service for high salary employees
Extensive, nationwide and reliable MNO agent network	Lack of interoperability between MNOs' agent network	Public Financing Law requires MNOs to link mobile wallets to a bank account for government transfers
Lack of incentives for agents to promote mobile money	Prevalence of ATM machines in urban areas discourages travel to an MNO agent to withdraw money	
Cash-based society and most Afghans too poor to save		
Efficient and accessible Hawala System		

Despite these obstacles, the Afghan government and international donors predict that scale will be achieved in the coming years. With a significant investment by USAID's Mobile Money Innovations Grant Fund launched in 2011 under the FAIDA program,²⁴ mobile wallet providers in Afghanistan have more ability to reach scale, have tested new initiatives and are poised to launch new programs in 2015 (see table below). Currently three of the major MNOs and three banks are actively engaged in initiatives in the sector. Further, there is clear political support at the highest level of the government, particularly since Afghan President, Ashraf Ghani, set up a special committee to oversee digitization of government salaries early in 2015.²⁵ The below table sets out the recent pilots and current mobile wallet programs in progress.

Current Initiatives in Progress

Government

DESCRIPTION	YEAR	PHASE	MNO	USERS
Ministry of Education teacher salary payments	2013	Pilot completed	AWCC Roshan	324
Ministry of Finance employee salary payments	2015	Pilot in progress	AWCC	50
Da Afghanistan Breshna Sherkat (DABS) - Afghanistan's electricity provider (utility payment)	2013	Active	Etisalat	86,000 registered users ¹
Ministry of Interior Afghan local police salary payments	2016	Active	Roshan	Target: 10,000

Development Sector / Aid Community

DESCRIPTION	YEAR	PHASE	MNO	USERS
UNICEF salary payments of vaccinators in 6 provinces	2015	Pilot	AWCC	150
World Food Program e-vouchers for food aid	2014	Pilot	AWCC	8,762
World Food Program e-vouchers for female vocational skills training	2015	Pilot	AWCC	13,400

Microfinance Sector

DESCRIPTION	YEAR	PHASE	MNO	USERS
First Microfinance Bank loan installment repayment	2010	Active	Roshan	1,908
Mutahid Development Financial Institution (client loan installments repayment)	2011	Active	Roshan	1,6922

Total registered users:

155,516

3. OVERVIEW OF WFP VOUCHER TRANSFER PROGRAM

WFP estimates that over 7 million people in Afghanistan, roughly 22% of the population, are food-insecure, meaning they do not have access to adequate, safe and nutritious food to lead a healthy lifestyle.²⁶ Reoccurring natural disasters, ongoing conflict, displacement and fluctuating food prices are among the top contributing factors. In 2015, WFP is targeting more than 3.2 million food insecure Afghans under its emergency response, relief and recovery activities in the country.²⁷ Under a new strategy, WFP has adopted new models of food assistance delivery in the form of cash and vouchers for food assistance in environments that have a functioning market system with a reliable supply of food items, allowing beneficiaries to obtain their food supplies from designated local merchants. This equips beneficiaries with purchasing power so that they can access food locally as an alternative to WFP distributing food rations imported from a donor country under its in-kind assistance program.

The overall goals of the pilot program in 2014 were firstly, to reduce economically stressed households' vulnerability to food insecurity in the short term, and second to prevent economically stressed populations from adopting negative coping strategies such as reducing their dietary requirements by eating less food, or selling a productive asset such as a bicycle or livestock that would carry serious long-term consequences.²⁸ Internationally, WFP has adopted the cash and voucher model since 2008 and has disbursed US \$208 million cumulatively in 38 different countries.²⁹ This is a significant change in food assistance delivery from a traditional model of transporting and storing food in-country. By the end of 2015, WFP expects to use cash (via both direct disbursements, bank accounts and mobile money), paper vouchers as well as e-vouchers in almost a third of its food assistance programs worldwide, thereby further strengthening local markets and decreasing costs for program operations in terms of staff and implementation partner expenses, as well as reduced transportation costs for food delivery.

E-Voucher Pilot Program

WFP uses three modalities for food distribution: in-kind, cash and vouchers. In line with WFP's broader strategy of moving from food aid to food assistance,³⁰ WFP Afghanistan began paper voucher activities in Afghanistan in 2009. The model used in Afghanistan was a value voucher mechanism consisting of paper voucher distribution up to 2014, at which point WFP launched a pilot for e-voucher payment system. In initiating the pilot, WFP's goal was to test the impact and cost effectiveness of mobile money transfers, assess the appropriateness of the model and, if successful, bring it to scale. In January 2014, WFP met with all Afghan MNOs, but ultimately turned to FAIDA³¹ for their expertise in the Afghanistan mobile money space, and obtained their assistance in choosing an appropriate model for WFP's

Program Collaborators for the E-voucher Pilot

requirements. WFP wanted a “fluid and closed loop system” and selected AWCC as the implementation partner. In a closed loop system, funds are pre-loaded into an account (in this case, a mobile wallet) and is linked to a payment device (the NFC card). The closed loop system is preferred by WFP because it restricts the use of the e-voucher to food spending with designated merchants. According to WFP, at the time, “AWCC was not only the best option, but the only option”³² due to its willingness and flexibility in working with a small number of users, and its position as the only MNO in the country offering Point of Sale (POS) and NFC technology with biometric registration.

TERM	DEFINITION
Recipient	The person registered to receive the voucher
Voucher	Stipend provided to household
Household	Occupants in one house regarded as a unit or family
Beneficiary	Each person in the household impacted by the voucher program

ROLE	DESCRIPTION
FAIDA	A USAID funded program that has supported the development of the mobile money sector. Instrumental in helping WFP select an MNO that met WFP’s requirements.
AWCC	The only MNO that offers NFC, biometric registration and POS technology.
Cooperating Partners	Non-Governmental Organizations (NGOs) that identify and register qualified households door-to-door who fit the vulnerability criteria for the voucher program. For the VST program activities, the Cooperating Partner is also responsible for implementing the skills training for the female recipients.
Agents	Licensed merchants identified by WFP based on criteria of being able to operate POS technology, literacy, good customer service skills, shop location and ability to provide required food basket items.
Government	Ministry of Labour, Social Affairs, Martyrs and Disabled is involved at the community level targeting and supporting the E-Voucher Program.

Program Elements

WFP’s E-Voucher Program was piloted under WFP’s Economically Stressed Urban Population (ESUP) and Vocational Skills Training (VST) programs beginning in April 2014 in two separate phases. While the ESUP program focuses on identifying households in need of food assistance, the VST program focuses on incentivizing recipients to complete vocational training (to increase recipients’ access to the job market) in exchange for food assistance.

The ESUP program was designed to distribute three vouchers per household on a monthly basis over a three-month seasonal cycle. The selected households vary every year based on national food insecurity criteria established by WFP, with local targeting developed in collaboration with the local community. Once the geographic locations for food

assistance are identified, WFP's Cooperating Partners (five international and local NGOs) identify the most appropriate beneficiaries in consultation with community elders and authorities. The settings for the selected pilots were urban and peri-urban areas where food markets are well supplied.

The initial phase 1 pilot for the E-Voucher Program was launched in May 2014 for three months in Kabul. Under this initial pilot, AWCC registered 603 ESUP recipients and disbursed US \$72,360 during May, June and July 2014. After the successful pilot, WFP went on to launch a phase 2 pilot wherein the geographical perimeter was expanded to broaden the reach of the program in Kabul and also include urban centers in three more provinces, namely Bamyan (ESUP and VST), Ghor and Badghis (ESUP). The registration for the phase 2 pilot began in September 2014. The plan was to disburse vouchers to recipients for a period of three months starting in December 2014, however due to budget constraints, only one month's e-voucher payments under the VST and ESUP program were disbursed.

ESUP and VST E-Voucher Program Details

OBJECTIVE / PURPOSE	1) To test if market-based interventions are effective in Afghanistan and in what context. 2) To enhance WFP's understanding of the capacity of local service providers to implement e-vouchers.
TARGET POPULATION	Highly vulnerable population experiencing food scarcity, spread across geographic regions and based on needs, including as a result of seasonality shocks.
AMOUNT DISTRIBUTED PER VOUCHER	AFN2,000 (US \$35)
PAYMENT FREQUENCY	Monthly
CONDITIONALITY	VST recipients – voucher authorized for specific food items as a condition for attending relevant training prior to receipt of voucher.
LOCATION	Urban setting with proximity to markets.
REQUIREMENTS TO RECEIVE VOUCHER	ESUP recipients selected by Cooperating Partners. VST recipients selected by Community Leaders. One recipient per household; biometric registration; must have a WFP issued ID with NFC chip from AWCC.
PAYMENT PERIOD AND DURATION	ESUP – 3 month cycle VST – 6 month cycle
NUMBER OF MERCHANTS	10 in Bamyan; 18 in Kabul; 2 in Ghor; 6 in Badghis
START OF PROGRAM	6 e-voucher pilots beginning May 2014

ESUP and VST E-Voucher Program 2014 Pilots per Province

E-VOUCHER PROGRAM	PROVINCE	DISTRIBUTION CYCLE	PILOT START	PILOT STATUS
ESUP Phase 1	Kabul	3 months	May 2014	Completed
ESUP Phase 2	Kabul, Ghor, Badghis, Bamyana	3 months	Dec. 2014	Incomplete
VST	Bamyana	6 months	Dec. 2014	Partially Completed

Design Influencers: Product Details

- A. WFP uses POS devices for its food assistance programs in other countries and wanted to have a closed-loop system whereby the recipients would be able to redeem e-vouchers with a designated merchant as opposed to agents of the partner MNO. Further, the additional layer of security provided by the POS technology, and the simplification of the payment process with the use of the NFC chip design, ensures that the e-voucher is utilized by the intended recipient and removes technical barriers for those beneficiaries who may not be able to read the instructions on a mobile phone. From the merchant's side, having the option to "tap and pay" with the NFC chip eliminates the need to enter the recipient's account number in the POS machine, thereby eliminating the risk of merchants entering incorrect account numbers.
- B. The NFC tag is a wireless technology in the form of a small sticker that holds a microchip storing a small amount of data. In this case, data is the recipient's unique identification details. The unique ID is linked to the customer's mobile wallet account. The sticker is then attached to the recipient's WFP-issued ID card or ration card to minimize the risk of it being lost.
- C. AWCC is the only MNO that provides biometric registration and NFC chips as part of its My Money product offering. Biometric registration captures the fingerprint of the beneficiary to ensure verification of the intended beneficiary. The biometric function is integrated in the POS machine provided by AWCC to all its agents/merchants which allows them to verify and accept payments for the food items purchased by the e-voucher recipient.
- D. Recipients of the e-voucher can use their mobile phone (i.e. mobile wallet) or their NFC tag (provided along with the WFP ID) when making a purchase from the merchant. A pin number is required to conduct the transaction.

1. WFP

- > WFP sends list of names with phone number to AWCC

2. BANK

- > AWCC open a trust account with a commercial bank
- > WFP transfers the funds to a designated bank account

3. AWCC

- > AWCC transfers the funds to individual beneficiary accounts

4. RECIPIENT

- > Recipient receives SMS message on phone that funds have been credited to their My Money account

Registration for E-Voucher Program

After WFP identifies the heads of target households (i.e. the person in each household who is entitled to receive and redeem the e-voucher on behalf of the household), a list of recipients is sent to AWCC who initiates the registration of SIM cards and mobile wallet accounts. The recipients are provided training on the use and functionality of the NFC tag and AWCC's

My Money account. They also have their fingerprints recorded in the biometric machine linked to the NFC tag, which in turn, is linked to their My Money account. The recipients are then provided an identity card by WFP (containing their full names, national ID numbers and their My Money account number) with the NFC tag attached to the back of the card. While no mobile phone handsets were provided because all the recipients already had one, AWCC does provide each recipient with a SIM card along with a generic PIN that can be changed by the recipient. A Short Message Service (SMS) is sent to SIM cards once funds are transferred from WFP to AWCC with a message: “You have received AFN2,000 from WFP Afghanistan.” The message also notifies recipients that they can visit the contracted shops to redeem the e-voucher.

Redeeming the E-Voucher

AWCC also provides the selected merchants with the POS device, as well as training on how to use it. These merchants are also equipped with a unique SIM (which is inserted into the POS device) and a My Money account into which they receive the funds owed to them from the redemption of e-vouchers. At the time of the transaction, the recipient touches their NFC tag to the POS device and enters their PIN code. (The merchant is also provided with a generic PIN code in case the recipient is not literate). The merchant then presses the “purchase” key and enters the amount to be redeemed up to the limit of AFN2,000 (US \$34.48). If the amount entered is greater than the balance available to the recipient (i.e. due to a previous transaction), an error message appears along with the remaining balance on the e-voucher. Recipients can also check their balance by sending an SMS to AWCC from their mobile phone. If the requested amount is available on the My Money mobile wallet account, the POS device requests the recipient’s biometric validation, (i.e. fingerprint). The payment is processed once the fingerprint is validated. The POS then prints two receipts: one for the merchant and one for the recipient detailing the transfer time, amount and POS device number on which the transaction took place. WFP also requires the merchant to produce a handwritten receipt detailing the list of the items purchased by the recipient for monitoring and evaluation (M&E) purposes.

1. AWCC

- > AWCC trains merchants on the usage of the POS device
- > AWCC opens a My Money m-wallet account for each merchant

2. RECIPIENTS

- > Recipients redeem e-voucher with selected merchants

3. MERCHANTS

- > Merchants encash the funds from AWCC’s bank account or a transfer is made by AWCC to their bank account if requested

E-Voucher Program Outcomes

In 2014, a total of US \$1,087,103 was distributed via food assistance vouchers throughout the Afghanistan. Of this, US \$343,724 was distributed through e-vouchers to 8,762 households, translating to 61,334 beneficiaries.³³ The original goal for the E-Voucher Program (before funding cuts impacted it) was to distribute US \$961,488 to 8,794 households. However, out of three distributions planned during phase 2 of the E-voucher Pilot only one was delivered due to a cut in WFP’s budget.³⁴

WFP Funding Mechanism

WFP is entirely funded by major and private donors. Each country office starts the year with a zero balance and is allocated a budget based on needs and availability of resources. The reason for the shortfall in funding in Afghanistan is attributed to donor fatigue for protracted emergencies, as well

Achievements of the 2014 E-Voucher Program Compared to Planned Objectives

PROVINCE	ACTIVITY	CP	HOUSEHOLDS		CYCLES		VOUCHERS		TOTAL (USD)	
			PLANNED	ACTUAL	PLANNED	ACTUAL	PLANNED	ACTUAL	PLANNED	ACTUAL
Badghis	ESUP	IRC	1,600	1,574	3	1	4,800	1,574	165,517	54,276
Ghor	ESUP	Afghanaid	444	441	3	1	1,332	441	45,931	15,207
Kabul	ESUP	WFP	603	603	3	3	1,809	1,809	62,379	62,379
Bamyan	ESUP	ADRA	1,500	1,500	3	1	4,500	1,500	155,172	51,724
Bamyan	VST	ADRA	500	497	6	1	3,000	497	103,448	17,138
Kabul	ESUP	ACTED	4,147	4,147	3	1	12,441	4,147	429,000	143,000
		TOTAL	8,794	8,764			27,882	9,968	961,448	343,724

ESUP E-Voucher Expected Reach 2015

RECIPIENT	21,600
VOUCHERS	64,800
BENEFICIARIES	151,200
PROVINCES	8

VST E-Voucher Pilot – 6 Months

RECIPIENTS	13,400
VOUCHERS	80,400
BENEFICIARIES	93,800
PROVINCES	Kabul, Balkh, Samangan, Badakshan, Takhar, Jalalabad, Kandahar

as humanitarian assistance being routed to more visible emergencies, such as the current Syrian conflict. For the first time in a decade, WFP Afghanistan experienced a funding shortfall, not only impacting the beneficiaries who received less assistance than what they were expecting, but also operationally impacting the E-Voucher pilot which was not able to collect the full data set initially planned. Despite this obstacle, the data that was gathered provides a clear indication of the cost effectiveness and appropriateness of the E-Voucher Program for WFP and its beneficiaries.

Next Pilot in Progress

In 2015 WFP implemented another large-scale pilot under the ESUP program. In accordance with WFP internal policies, an open tender process was used to select the most appropriate MNO. The pilot sought to incorporate lessons learned from the first phase of the E-Voucher pilot, including in relation to cost optimization and more systemic collection of data by WFP's M&E team, cooperation partners, and MNO-generated reports for monitoring distribution and post-distribution activity. The pilot allowed WFP to analyze the capacity of the implementation partners across different regions and to demonstrate to donors the cost effectiveness of digitizing food vouchers.

2015 Vocational Skills Training (VST) E-Voucher Pilot in Progress

WFP and AWCC began a new pilot in April 2015 under the Vocational Skills Training program covering 13,400 recipients in Kabul and seven other provinces. The program lasted 6 months providing vocational training to increase recipients' access to the job market in exchange for receiving an e-voucher. The registration and training has been completed for Kabul and disbursement of e-vouchers began in May 2015. The total expected disbursement amount is approximately US \$2.7 million. The budget for this particular program was secured for the full six months of implementation.

Mobile Money and WFP Put Life on a Better Path

Marzia is a 28-year-old Afghan with three children living with her husband in the Dashte Barche area of Kabul. Her husband has a small grocery store that generates a modest income of around AFN 7,000 per month (US\$ 122). With household expenses of AFN 10,000 per month (US\$ 175), the family frequently faces financial pressures which make it difficult to meet their most basic needs.

Marzia had always wanted to help support her family by earning extra household income, however she had only attended school until the fourth grade, and had no income-generating skills. She heard about WFP's Vocational Skills Training program at her local mosque, where WFP had made announcements about the program in partnership with village leaders.

Marzia is now one of 1,738 female trainees taking part in Afghanistan Blind Management – a WFP implementing partner that provides vocational skills training and literacy classes. WFP supports women who participate in these classes by providing a monthly stipend of AFN 2,000 (US \$35) to each participant. These payments are delivered through AWCC's My Money service, allowing recipients to use the provided funds to buy food from designated merchants by way of digital payments. Previously, WFP provided funds through paper vouchers, creating far greater administrative burdens for WFP, and creating a far more time-consuming and insecure process for recipients to collect and redeem their vouchers.

WFP switched from paper vouchers to digital payments, with the encouragement of USAID/FAIDA, to ensure greater transparency, accountability and efficiency for recipients, merchants and WFP itself. WFP started the pilot project with AWCC in Kabul by registering 9,000 recipients in 2014, and extended the pilot in 2015.



4. E-VOUCHER PROGRAM-DESIGN & IMPLEMENTATION

Distribution Process

Prior to the ESUP E-Voucher pilot, the distribution process entailed the CP distributing paper vouchers to recipients monthly. This process would normally take between 1-2 days. With e-vouchers, the process has been reduced to a few hours. The e-voucher reduces security risks as it eliminates the need for staff to go into the field to physically distribute vouchers. It also reduces the burden for recipients of having to physically collect a voucher and safeguard it until use. Lastly, it affords WFP greater flexibility in terms of modifying the voucher value and being more responsive to emergency situations.

Design Process Highlights

- 1. TECHNOLOGY:** AWCC's POS technology, biometric identification and NFC tag is unique in Afghanistan and very relevant to local conditions of insecurity and high illiteracy. If the recipient loses a SIM card, redemption of the voucher is still possible because the recipient can use the NFC tag. If the NFC tag is lost, the recipient can use their mobile wallet by making a transfer using the phone. If the recipient loses the NFC tag, it can be replaced by AWCC by providing the PIN number and ID. The POS devices are battery powered, reducing the risk of going offline due to electricity supply interruptions.
- 2. FLEXIBILITY:** Recipients have the flexibility to use NFC tags or mobile wallet transfers for their transactions with designated merchants. Additionally, the literacy or numeracy level of the recipient does not pose an obstacle to access the voucher. AWCC also offers a 24-hour customer service assistance line to help recipients and answer questions post training.
- 3. SECURITY:** The biometric validation feature of My Money ensures that only the intended person can redeem the voucher, and a faster customer identification process results in rapid service by the merchant. The elimination of cash exchange provides more security for WFP, the recipients and the merchant.
- 4. EMPLOYMENT OPPORTUNITIES:** At least four of the merchants reported hiring additional staff in Kabul and other provinces to meet the needs of a higher turnover of goods.
- 5. QUICK PAYMENT:** Retailers can access their payments faster by either cashing out with an AWCC agent or having funds transferred to their bank account directly, on a daily basis.
- 6. RECONCILIATION:** The finance department of WFP can much more easily reconcile accounts in comparison to paper vouchers.

7. EFFICIENCY:

— E-vouchers are faster to process because CPs and WFP do not need to physically distribute the paper vouchers or collect them from banks, on-the-ground distribution monitoring is eliminated and physical reconciliation of by counting paper vouchers is no longer necessary.

— Printing of paper vouchers is a time consuming and highly bureaucratic procedure due to vouchers being printed outside of Afghanistan.

E-vouchers are also more flexible in terms of value, as WFP is able to change the value of e-vouchers as and when required.

8. TRANSPARENCY: Forgery and fraud is virtually eliminated since all transactions and transfers are recorded in real time, and reports can be produced quickly.

9. EASE OF USE: E-vouchers reduce the amount of time recipients wait to receive funds, and also provide recipients with purchasing power to select the items they need, at the time they are needed, instead of being forced to purchase all goods at once.

10. GREEN: E-vouchers reduce environmental costs because paper use is dramatically reduced.

E-Voucher
Advantages

<p>WFP Efficient, flexible and cost-effective way to deliver humanitarian assistance, with more security and improved transparency, by using new technology such as mobile wallets, POS devices and biometric verification</p>	<p>RECIPIENT Immediately available funds, dignity of choosing food item and having purchasing power, less time waiting in lines for food and introduction to digital finance as a gateway to greater financial inclusion</p>
<p>MERCHANT Increased sales, fewer errors and increased transparency during voucher redemption, efficient transfer of funds by bank, increased security due to not carrying cash to bank and access to new technology</p>	<p>FINANCIAL INCLUSION Boost to local economy and local markets, development of and demonstrated impact of digital finance, increased access to and awareness of financial services and opportunity for MNOs to build services beyond e-voucher payments</p>

Design Process Risks

There are a number of risks associated with the pilots that WFP and the selected MNO partner would need to take into consideration before e-voucher operations are scaled.

1. DIRECT SIM TO SIM TRANSFERS

Though recipients were not informed, their mobile wallet accounts do have the capability to transfer value from SIM to SIM, meaning that recipients could make a transfer from their own mobile wallets to any other mobile wallet, not just the designated merchants' mobile wallet. A small number of recipients did in fact conduct a SIM to SIM transfer when the merchant told them it was possible. It is possible for the MNO to design the transfer system to allow e-voucher transfers from the recipient's SIM only to a designated SIM number.

2. POS DEVICE THRESHOLD

The value of each e-voucher is set at AFN2,000 but the AWCC POS device is set up for a biometric validation only for redemption values greater than AFN1,001. Any lower amount does not require biometric validation. Though recipients were not informed of this technicality (merchants were made aware by AWCC), there is a risk of misuse of the system whereby recipients can redeem voucher for less than AFN1,001 without biometric validation. This threshold can be adjusted down thereby increasing security. Reports indicated though that only 1-2% of the recipients redeemed their E-voucher below the AFN1,001 threshold level.

3. MANUAL RECEIPTS

For monitoring and evaluation purposes, merchants are required to report to WFP a list of all goods purchased with e-vouchers. However, the POS device does not capture the itemized list of purchases and the merchant must create a detailed receipt manually. This procedure is time consuming and carries the risk of manipulation for redemption of non-approved items.



5. STAKEHOLDER EXPERIENCE & PERSPECTIVE

WFP

After several pilots in 2014, the determination to continue with e-voucher operations is strong within WFP, CPs and AWCC, despite the challenges and obstacles faced as a result of funding constraints. A new pilot under the VST program is in progress and another ESUP E-Voucher Program impacting a potential 300,000 beneficiaries began in 2015.

Having the option of e-vouchers in Afghanistan allows WFP to develop flexible and market-driven approaches to humanitarian assistance in a way that hasn't been previously possible. One of the methodologies under review is to introduce e-vouchers that are location-specific and reflect the value of food prices in a particular region, rather than a standardized value of AFN2,000. For example, the food basket price from one location to another may vary due to harvest conditions, conflict or market accessibility. E-vouchers could allow WFP to easily have the MNO change the value of the voucher for different target areas, program and recipients.

WFP is also planning to broaden the e-voucher model to their other activities such as asset creation and take-home rations for school meals that could be implemented based on the availability of funding.

Cost Efficiency

Normally there are two kinds of operational expenses incurred by CPs involved in food distribution programs (whether in-kind, paper voucher or e-voucher): first, in-the-field identification/distribution/registration of recipients, and second, post-distribution monitoring costs. In a paper or in-kind model, the NGO or CP incurs costs identifying recipients, distributing goods or paper vouchers, in post-distribution monitoring. In the e-voucher distribution model the operation costs of the CP are limited to identifying recipients and post-distribution monitoring only. As a result, in an ideal comparison, the CP costs for e-vouchers should be lower than in-kind or paper vouchers. This was not seen in the 2014 pilot as CP costs for e-vouchers also included higher monitoring costs given that WFP was looking to monitor the feasibility and appropriateness of the model during implementation.

The CP costs are usually a variable figure because they are based on the type of project, the target province's remoteness and ease of access to the target population. Naturally, urban centers are less costly in some respects due to their increased accessibility and easier outreach to beneficiaries, but more costly in terms of other operating expenses such as rent. It is safe to assume that operational cost will be lower through the e-voucher system when the one-off monitoring costs associated with the pilot program are removed.

In voucher-based programs another operational expense is Service Provider (SP) costs. This is either a financial service provider fee paid to the bank to redeem the merchants' paper voucher or a service fee to the MNO for electronic transfers of the e-voucher. The costs of the bank/MNO

service fee are usually standardized, based on the number or value of transactions (approximately AFN50, or approximately US \$0.85 per paper voucher redemption). The service fee of AFN35 (approximately US \$0.60 cents) per transfer paid to the MNO providing the technology, registration and training of recipients, POS machines, NFC tags, training the selected merchants and providing a 24-hour call center service to recipients can be considered competitive at less than 2% of transfer value.

One way to improve the cost-effectiveness of e-voucher distribution in future pilots would be designing the flexibility for WFP to use local market prices that change every month rather than the static price of AFN2,000 (US \$34.48) per voucher – an improvement that is expected to result in additional per voucher savings. At April 2015 prices, this would mean a voucher of US \$32.95 in Kabul and US \$29.76 in Herat per voucher. The value of the e-voucher can easily be modified by the MNO based on location and target population, and would ensure that the beneficiaries receive the full value of their entitlement within the local market.

E-voucher distribution also provides external benefits that cannot be calculated financially, such as the recipient having the dignity of choosing the level of spending and food items appropriate for their circumstances, as well as market strengthening by empowering merchants to accept digital payments, which is especially important in rural markets that WFP plans to use in future pilots.

The key lessons drawn by WFP from the 2014 pilots were that e-voucher infrastructure and mechanism work effectively, but because the phase 2 pilot was suspended, further study and analysis is needed to produce a complete data set. Even so, WFP is convinced about the operational and cost efficiency of e-vouchers, and is anticipating further analysis to confirm this in the period ahead.

AWCC

AWCC was the first MNO to operate in Afghanistan with activity beginning in 2002. The My Money mobile money platform was registered in 2011 with the Central Bank of Afghanistan. With 22% market share,³⁵ AWCC has experienced extraordinary growth in the last 13 years. Mobile wallet is a relatively new product line for AWCC, launched in 2013 with investment and technical assistance from FAIDA. The company currently has 35,000 active mobile money users, with 200 agents across 29 provinces. AWCC has conducted pilots with the Afghan government on teacher salary payments and employees of the Ministry of Finance. AWCC also pays approximately 40% of its employees (2,500 people) via My Money into mobile wallets.

AWCC sees “no other option but mobile money” in Afghanistan’s developmental finance landscape since 90% of the population remains unbanked and most financial institutions remain difficult or impossible for people to access. My Money is seen as a natural progression and means of growth for the company, which has 4.5 million mobile phone customers.³⁶

AWCC:
22%
market share
in 2011

My Money:

4.5

MILLION

mobile phone
customers

AWCC's current fee structure yields AFN35 to AFN100 (US \$0.60 to US \$1.70) per transfer, but, the volume of transactions remains low. However, AWCC has a number of pilots in the pipeline and recognizes the tremendous potential for growth, especially as WFP ramps up its current pilots and the government of Afghanistan is expected to transition more civil servant salaries to mobile wallet payments beginning in 2015.

AWCC is confident in its product differentiation and vision of a "national company, national solutions" for My Money. It plans to distinguish itself from the three other MNOs operating in Afghanistan by focusing on mobile wallet products that are appropriate to the context of Afghanistan, specifically, by offering POS devices with biometric identification and NFC tags tailored to the ground realities of over 60% illiteracy. AWCC wants to use the most advanced technology but make it simple enough for anyone to be able to use, regardless of literacy levels.

Flexibility in working with a small number of recipients that initially wasn't a high profit-generating proposition for AWCC was another reason for WFP to choose AWCC. AWCC wants to grow its mobile money platform in the coming years and intends to be the first MNO to sign as a member of the Afghan Payment System (APS), an interoperable payment platform³⁷ for financial institutions and MNOS. Interoperability would allow customers of APS-member MNOs to transact across the various MNO platforms when transferring money or making payments using a mobile wallet. For example, an AWCC mobile wallet customer could transfer money to a customer of another MNO using the mobile wallet. It would not be a requirement in that scenario for both parties to be customers of AWCC, as is the case currently. This would allow for greater convenience and ease of use for customers, contributing to greater scalability of mobile money and financial inclusion.

The biggest challenge to the growth of mobile money in Afghanistan is the low level of general public awareness about the benefits and uses of mobile money. This observation was also supported by a 2013 survey of the mobile money sector conducted by Altai Consulting. During the registration and training phase, AWCC noted that some recipients only associated a mobile phone with calling and initially could not believe the same device could be used for money transfers. Aggressive information and public awareness raising activities would help overcome this key obstacle to the growth of the sector.

AWCC's experience in terms of gender participation was that although female recipients needed extra training, they were overall good listeners, followed instructions, took better care of their handsets and were careful not to lose their PINs or divulge them to anyone else. One of the lessons learned for AWCC was that future training will include female trainers to help female recipients feel more comfortable asking questions. AWCC also noted that 60% of female recipients changed their PINs from a generic number to an individualized number, as opposed to 30% of male recipients.

FAIDA

FAIDA is a USAID-funded project, implemented by international development company Chemonics,³⁸ which commenced in 2011 to promote access to finance and mobile money in Afghanistan. The program launched a US \$5 million dollar innovation grant fund for mobile money that included grants to the MNOs to establish infrastructure for mobile money services.³⁹ FAIDA has provided technical assistance to MNOs to help develop and introduce new mobile wallet products and services.

The process for FAIDA has not been without challenges. FAIDA not only had to overcome skepticism that mobile money could work in Afghanistan, but also faced a number of challenges such as a regulatory obstacles regarding the transfer of civil servant salaries, technical integrations between MNOs and commercial bank databases, and contract negotiations between banks and MNOs. Despite these challenges, it has made significant progress in just a few years. FAIDA has supported three of the four major MNOs (Roshan, Etisalat and AWCC) with a total investments thus far of US \$3.1 million in their mobile money platforms. The fourth MNO that FAIDA supported, MTN, suspended the establishment of its mobile money platform due to internal technical issues.

To date, FAIDA attributes approximately 100,000 mobile wallet accounts as a result of the USAID funded assistance, although not all are necessarily active. The largest difference between opened accounts and active accounts is due to Etisalat's M-Hawala mobile money accounts for electricity bill payments. Out of 86,000 mobile wallet accounts, only 2,900 are active users.⁴⁰ Nevertheless, the overall number of active mobile money accounts as a result of pilots and new initiatives is higher than it was in 2010 when only a few hundred police officers were receiving their salaries via mobile money.

Overall, given the difficulties that FAIDA faced creating an enabling environment for mobile money, WFP and AWCC has encountered surprisingly few obstacles in terms of technology requirements or contract negotiations from FAIDA's perspective. Since bank account linkage was not a requirement for this pilot, and contract negotiations and systems integration was not an issue, implementation could be started almost immediately after WFP chose AWCC as a partner. Also given that AWCC was the only MNO that met WFP's requirement of having POS technology, the selection process was relatively easy.

Recipients

Shortly after the first pilot conducted in Kabul for 603 recipients between April and May 2014, WFP completed a survey of 25% of the recipients (randomly selected) to gauge their preferences on receiving their payments electronically or otherwise. An overwhelming 82% of those surveyed preferred e-voucher payments in comparison to in-kind or cash. Nearly 100% of the respondents reported having a seamless customer experience when redeeming e-vouchers and received the same treatment

Survey 2014:

82%

preferred
e-voucher
payments

E-voucher survey: beneficiary preferences



as other customers in the shop.⁴¹ Respondents also valued the voice that e-vouchers presented in how and when to spend their money, including the option to save a portion for future purchases of goods. In fact, in the first two disbursement rounds, recipients typically redeemed the full amount of the voucher, but by the third disbursement round, up to 10% of the recipients redeemed through two separate transactions.

Traveling to the designated merchants was not an issue since they were chosen to be in close proximity of the e-voucher target population, so the travel cost and time was the same for the recipients as if they were redeeming a paper voucher. However, in Ghor province, some recipients did complain about losing a whole day traveling to a merchant, but this also reflects the remoteness of the province, such that a merchant that met WFP's criteria may not have existed nearer to the target population. In some areas ethnicity of the merchant was an issue, but not in areas where the population is more homogenous.

Merchants

All merchants were selected by WFP based on the criteria of location near target beneficiaries, ability to access and hold stock in the required volumes to meet demand from e-voucher recipients, literacy skills and having a formal business license. Merchants did not incur any costs in regard to paying for POS machines or accessing their money, with access fees waived by AWCC. Merchants reported that they did not experience any network problems during the pilot phase. A few merchants in Ghor province did experience delays with bank transfers mainly caused by the fact that AWCC's bank did not have a branch located in Ghor and AWCC had to use a different bank to send the transfers. Overall, the merchants experienced very few problems in Kabul during the pilot phase, and were satisfied with both the service provided by AWCC and the speed with which they received their funds.

There were only a few minor cases, involving about 5% of beneficiaries, where fingerprints could not be read by the biometric function of the POS machine because the recipients were elderly or had sent a representative who was not previously registered to redeem the e-voucher. In instances when neither one of the thumb prints work on the POS machine, recipients used their PIN codes to make two AFN1,000 purchases, as the POS machine does not ask for biometric identification for amounts less than AFN1,001 as noted previously in the Risk section of the case study.

The biggest challenge for merchants was to handle hundreds of e-voucher recipients all coming to the shop same day as the voucher was issued. Not only were the merchants overwhelmed, but it also created longer waiting periods for the recipients to make their purchases. In Kabul 16 merchants were selected, equating to an average of 346 beneficiaries per shop.

Key Lessons

1. **WFP will address E-Voucher Program costs** in several ways: a) re-negotiate the operation cost with CPs to reflect the reduced workload in the distribution of e-vouchers in comparison to the paper vouchers; b) in anticipation of a scenario in which funding is reduced mid-disbursement cycle for the 2015 pilot, WFP will negotiate fixed and variable operations costs with CPs, based on the number of disbursement cycles and the availability of funding; and c) negotiate with the selected MNO to be paid a percentage of transfer value, as opposed to a fixed cost per transaction, enabling WFP to take advantage of volume-based cost savings.

2. For monitoring, evaluation and reporting purposes, WFP should have access to a **web-based platform** in order to track distribution of e-vouchers to recipients and their usage in real-time.

3. Reimbursement to merchants in remote provinces, where bank branches may not be accessible, should be anticipated by **linkages with MNO agents** who can provide affected merchants with their money within a reasonable time. In addition, the MNO could set up a bank account with a bank that has a wider network of branches in the targeted provinces.

4. **Increased training of CPs** in providing the partner MNO with the complete set of required documents and information about target recipients is needed to prevent delays in the process of registering recipients.

5. In order to prevent merchants' quality of service from suffering, **the number of merchants should be increased** to attain a ratio of 130-150 recipients per merchant. This will also reduce waiting periods for recipients to purchase food. In the event that WFP cannot identify an adequate number of merchants, a staggered e-voucher distribution system could be implemented to a limited number of merchants in the area, thereby avoiding bottlenecks caused by a high volume of recipients redeeming their e-vouchers at the same time.

6. Elderly or disabled recipients (who may have difficulty reaching designated merchants) should be allowed to have an **authorized representative** register their fingerprints at the time of registration, enabling that representative to redeem the e-voucher on the elderly or disabled person's behalf.

7. In the event that a POS machine may not be able to connect to the MNO's server, the use of **mobile wallet accounts** could be promoted to merchants and recipients thereby avoiding delays during the redemption of the e-voucher.

8. A more robust and targeted **monitoring and evaluation plan** should be implemented to track consumption patterns for all e-voucher recipients compared to paper voucher recipients. It will also be important to look at consumption from a gender perspective in order to identify obstacles and challenges of voucher redemption by women who may not be mobile enough to travel to a merchant's location.

6. E-VOUCHERS & AFGHANISTAN'S DIGITAL PAYMENTS ECOSYSTEM

The mobile money sector in Afghanistan has overcome its nascent stage within five years of its inception. The initial steps of building a digital payment ecosystem and the required components to build a scalable mobile money sector are in progress. The launch in 2010 by Roshan of mobile wallets to pay police salaries was the first opportunity to test the potential for mobile money in Afghanistan, and was also the first time the public was introduced to mobile money payment through consistent marketing on TV and radio advertising by Roshan. Since then FAIDA, supported by USAID, has invested in Afghanistan MNOs to build their technology infrastructure, and has worked with the government to encourage utility payments and civil servant salaries payment with mobile wallets.

The mobile money sector in Afghanistan now is in a defining stage and set to grow for several reasons: MNO players are eager to scale; the general public in major cities has greater awareness of mobile money features and benefits; interoperability is foreseeable in the near future with APS scheduled to go live by the end of 2015; numerous pilots and testing have been conducted; and the new government has committed to transparency and is keen to use mobile wallets for salary payments of civil servants. According to FAIDA, "when appropriate systems are in place, the demand for mobile money technology services is expected to grow exponentially, because it brings more convenience to users and saves time. The Afghan Government's adoption of mobile money payment systems will be a game changer in terms of improving transparency and reducing corruption within the government. Electronic payment programs can give people an on-ramp to greater financial access while providing governments a more efficient, transparent and safer means of disbursing benefits like salary and pensions."

WFP's Role in Digital Financial Inclusion

WFP's primary goal in their food assistance program is to ensure that beneficiaries receive their e-vouchers in the most cost-effective and efficient manner possible. WFP's preference for the closed loop system not only meets their need to restrict the e-voucher to approved food items, but also removes technical barriers through the NFC chip technology while safeguarding transparency and security with the use of biometric verification. However, it is very important to note that WFP is also contributing to the broader goal of advancing financial inclusion in Afghanistan by acting as a catalyst to introducing digital and mobile money to thousands of beneficiaries who may have never been inclined or able to use their mobile devices to access financial services otherwise.

As WFP expands its program to additional provinces and a high number of recipients,⁴² there is potential to reach hundreds of thousands of new recipients. In 2015 alone, WFP will introduce digital payments to more than 35,000 new recipients, which translates to approximately 245,000 beneficiaries or household members that will also gain familiarity with digital and mobile technology features that they didn't have before.

Humanitarian aid organizations like WFP and other NGOs in Afghanistan (such as the International Relief and Development Organization, the World Health Organization and the Aga Khan Development Network) who are testing this new platform for aid delivery are making a significant contribution to building a digital payment ecosystem in Afghanistan. Introducing people with low incomes and the unbanked to a new way of using money is more effective than being exposed to an advertisement that may not be convincing in the first instance.

Allowing for a seamless first-use experience is a necessary building block for encouraging further usage and thereby facilitating greater financial inclusion. Although the WFP only introduces recipients to the use of an e-voucher, given the number of people reached, the potential for offering other financial products and services is significant. This represents considerable progress compared to the state of the sector just five years ago.



Moving From E-Voucher to Digital Financial Inclusion⁴³

With the mobile money sector in the early stages of growth, the challenge for the MNO partnering with WFP is how to unlock a one-product ecosystem for their newly gained clientele and offer them a more complete and adapted portfolio of digital finance services. While the recipient is participating in the WFP program, the only transactions they perform are related to purchasing food items from designated merchants. However, MNOs have a unique window of opportunity to leverage this WFP client base for other financially inclusive products and services.

E-TOPUP SERVICES: Currently, 93% of mobile users have prepaid accounts.⁴² The most common method of topping up is to purchase a top-up card from an authorized agent, however, there is clearly scope to sell E-TopUps remotely.

- Recipients can purchase airtime directly thanks to their mobile accounts.

MONEY TRANSFER: Transferring money between mobile wallets is currently limited to within the network of an MNO. However, given that each MNO has millions of clients, the benefits of money transfers within their own network is a valuable service, such that offering it at a low cost will encourage uptake and familiarity with digital means of transacting.

UTILITY BILL PAYMENT: All three of the MNOs with mobile wallet capability in Afghanistan have agreements and system integration with the national electricity provider. Encouraging their clients to make their utility payments by mobile wallet is another way to continue the relationship with WFP e-voucher recipients after they have exited the E-Voucher Program.

MICROFINANCE LOAN RE-PAYMENTS: There are a total of 170,493 active microfinance borrowers in Afghanistan⁴⁴ at present. Two MFIs are currently offering loan re-payments from a mobile wallet. It is quite possible that current MFI clients live in the same proximity as the WFP target groups. Since a merchant network has been established in numerous districts for the WFP program, merchants could be trained as agents and leveraged to accept loan repayments of clients from MFIs that have agreements with the relevant MNO.

STAKEHOLDER ALIGNMENT

FAIDA has helped align stakeholders, including MNOs, banks, government and service providers to create the building blocks of a digital payments ecosystem.

REGULATORY STANDARDS

Afghanistan has had an established EMI Regulation since 2008. All MNOs are required to obtain a license from the Central Bank to operate as an e-money institution.

GOVERNMENT ROLE

The Ministry of Finance has been actively supportive of promoting salary payments by mobile wallets. The new government administration has established a Digital Finance Committee to oversee salary payments of civil servants.

USER EXPERIENCE

ATM cards followed by mobile handsets are the primary channels for digital finance, with a smaller group using NFC and POS devices. Most users in city centers with bank accounts have access to ATM machines.

NETWORK

The overall ecosystem remains contained within the platforms of the MNO internal structure. Interoperability has not yet been achieved to provide an open and accessible channel for all users.

These are just a few of the ways that a one product offering such as the WFP e-voucher could be enhanced with a more diverse portfolio of financial products and services to drive uptake and usage. Needless to say, it would require effort and investment from MNOs to cultivate a relationship with clients after they exited the WFP E-Voucher Program. However, this would not be a difficult task, given clients would already be registered and trained with a mobile wallet, and may even be using the concerned MNO SIM card for calling services. The MNO would have to continue to expand its agent network in proximity to the target WFP recipients, and ensure that agents are well incentivized and maintain the liquidity necessary for offering services without disruption.

The Future of Mobile Money in Afghanistan

Interoperability and the ability of banks and MNOs to communicate and exchange information across a common platform will be a significant factor in how quickly scale can be reached in Afghanistan's mobile money sector. Interoperability in the mobile money sector is not something easily achieved in any market, because MNOs bank on mobile money services to reduce churn and increase client loyalty and are therefore reluctant to share their client data. However, for Afghanistan to foster a viable and scalable mobile money sector and advance the broader goal of financial inclusion, it must overcome the interoperability barrier.

APS, supported by the World Bank and USAID, intends to create a consortium of banks and MNOs whose customers will have the technological capacity to conduct financial transactions such as money transfers from one MNO mobile wallet to mobile wallet outside of the own MNO's network. APS is expected to go live by end of 2015 and, thus far, two banks have expressed intent to become members. AWCC intends to be the first MNO to join. Of course for interoperability to be effective, more than one MNO will need to be part of the consortium. Although these are early stages, the fact that MNOs are now working with NGOs, governments, MFIs and private sector companies is illustrative of momentum in the mobile money sector. Collaboration led by APS will be the next step in the evolution of the sector towards a more open and robust system.

Interoperability could also be established via a non-exclusive agent network where agents will be able to provide services for more than one MNO, as is the case in some West African countries. The risk associated with this arrangement is that agents could push the customer towards using one MNO over another depending on the commission structure and level of MNO support they receive.

Alternatively, another source for exclusive and non-exclusive agents, unique to Afghanistan, could be the Hawala dealer network. Not only are they embedded in many communities and therefore have an extensive network, but can also help overcome liquidity challenges which are among the major issues currently facing the agent network. Since the Central Bank of Afghanistan requires agents to be licensed, this could be an opportunity to bring more Hawala dealers into the formal financial system. A risk analysis of using Hawala dealers as agents would be helpful for MNOs to avoid potential pitfalls in the future, and to build a stronger Hawala agent network.

While the future of the mobile money sector in Afghanistan remains bright, a significant challenge that will need to be addressed is the general lack of public awareness about the convenience and benefits of mobile wallets. In fact, in a study conducted in 2013,⁴⁵ 58% of participants indicated they had no awareness of mobile money services, but 56% of participants who are not users of mobile wallets said they would consider subscribing if they had more information. This indicates a valuable opportunity for mobile wallet providers to educate the public about the safety, convenience, transparency, speed and overall value proposition of mobile wallets.

Given the focus and contribution of both national entities and international organizations to the mobile money sector in Afghanistan, stakeholders remain positive about the potential for growth in the sector, and the greater financial inclusion that the sector can bring to the country's unbanked and underbanked populations.

Overall, there is a clear need to continue developing Afghanistan's digital payments ecosystem. The table to left illustrates the required components that lead to an ecosystem that can successfully scale digital finance, as well as their current status.

7. CONCLUSION

Afghanistan is one of the poorest countries in the world, with 90% of its population unbanked, yet the country is on the path to developing a mobile money sector that has the potential to reach millions of people in the future. No doubt a critical mass of users is necessary to make mobile money more widely effective, and to bring more Afghans into the formal financial system. The financial sector landscape has overcome many challenges and WFP's initiative to launch an E-Voucher Program would not have been possible without a rebuilt banking sector and a growing digital finance infrastructure with several of the necessary actors in place.

WFP's E-Voucher Program is the largest effort in the country to date to introduce digital finance to thousands of people across several provinces. WFP's decision to significantly scale the number of recipients in the new 2015 pilots are a testimony to benefits of digital finance for WFP, MNOs, banks and most of all the recipients who would not have otherwise had access to digital finance.

The development of a digital payments ecosystem is complex and requires a range of components to work collaboratively. In Afghanistan, the sector needs to be further developed to achieve its potential. However, with the government intent on digitizing civil servant salaries, humanitarian organizations increasingly considering this new model of service delivery, MNOs expanding their agent networks and delivering new innovations and technologies, the future of mobile banking - supporting a more inclusive financial sector in Afghanistan - looks promising.

Acronyms

AFN	Afghani Currency
AKDN	Aga Khan Development Network
ALP	Afghan Local Police
AWCC	Afghan Wireless Communication Company
CP	Cooperation Partner
CSTC-A	Combined Security Transition Command-Afghanistan
DFI	Development Finance Institute
EMI	Electronic Money Institutions
ESUP	Economically Stressed Urban Population
FAIDA	Financial Access for Investing in the Development of Afghanistan
GDP	Gross Domestic Product
GNI	Gross National Income
GSMA	Groupe Speciale Mobile Association
IRD	International Relief and Development Organization
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MNO	Mobile Network Operator
NFC	Near Field Communication
NGO	Non-governmental Organization
NUG	National Unity Government
POS	Point of Sale
SIM	Subscriber Identity Module
SMS	Short Message Service
VST	Vocational Skills Training
WFP	World Food Program
WHO	World Health Organization

List of Interviewees

NAME	TITLE	ORGANIZATION
Bahir Ahmad	Deputy Operations Manager	New Kabul Bank
Faridullah Mirzad	FMIS/Budget Development Manager	Ministry of Education, Islamic Republic of Afghanistan
Guillemette Sidoni Jaffrin	Finance and Markets Global Practice	World Bank
Liaquat Ali Shad	Manager, Strategic Projects and Business Development, M-Paisa	Roshan
Maseehullah Qadeer	Branchless Banking and Mobile Money Team Leader	FAIDA
Mohammad Aqa	Director General of Treasury	Ministry of Finance, Islamic Republic of Afghanistan
Nargis Nehan	Advisor to the President, Digital Finance Committee	Administrative Office, Islamic Republic of Afghanistan
Nathalie Lahire	Senior Economist	World Bank
Saeed Haris Hashemi	Senior Project Manager	AWCC
Said Naim Sadat	Treasury Coordinator	Ministry of Finance, Islamic Republic of Afghanistan
Samuel Clendon	Programme Officer, Cash and Voucher	World Food Program
Sayed Jan Saeed	Chief Operating Manager	New Kabul Bank
Zaheer Bawar	Managing Director	Afghanistan Payment System

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Endnotes

1. An electronic voucher (e-voucher) in this paper refers to the digital product by which funds to purchase food are delivered to recipients and redeemed using mobile phone technology as opposed to a paper voucher.
2. Facilitated by USAID's Financial Access for Investing in the Development of Afghanistan (FAIDA) program.
3. The mobile money platform was registered in 2011 with the Central Bank of Afghanistan under the subsidiary ABMMC, wholly owned by AWCC.
4. World Food Program, Short Analysis of E-voucher, 2014.
5. <http://data.worldbank.org/country/afghanistan>
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12. SIGAR, Economic and Social Development Report, 2015.
13. International Finance Corporation, Mobile Money Scoping Country Report: Afghanistan, 2013.
14. Afghanistan Telecom Regulatory Authority, <http://atra.gov.af/en/page/telecom-statistics-2013>.
15. Afghanistan Telecom Regulatory Authority, <http://atra.gov.af/en/page/telecom-statistics-2013>.
16. <https://gsmaintelligence.com/markets/10/dashboard/>
17. The World Bank Findex Database 2014 study found that less than 1% of the population has a mobile account, however MNOs are reporting higher figures.
18. Altai Consulting, Market Research on Mobile Money in Afghanistan, 2013.
19. Interview with Roshan representative.
20. Interviews with representatives of the Ministry of Finance, Government of Afghanistan.
21. Exchange rate \$1USD = AFN58.
22. Memorandum of Understanding provided by Ministry of Finance, Government of Afghanistan
23. <http://www.afghanwarnews.info/police/afghanlocalpolicealp.htm>
24. Six Degrees of Mobile Money in Afghanistan, 2012.
25. Interview with representative of Digital Governance Committee.
26. WFP, Capacity Development in Support of the Strategic Grain Reserve in Afghanistan, 2014.
27. WFP, Islamic Republic of Afghanistan, Protracted Relief and Recovery Operation, 2014-2016.
28. WFP, E-Voucher Review - Kabul and Herat, 2015.
29. WFP, Cash and Vouchers for Food, 2014.
30. Food aid refers to transporting and distributing food in-country. Food assistance refers to providing people with the purchasing power to buy food already available locally.
31. USAID, FAIDA Fact Sheet, December 2012. <http://goo.gl/tBvxvB7>.
32. Based on interviews conducted with WFP, Afghanistan.
33. WFP counts household size in Afghanistan as 7 people.
34. WFP, E-Voucher Review - Kabul and Herat, 2015.
35. Interview with AWCC representative.
36. IFC Mobile Money Scoping Country Report September 2013.
37. The APS has been in development since 2011 and is scheduled to commence at the end of 2015 with the support of the World Bank. Currently APS is in the process of establishing a data center. Banks and MNOs are eligible to become shareholders at a cost of US \$250,000.
38. Chemonics is an international development company that has been contracted by USAID to implement the FAIDA project.
39. <http://www.chemonics.com/OurWork/OurProjects/Pages/Financial-Access-for-Investing-in-the-Development-of-Afghanistan.aspx>
40. The actual figure for active accounts for the overall sector is higher since MNOs also pay some of their employees via mobile payments and have their own mobile money clients outside of the FAIDA-funded initiatives.
41. A. WFP, Short Analysis of E-Voucher, 2014.
B. New recipients are constantly being included in the program because recipients change seasonally and annually.
42. <https://gsmaintelligence.com/markets/10/dashboard/>
43. During the latter stages of the preparation of this Case Study, the WFP transitioned payments from E-Vouchers to mobile money transfers for around 70,000 food assistance recipients in Afghanistan. According to FAIDA, this transition demonstrates the efficacy of the E-Voucher Program as a gateway to greater use of mobile money, and hence greater digital financial inclusion.
44. <http://ama.org.af/index.php/en/>
45. Altai Consulting, Mobile Money in Afghanistan, 2013.

The Better Than Cash Alliance Case Study Series

The Better Than Cash Alliance case study series seeks to highlight specific examples of shifts to digital payments by governments, companies and international organizations. Each case study documents the extent of the shift and the factors that have helped or hindered it, in order to provide insights which are relevant to a wide readership interested in how to shift from cash to electronic payments.

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The Better Than Cash Alliance is a partnership of governments, companies, and international organizations that accelerates the transition from cash to digital payments in order to reduce poverty and drive inclusive growth. Based at the United Nations, the Alliance has over 50 members, works closely with other global organizations, and is an implementing partner for the G20 Global Partnership for Financial Inclusion.