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MicroNOTE

Pakistan Microfinance Network

DIGITIZING MICROFINANCE THE NEXT FRONTIER

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MICROFINANCE IN PAKISTAN

Over the years, microfinance providers have been at the forefront of providing financial access to excluded segments by offering a range of customized financial products and services such as credit, savings, insurance and remittances. The industry has evolved and adapted to the changes in market demand and segmentation. It has been considered a valuable tool for poverty alleviation as well as for financial inclusion. Microfinance, through its unique business model community-based approach, holds the potential to change the socio-economic growth of developing nations.

The Pakistani microfinance sector has been consecutively termed one of the best in the world due to its enabling business and regulatory environment by the Economist Intelligence Unit (EIU). Currently, the industry stands at around 5.8 million active borrowers with a gross loan portfolio (GLP) of PKR 202 billion . Whereas the potential market size for microfinance in Pakistan is estimated to be around 20.5 million using the loan size range of Rs. 10,000 to Rs. 150,000, and 17 million using the loan range of Rs. 20,000 to Rs. 150,000.

Nevertheless, in terms of penetration, the rate stands at only 25.4 percent. The gap in market penetration presents an opportunity for Microfinance providers to tap into unexplored markets. However, bringing microfinance services to the field has been costly since it is a labor-intensive process, thus, limiting the ability of providers to rapidly expand scale along with increased margins of errors and fraud.

Globally, to balance outreach with increased costs, various financial delivery models have been adopted by leveraging technology, such as smartphones and tablets, at the field level to enhance efficiencies. The National Financial Inclusion Strategy (NFIS) also put greater emphasis on the use of Digital Transactional Accounts (DTAs) to expand the use and quality of financial services to the underserved. Since Microfinance providers are providing financial services to the low-income who are mostly neglected by the commercial financial providers, therefore to realize the financial inclusion targets, it has become increasingly important to utilize the digital infrastructure of telecom providers. However, this paradigm shift will require capability enhancement of the providers in terms of digitization their operations and creating customer awareness to use these services.

[1] MicroWATCH Issue 46, Oct-Dec 2017

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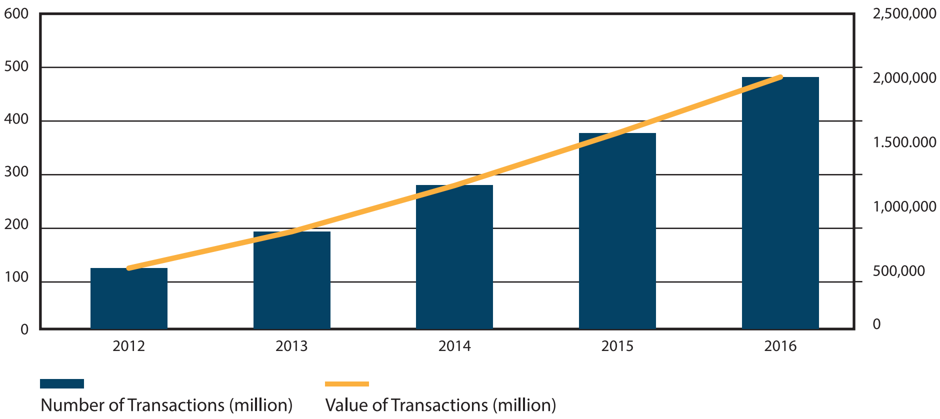
THE DIGITAL LANDSCAPE IN PAKISTAN

Digital Financial Services have been an industry level game changer, driving organizations to optimize their business models while also promoting financial inclusion for the unbanked segments of society. DFS in Pakistan were formally green-lit in 2008 when State Bank of Pakistan (SBP) defined a comprehensive framework[2] pertaining to branchless banking. The framework was structured under a bank-led model which comprised of the following operating models:

1. One to One:
   - Allowed a bank to establish partnership with a sole partner
2. One to Many:
   - Allowed a bank to establish partnerships with multiple partners
3. Many to Many:
   - Allowed provisioning of an aggregation network having multiple banks and other partners

Subsequently, several initiatives were pursued by banks in the branchless banking domain. The DFS market eventually matured when the Joint Venture (JV) between Tameer Microfinance Bank and Telenor materialized. Telenor leveraged its extensive agent network and intuitive access channels for branchless banking, which created synergies with Tameer Bank on various fronts. The financial services domain saw a major paradigm shift as access to payment services became widespread. Since then, branchless banking has grown exponentially in terms of transaction size, volumes, customers and agents. Currently, there are 10 branchless banking providers having different models: Easypaisa; JazzCash; UBL Omni; HBL Express; Upaisa; Pay Max; Mobilepaisa; Meezan Upaisa; and JS Bank.

Figure 1: Trend of number and value of transactions[3]



Although the branchless banking market has seen rapid growth after its launch, the financial inclusion numbers have not shown any major improvement as shown in Figure 1. 84% of Pakistani adults do not use a formal account. Among the mobile account owners, less than 50% are active users.[4] The use of digital financial instruments is also extremely low. Only 2.9% of adults own a debit card while only 1% use it to make payments.[5]

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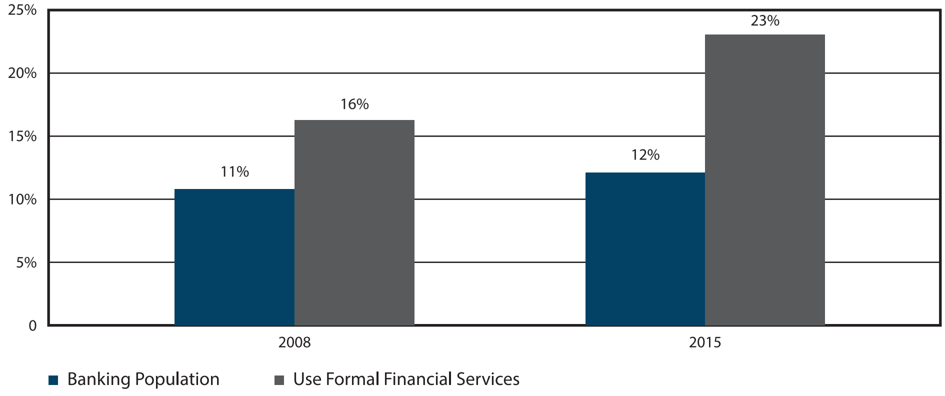
[2] Branchless Banking Regulations - http://www.sbp.org.pk/bprd/2008/Annex_C2.pdf

[3] SBP Branchless Banking Newsletters: http://www.sbp.org.pk/publications/acd/branchless.htm

[4] SBP Branchless Banking Newsletter Q1 2017: http://www.sbp.org.pk/publications/acd/2017/BranchlessBanking-Jan-Mar-2017.pdf

[5] http://www.worldbank.org/en/news/feature/2016/02/08/what-will-it-take-for-pakistan-to-achieve-financial-inclusion

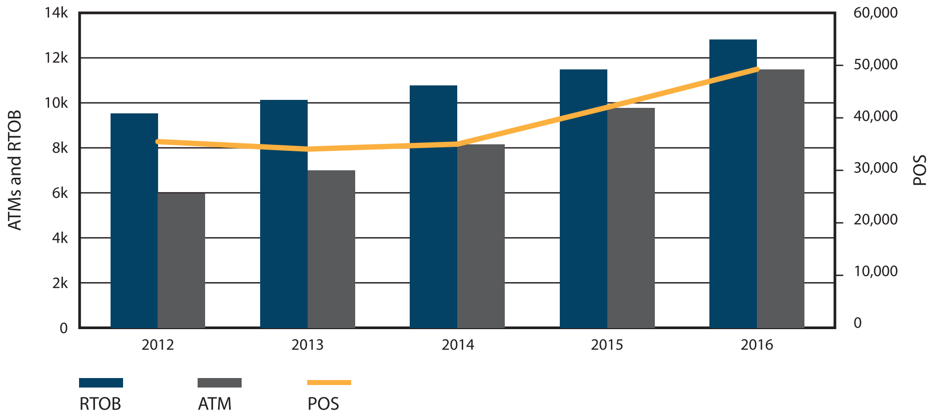
Figure 2: Financial Inclusion in Pakistan[6]



With implementation of new regulations requiring biometric validation for money transfers, the total number of users, agents and transactions will increase in the long run. Also, the large transaction volume which will shift to biometric channels can prove to be a serious challenge, as real-time authentication is dependent on factors such as condition of finger ridges, operational readiness of machines and connectivity challenges.

Digital Financial Services have played a critical role in facilitating e-commerce through provision of intuitive and convenient payment options for customers. Although cash on delivery (COD) represents a major chunk of the total e-commerce transactions, efforts by DFS providers have enhanced usage of mobile accounts, voucher codes, debit and credit cards for online payments. Consequently, the market has witnessed a major increase in usage of point-of sale-machines and ATMs. Figure 2 illustrates the transaction trends.

Figure 3: ATMs, POS and RTOB Trends[7]



Pakistan has 13,179 bank branches (including microfinance banks) and 96% of these branches have real-time online operations. In 2016, the sector posted an overall steady growth in alternative delivery channels and transactions. The total ATM network (by 31 banks) increased by 16% to 11,381, whereas 343 million transactions were conducted through ATMs amounting to 3.6 trillion rupees. In 2016 there were 33.7 million payment cards, 27 million debit cards and 4.8 million ATM-only cards. Credit cards increased by 6% to 1.8 million. The rapid increase in ATM-only cards was primarily due to inclusion of microfinance banks in retail payments system data reporting during FY '16. In terms of retail payments, 9 out of 45 banks have their own POS network, out of which 6 accept international payments schemes.

6 Access to Finance Survey: http://www.a2f2015.com/

7 SBP Payments Systems Review 2015-16: http://www.sbp.org.pk/PS/PDF/FiscalYear-2015-16.pdf

In 2016, number of POS machines increased by 23% to 50,769 as compared to 41,183 in 2015. In 2016, 39.2 million transactions were made (up by 22%) on POS machines amounting to 199.8 billion rupees (up by 16%) from 2015.

E-commerce in Pakistan

E-commerce in Pakistan has seen a significant boom over the years, especially since the rollout of 3G and 4G/LTE services in Pakistan. According to reports, the overall market size is expected to cross $1 billion by 2020. Efforts are being made by State Bank of Pakistan to enhance the payments eco-system through new initiatives. Recently, in the annual budget of 2017-2018, Government of Pakistan revealed that SBP has been allocated PKR 200 million for establishment of a national E-payment gateway. There are dedicated efforts from State Bank of Pakistan to launch national payments gateway to cater the growing and evolving needs of financial services industry and to promote micropayments. The underlying objective of these payments initiatives is to connectthe unbanked segments with the national banking network, as part of larger interoperable network regardless of customer association with commercial banks or microfinance providers.

Apart from the regulatory front, payments and e-commerce have been pursued aggressively within the private sector. International players such as Rocket Internet have contributed immensely towards growth of e-commerce in Pakistan through its renowned brands i.e. daraz.pk, javago.com, kaymu.pk etc. Coupled with this, local players such as homeshopping.pk, symbios.pk, yayvo.com, etc. have also been quite active in the e-commerce space. In the backdrop of all these developments, interest of the e-commerce giant Alibaba group has been captured by Pakistan. Due to efforts made by the Government of Pakistan, an agreement was signed between Trade Development Authority Pakistan (TDAP) and Alibaba in May 2017 for collaboration on the e-commerce front. As part of this agreement, Alibaba will assist in capacity building programs, trainings and improving access of small and medium sized enterprises (SMEs) to export via e-commerce. Such initiatives have the potential of passing benefits at the Bottom of the Pyramid (BoP) visa-a-vis access to low-cost raw materials, goods and services.

BRANCHLESS BANKING: THE ROAD TO FINANCIAL INCLUSION

Branchless banking captured significant space in the financial market of Pakistan. However, instead of focusing on sustainable growth through mobile accounts usage to transition towards financial inclusion, the industry chose to offer these services through agent networks. This approach was overwhelmingly acknowledged by customers, as they were more comfortable conducting transactions via agents rather than themselves due to literacy issues, fear of losing money and usability challenges. In the short term, agent networks provided DFS players the reach and penetration to establish their presence; however, it also gave control to agents when it came to interacting with customers. Additionally, reliance on agents also affected mobile money providers' bottom-line due to significant payouts to agents as commissions. Moreover, the drive to push customers to adopt usage of mobile wallets instead of

[8] From bricks to bytes: the impressive growth of e-commerce in Pakistan, https://tribune.com.pk/story/1394016/bricks-bytes-impressive-growth-e-commerce-pakistan/

[9] http://dailytimes.com.pk/business/27-May-17/text-of-finance-ministers-budget-speech

[10] Chinese tech giant Alibaba Group set to enter Pakistan; signs first MoU, https://www.dawn.com/news/1333495

OTC never really made a significant impact, as agent influence superseded customer behaviors.

One of the key success factors for the digital transformation of the economy is to have active accounts with deposits. To achieve this, customers will need to be incentivized to maintain deposits. A few approaches are discussed below.

1. Capture at source:
    - Salaries, wages, service payouts etc.
2. Incentive based deposits:
    - GSM incentives like free minutes, SMS, data bundles, saving-based returns
3. Mandatory savings for lending:
    - Pre-requisite relationship for lending or for higher credit limits
4. Lending disbursal in accounts:
    - Use of accounts for loan amount clubbed with a well-developed payments ecosystem

To achieve operational and cost efficiencies, DFS providers are focused on driving usage of mobile accounts. This drive is centered around incentives such as free airtime, SMS and data bundles, which does not translate into organic growth. Hence, when incentives are withdrawn, accounts and their usage fall dramatically as end-users fail to see any substantial benefits possibly due to lack of perceived value.

To drive organic growth and create utility for end-users, approaches mentioned above in point 1, 3 and 4 can be used in conjunction. As loans are a recurring need of more than 5.8 million borrowers, the potential for creating a mobile account linked to disbursements remains high; borrowers are more likely to use any given means of disbursal to access their loans. Majority of the unbanked population exists in semi-urban or rural areas which are strongholds of microfinance players. Moreover, beneficiaries of money transfer services also overlap with the microfinance segment. Exploration of new use cases within microfinance value chain is imperative to drive acceptance and usability of mobile financial services in the mainstream. Value chains existing within SME, agriculture, livestock, etc. can be exploited to accommodate mobile money services. Microfinance players are natural stakeholders and most influential players in the journey towards financial inclusion. If customer needs for utilization of loans are managed appropriately and a supporting ecosystem is developed where they can use their account as a mode of transaction instead of cash, it can enable a swift transition towards a digital economy.

Case Studies: Perspectives on Digital Microfinance

The advent of mobile technologies and advancements in Fintech has provided a conducive environment for the evolution of microfinance across the globe. Non-profit organizations in both developed and developing nations are augmenting their business models and services through utilization of digital and online channels. Allison, I. (2016)[11], discussed the case for utilization of online channels for loan issuance. Zidisha, an online US based person-to-person microlending organization developed an online model which eliminates intermediaries, thereby reducing associated cost factors and allowing for issuance of loans on significantly lower interest rates than the market. Based on its unique lending model, the firm is providing loans in eight developing countries, where it relies on mobile money services to manage loan disbursement and loan repayments.

Another MFI in the US, Grameen America, Inc (GAI) opted to digitalize its operating model. Prior to undertaking the digitalization initiative, GAI was completely reliant on cheques for disbursement of loans. Consequently, GAI was exposed to fraudulent cheques, while borrowers faced risks of handling cash withdrawn from bank branches. Coupled with this, GAI was utilizing an outdated Management Information System (MIS), which was prone to human errors as data was entered manually and scrubbed later for uploading on the main CRM. To address these pain points, GAI opted for disbursement of loans via prepaid cards, which reduced reliance on bank branches and provided borrowers with a convenient payment channel. GAI also upgraded its MIS, which had extensive integration capabilities and enabled it to scan prepaid cards and load relevant loan amounts online. These initiatives allowed GAI to enhance its operational efficiency and reduce reliance on banks, while tracking spending habits of its borrowers through prepaid cards.[12]

In Bangladesh BRAC Bank founded bKash in November 2011, to exclusively offer digital microfinance services. bKash is the centerpiece of digital microfinance in Bangladesh as it is conducting more than 80% of mobile financial transactions alone. Customer registration on bKash is free of cost and no fee is charged on cash-in transactions. bKash offers both lending and money transfer facilities, with minimal service charges. bKash customers can simply obtain credit, receive salaries and remittances through their mobile devices and cash-out from bKash's extensive agent network or from BRAC's ATM terminals.[13]

Similarly, National Payments Corporation of India (NPCI) has recently taken an initiative to digitize transactions in microfinance sector. Under a pilot project launched with Svatantra Microfinance, the Adhaar payment bridge and USSD protocols have been utilized to manage loan disbursements and repayments directly to Adhaar-seeded accounts, promoting cashless transactions. Interestingly, for loan repayments Svatantra has offered a unique option of pull transactions which allows MFIs to initiate a bulk pull request to the customer through its sponsor bank.[14]

[11] How fintech and microfinance remove intermediaries and loan costs, http://www.ibtimes.co.uk/how-fintech-microfinance-remove-intermediaries-loan-costs-1572760

[12] Digitalization in Microfinance in U.S., https://rctom.hbs.org/submission/digitalization-in-microfinance-in-u-s/

[13] The Digitization of Microfinance: bKash in Bangladesh, https://rctom.hbs.org/submission/the-digitization-of-microfinance-bkash-in-bangladesh/

[14] National Payments Corporation of India begins pilot project to digitize transactions in microfinance sector, http://nextbillion.net/news/npci-begins-pilot-project-to-digitize-transactions-in-microfinance-sector/

INNOVATION IN FINANCIAL DELIVERY MODELS

Every industry goes through sorts of an evolution process through its life cycle. Microfinance sector is evolving with the entry of novel players such as mobile money services and Fintechs are preparing to launch micro-loans based on bullet payments, using near real-time credit scoring modules on customers social, transactional and behavioral analysis. The focus is on small size loans ranging between $50 to $100 with fast loan processing, without any need for documentation or human intervention, having a turnaround time of less than 5 minutes. Availability of rich, pertinent data will be the key success factor to ensure near real-time loan processing capability for micro-loans.

Success of credit scoring algorithms is highly dependent on quality and volume of relevant data which can identify credit worthiness and probability of default. Mobile money services hold large volumes of data; however, account specific data due to low activity on mobile accounts is not sufficient to deliver required volumes to make it viable. Whereas for over-the-counter or agent assisted models, end customers are not directly interacting with the service for money transfer and bill payments, which puts a question mark on the quality and sanity of the data. Any disruption in this space will require intelligent, robust, fast algorithms using advanced analytics which will provide credit risk assessment in near real-time.

In comparison to commercial banking sector, the microfinance industry is behind in using technology as a means of delivery financial services due to the adherence of its core principle of client-centricity. Most microfinance institutions still rely on conventional operating models with limited reliance on technology platforms. Business operations and transactions are mostly conducted through pen and paper or excel workbooks, which is both time and cost intensive. Thus, achieving scalability and expanding to new markets remains a far cry due to high operational costs and to some extent inefficient processes. Some MFIs rely partly on management information systems (MIS) to manage their operations, whereas others have developed in-house platforms to manage their workflows and processes.

Due to different operating models, MFPs mix and match partnerships with banks and mobile money providers. These partnerships are formed to meet specific business needs pertaining to loan disbursement, repayments, insurance and other value-added services. At present, MFPs rely mostly on partner banks for managing their loan disbursements either via cheques or cash on counter (COC); transaction costs vary according to the negotiated deals. For loan repayments, mobile money providers give access to their agent networks, at a specific transaction fee. Provision of these services require MFPs to directly deal with banks and mobile money providers, which comes with its own set of operational requirements and overheads. Subsequently, MFPs have limited access to agent networks, as it is not feasible to integrate with every service provider due to time and cost constraints.

Furthermore, since most MFPs rely on outdated MIS platforms and manual reporting, optimizing business functions pertaining to forecasting, trend analysis, etc. is a challenge, which in turn limits their planning capacity. The overall value chain which governs MFPs business and technical operations need to be supplemented with technology platforms which can empower organizations to drive their business models and sustain growth.

The above poses a threat since without technological advancement, MFPs will be in competition with Telco owned branchless banking initiatives that are getting ready to offer instant microloans. However, this also provides an opportunity for the microfinance sector to upgrade its capacity and capability to provide one window operations to overlapping segments by offering micro-loans, savings, insurance and payments through mobile accounts.

FINTECHS: THE DIGITAL CATALYST

Innovation in Pakistan's Fintech space is fast catching up to global trends. Interoperability between mobile network operators has become a reality in Pakistan, exposing the entire telecom customer base to DFS players. Regulators are also quite keen to develop payments ecosystem in Pakistan; both Pakistan Telecommunication Authority (PTA) & SBP have been collaborating to regularize this space since telecom operators and banks have developed strong synergies. SBP and PTA have worked extensively to issue third party service provider (TPSP) regulations to promote technical interoperability among players from both verticals. SBP has also issued well drafted regulations[15] to allow PSO/PSP setups in Pakistan specifically targeting payments.

Use of technology and digital tools can help MFPs to not only achieve their growth objectives through increased outreach and agility but also reduce high administrative expenses. Initiatives like 3G/4G, low-cost smartphones, mobile accounts etc. are critical to digitization and financial inclusion to expand in areas where infrastructure is weak and banking penetration is minimal or none.

Previously, acquiring technology platforms or digital tools was quite expensive and out of reach for MFPs; however, with proliferation of technology platforms, existing services have become more open and inclusive through provision of shared services. These shared services provide better reach, autonomy, data privacy, IPR protection and broader integrations making it a viable option for MFPs. Digitization of data and automation of processes can enable the use of advanced credit mechanisms resulting in efficient operations with intelligent, fast, data-based and automated decision-making processes for effective risk management. Low costs of operations, use of advanced analytics for customer, borrower profiling, spending patterns, borrowing behavior etc. can have a significant impact on MFPs top line, while end-to-end digitization, customer self-service, credit scoring can have an impact on the bottom line.

Prevalent cost structures for utilizing local payment switches are not affordable for MFPs due to higher associated costs. Also, MFPs lack resources and technology expertise to undertake integrations with local payment networks or mobile wallets on their own. These are key barriers to entry for MFPs in entering the digital financial space, which need to be addressed at an industry level. There is an inherent need to structure a platform which can act as a single touchpoint to bridge MFPs with core banking modules, financial middleware, payment schemes, agent networks and mobile wallets. While integration with such a platform will be a technology driven and technically intensive process, it is imperative to work on capacity and capability building measures to prepare the industry for change. Similarly, to drive usage and uptake of DFS based microfinance products, face-to-face interactions with customers will remain critical to sustain and nurture technology driven value chains at the bottom-line.

DIGITAL SERVICES PLATFORM: THE GROWTH EQUALIZER

In 2015, Pakistan launched its National Financial Inclusion Strategy (NFIS) to help the country achieve its financial inclusion goals. Pakistan's goal is to achieve universal financial access, with a headline NFIS target of expanding formal financial access to at least 50% of adults, including women and youth, and to increase the percentage of SME loans in bank lending to 15% by 2020.[16] Pakistan Microfinance Network has embarked on the journey to realize the goals envisioned in NFIS by laying the technological foundation.

[15] RULES FOR PAYMENT SYSTEM OPERATORS AND PAYMENT SERVICE PROVIDERS, http://www.sbp.org.pk/psd/2014/C3-Annex.pdf

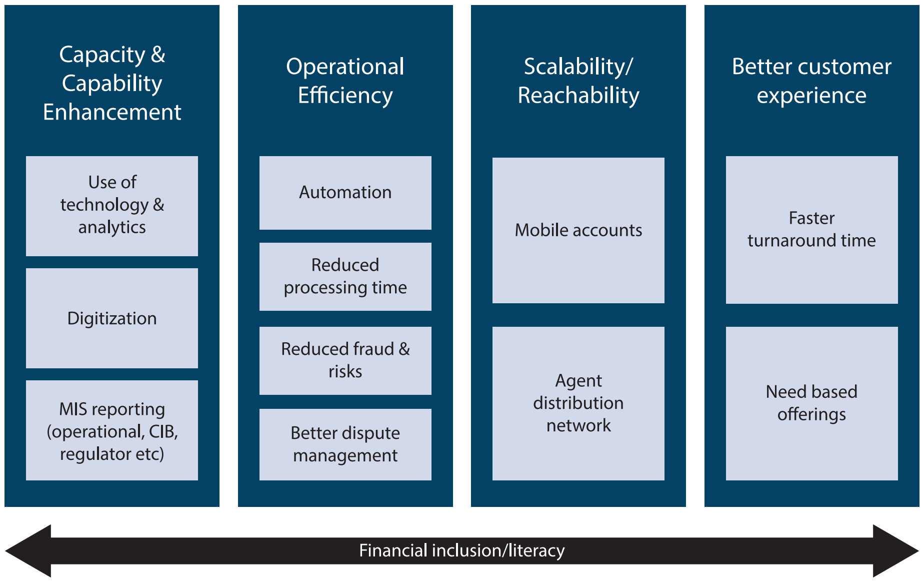
[16] http://www.worldbank.org/en/news/feature/2016/02/08/what-will-it-take-for-pakistan-to-achieve-financial-inclusion

The Digital Services Platform envisages offering digital services in a shared hosting environment which will enable MFPs to optimize their business operations and reduce operating costs. The platform will host various financial tools and solutions including workflow-based product modules, middleware, integrated services, core banking and general ledger solutions, MIS and data analytics. End-to-end digitalization of microfinance operations will provide the impetus to outreach expansion, optimal cost of operation, and enhanced efficiency and productivity.

Digital Services Platform will provide the enabling environment for microfinance providers as per State Bank's vision for financial inclusion and PMN's growth strategy Following are the major goals of digital services platform;

1. Linking the microfinance sector with digital payments platforms including agent networks, POS networks, switches and payment gateways
2. To deploy and promote the use of Alternate Delivery Channels (ADCs) to:
    - Ensure smooth flow of regular transactions
    - Enable branch independent transactions; and to
    - "Channelize through channels", bringing down operational expenses and transaction costs
3. To reduce cost, improve gross margin by reducing operating cost, enable for higher growth, reach and diversify products and customers
4. To support PMN's ambition to increase outreach of financial services as envisaged by National Financial Inclusion Strategy (NFIS) and Financial Inclusion Program (FIP)
    - Introducing a wide range of basic payments, remittance and savings products to assist the Pakistani population and enterprises
    - Increasing the financing opportunities for urban and rural SMEs, including agricultural finance for male and female farmers
    - Increasing penetration of insurance services
    - Helping members to develop improved housing finance products, including for low-income segments
    - Developing Credit Scoring Model for Micro & Small Enterprises (MSEs)
5. To provides a centralized platform for MFPs to manage their operations via a suite of Digital Services
6. To aggregate available agent networks and provide a single touch-point to MFPs for integration
7. Enabling borrowers to integrate with DSP M-Wallet solution or use existing MFPs Mobile Wallet platforms
8. In subsequent phases, creating a payments eco-system to further drive down costs of on-us and off-us transactions.

The Big Picture (Strategy Pillars)



THE IMPACT OF DIGITIZATION

The digitization of Microfinance would bring about some positive changes in the way operations are being carried out. There are numerous institutional benefits that the providers can reap with the introduction of digital channels to be used for financial services.

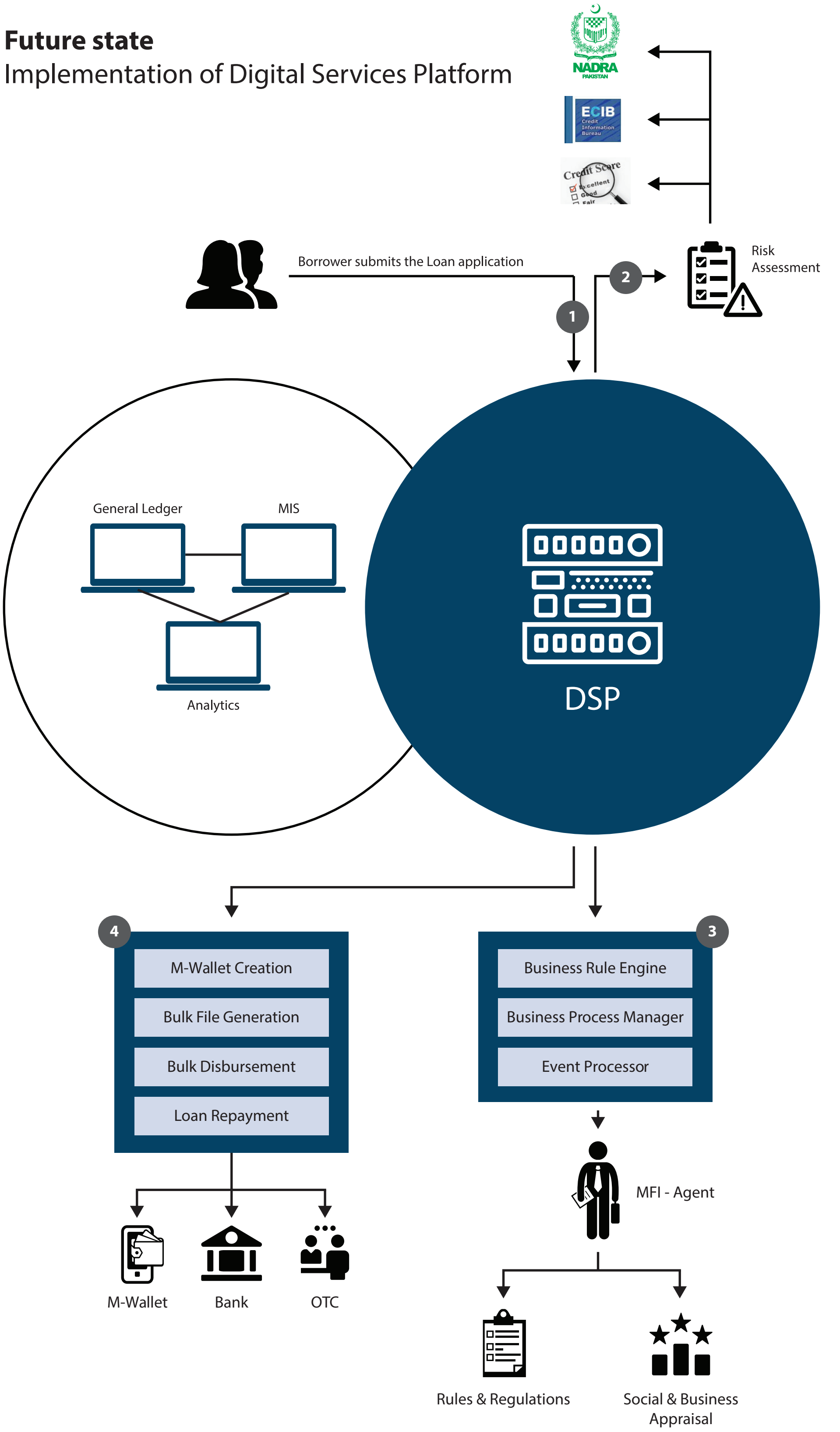
From the clients' perspective, the use of the digital channels such as mobile wallet and OTC, will help push the needle of microfinance services. The loans will be disbursed faster hence reducing Turn Around Time (TAT) while requiring less documentation. With the introduction of biometric verification for OTC transactions, KYC will automatically be done, and the clients will receive and repay loans with ease and convenience. Additionally, communication with the providers will be in real time as any queries or complaints can be lodged digitally. The likelihood of committing fraud and other malpractices will be greatly reduced as the field staff reports will be available online. Thus, clients will have increased confidence in dealing with the institution.

On one hand, arguably, the digitization process will lower the cost of operations. This will be achieved through multiple alterations in the process, and by eliminating many steps in the loan origination, disbursements, and recovery processes. The institutions will also see increased efficiencies in terms of decreasing caseloads of loan officers while monitoring their performance regularly. Additionally, digitization will also bring about efficiency in data collection of clients, both for approved and rejected loans. Currently, a small percentage of the physical form is put into the MIS, and mostly for approved loans. These positive and negative data sets can be used to build a reliable credit scorecard, thus opening new possibilities to document client credit histories. With end-to-end digitization of the microfinance operations, the institutions will have greater control on the collections which will help in managing portfolio quality.

On the other hand, digitization will enable Microfinance providers to create synergies with DFS and become part of the larger digital financial eco-system. DFS players can augment their use cases and drive uptake if mobile wallet usage is pushed by MFIs to millions of active borrowers. Both parties can collaborate to introduce savings, insurance and other value-added products to customers through collaborative models. Essentially, the business viability hinges on DFS providers offering low cost of transactions and MFPs providing recurring high transactions volumes. At the same time, both need to form alliances to entice customers in adopting mobile wallet-based transactions instead of using OTCs payments.

Future state

Implementation of Digital Services Platform



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