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# Blurb

Dear readers,

With more and more payment transactions going digital, 2018 promises to be another crucial year for growth of digital payments. We take a closer look at the growth drivers of digital payments in 2018 in the first article “What to Expect in Digital Payments in 2018”

In the second article “The Rise of China’s Cashless Society” we turn the spotlight on China and explore how it is becoming the global flag bearer for digital payments economy.

Next, in the article “Mobile Money Interoperability” we discuss how service providers, regulators and industry bodies are working towards achieving interoperability to realize the true potential of mobile money.

And, finally, in the article “Moving towards a Mobile Money Revolution in Afghanistan” we turn our attention to Afghanistan to look at how mobile money can help in rebuilding the economy of this war ravaged country.

I hope you enjoy reading our articles like we enjoy writing them for you.

Happy Reading!

**Srinivas Nidugondi**

SVP and Head of Mobile Financial Solutions  
at Mahindra Comviva

WHAT TO EXPECT IN

# DIGITAL PAYMENTS

IN 2018



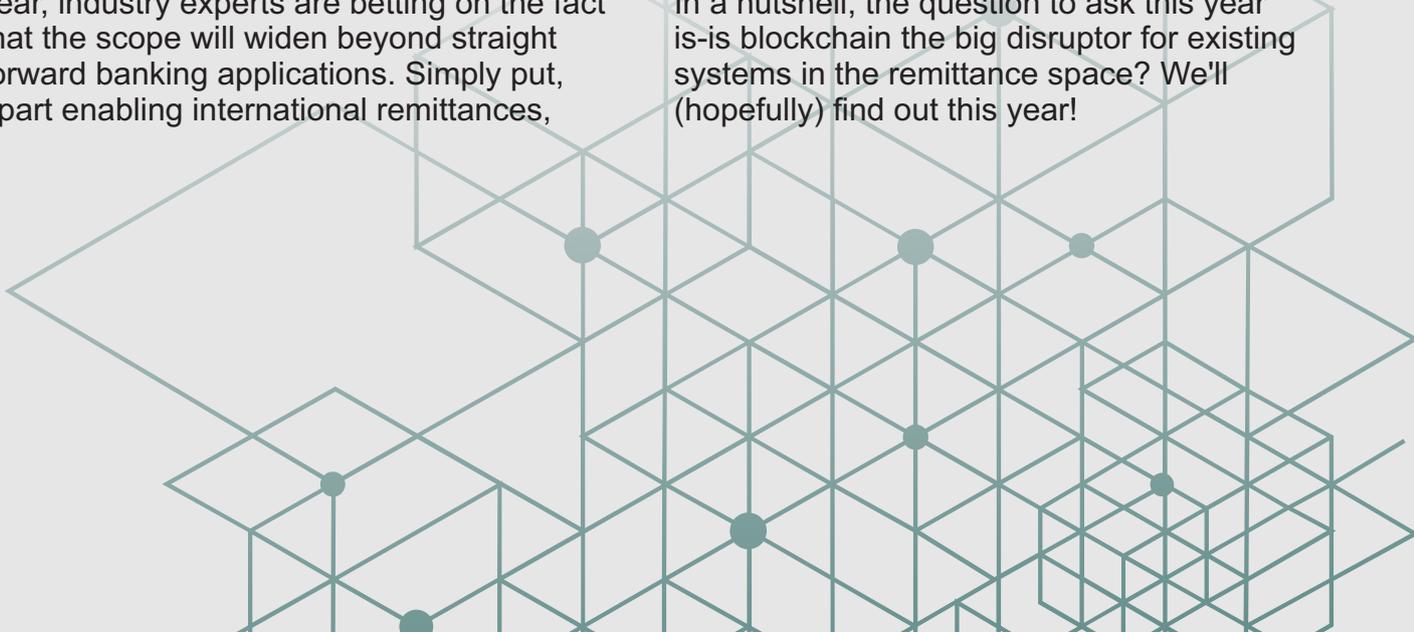
— Srinivas Nidugondi

The silly season is upon us, once again. It is, essentially, that time when one looks back and reviews the successes and failures of the previous year. It is also when one tries their hand at predicting the trends that are expected to leave the digital payments space spellbound. Or not, of course. Needless to say, if last year is anything to go by, one can safely assume that 2018 is set to witness a fair amount of activity. Now, onto the main feature...

## EVERYTHING'S COMING UP BLOCKCHAIN

Blockchain continued to excite and evoke curiosity (and no, I am not talking about bitcoin) in 2017 and this year promises to be no different. Here's how-in so far, all deployments to date have focused on the remittances, trade finance and insurance segment. This year, industry experts are betting on the fact that the scope will widen beyond straight forward banking applications. Simply put, apart enabling international remittances,

insurance management I see newer applications including contracting becoming mainstream. However, I believe that for small value payments there may yet not be any major advances. So (surprise, surprise), blockchain is everywhere data needs to be shared. In a nutshell, the question to ask this year is-is blockchain the big disruptor for existing systems in the remittance space? We'll (hopefully) find out this year!



# ROBO-ADVISORS

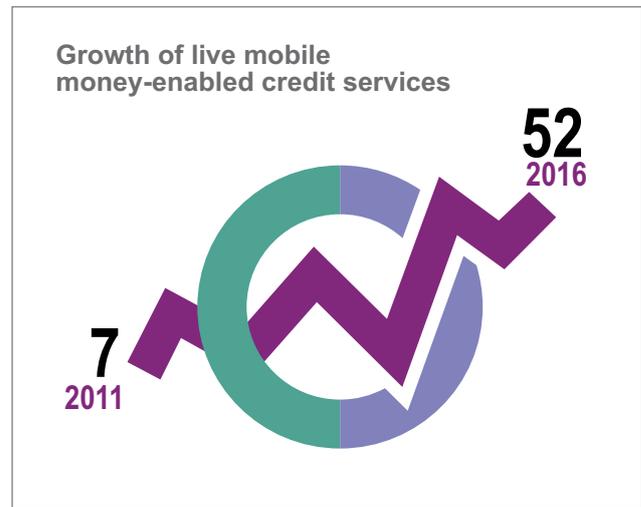


Robo-advisors are just about finding their feet in the fintech world, despite being around for nearly a decade. Now, let's be objective—what's there not to like in a software-based platform performing the role of a financial advisor? After all, the integration of artificial intelligence (AI) into portfolio management software offers several advantages—both in terms of saved time and gathering data and interpretation of the same. With zero human intervention, financial services are available at any time of the day, all based on the customer's propensity for risk in new and existing investments. Sounds viable? In any

case, this technology isn't shifting out of focus anytime soon, what with robo-advisors under full control of AI systems pegged to reach \$987 billion per annum in assets under management (AUM) by 2022, as per Juniper Research. Just a brief side-note, this forecast refers to “hybrid” robo-advisors, which, as per Juniper, will dominate 66 per cent of global robo-advisory AUM in 2022. In other words, the input of a human advisor will play a key role, primarily to mitigate a customer's fears of leaving financial decisions in the hands (or design, in this case) of an algorithm. Ironic, isn't it?

# THE LENDING STORY

Now, this is one area which witnessed a lot of activity in the past year. Wait, permit me to rephrase-I mean the small and medium enterprise and business loans side. The consumer side is booming (of course), all fueled by the basic need to bring more customers into the financial fold. In so far, the story seems to have gained traction-what with 52 live mobile money-enabled credit services in 2016, up from seven services in 2011. It doesn't end there, of course. With AI as the backbone powering the calculation for credit eligibility criteria, rating, etc, expect this segment to make headlines. And why not? Several small players have forayed into this field, both in the consumer and commercial segments, with the sole purpose of addressing the demand for credit services. Needless to say, these services have, more often than not, relied on machine learning and big data to assess credit risk. The result? Better and more streamlined services to customers who need it the most! In fact, on the same note, going forward, we expect to see the demand increase significantly, primarily from enterprise customers. Going a step



forward, emerging markets (where mobile money has firmly carved a niche) are set to witness the leveraging of mobile-based information. The bottom-line? To help in decisions related to credit. Having said that, however, players who will focus on overall customer engagement and leverage technologies including machine learning will lead the pack.

AI is, clearly, set to play a very important role in all things mobile credit and loans-related!

## AUGMENTED REALITY VIRTUAL REALITY

Waiting in the wings



It wouldn't be an understatement to say that augmented reality (AR) and virtual reality (VR) have transformed our world. In the financial services space, though, it is still waiting in the wings. So, instead of extolling on the virtues of this technology, let's examine what it can do in this space. First and foremost, I firmly believe that players in the payments ecosystem ought to give this technology the leverage it deserves. After all, it provides ample opportunities for these players to anticipate and keep pace with the customer's

ever-changing, ever-evolving requirements. Not just that, it could present a viable channel for these players to differentiate their offerings, thereby catching (and retaining) the interest of millennial and younger customers. After all, isn't that the bottom-line?

Just a quick side-note, Goldman Sachs has estimated the AR/VR space to be pegged at \$80 billion by 2025. Clearly, not a flash-in-the-pan technology, this!

# PAYMENTS GALORE

Last but certainly not the least, let's talk payments. It's quite straightforward, really. I believe that consolidation of various payment systems will take place in a significant way, encompassing the mobile handset, cards, online payments, in-application payments, and the whole lot. Naturally then, players who offer a consolidated view in this regard will clearly have an edge over the competition.

Now, let's be more specific. In the Indian context, there has been a lot of buzz around using Aadhar for payments at physical point-of-sales. However-and I don't mean to burst this bubble-I do not see it taking place in the near future, at least. On the other hand, the leveraging and deployment of a unified payments interface (UPI) will continue to surge. Here's evidence to support this-as per Morgan Stanley's Tracking Digital Payments report, UPI's contribution to digital payments has increased to 5 per cent (in the second quarter of 2017-18) versus 3 per cent in the previous quarter and 1 per cent in 2016-17. In fact, on a monthly basis,

that number has already reached 13.8 per cent, as per data released by the Reserve Bank of India for December. Clearly an up-and-comer, this!

On the same note, QR Codes, I believe, will slowly but surely find themselves in main stream payments. In so far, china, India and South East Asia has been a success story in this regard-wherein QR Codes have gained significant traction. Eventually, the ambit is expected to enhance significantly in 2018, with markets like Africa are expected to jump onto the bandwagon as well. Signs are already in place, with Safaricom launching QR codes and mVisa and Mastercard QR pushing the use of QR Codes in developing countries.

2018 clearly promises to be an eventful year for the digital payments space. A word of caution-while extensive lists of what will be at the forefront this year are doing the rounds, it is still too soon to say for sure. One thing's certain, though-the industry ought to buckle up-interesting times lie ahead!





**About the author: Srinivas Nidugondi** has over 20 years of experience in various industries including financial services, payments and commerce in a variety of business and product related roles and most recently with a specific focus on enabling banking, payments and related services through digital channels. At Mahindra Comviva he heads the Mobile Financial Solutions business unit, which currently has over 130 deployments globally, providing services for more than one billion consumers.



# THE RISE OF **CHINA'S** **CASHLESS SOCIETY**



— Manoj Machiraju

If we look at China probably 6-7 years back, it was cash that ruled, with only a few people using cards and mobile payments. But, today, if we talk about mobile payments, the first country that comes to our mind is China. There was a swift and big jump in the way the Chinese handled their day-to-day financial transactions. Without even getting used to plastic cards, many Chinese jumped directly to mobile payments apps for shopping to eating to travel to booking tickets.

This quantum shift has been facilitated by two major Chinese companies – **Ant Financials** and **Tencent**. Both of them came up with their own versions of mobile payments apps for day to day payments as well as electronic money transfers using a mobile phone. Since then, mobile payments have grown to \$ 5.5 Mn which is 50 times the size of the same in US market. Though this is such a big opportunity in China, only Alipay and Wechat Pay hold 94% of the market share, as they have leveraged their existing market for mobile payments.



## However, Alipay and Wechat Pay have different success stories.

While Alipay rode on Alibaba group's monopoly in e-commerce market by offering Alipay wallet to Alibaba customers, Wechat Pay took advantage of its large Chinese consumer base on the popular Wechat messaging app. Close to 75% of the users spend at least 1 hour on Wechat app on a daily basis. This user stickiness to Wechat helped it grow very quickly in its Wechat Pay business and catch up Alipay. Today, Alipay is holding 54% of the market share while Wechat Pay holds little above 40%.

### The success of Wechat Pay can be attributed to its launch of "Red Packets" in 2014.

It capitalised on the Chinese tradition of sending gift cash to friends and relatives during the Chinese New Year. With "Red Packets", the process of sending gift cash has gone digital. People simply exchanged Red Packets on Wechat Pay platform. It was received well by Chinese consumer and the number of red packets exchanged reached 1 billion by 2015 and 14.2 billion by 2017. This explosive growth of red packets helped Wechat Pay to double its market share within 3 years. Though Alipay followed the suit later, it had already lost the first mover advantage by then.

The difference in the type of transactions that happen through both Alipay and Wechat Pay

stems from the businesses they were in earlier. While Alipay records more number of high value, low volume merchant payments, Wechat Pay records more low value and high volume P2P transactions. As Wechat Pay also has "social" element embedded in it, it has more monthly active users (~ 700Mn) compared to that of Alipay (~ 500Mn).

However, there are many similarities in the offerings made by both the players. Any fintech player across the globe will definitely get something to learn from the success stories of Alipay and Wechat Pay. Firstly, both use QR code to pay or receive payments. It is an important differentiation since scanning by QR code is contactless. Unlike in card payments, where the consumer has to hand over his card to the merchant, In QR payments there is no need to hand over the card to the merchant. Moreover, it reduces the number of steps involved in paying and makes the payment experience smoother and quicker. Secondly, both the apps allow users to pay for cab booking, bike sharing, food ordering, ticket booking and bill payments. Thanks to the booming mobile payments ecosystem 40% of the people in China carry less than \$16 in cash any time. Most of their needs are met by simply carrying a smart phone with internet connectivity.

### Alipay and Wechat Pay are also popular with Chinese tourists overseas.

They have partnered with multiple payment firms in Europe, North America, South Africa



The number of red packets exchanged reached **1 billion** by 2015 and **14.2 billion** by 2017

and Southeast Asia to help Chinese tourists pay with Alipay or Wechat Pay to merchants when they are abroad. Today Wechat Pay is accepted in 25 countries while Alipay is accepted in more than 30 countries.

## What made these two Chinese behemoths grow so fast in mobile payments?

The answer probably will have multiple reasons than a single one. One cannot ignore the technological prowess of the Chinese when it comes to providing smooth and simple payments along with integrating thousands of merchants across the globe. It can also be partly attributed to the huge tech-savvy millennials who were keen to try out the latest technologies without worrying about risks associated with it. Thirdly,

**the Chinese government restricted entry for non-Chinese firms', and controlled the space with a Chinese version for every offering available worldwide.**

Finally, it is the advantage third party mobile payments apps have over banks by complying with less stringent regulations and conducting transactions without any central clearing house. To avoid potential money laundering and other illegal practices, People's Bank of China (PBoC) has mandated that all third party payment providers must channel payments through a central clearing house by next June. On top of that, likes of Alipay and Wechat Pay have to allocate on average 20% of their total reserve funds with PBoC. These steps will ensure a level playing field for both banks and non-banking entities that offer mobile payment solutions. Similar regulations happened in other countries as well.

Till now, both Alipay and Wechat Pay have only focussed on Chinese consumers within and outside China. But their wish to be successful in grabbing sizable market share in other countries can only be realised through partnerships with local firms. They cannot employ the same strategies they used in China as the cultures, regulations and ecosystems changes from country to country. Probably China is some years ahead of the world when it comes to mobile payments.

## R E F E R E N C E S

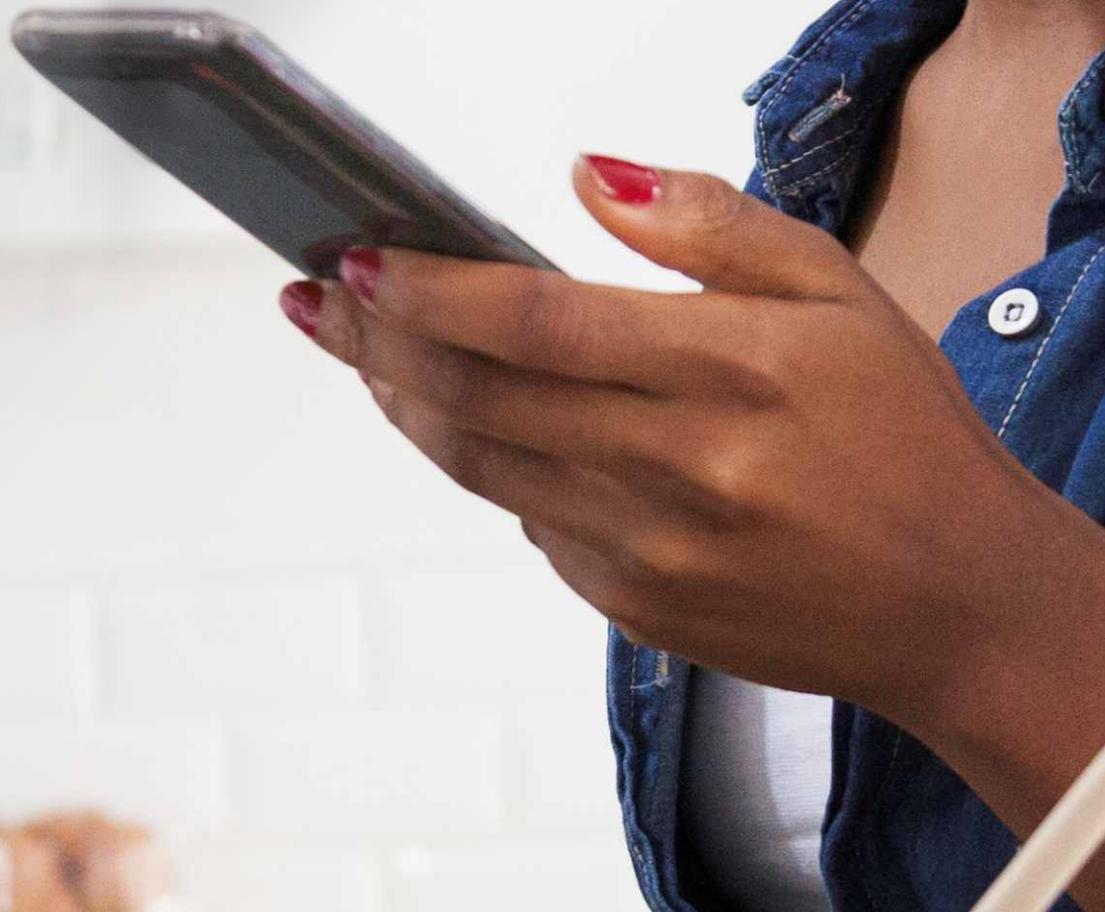
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**About the author: Manoj** is Product Manager for mobiquity® Money at Mahindra Comviva. He carries close to 6 years of industry experience performing product support, strategy and product management roles. He graduated from IIM Lucknow and is passionate about knowing how technology has been making human lives better day-by-day.



# MOBILE MONEY

INTEROPERABILITY





— Mohit Bhargava

It would be fair to say that the last decade in the developing world was the decade of mobile money. From a humble 7 services in 2007, mobile money is now an extensive industry of 277 services in 90 countries. In the past few years, mobile money has transformed the financial landscape in many countries lifting more than 600 million unbanked and under-banked people out of financial exclusion. Globally mobile money services are now processing a billion dollars a day and in some countries like Kenya and Zimbabwe have become the largest financial platform. While the rapid growth and transformational impact of mobile money is undeniable, industry experts often say that the 'closed-loop' nature of many mobile money services is limiting its true growth potential. 'Closed-loop' effectively means that customer of one mobile money service cannot transact directly with customers, agents and merchants of other mobile money services or payment systems.

From a humble 7 services in 2007, mobile money is now an extensive industry of 277 services in 90 countries

In this context, Interoperability has been widely discussed as the way ahead for mobile money industry. Interoperability in a broader context means customers of one mobile money service are able to transact with customers of other payment systems (within the same country or in foreign countries) such as bank or other mobile money services. Thus when interoperability is available, customers will be able to transfer money between a mobile money account and bank account or between two mobile money accounts belonging to different mobile money services. Interoperability also extends to other use cases such as cash-in, cash-out, merchant payments, bulk payment, bill payments et al. An example of this would be, that customer of 'mobile money service A' can cash-in or cash-out at agent belonging to 'mobile money service B'.

## THE PRESENT SCENARIO

Mobile money providers have put in significant amount of effort in integrating their services with banks. Today, a considerable number of mobile money providers are integrated with banks offering bank-to-wallet and wallet-to-bank transfers. According to GSMA, December 2017, 9.2% of incoming transactions were bank-to-wallet and 5.3% of outgoing transactions were wallet-to-bank. Mobile money providers have also enabled international interoperability between wallets. For example, a consumer can transfer money directly from Orange Money wallet in Botswana to EcoCash wallet in Zimbabwe.

While mobile money providers have been open to integrating their services and platforms with banks and cross-border mobile money providers, they have not exhibited the same enthusiasm while integrating with other mobile money providers within their own country (domestic interoperability). Currently domestic interoperability is limited only to 15 countries with interoperability agreements in place between domestic mobile money providers. These countries include India, Indonesia, Madagascar, Mexico, Nigeria, Pakistan, Peru, Philippines, Rwanda, Tanzania, Thailand, Bolivia, Egypt, Philippines and Jordan. However, domestic mobile money interoperability will gain impetus in 2018 with Kenya, Ghana and Zimbabwe planning to launch it. These 3 countries are amongst the top 8 African countries where more than 40% of the adult population uses mobile money. The implementation of domestic mobile money interoperability in these countries will encourage the regulators and mobile money providers in other countries to adopt interoperability.



Kenya, Ghana and Zimbabwe are among the **top 8** African countries where more than **40%** of the adult population uses mobile money.

# THE OPERATING MODELS

Globally mobile money providers and regulators have followed two different approaches to domestic mobile money interoperability.

**In the first approach**, which is implemented in countries like Tanzania and Madagascar, we have seen,

**mobile money providers coming together and establishing bilateral agreements to enable domestic money transfer interoperability.**

In Tanzania, in June 2014, Airtel (offering Airtel Money), Tigo (offering Tigo Pesa) and Zantel (offering Ezy Pesa) collaborated to enable direct money transfer between mobile money wallets of these services. Vodacom (offering M-Pesa) joined the trio in February 2016, completing the domestic money transfer interoperability between the major providers in Tanzania. In March 2018, TTCL (offering TTCL PESA) and Tigo agreed on enabling mobile money interoperability. Similarly, in Madagascar, Orange (offering Orange Money), Airtel (offering Airtel Money) and Telma (offering mVola) launched money transfer interoperability in September 2016. All mobile money providers have formed bilateral agreements with other providers and the settlement happens independently between two parties.

**In the second approach**, which we have seen in countries like Egypt and Jordan,

**the regulator provides a switching infrastructure and mandates all mobile money providers to join it.**

In Jordan in 2014, Central Bank introduced JoMoPay, a real-time payment switch for processing and switching mobile financial and non-financial transactions in STP (Straight Through Processing) basis and routing messages between multiple mobile payment service providers. Multiple mobile money and mobile banking services such as Umniah Mahfazti, Zain Cash and Bank of Jordan Mobile banking have connected to the JoMoPay switch. JoMoPay has also integrated with other payment systems in Jordan such as eFawateercom, Jordan's bill presentment and payment solution, the RTGS (Real Time Gross Settlement System) and JoNet, the national ATM switch (Figure 1). These integrations and use of switching infrastructure extends interoperability beyond P2P money transfer to other use cases such as bill payments, merchant payments and ATM cash-in and cash-out. In Egypt, mobile money and mobile banking services such as Orange Money, Vodafone Cash, Etisalat Cash (Flous), NBE PhoneCash, Banque Misr BM Wallet and CIB SmartWallet have connected to National Switch (123 brand) facilitating interoperability. The interoperability extends beyond P2P money transfers to other usecases like merchant payments. Ghana is also adopting a switch-based interoperability approach.

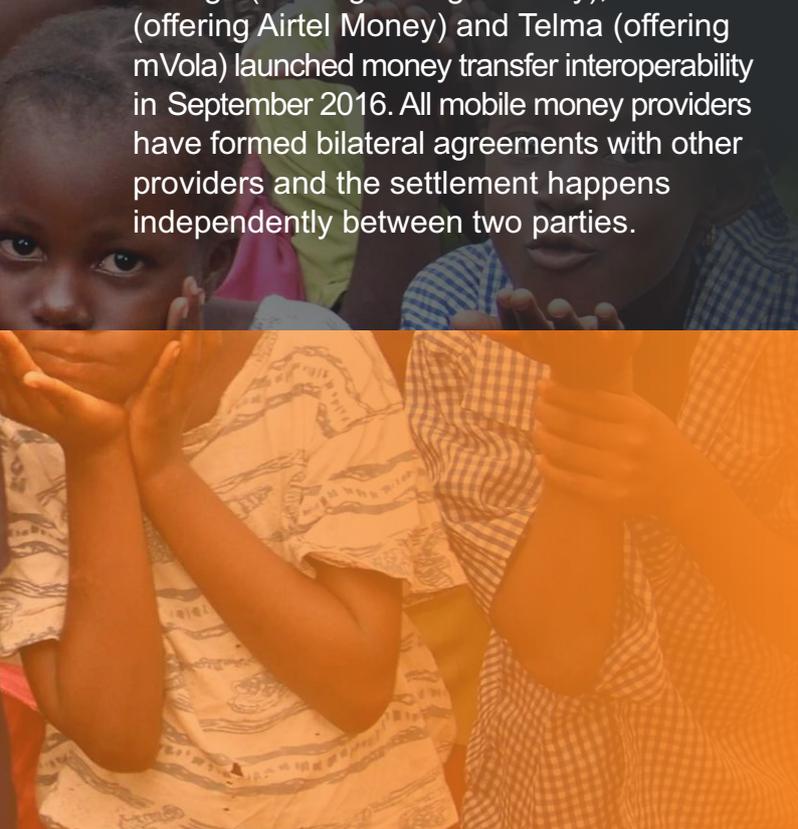
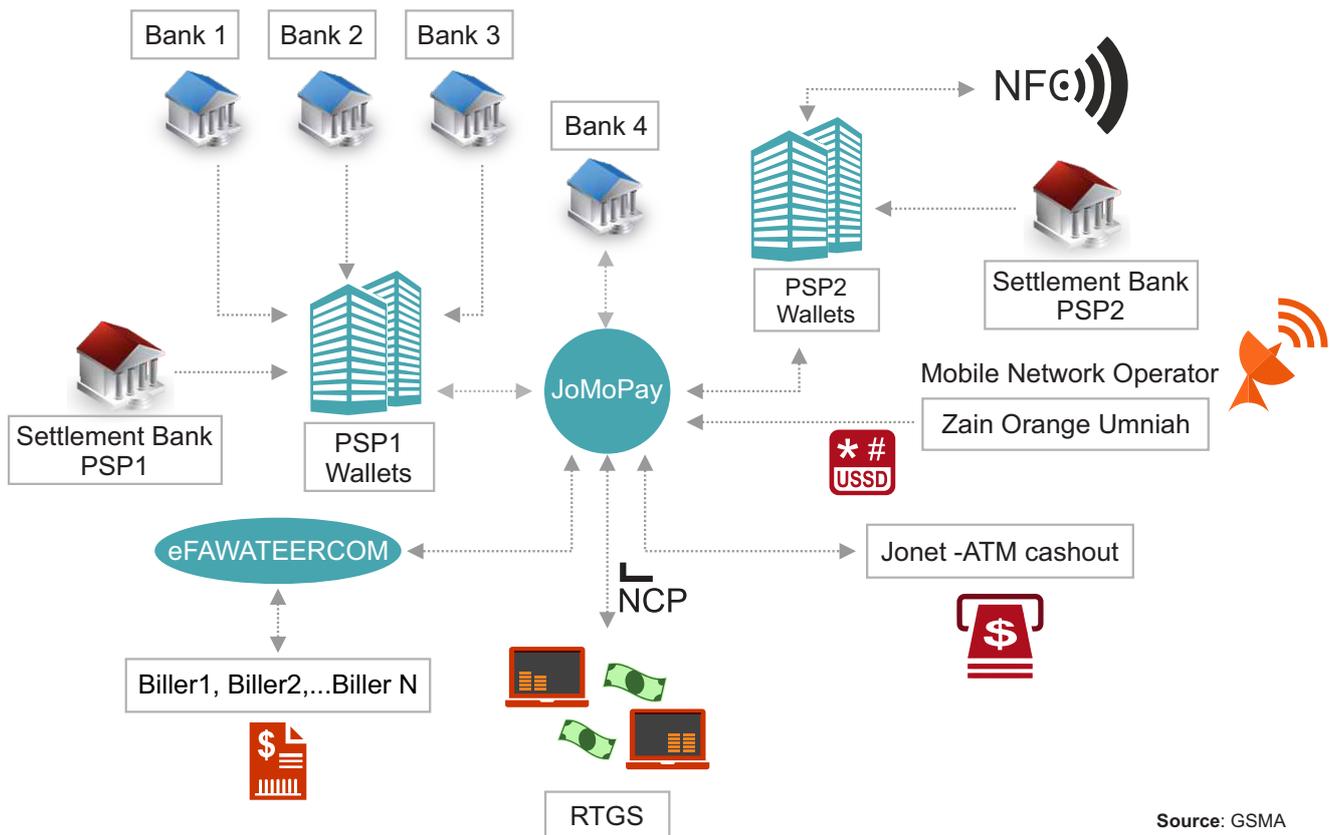


FIGURE 1



## BENEFITS OF INTEROPERABLE TRANSACTIONS OVER THE OFF-NET TRANSACTIONS

Off-net transactions are used by mobile money providers to send money to consumers on other mobile networks. In this case, when sender sends the money to a recipient on another network, the recipient receives a code via an SMS. Recipient has to show the code to an agent of sender's mobile money service to get the remittance in cash.

Off-net transactions are 'wallet to cash' or 'digital to cash' transactions, where recipients have to cash-out full money from agent in stipulated time (generally few days), otherwise the money is reverted to sender. In case the recipient wants to use the remittance received in digital format to pay bills or transfer money to someone else, then she

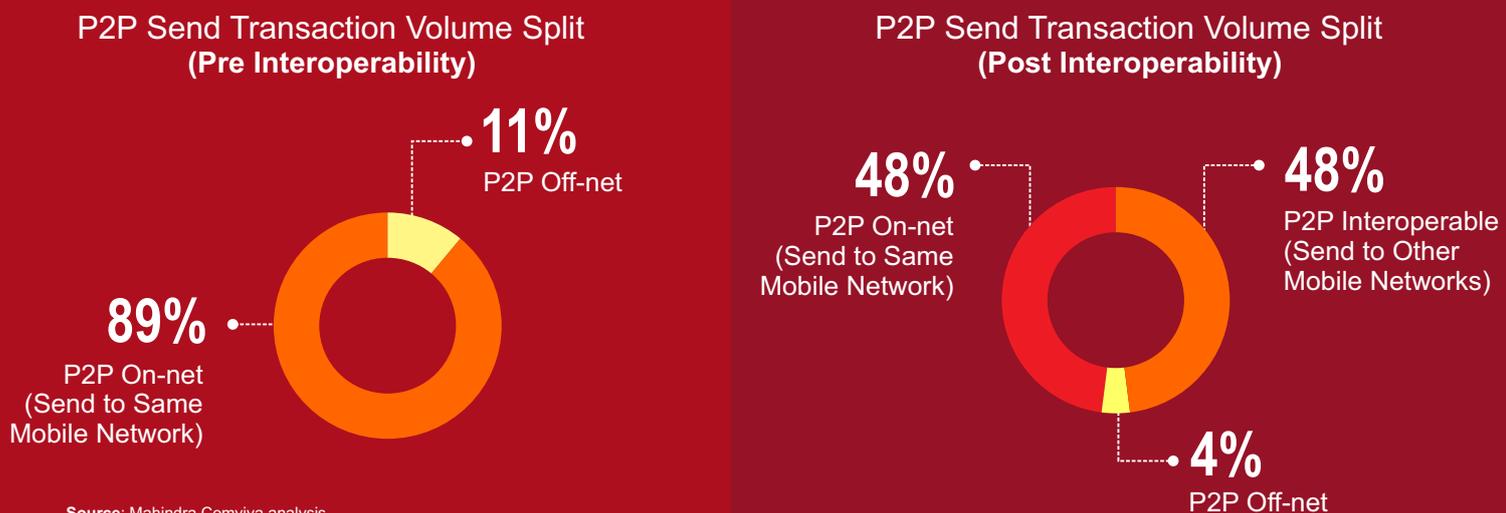
has to go to mobile money agent (belonging to her mobile money provider) and do a cash-in into her mobile money wallet. Interoperable transactions are more convenient for consumers, as recipient receives the remittance in digital format directly in her mobile money wallet and can store the money in wallet as long as she wants. Recipient can cash-out the money partially or fully whenever she wants or use the money in digital format to pay bills and merchants.

Interoperable transactions are also beneficial for the mobile money providers. In case of an off-net transaction, the sending mobile money provider has to pay commission to agent for cash-out. However, in case of

interoperable transactions, no cash-out happens for sending operator and it saves on commission. For the receiving mobile money provider, since the incoming remittance from an interoperable transaction is in digital form, hence no cash-in commission needs to be paid. Thus an interoperable transaction is a win-win for both sending and receiving mobile money providers. Moreover, interoperable transaction is also good for the vision of a cash-light economy as it allows money to remain in a digital form.

The statistics obtained from the markets which have adopted interoperability show the consumers preference of interoperable transactions over off-net transactions. An African operator which has enabled interoperability has seen the proportion of interoperable transactions rise exponentially and proportion of off-net transactions decline in total P2P Send transactions (Figure 2)

FIGURE 2



Source: Mahindra Comviva analysis

Note: These graphs are based on monthly data. The Post Interoperability graph represents February 2018 data.

## THE INDUSTRY INITIATIVES

In October 2016, the GSMA Mobile Money team published harmonized mobile money APIs. The GSMA is encouraging its members to adopt these APIs. These APIs will enable faster integration with third party systems facilitating quicker interoperability between mobile money and banks, or among mobile money providers.

In October 2017, Bill and Melinda Gates Foundation launched Mojaloop, an open-source software to enable interoperability between banks and financial service providers.

Mojaloop is free-of-cost, thus can be used by financial service provider, governments and regulators to develop an inclusive payment platform at low cost. It is designed with the aim to serve as a model for national payment switching systems. Mojaloop has been developed in collaboration with fintech firms including Ripple, Dwolla, ModusBox, Crosslake Technologies and Software Group, and employs technologies such as the Interledger Protocol for settling funds among multiple providers across their individual systems.

Mojaloop software can be accessed on GitHub, an open-source development platform. It has 4 components:

#### INTEROPERABILITY LAYER

Connects bank accounts, mobile money wallets, and merchants in an open loop

#### DIRECTORY SERVICE LAYER

Navigates the different methods that providers use to identify accounts on each side of a transaction;

#### TRANSACTIONS SETTLEMENT LAYER

Makes payments instant and irrevocable

#### COMPONENTS

which protect against fraud

Gates Foundation also brought together four biggest mobile money vendors Mahindra Comviva, Huawei, Ericsson and Telepin to develop an Open API for mobile money interoperability. These APIs will allow mobile money providers to integrate seamlessly with Mojaloop and products built from it.

## THE WAY FORWARD

2018 is a crucial year as mobile money interoperability will be launched in 3 key markets including Kenya, Ghana and Zimbabwe. With these new market launches the operational challenges, impact and benefits of mobile money interoperability will become clearer and set the path for other countries to follow.



#### Source:

GSMA: 2017 State of the Industry Report on Mobile Money

GSMA: 2016 State of the Industry Report on Mobile Money

GSMA: The long road to interoperability in Jordan

Gates Foundation Press Release: Bill & Melinda Gates Foundation Releases Open-Source Software to Support Efforts that Expand Access to Financial Services in Developing Countries

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MOVING TOWARDS A  
**MOBILE**  
**MONEY**  
REVOLUTION IN  
**AFGHANISTAN**



— Rishi Raj Borah

Afghanistan is a young nation with the majority of their population under the age of 35. The war ravaged country has slowly but steadily grown over the last few years. After many years of war and civil strife, an encouraging aspect of the country's efforts to rebuild has been the considerable success evident in the creation of a functional telecommunications sector virtually from nothing.

From a financial point of view, Afghanistan remains to be a cash heavy society where ordinary Afghans have limited access to formal financial institutions. This combined with low financial literacy has led to only 10% of adults above 15 years having any formal interaction with a financial institution. The telecom sector with its expansive coverage has the potential towards increasing financial inclusion through means of Mobile Money. With regulatory approval and push, the cash based society can turn into a huge success towards electronic money. Currently, from the limited data we could gather, around 6

percent of the mobile subscribers are into the realm of mobile money.

Afghanistan has a highly competitive mobile market that continues to flourish despite conflicts that mar the country. There are six mobile operators competing in Afghanistan's telecom sector namely MTN, Roshan, Etisalat, Afghan Wireless, Wasel Telecom, Salaam (Afghan Telecom), Between them the operators have a subscriber base of 25 million and an overall mobile penetration of 80%. The market is predicted to grow moderately over the next five years to 2021 increasing to reach penetration of between 86% and 95%.

Even with this, Mobile money will not have gained momentum to the extent of the potential that Afghanistan has. From a use-case perspective, merchant payments, utility payment like school fees, Bus tickets, bill payments for electricity, Water bills, etc. provides a strong base for Mobile Money in terms of adoption. Bulk Salary disbursements, Cash in/out are already in existence through Operator services like Roshan via mobile money platform M-Pesa. However, usage of mobile money continues to be low, which in turn creates challenges for a profitable option for Telecom Operators in the market. Here, the learning gleaned from successful markets can help to push e-money usage.

Some of the ideas towards increasing adoption can be to increase mobile money acceptance at different points of sale, increase customer stickiness via providing cash-backs, increasing overall convenience of an end consumer journey.

From a regulatory standpoint, the government is slowly adopting to global trends in mobile payments. The telecom operators have played a key role in this direction by advocating the new policies as well as consulting the governments through their learning in local and global markets. KYC norms are a key challenge and the government is pushing for biometric payments to increase usage. Recently the government awarded contract to Afghan Wireless (the Govt. enterprise) to launch biometric based payments. The service is available to users of Afghan Wireless as of now, but it will move towards interoperable biometric payments (like Aadhaar in India) in future. Afghanistan also has a centralized Banking Switch, APS (Afghanistan Payment System) which is operational but not all Banks are connected to it.

A number of banks operate in Afghanistan, but the complex terrain and the lack of knowledge are key challenges to banks

being used as primary financial institutions. Some of the major banks like Azizi Bank, Afghanistan International Bank, AUB Bank, DABS, etc. have partnered with the telecom operators to provide support for mobile money services. Like in many African countries which started with 1st generation services like bill payments, P2P transfers, IMT, Cash In, etc. and moved towards the more advanced 2nd generation services like Savings, Micro-Lending, etc, there is similar potential in Afghanistan. As observed from 2nd generation services in more matured mobile money markets, the collaboration between the telecom and banking sector ultimately leads to benefits for both the industries.

One example of such a market would be Kenya. Many people are aware that total mobile money accounts in Kenya eclipsed the number of total bank accounts in 2009. Fewer people are aware that a second inflection point has already occurred with the number of bank accounts in Kenya today outnumbering mobile money accounts by more than 30 percent (see graphs below). However, most of the growth in bank accounts has come from CBA and KCB due to their partnership with Safaricom's M-Pesa to offer savings and loans.

Mobile money from Afghanistan's perspective will bring masses to a formalized financial structure benefiting all stakeholders in the long run like the end consumer, the Telecom Operators, the governing body as well as banks. Though a lot needs to be done to actually achieve this success, it is definitely a market which remains untapped to a greater extent.

From the regulator's perspective, biometric requirements should be relaxed for mobile money KYC norms till there is a more centralized system in place. Checks for AML/CFT can be established by invoking transaction limit over any mobile money platform.

The operators must collaborate to increase mobile money presence, thereby helping to bring in more end consumers into a formal financial system. An ideal way forward would be establishing relationships with multitude of merchants, mom and pop shops, convenience payments for buses, school fees, etc. More marketing efforts are needed to increase the awareness of mobile money in Afghanistan. Cashback, loyalty management can be another form of increasing penetration which can change the behaviour of consumer from Cash based to E-money usage.

Banks need to stop thinking of mobile money as competition but rather a complementary feature which would increase their business as well.

Thus, a wholesome effort is required where the entire ecosystem needs to adopt and work towards mobile money sustaining.

Source: Worldbank, GSMAIntelligence, Budde.com.au, CGAP reports and Primary research from couple of the largest Telecom Companies in Afghanistan

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# INTERVIEWS AND ARTICLES

Top Women  
Empowerment Award  
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Srinivas Nidugondi's interview

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MobiQuity Money  
Crosses 100 Million  
Mobile Money Customers  
Mao's interview

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Interview: Comviva

Mao's interview

**Mobile World Live**

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Has mobile money  
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its tether?

Srinivas Nidugondi's article

**Irish Tech News**

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What to Expect in  
Digital Payments in 2018

Srinivas Nidugondi's article

**Communications Today**

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The Role of UPI in  
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Srinivas Nidugondi's interview

**Consultants Review**

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You can't be too careful  
with financial apps  
Srinivas Nidugondi's interview  
**Business Standard**

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Transforming Africa with  
Digital Payments  
Srinivas Nidugondi's interview  
**Africa Business Review**

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Value-added services:  
follow the money?  
Anil Krishnan's article  
**Southern African Wireless  
Communications**

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Bill & Melinda Gates  
Foundation Releases  
Open-Source Software to  
Support Efforts that Expand  
Access to Financial Services  
in Developing Countries

Mahindra Comviva mentioned in

**Gates Foundation  
Press Release**

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Merchant payment  
and on-boarding  
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Nikhil Nautiyal's interview  
**Creative Bharat**

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Gates Foundation  
Launches Open  
Platform To Connect  
Mobile Finance In  
Developing World

Mahindra Comviva  
mentioned in

**Forbes**

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# AWARDS

Mahindra Comviva and Airtel Tanzania win Global Telecoms Awards 2017 for Airtel Money "Tap Tap" Service

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Comviva and Cassava Fintech Win GSMA GLOMO Award for Best Mobile Innovation for Women in Emerging Markets

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Mahindra Comviva wins Digital Impact Awards Africa for mobiquity® Platform

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Mahindra Comviva and Econet Wireless Emerge as the Most Innovative Fintech Companies at the AfricaCom Awards 2017

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Mahindra Comviva and Econet Wireless bags two awards at CEM Asia Excellence Awards

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Mahindra Comviva bags Payments Awards for Best Cross-Border Payments Solution (Consumer)

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Mahindra Comviva wins two Drivers of Digital Awards

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Mahindra Comviva highly commended at Juniper Research Future Digital Awards 2017

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Mahindra Comviva highly commended at CommsMEA Award for Private Recharge in 'Corporate Social Responsibility Campaign of the Year' category

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# ANALYST MENTIONS

Juniper Research - Digital  
Money Transfer & Remittances  
Mahindra Comviva  
mentioned in the report

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Research and Markets -  
Worldwide Mobile Money  
Modernisation & Monetisation  
in Payment, Retail, Banking,  
& Commerce 2018-2022  
mobiquity Money  
mentioned in the report

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QYResearch Reports -  
Global Mobile Money Market  
Size, Status and Forecast 2025  
Mahindra Comviva  
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# PRESS RELEASES

Comviva's mobiquity®  
Money crosses 100 Million  
Mobile Money Customer

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Geva Group selects  
Mahindra Comviva for its  
Mobile Financial Service  
Business in Central  
America and Caribbean

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Mahindra Comviva's  
mobiquity® Money  
receives two nominations  
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# BLOG

Private Recharge:  
Empowering women and  
ensuring their security  
- By Mohit Bhargava

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Bridging the Financial  
Gender Gap through  
Mobile Money  
- By Ritvik Sinha

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

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