

FinTech and Modern Banking-2019



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1. Introduction

Fin-Tech is a linguistic blend of two words; finance and technology. It describes an emerging financial services sector in the 21st century. Originally, the term was used for technology applied to the back-end of established consumer and trade financial institutions. Since the end of the first decade of the century, the term has expanded to include any technological innovation in the financial sector including innovations in financial literacy and education, retail banking, investment and even crypto-currencies like bit-coin.

The term financial technology can apply to any innovation as to how people transact business, from the invention of money to double-entry bookkeeping. Since, the inception of internet and the mobile internet revolution, financial technology has grown immensely, and FinTech, which originally referred to computer technology applied to the back office of banks or trading firms, now describes a broad variety of technological interventions into personal and commercial finance.

FinTechs are categorized as:

1. **Traditional FinTechs:** collaborate with incumbent financial service providers as their technology providers through traditional pricing models.
2. **Emergent FinTechs:** a new category of FinTechs that partner with a bank through new engagement models or simply displace financial institutions.

FinTech companies are businesses that leverage new technology to create new and better financial services for both consumers and businesses. It includes companies of all kinds that may operate in personal financial management, insurance, payment, asset management, etc. These start-up companies compete directly with traditional banking and financial institutions, and in many respects have taken them by surprise. FinTech companies operate in dozens of countries, and are slowly chipping away at pieces of the financial services industry, providing products and services, once exclusively available through financial institutions. These products and services are within the categories of lending, personal finance, retail and institutional investments, equity financing, consumer banking, and several others.

In today's digital age and with significant demographic shifts in the population, people are seeking easy access, convenience, efficiency, and speed. People want to conduct transactions via mobile technology platforms and applications, and such activities include managing their financial lives, whether that is tracking their overall spending, applying for a loan, or optimizing their investment strategies. Many people prefer to use online applications or sites for finances. On average, between 1 and 3 applications are used by people to manage their financial lives. FinTech companies provide both individuals and businesses with more scalable tools. These digital tools are disrupting traditional business models with innovative ideas and software solutions. Although 2016 was not a good year for FinTech start-ups, several are poised to gain traction this year, and many have already experienced significant growth since their inception.

2. Evolution of FinTech as an Emerging Market

A whole new market is emerging in form of FinTech, which comprises of FinTech companies, financial institutions & banks and clients of these financial services. The market has dynamics different from traditional banking industry and IT. The global FinTech sector is experiencing explosive growth, attracting \$12.2 billion from investors in 2014, total global investment of \$22.3 billion in 2015 with a 75% increase from 2014 and a massive \$19 billion in 2016. The industry's outlook remains positive, with customers and has lower operational costs.

Digitalization of the traditional banking sector transforms the way banks react to their customers, offering them digital solutions such as:

- Virtual in-branch investment advisors
- Online and mobile banking products and services
- Increased use of social media and data analytics to communicate

Strongly backed by venture capitalists, FinTech companies are set to influence the financial industry in three significant ways:

1. First, drive efficient financial services, as more banks in emerging markets turn to FinTech innovations to improve their digital service delivery.

2. Second, redefine the industry's perception of what it takes to be called a bank. FinTechs not only offer bank-like services, including receiving financial transactions and making loans, they also innovate faster and are able to rapidly grow their customer base. Unlike traditional banks, they have the flexibility to provide cheap and accessible products and services and are quicker to tailor their service offering based on changes to behavioral consumer data.
3. Third, become an intricate part of the banking sector, while distinguishing itself from traditional banks under international regulatory guidelines

3. How FinTech is Reshaping Banking

Just as the world underwent an industrial revolution in the 18th century, we are now experiencing a digital revolution driven by data. With the rise of artificial intelligence (AI) and machine learning, new technologies are coming into play that are changing the way humans live. Technology is impacting every sector imaginably including financial services. This means that FinTech startups - businesses that leverage AI and machine learning to create better financial services - are becoming more popular than ever before.

The rise of FinTechs could be a bad news for traditional banks, large financial corporations are starting to invest and partner with fintechs to ensure digital advancement and growth. Consumer banking is on the verge of disruption, much of which is led by the disaggregation of simple products and service offerings.

Emerging trends in FinTech to explain which start-ups, technologies, trends, and new market entrants are relevant to the banking industry have been highlighted below:

- **The Rise of Peer-to-Peer (P2P) Lending**

Increased levels of technology have enabled an increase in lending from one individual to another without an intermediary.

- **The Increase of Services and Solutions for Underserved Consumers**

Technology has lowered the cost of providing services to customers that are currently under banked, such as those in rural Africa and Asia, where many rely on informal banking services.

- **The Enhancement of Credit Underwriting/ Decision Making**

More granular and detailed data is enabling financial services providers to more accurately assess and price the risks.

- **The Implementation of Solutions that Banks will Integrate or Incorporate to Improve and Simplify Operations**

Banks are adopting new solutions to improve and simplify operations. For example, Application Programming Interface (APIs) enables third parties to develop value-added applications for company's platforms, artificial intelligence is enabling companies to extract greater customer insights, employees and intelligent machines are integrating to work as a team and the banks are expediting the deployment of digital delivery.

- **The Increased Sophistication in Methods to Reach, Engage, and Retain Customers**

Rise of alternative distribution and marketing channels for awareness and lead generation and engaging customers through gamification techniques in a collaborative environment is leading to better customer experience.

- **The Emergence of Self-Service Tools**

Increase of customer autonomy in performing every service without human interaction and use of self-service tools, such as internet banking and apps, are becoming more popular.

- **The Move Toward Nonphysical or Virtual Channels, Including Mobile Channels**

The internet and improvements in technology have enabled banks to increasingly provide traditional banking functions through virtual channels. Virtual banking utilizes on-line and mobile platforms to integrate and simplify the customer banking experience. Virtual banking platforms equip customers with on-demand access to manage bank accounts, pay bills, apply for loans, open new accounts, and perform other banking activities through a single portal. Banks are using these channels to collect data from customers, generate new revenue streams, and offer compelling value propositions.

- **The Digitalization of Cash- and Treasury-Management Functions**

The digitalization of cash and treasury management functions utilizes online platforms to disrupt the traditional cash and treasury models, creating new revenue streams and value propositions. Cross-border payment transfers for businesses, foreign exchanges, and invoice management are a few of the functions that are enabled primarily through the advent of online platforms. For example, organizations are developing new processes to perform international money transfers using mobile wallets and crypto-currencies to get money to customers faster and cheaper.

- **The Democratization of Banking and Personal Finance**

The democratization of banking and personal finance describes the shift in which customers are taking control over their financial health and are seeking new channels and solutions to assist in this process since there is an equal level playing field for all.

- **Rise of Insurtechs**

Insurers use technology to provide digitally-enabled services that involve more frequent interaction with customers. Alongside increased customer contact, the provision of these value-added services facilitates collection of data that can be used to improve underwriting, pricing decisions and better manage risk. Also, new risk pools are being created, and insurers are collaborating with start-ups to collect data and underwrite specialized or under-served niches.

- **Improved Customer Experiences**

The simplification and move toward streamlined product application processes to improve customer experience. The consumer product application process (i.e., loan origination) has been streamlined with the emergence of cloud-based lending solutions and electronic bank account management system which automates the loan origination process and increases overall transparency in the lending process. The move towards such solutions improves customer experience by reducing the amount of manual work, cutting down time and reducing errors.

- **Enhanced use of Block-chain**

Use of distributed and decentralized ledger technology in which transactions are recorded in order to improve payments, clearing and settlement, audit or data management of assets. There is

also the possibility to create a so-called “smart contract” using block-chain technology. This is essentially a contract that is translated into a computer program and, as such, has the ability to be self-executing and self-maintaining.

- **The Rise of Crowd Funding/Seed Funding**

Crowdfunding is the practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet. Thus, crowdfunding has become the champion of FinTech, allowing them to have a chance to succeed by showing their innovative business models to the world. New funding options have emerged in mid-market, such as peer-to-peer (P2P) lending and market place lending platforms.

- **Artificial Intelligence**

Instead of being bounded in customer support uses by humans reacting to users through chat windows, Artificial intelligence and related technologies are being implemented to deliver a human-like chat encounter without the need for nearly as many human helpers. By using smart agents that can examine and crunch data about individual behavior and compare to broader data-sets, small and big businesses could have the ability to deliver personalized financial services as a scope and scale never possible before.

4. Will Banks Collaborate with FinTech Companies?

Banks from around the world are already collaborating with fin-tech companies. Banks are turning to fintech start-ups which are tech experts (as opposed to most banks) to help them become more customer centric and technologically advanced. Banks are also acquiring fintech companies to incorporate new technology/platforms into their services.

Fintech companies are reminding and driving many banks to become more customer centric and technologically advanced. Banks are looking to fintech companies as models of the future and potential competition so they are gradually increasing their awareness, expertise and spending on technology. Through their own efforts and by collaborating with fintech companies, banks will deliver more innovations.

The last 5–10 years in the banking space have been very interesting because for the first time we see banks embracing new technology mediums as the norm. It is pretty clear that having a mobile and digital presence is essential moving forward. The next step is going to be better collaborations between banks and FinTech companies.

Part of the problem we are faced with today is how banks and FinTech companies work together. Normally, a technology based solution would be a great thing because almost anything is possible. Unfortunately, it is going to be years before the old bank and most payment infrastructures are modernized. It is also going to take money and an internal desire from the banks to update and upgrade their infrastructure to a point where integrations are fast and easy.

Banks also need to operate in a PCI (The Payment Card Industry Data Security Standard) compliant and heavily regulated environment. Among many things, this means that the bank will need to vet everyone they work with and in many cases require the third party to be PCI compliant. The bank will need to do a risk analysis and determine if it is worth taking a risk on the third party.

5. Traditional Banking & Start-ups

Traditional banking sector still has a lot to do and they can simply learn from fintech companies how to deliver user-friendly solutions. It's a common truth that lots of bankers understand little of digital/tech. That's why so many of them emphasize the need for fintech-banks collaboration.

Nowadays people want to do everything at a fast pace, no matter whether it's online shopping, contacting their friends, or making payments. They expect something more than traditional banking systems with their clunky payment solutions. That's why companies that do their best to meet customers' needs are on the right track.

FinTech companies identify customers' needs better and aim to break monopolies, as well as protect users from hidden charges. Banks still need some 'push' to come into the force so partnerships and joint projects with fintech companies are probably one of the best solutions for them today. There's a huge need for products that are designed for mobile and are better, faster and more secure than the ones that banks offer.

Customers may benefit from various market players. The point is to create solutions with a customer-centric approach to make it easy to create strong relationships with them. Below mentioned are distinguishing features of a traditional bank and Fintech start-up.

Traditional Banks	FinTech Start-ups
<ul style="list-style-type: none">• Large customer base• Sticky client relationships• Great financial resources• Comprehensive product portfolio• Robust infrastructure• Deposit insurance• High credit-underwriting capabilities• Risk management experience• Access to investment capital	<ul style="list-style-type: none">• Agility and speed to market• Risk taking• Disruptive mindset• Innovative solutions• Lean set-up• Absence of legacy systems• Customer data analytics• Focus on limited product set• Less regulatory pressure

5.1. Role of FinTech in Financial Inclusion

Technology, as much as regulation, is reshaping the financial services industry. New technologies offer huge potential to expand financial services globally. Technological innovations and new business models in the form of mobile payments, mobile banking, and digital finance have dramatically reduced transaction costs, making it possible to bring financial services where no, or limited, access existed before.

Digital financial services lower the cost and increase the security of sending, paying, and receiving money. The resulting increase in access to financial services is particularly important for connecting women to the financial mainstream.

Beyond the benefits for individuals of lowering the cost of payments, expanding the use of digital payments could spur economic growth and ease income inequality. Governments, by this evidence, have every reason to pay attention to the opportunities new technologies afford for financial inclusion.

6. Role of Banks/DFIs in promoting FinTech

The role that banks can play in the fintech space is varied and many depend on how the bank wishes to approach these opportunities. It is not unfair to say that fintech would not be where it is today without the involvement of banks. The more developed marketplace lending arena proves that banks are a necessary part of innovation. Banks need to develop a strategy and approach to adapt and integrate innovation and technology into the institution consistent with its risk profile and then structure relationships to protect the bank that ensure compliance with applicable law and regulation. Following are the roles that Banks can play in promoting FinTech:

- Developing partnership
- Investing in Fintech
- Acquiring Fintech
- Developing their own competency through innovation
- Creating awareness about financial literacy
- Improving Risk Management System
- Improving IT infrastructure

Another important step in promoting FinTech is spreading awareness among its clients and addressing their concerns about privacy & online security of funds.

While governments of developing countries have started to welcome the rise of FinTech, established financial institutions operating in the region view it is both an opportunity and a threat. Banks have a number of advantages over FinTech startups as given under:

- trust with customers;
- access to years of data
- familiarity with the regulatory environment

However, they are also infamously slow in embracing change and delivering to customers, what they want and need, creating a gap that FinTech startups have gradually started to fill with their

innovative, digital, and customer-oriented solutions. Banks, in the region need to embrace FinTech and begin developing plans to capitalize and internalize advancements in technology rather than trying to compete with emerging firms in the FinTech space.

In USA, Bank of America, JP Morgan, and Citibank have invested in FinTech companies while others have acquired FinTechs. In many parts of the world like USA, lenders need to have a banking license and to move money around, a money transmitter license is required. This means that a startup lender must partner with an institution having a banking charter. This is why collaboration of FinTechs & banks is inevitable.

However, to fully realize the disruptive potential of financial technology, banks and fintech startups need to partner up and share their experience and expertise. Established financial institutions can learn a lot from startups, adopt some of their methods and even partner with them. Fintech startups can also help banks improve their consumer experience, reduce operating costs, and discover new opportunities for growth.

Banks can benefit startups with their brand credibility and consumers' trust, expertise in financial risk and regulatory demands in addition to providing them with an audience for their applications. They can also build initiatives such as accelerator and incubator programs, which will allow the benefits of both players to be enhanced in a collective environment and provide startups with what they lack in order to offer banks with what they need.

Banks can acquire or invest in fintech companies, either purchasing discrete applications or even entire companies or platforms to augment and grow the institution's innovative products and services.

7. Challenges for Banks in the wake of FinTech

The financial services sector is in the middle of a digital revolution that represents the most significant change in banking for centuries. In most markets, FinTech start-ups present a credible threat to incumbent banks. Using a combination of technology, consumer-centric service and flexible business practices, these new companies are reducing the cost of doing business, extending their customer base and taking market-share from established rivals. To retain market share, banks are looking to change their own operations to compete, or considering opening

partnerships with the very businesses that threaten them. Despite this threat having been present for some years now, many banks believe they are still unprepared to compete properly. The majority claim they have at least some of the cultural structures and human resources required to address the challenge. However, they are much less confident in terms of procurement or, ironically, financial matters. The challenges most of the banks are facing in the wake of fintech are highlighted below:

- Lack of funds or capital for investment in FinTech opportunities
- Lack of relevant and trained resources to carry out the transformation
- Lack of analysis and product requirements or process definition
- Poor IT infrastructure
- Shifting of core products to digital is seen as intrusion by core/incumbent team
- Fear of financial disruption
- P&L of products with team implementing digitization rather than the product area
- Lack of a framework /regulations for partnering with FinTechs
- Bureaucratic structures and procedures hindering partnerships by delaying decision-making or involving those who don't understand the value of partnerships with small tech companies
- Perceived threat to internal technical resources of banks
- Risk management challenges
- Dearth of potential partners i.e. FinTech companies.
- Challenges faced by FinTechs Companies

8. Fin-tech Ecosystem of Pakistan

Pakistan's FinTech ecosystem is currently at a nascent stage, with only a few FinTechs operating mainly in developed cities such as Islamabad, Lahore and Karachi.

Initially there has been only local, and thus limited, investment in this sector, however the Banks themselves are taking initiatives in this direction. One reason for the slow activity within this space is the lack of entrepreneurs venturing into the FinTech space, primarily because of regulatory ambiguity, which is considered as the most vital impetus for FinTech growth.

Similarly, the lack of mutual growth platforms, allowing thought leaders and industry stakeholders to come together hinders the maturity of the FinTech ecosystem in the country.

The key elements for developing a FinTech ecosystem in Pakistan include Regulatory Measures, Financial Institutions, Startup Environment, and the FinTechs themselves have to take lead.

Almost all the banks in Pakistan have digital banking apps offering banking services and a few insurance, mutual fund and asset management companies have also experimented. Most apps offer banking & fund management services, while few only provide information about products & customer's account balance. No DFI in Pakistan has yet ventured into FinTech.

In neighboring country India, FinTechs are growing like mushrooms offering house building loans, personal loans, insurance, workers remittance and salary management.

Fin-tech is spreading its wings in Pakistan at a slow pace but challenges remain, coupled with enormous potential. Banks and financial institutions are increasingly relying on fin-tech for better customer service delivery and speedy expansion of branchless banking.

The state-run National Bank of Pakistan renewed, late last year, its contract with Virtual World (of TRG) for three years to expand the bank's online customer care services throughout the country. MCB Islamic Bank Limited (MIB), a wholly owned subsidiary of MCB Bank, and Inov8, a well-known fin-tech company, signed a deal that allowed MIB to use Inov8's next generation Falcon Pay Ecosystem covering all mobile payments and e-commerce, retail payments, G2P and P2G payments, and instant Asaan Account and card issuance at customers' doorstep. TPS, a leading payment solutions company, signed an agreement with the Bank of Punjab (BOP) to upgrade the bank's existing switch and middleware technology to IRIS, an Omni-channel payment platform. This will help BOP provide "the best-in-class and cutting-edge payment services to its customers".

With the opening of Application Program Interface (APIs) by Mobi-Cash, Easypaisa, Bank Alfalah, UBL, ABL, Askari Bank, HBL, Mobilink Microfinance, Bank Islami, Meezan Bank, Askari Insurance, UBL fund Managers, Faysal Bank, MCB, FINCA Microfinance, Silk Bank and Standard Chartered Bank Pakistan, the atmosphere for FinTech incumbent collaborations in Pakistan is improving.

8.1. Role of Banks in Promoting FinTech in Pakistan

Despite various limitations, existing FinTech companies are doing well and FinTech start-ups growing. Finja, a FinTech startup attracted \$1m foreign investment as part of \$1.5m bridge financing. Finja is regarded as one of the five emerging fintech companies. The other four are: Oneload, Payload, Batwa and Red Buffer.

The Punjab government will provide 500,000 smart phones to farmers for receiving billion rupee-worth interest-free loans a year and other agriculture services in the first phase of a five-year project for providing five million smart phones. The distribution of smart phones will start this year and its apps will help farmers interact with agriculture officials and experts for advice on improvement in crops. Farmers would be able to apply for agri loans through the PITB-led app that would eliminate Land Revenue Officer and bank agent culture. The app would help farmers receive alerts about weather conditions, crop diseases and protection and timely use of fertilisers and pesticides. Farmers would be provided interest-free loans through the National Bank, Zarai Taraqiati Bank Limited, Bank of Punjab, Tameer Bank, Akhuwat and the National Rural Support Programme.

Together with traditional fintech companies Monnet, Innov8, TPS, Autosoft and Abacus, they facilitate payments handling, microfinance distribution and meet the requirements of branchless banking. Red Buffer, an Islamabad-based fintech, alone works on big data and analytics. Fintech companies are increasingly collaborating with banks but non-bank financial institutions (NBFIs) and Development Finance Institutions (DFIs) are lagging behind. The smaller institutions are the most hesitant ones.

However, Fintech prospects in Pakistan are enormous, as the use of smart phones is growing rapidly and talented young men and women are being trained in the Information and Communication Technology (ICT) discipline. A Hong Kong-based fintech Octo3 has announced shifting its R&D facility to Pakistan and its executives have cited Pakistan's strong and qualitative IT workforce as an encouraging factor.

Out of all the FinTech segments, one, which has made some considerable presence in the country, is the mobile wallet. Despite enormous potential for growth, fintechs or disruptive innovations have yet to take shape in Pakistan.

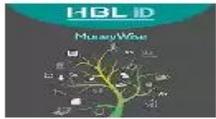
Mobile money such as EasyPaisa, Omni, Mobicash, Timepay etc are some instances of branchless banking which have been operating in Pakistan for quite some time. Some of such mobile money companies like Mobicash are also offering a platform for third party integration. There is considerable growth in this segment however experts believe that there is still a vast potential to tap. With the mobile wallet, a recently-launched payment scheme PayPal, first in Pakistan, has stimulated the payment segment. Segments such as Blockchain technology are yet to make its presence felt in the country.

Experts believe that recent innovations have revolutionized the banking sector in Pakistan. For instance, branchless banking such as EasyPaisa (a collaboration of Telenor Pakistan and Tameer Microfinance Bank) is a mobile wallet which serves needs such as utility bill payments, domestic remittances, airtime purchase, other bill payments, salary disbursements, international remittances, loan disbursements/repayments and savings product combined with insurance.

	HBL Mobile HBL	⋮
	4.2 ★	FREE
	Standard Chartered Mobile (PK) Standard Chartered Bank PLC	⋮
	3.8 ★	FREE
	Pakistan Rupee Exchange Rates Crazynova LLC	⋮
	4.2 ★	FREE
	SilkMobile Silkbank Ltd.	⋮
	3.7 ★	FREE

	mBankIslami BankIslami Pakistan Limited	4.1 ★	FREE
	Askari Mobile App Askari Bank	4.5 ★	FREE
	PayMax Mobile APP Askari Bank	3.9 ★	FREE
	UBL Omni Agent Mobile App UBL OMNI	4.3 ★	FREE
	FINJA Commercial User Finja	4.5 ★	FREE
	SimSim Pakistan Finja	4.0 ★	FREE
	MobiCash Payments Compass Plus Ltd.	3.9 ★	FREE
	UBL Digital App United Bank Limited	4.5 ★	FREE
	ATM Locator Pakistan Data Solutions	4.1 ★	FREE
	1LINK ATMs Locator 1 LINK GUARANTEE LTD	4.2 ★	FREE

	Askari Insurance – AskTrack Jamshed Jadoon	...
	2.7 ★	FREE
	Easypaisa Telenor Bank	...
	4.2 ★	FREE
	MCB Mobile Banking Application MCB Bank Ltd.	...
	3.9 ★	FREE
	PAK BANK IBAN IT PAKISTAN	...
		FREE
	Mobilink Microfinance Bank Mobilink Microfinance Bank Limited	...
	4.7 ★	FREE
	Mobit Faysal Bank Limited	...
	3.2 ★	FREE
	Meezan Mobile Banking Meezan Bank Limited	...
	4.4 ★	FREE
	alfa Bank Alfalah Limited	...
	4.1 ★	FREE
	AL Habib agile Bank AL Habib	...
	3.3 ★	FREE
	UBL Omni Mobile App UBL OMNI	...
	4.2 ★	FREE

	Allied SMS Banking Allied Bank Limited	3.8 ★	FREE
	HBL MoneyWise HBL	3.6 ★	FREE
	HBL Express Sales HBL	4.3 ★	FREE
	Al Meezan Connect Al-Meezan Investments Management	4.3 ★	FREE
	JazzCash Retailer Jazz Pakistan	3.9 ★	FREE

8.2. Scope of FinTech in Pakistan

Although FinTechs may be at a nascent stage in Pakistan, there is immense potential for their growth given the high percentage of the unbanked population and relatively weak consumer banking due to geographically limited services.

According to World Bank estimates, Pakistan's current financial inclusion ratio is 15% compared to an average of 33% for lower-middle income countries and until 2016, about 100 million adults in Pakistan did not have access to formal financial services. To remedy this, the government is targeting universal financial access for at least 50% of adults by 2020 via its National Financial Inclusion Strategy. However, this can only be realized by expanding the scope of FinTechs so that they can come up with more efficient and seamless branchless banking solutions. On the back of Pakistan's relatively high mobile phone penetration, FinTechs can reach out to under-served areas in an efficient and cost-effective manner. Moreover, through these recently introduced challenges, FinTechs can enhance linkages with financial institutions and obtain the much-needed funding they require for their own growth and innovation.

The top challenges faced by small companies attempting to venture into digital finance in Pakistan are as following;

- Unwelcoming attitude of incumbent organizations for partnerships.
- A challenging regulatory scenario in the form of unfavorable regulations and uncertainty.
- Difficulty in modifying consumer behavior.
- Lack of early stage funding.
- Lack of resources to support long product development cycles.

This is where role of financial institutions comes into play as Banks/DFIs can invest in Fintechs.

FinTech Reshaping the Agriculture Credit

Ricult is a FinTech startup aiming at helping farmers with small land holdings get access to the capital they need so that they don't face financial exploitation by landlords in the developing countries. The firm blends the best technology and farming practices in order to achieve this goal. Ricult has embarked on a journey to challenge exploitative agricultural practices in developing countries by providing farm input – seeds, fertilizers, and pesticides – on simple and affordable credit terms while using efficient credit score algorithms and precision analytics to increase the yield manifold. Innovations enabled by digital technology and value chain approach can not only make agri-financing more viable but also unlock new opportunities for rural banks to deliver a whole range of financial services catering to the unique needs of farmers and their communities.

- 1) **Minimizing Role of Middle Man:** Fintech and digital markets can connect farmers directly to buyers through a mobile platform. Fintech not only minimizes the dependency on middlemen, but increases the use of peer-to-peer lending, growing and strengthening the sharing economy model. For example, M-Pesa and FarmDrive in Kenya, where FarmDrive connects smallholder farmers to loans and financial management tools through their mobile phones.
- 2) **Cash payments are often troublesome.** Payments can be delayed if there are no bank branches nearby, which may trigger side-selling, selling their commodities to someone outside of a contract, by small farmers.

- 3) Improved, efficient and Secured Payment System
- 4) Cost of Transaction will be decreased
- 5) FinTech would help to bank the unbanked farmers of Pakistan which would increase financial inclusion
- 6) Digital insurance platforms offer reasonably low-cost crop insurance. Farmers can register online and pay their premiums with their mobile phones. Weather-index insurance enables them to effectively manage crop loss risks through automated weather stations and satellites.
- 7) 24/7 access to services of the Bank
- 8) Enhanced accessibility banking and financing needs
- 9) Development of virtual transfers/receipt payment systems

9. Role of ZTBL in the Wake of FinTech

ZTBL envisages entering Alternate Delivery Channels (ADC) FinTech market; however it would require a lot of spadework in terms of its IT systems. The Bank has recently participated in E-Credit scheme of Government in order to support Government's efforts to increase agri. produce as well as to alleviate rural poverty among small and poor farming segment of the society.

The scheme is unique in terms of provision of quality input loans to the farmers by facilitating them free of cost registration at Suhulat Centers to be maintained by the Land Record Management Information System (LRMIS) in collaboration with Punjab Information Technology Board (PITB). The disbursement of the loan has been made to the farmers through open mobile wallets of telcos linked with Asaan Account.

ZTBL is cautious in riding the band wagon and is learning from early entrants of the market in terms of data security & systems management before it makes a leap in this direction. ZTBL plans to launch state of the art branch ATM network that includes biometric & EMV card enablement further to offer customer service on ATM via a video link.

ZTBL is positioning following other projects:

1. Digital Banking Platform (ATM Controller, Cards Management System, Utility bill payment)
2. Establishment of Call Centre IVR, Pin Management CRM Portal
3. Mobile Wallet and Mobile Banking App
4. Enablement of Branch ATM Network

Sources:

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