




Leveraging Technology for Meaningful Financial Inclusion in Asia




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This report presents the findings of a study conducted by *MicroSave* to understand the role of innovative technologies across across six markets in Asia – Bangladesh, China, Malaysia, Myanmar, Nepal and Vietnam. We conducted the study during the period of May, 2017 to October, 2017.

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Abbreviations and Acronyms

Key Terms

AB	Agent Banking
ASA	Association for Social Advancement
ATM	Automated Teller Machine
BAFIA	Banks and Financial Institutions Act
BNM	Bank Negara Malaysia
BSEC	Bangladesh Securities and Exchange Commission
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CB	Credit Bureau
CBM	Central Bank of Myanmar
CBRC	China Banking Regulatory Commission
CBS	Core Banking Solution
CGC	Credit Guarantee Cooperation
CICO	Cash-in Cash-out
CIL	Credit Institution Law
CP	Consumer Protection
E-KYC	Electronic KYC
FI	Financial Inclusion
FL	Financial Literacy
FLEP	Financial Literacy Education Programme
FSBP	Financial Inclusion Blue Print
FSP	Financial Service Provider
FTEG	Financial Technology Enabler Group
G2P	Government to People
GDP	Gross Domestic Product
GPS	Global Positioning System
ICT	Information and Communication Technology
IT	Information Technology
KYC	Know Your Customer
LMI	Lower and Middle Income
MFI	Micro Finance Institutions
MFS	Mobile Financial Services
MIS	Management Information Systems
MNO	Mobile Network Operators
MPoS	Mobile Point of Sales
NDTL	Non-deposit-taking Lenders
NFC	Near Field Communication
NFEP	National Financial Education Program
NFIS	National Financial Inclusion Strategy
NGO	Non-Government Organisation
NRB	Nepal Rastra Bank
OECD	Organisation for Economic Cooperation and Development
P2P	Peer-to-Peer
PBoC	People's Bank of China
PKSF	Palli Karma Sahayak Foundation
PoS	Point of Sales
PSO	Payment Service Operator
PSP	Payment Service Provider
SDB	State Department Banks
SME	Small and Medium Enterprises
TA	Technical Assistance
TAT	Turnaround-time
USSD	Unstructured Supplementary Service Data
VBSP	Vietnam Bank for Social Policies
VNPT	Vietnam Posts and Telecommunications
VTB	VTB Bank
WB	World Bank

Executive Summary

Executive Summary

MicroSave conducted this study to understand the role of innovative technologies and how they might simplify financial inclusion for both potential providers and future users.

Background of the study

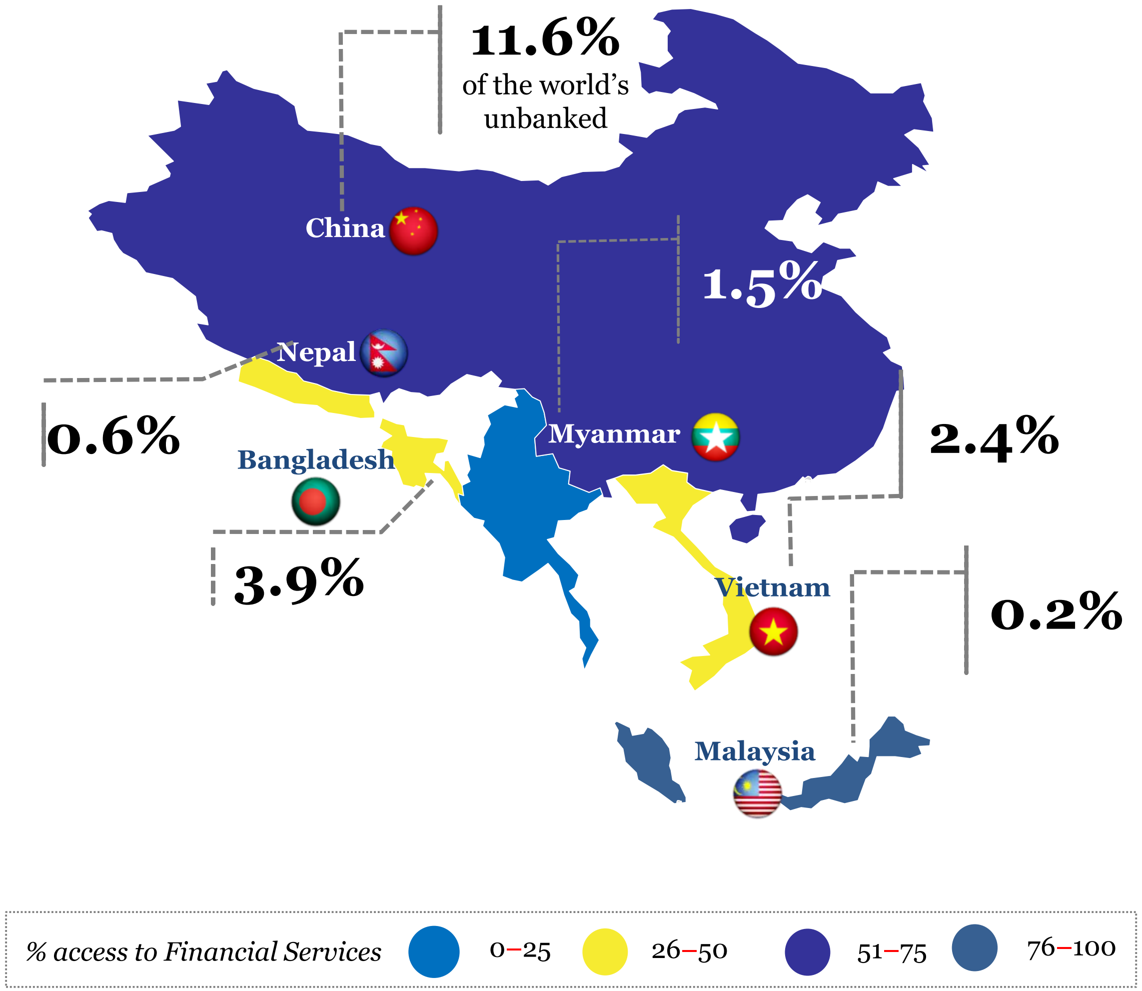
- Digital technology has been reshaping the financial services industry and can help accelerate the pace of financial inclusion.
- The study intends to create an up-to-date overview on enabling fintechs that offer disruptive and innovative solutions due to their more agile development cycle, generally niche product offerings, and their promise to lower costs. These fintechs include innovative start-ups, mobile financial services (MFS) providers, and IT solution or platform providers.
- An additional objective of the study is to facilitate introductions among fintech players and traditional financial service providers (FSPs) in order to reach the customers at the last mile.
- The study is based on an extensive secondary research and stakeholder interviews with fintechs and FSPs across six markets – Bangladesh, China, Malaysia, Myanmar, Nepal, and Vietnam. The secondary research helped to identify the key challenges in financial inclusion for each market that have a direct potential for technology disruption. It also helped assess the readiness of the market in supply and adoption of fintech or technology solutions. The stakeholder interviews helped to validate the findings of the secondary research and to understand the specific challenges that fintechs and FSPs face in addressing the target segments.

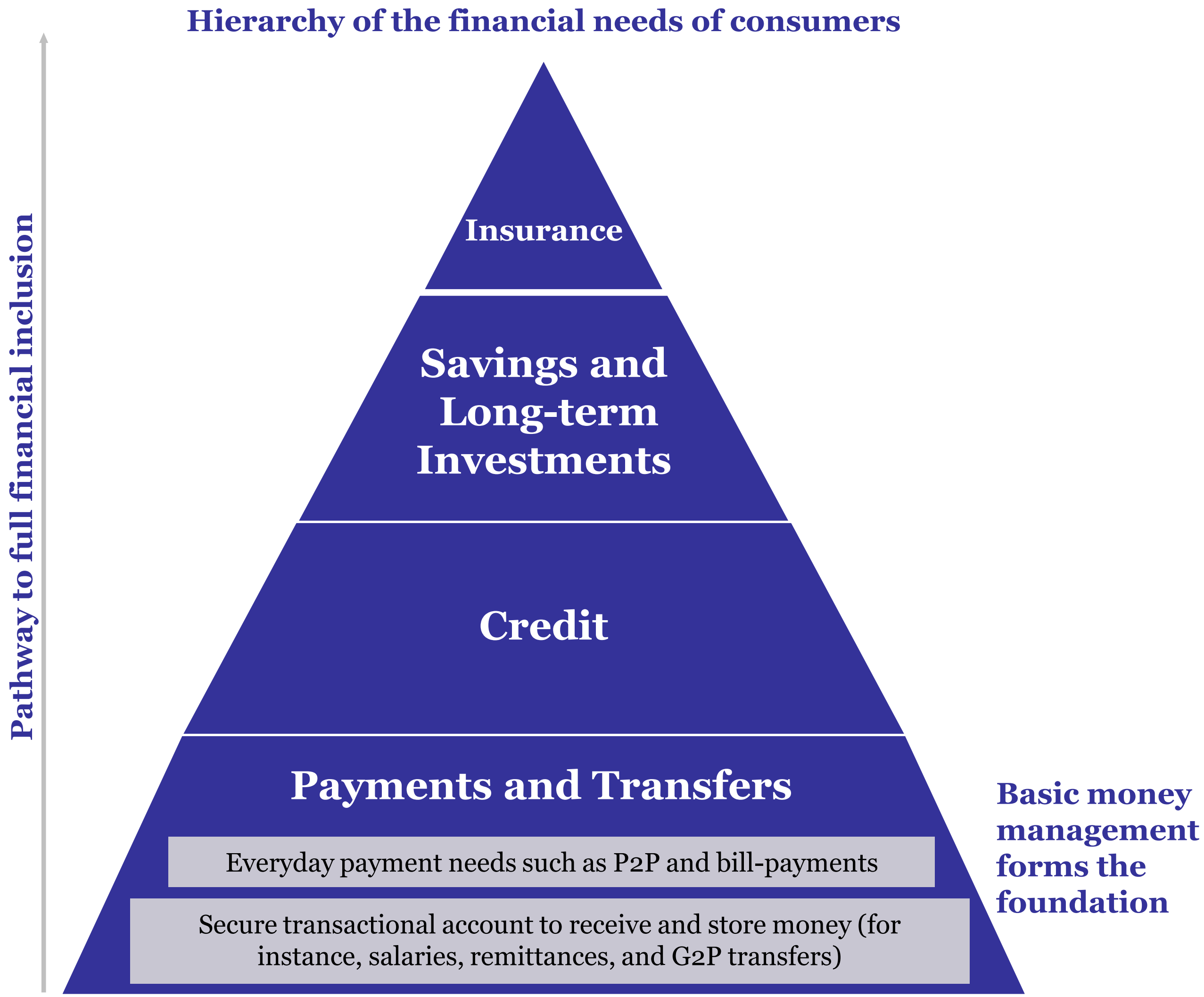
Key Components	Definition
Financial Inclusion	• Individuals and businesses have access to useful and affordable financial products and services that meet their needs – payments, savings, credit, and insurance – delivered in a responsible and sustainable way. [1]
Target Segment	• Individual: lower-middle income[2], women, youth • Enterprises: micro and small enterprises (MSE[3])
Fintechs (defined to include mobile financial service providers, start-ups, and IT solution providers or platform providers for this study)	• The use of technology to accelerate financial inclusion, which include: Biometric Identification; Alternative Credit Scoring; Crowd & P2P Lending; Payments through mPOS; Cloud Storage; Blockchain; Mobile & Internet Technology; Robo-analytics; Data-analytics; Remote Loan Origination

1. Definition by the World Bank
2. Individuals with income under USD 5 a day and informal microenterprises
3. Formal MSMEs (micro: 1–9 employees, small: 10–49 employees; medium: 50–250 employees); source: IFC

Executive Summary – Geographic and Product Focus

Our work has focused on four key products (payments, credit, savings and insurance) in six markets (Bangladesh, China, Malaysia, Myanmar, Nepal, and Vietnam)





- World Bank Findex 2014, *MicroSave* analysis
- Hierarchy of Consumer Financial Needs; MasterCard, MasterCard Advisors Analysis, 2014

Executive Summary

Overview of primary research conducted – stakeholders interviewed

Fintechs

Mobile Financial Service Providers

4
Conducted

- bKash, Ucash, SureCash
- Wave Money

Fintech Startups

14
Conducted

- MicroEnsure, Cloudwell, SSL Commerz,
- MoMo, Vimo
- CreditEase, Dianrong, P2P protect
- Crowdo, MyCash Online, KATSANA, MoneyMatch
- Ongo, Stonestep

IT Platform or Solution Providers

10
Conducted

- ConnectNPay, Red Dot Myanmar, OOjiBO, Transfer-to
- SoftSpace
- F1Soft, Janaki Tech, Hello Paisa, Prabhu Group, Chaudhary Group

Incumbent Financial Service Providers (FSPs)

Microfinance Institutions

2
Conducted

- Shanxi Xinxiang Womens' Development Association
- Shakti Foundation

Commercial Banks

4
Conducted

- TiMo
- Muktinath Bikas bank
- Maybank, RHB Bank Berhad

Case Studies

6
Conducted

- PayTM, LendingKart, Eko
- Democrance
- Mambu, Credolab

Executive Summary

This study focuses on addressing four key questions via extensive secondary research, stakeholder interviews with fintechs and financial service providers (~30+), and associated analysis.

Key Project Questions	Analysis
1 *a. What are the key financial inclusion challenges in each market?*	• The current state of financial inclusion with focus on key products[1] and services • The ecosystem of players that serve the target segments of interest
b. Where and how can fintech (technology solutions) address these constraints?	• Value chain analysis for product needs of customers (for instance, savings, credit, insurance and payments) • Identification of priority areas across different value chains where fintech can address the constraints
2 *How conducive is the environment in the country for the market supply of fintech solutions?*	• Assessment of the fintech infrastructure and ecosystem • Assessment of regulatory barriers or ambiguities in each market • Review of existing fintech indices
3 *What are specific challenges that fintechs and FSPs face in addressing target segments?*	• Strategy of these fintechs and FSPs in serving the target markets ➢ Other operational or financial challenges required when addressing more remote and rural populations ➢ Need for new partnerships and associated challenges

1. Key products and service suite: payments and transfers, credit, savings, and insurance

Executive Summary

We reviewed major constraints across six key areas in each market. Subsequently, we shortlisted those that (1) have a direct potential for technology disruption, that is, fintech solution, or (2) must be addressed to enable technology.

Payments and Transfers

Credit

Saving

Insurance

Entry Barriers

1 Demand-side entry barriers

(for instance, digital literacy and meaningful financial awareness, KYC regulatory requirements, KYC infrastructure)

2 Supply-side entry barriers

(for instance, ease of entry, regulatory equivalence of players)

Product Design and Delivery Barriers

3 Payments

(for instance, enabling critical volume, removing friction)

4 Savings

(for instance, building saving awareness and culture, savings access and convenience)

5 Credit

(for instance, credit infrastructure, credit risk assessment and delivery, fraud risk management)

6 Insurance

(for instance, building product awareness and culture, delivery, and servicing)

Executive Summary

Based on our secondary research and discussions with market participants, we developed a heat-map of the severity of the key emerging constraints in the six markets. We have discussed these constraints in detail in the respective country summary sections of the report.

Category	Constraints	Malaysia	China	Bangladesh	Vietnam	Nepal	Myanmar	*Aggregate*
Demand-side Entry Barriers	Digital literacy and meaningful financial awareness							
	Know Your Customer (KYC) regulatory requirements							
	KYC infrastructure (Presence of unique ID)							
	Cost and quality of digital access							
Supply-side Entry Barriers	Regulator equivalence in the treatment of supply-side actors							
	Ease of entry (for instance. regulatory and licensing requirements)							
	Cost of ongoing regulatory compliance							

% access to Financial Services 0–25 26–50 51–75 76–100

Constraint

Minor *Major*

Executive Summary

Based on our secondary research and discussions with market participants, we developed a heat-map of the severity of the key emerging constraints in the six markets – continued

Category	Constraints	Malaysia	China	Bangladesh	Vietnam	Nepal	Myanmar	*Aggregate*
Savings	Awareness and culture of savings or investment							
	Savings access and convenience at the last mile							
	Enabling goal-based savings habit							
	KYC regulations							
Credit	Credit infrastructure – centralised bureaus							
	Credit risk assessment for low-income and MSEs							
	Credit delivery through alternate channels							
	Cost of credit servicing and collections at the last mile							

% access to Financial Services 0–25 26–50 51–75 76–100

Constraint

Minor *Major*

Executive Summary

Based on our secondary research and discussions with market participants, we developed a heat-map of the severity of the key emerging constraints in the six markets – continued

Category	Constraints	Malaysia	China	Bangladesh	Vietnam	Nepal	Myanmar	*Aggregate*
Payments & Transfers	Enabling critical volume – G2P and P2G							
	Enabling critical volume – P2All							
	Extending access – Physical access – agents							
	Extending access – Digital access and use in last mile							
	Interoperability – Friction and Fees							
Insurance	Building product awareness and culture							
	Customised product delivery and servicing for low-income segments							
	Enabling environment							

% access to Financial Services 0–25 26–50 51–75 76–100

Constraint
Minor *Major*

Executive Summary

We have identified nine key challenges that will be critical hurdles to greater financial inclusion in these six markets.

1 Demand-side Entry Barriers | **2 Supply-side Entry Barriers** | **Product Design and Delivery Barriers**

	1 Demand-side Entry Barriers	2 Supply-side Entry Barriers	Product Design and Delivery Barriers		
3 Payments and Transfers	**Last mile digital literacy and awareness** • Low levels of meaningful awareness, trust, and appreciation of DFS	**Last mile infrastructure** • Poor payments infrastructure to enable interoperability • Limited physical and digital access at the last mile	**Complex UI or menu and redundant processes** • Complex user interfaces and redundant processes • Overwhelming dependence on cash payments and agent-assisted transactions	**Missing focus on digitising bulk payments** • Lack critical volume for: • P2All payments - insufficient use-cases for need-based and frequent payments • G2P and P2G payments • B2P and P2B payments- lack efforts for partnerships with enterprises	
4 Credit		**Ineffective credit risk assessment** • Lack of trained staff and efficient processes • Absence of credit bureaus • Limited information on credit history		**Lack of customised and need-based products** • Mass-market credit products against collateral and at a high risk premium • Limited efforts to capitalise goal-based savings • Low transaction volumes and high operating costs outweigh potential revenues from LMI customers	**Access and convenience** • Credit delivered through alternate channels • Cost of credit servicing and collections at the last mile • Savings access and convenience at the last mile
5 Savings					
6 Insurance	• Limited efforts to increase customer's awareness of insurance products	**Missing focus on digitising value chain** • The high cost of customer acquisition and on-boarding • Cumbersome and time-consuming processes across the value chain • High customer churn		**Lack of customised and need-based products** • Low-income customers lack an understanding and appreciation of insurance products, mainly due to limited access to insurers and complexity of products • Small ticket-size transactions and the continued bundling of insurance with other financial products makes reaching this segment difficult • Mass market insurance products offered at a high-risk premium	

Executive Summary

We have assessed the readiness of the markets for the supply of fintech or technology solutions based on the analysis of existing DFS regulations and the business environment.

Markets	Enabling DFS Regulations or Guidelines	Ease of Doing Business	Access to Electricity	Access to the Internet	Availability of Venture Capital	*Aggregate*
Bangladesh						
China						
Malaysia						
Myanmar						
Nepal						
Vietnam						

Market Conduciveness

Low	Medium	High

Parameters	Unit	Low	Medium	High
Ease of doing business	Rank	>100	50–100	<50
Access to electricity	Rank	<50%	50%–75%	75%–100%
Access to the Internet	%	<50%	50%–75%	75%–100%
Availability of venture capital	%	>100	50–100	<50

Executive Summary

Some of the identified constraints either (1) have a direct potential for technology disruption, that is, fintech solution or (2) must be addressed to enable technology.

Category	Constraints	Rationale or Technology Solution	Relevant Markets (Need as opposed to Readiness)
Demand-side Entry Barriers	Digital literacy and meaningful financial awareness	This is a constraint to varying degrees, even in countries with more developed financial systems such as China and Malaysia. Unless consumers, particularly those in the more remote or rural geographical regions, gain an understanding of DFS and digital interfaces, financial and digital literacy will remain low at the last mile.	
	KYC infrastructure	In markets such as China and Malaysia, customer identification and verification processes are powered by unique national IDs. However, they should be matched with a real-time verification infrastructure, supported by a regulatory framework featuring tiered KYC and cross-product KYC to be fully efficient and effective. For example, e-KYC in India, based on the 12-digit *Aadhaar* unique identity number, has reduced the time required for customer verification from between two and four weeks to less than a minute.	
Supply-side Entry Barriers	Cost-effectiveness of last mile distribution	Alternative low-cost, widespread digitally-enabled points of physical access that are digitally enabled, for example using mobile money or point of sale systems can make last mile servicing and distribution more efficient. A CGAP study estimates the costs for lending and insurance can be reduced by 15 and 30% 1 respectively.	

1. 'Projecting impact of nontraditional data and advanced analytics on delivery costs'. CGAP. 2014

Executive Summary

Some of the identified constraints either (1) have a direct potential for technology disruption, that is, fintech solution or (2) must be addressed to enable technology.

Category	Constraints	Rationale or Technology Solution	Relevant Markets (Need as opposed to Readiness)
Savings 	Savings access and convenience at last mile	Agent networks enable individuals to access additional outlets for cash-in and cash-out. It is also possible to monitor agent liquidity as agents are equipped with a digital app that is linked to the financial institution's core banking solution (CBS).	
	Lack of customised products to suit cash-flows of the low-income segment	A mobile app that is enabled with a goal-based savings account that is targeted at setting aside money typically for important welfare or consumption needs. Examples include 'Save 4 School' from Econet in Zimbabwe that helps smallholder families plan ahead for their children's school fee payments and 'Goal+' from Amret in Cambodia that allows customers to save for long-term goals such as cows, weddings, and education. Customers sign up and deposit via mobile tellers or third-party agents equipped with a smartphone or a tablet app.	
Credit 	Credit risk assessment for low-income and MSEs	Many active fintechs have been using non-traditional data to enable credit scoring, such as payment transaction data, insights based on psychometric tests, data from telecoms, and geolocation information. These alternative data sources can help assess the credit risks of individuals who may not have existing credit histories, established formal banking relationships, or verifiable sources of income – tapping a market of previously excluded potential borrowers who have relied on informal loans. Fintechs include start-ups that purely provide these data analytics solutions as well as other players such as P2P lending platforms.	
	Credit delivery through alternate channels	P2P lending platforms are digitally enabled and serve to bring together borrowers – typically MSEs that seek capital injection and lenders that are interested in competitive returns. Advantages offered are its flexibility to channel variable amounts of capital at lower interest rates in an effective and transparent manner.	
	Cost of credit servicing and collections at the last mile	• Remote Loan Origination - Use of handheld tablets to capture household information from clients, which allows for faster and more accurate customer onboarding • Use of mobile-banking services to allow clients to make loan repayments and deposits • Utilising agent networks to increase repayment points	

Executive Summary

Some of the identified constraints either (1) have a direct potential for technology disruption, that is, fintech solution or (2) must be addressed to enable technology.

Category	Constraints	Rationale or Technology Solution	Relevant Markets (Need as opposed to Readiness)
Payments & Transfers	Enabling critical volume – G2P and P2G	• Digitise beneficiary database for seamless identification and verification • Use of an integrated financial system to digitally administer salaries, pensions, and licensing receipts	
	Enabling critical volume – P2All	• Mobile POS terminals for customers to use e-money • Electronic money transfer platforms for remittances, such as P2P • Bill payment aggregator to enable one-stop payments (including P2G) online, in provider branches, or through agents	
	Extending physical access – agents	Integration of merchant POS with payment processing platforms, through standard, well-documented open APIs	
Insurance	Customised product delivery and servicing for low-income segments	Microinsurance services offered through mobile phones – mobile microinsurance has emerged as a medium that offers increased process efficiency and makes low-value, high-volume transactions more viable through reduced turnaround times and paper-load. Fintechs such as BIMA and Microensure act as end-to-end providers and have tied up with MNOs that enable mobile money platforms (or airtime used as a payment mode if applicable). There are also other fintechs, such as TongJuBao that use Internet-based platforms that allow groups to vote on premiums.	

Framework to Assess Specific Fintech and FSP Challenges

We interviewed leading fintechs and FSPs in each market to get their perspectives on the four key areas below. This exercise helped us to validate the constraints gleaned from the secondary research. It also helped us to understand the key challenges that fintechs and FSPs faced in developing viable business models and partnerships to enable the adoption of technology.

	Entry Barriers		Growth Barriers	
Fintechs / FSPs	**1** **Demand-side Entry Barriers** (for instance, customer's digital literacy and meaningful financial awareness)	**2** **Supply-side Entry Barriers** (for instance, policy and regulations)	**3** **Business Models** (for instance, cost of delivery, access to capital , internal capacity)	**4** **Partnerships** (for instance, channel partners, sectoral interoperability)

Executive Summary

The challenges that fintechs face to address financial inclusion are multi-faceted. These include their lack of understanding of customer segment and resources to build partnerships at the last mile.

Category	Area of Challenges	Specific Issues	Addressable through Support	Relevant Markets
Demand-side Entry Barriers	Customer's digital literacy, meaningful financial awareness and appreciation of DFS	Lower awareness of DFS and higher reliance on assisted OTC and cash transactions	✓	
		Lack of appropriate user interfaces for low-income rural segments	✓	
		Consumer's limited appreciation of specific products, such as investments	✓	
Supply-side Entry Barriers	Human resource	Challenge to find suitably skilled staff		
	Policy and regulations	Level playing field issues – treatment of supply-side actors	✓	
		High costs for license acquisition, for instance, for remittances		
		Limited enablement of innovation, for instance, sandbox, entry of foreign players	✓	
	Poor infrastructure	Inadequate for USSD or app-based transactions, hindering innovative products		
Business Models	Last mile viability and (niche) customer understanding	Limited access to affordable debt capital – high interest rates by banks		
		Lack of venture capital – low business case viability, high capital gains tax	✓	
		Limited understanding of the demand-side behaviour of rural customers	✓	
		Lack of resources to prioritise business development and build new modalities – specific niche segments (for instance, SMEs)	✓	
Partnerships	With incumbents and other last mile organisations	Higher TAT at banks and perception of fintechs; complex on-boarding process	✓	

Executive Summary

The key challenges faced by the incumbents relate to KYC-related hassles, low digital financial literacy of customers, and a limited readiness for technology adoption

Category	Area of challenges	Specific issues	Addressable through Support	Relevant Markets
Demand-side Entry Barriers	Customer's understanding and appreciation of DFS	Competency in relation to DFS	✓	
		Dependency on cash and understanding of DFS	✓	
		Gender and DFS	✓	
Supply-side Entry Barriers	Policy and regulations	KYC documentation requirements	✓	
		Pricing of financial services	✓	
		Restrictions on accepting deposits		
		Risk mitigation and dispute resolution	✓	
	Infrastructure readiness	Interoperability between FSPs		
Business Models	Viability and relating to technology adoption	Access to capital		
		Cost of serving low- and middle-income customers	✓	
		Innovative products	✓	
		Readiness to adopt technology	✓	
Partnerships	Service delivery channel	Partnership and reliance on MNOs	✓	
		CICO agent points in rural areas	✓	

The Key Emerging Problem Statements

The key problem statements that emerge across the six markets are as follows – albeit to varying degrees. We arrive at the problem statements using the original framework to analyse both demand and supply-side entry barriers as well as the factors relating to the design and delivery of the four key products.

Entry Barriers

1 Demand-side Entry Barriers

While smartphone use is increasing even in rural areas, user interfaces adapted to prevailing levels of customer understanding and preferences[1] are still missing.

[1]Taking into consideration factors such as literacy or numeracy levels, gender, and financial goals

2 Supply-side Entry Barriers

Last mile FSPs lack the capacity and resources for technology adoption and require support to enable partnerships with fintechs.

Product Design and Delivery Barriers

3 Payments

The potential of digitising bulk payments (G2P, P2All, value chains) is unrealised but offers important use-cases to drive transactions.

4 Credit

A combination of ineffective credit risk assessment and lack of customised products hamper the supply of appropriately sized loans, while the cost to the customer remains high.

5 Savings

Formal savings mechanisms are inconvenient given the low disposable incomes at the last mile; low-cost digital enhancements can encourage a change in behaviour.

6 Insurance

Design and delivery of insurance products can benefit from digitisation; last-mile customer decision-making and choice needed to increase an understanding of the product.

Framework to Consolidate Relevant Intervention

Combining the first two frameworks, a list of addressable problems based on (1) their potential for a technology solution as well as (2) those relating to possible support for fintechs and FSPs have been identified.

Payments and Transfers

Credit

Saving

Insurance

Fintechs

FSPs

Entry Barriers

1 Demand-side Entry Barriers
(for instance, digital literacy and meaningful financial awareness, KYC regulatory requirements, KYC infrastructure)

2 Supply-side Entry Barriers
(for instance, ease of entry, regulatory equivalence of players, policy and regulations)

Product Design and Delivery Barriers

3 Payments
(for instance, enabling critical volume, removing friction)

4 Savings
(for instance, building saving awareness and culture, savings access and convenience)

5 Credit
(for instance, credit infrastructure, credit risk assessment and delivery, fraud risk management)

6 Insurance
(for instance, building product awareness and culture, delivery and servicing)

Growth Barriers

7 Business Models
(for instance, cost of delivery, access to capital , internal capacity)

8 Partnerships
(for instance, channel partners, sectoral interoperability)

Executive Summary

There are a variety of impactful and scalable interventions that programme interventions could support to ensure that fintechs and FSPs play a more meaningful role in advancing financial inclusion in the six markets.

Area of constraints	Addressable 'Challenges'	Intervention Ideas through or that support Tech adoption	Partners Involved and Impacted	Relevant Markets
Demand-side Constraints	Enhancing digital literacy and meaningful financial awareness for the last-mile	Demand-side research on appropriate UIs for customers with low-literacy levels and with a gender lens	FSPs and Fintechs	
		Understand the key gaps in awareness and trust barriers in use of formal financial products through a rigorous demand-side analysis	FSPs and Fintechs	
		Digital awareness initiatives through targeted campaigns or drives for niche segments that are in more rural areas, which also includes a component of digital access	Central Banks, FSPs, Fintechs	
		Digital awareness initiatives through targeted campaigns or drives that focus on the aspects of key financial management, product usage, and digital access	Local FI Champions, Fintechs	
Supply-side Constraints	Reducing the cost of serving rural customers through DFS and supporting Fintech-FSP partnerships	Work with last mile MFIs to support technology adoption for front- and back-end processes – through readiness assessments and support for training	FSPs and Fintechs	
		Identify areas of partnership between FSPs and fintechs for technology transfer to improve efficiency and reduce costs of operations for last-mile FSPs	FSPs and Fintechs	
		Support pilots that promote development and testing of partnership models that allow technology sharing by fintechs with the last mile FSPs	FSPs and Fintechs	
		Facilitate dialogue between both groups of actors through industry events	FSPs and Fintechs	
	Extending support to regulators	Facilitate regional or bilateral knowledge-sharing between regulators who have relevant solutions on DFS consumer protection guidelines, e-KYC, and to enable fintechs	Central Banks, Commercial Banks, FSPs	
		Facilitate regional or bilateral knowledge-sharing between central banks or key government institutions on approaches undertaken in other markets around enablement of e-KYC or proportionate KYC	Central Banks, Government Institutions	
	Enabling access to capital for fintechs	Support knowledge sharing amongst regional angel investors and facilitate introductions to fintechs selected for business case preparation assistance	Angel Investor Networks, Fintechs	
	Enabling DFS competency for technology adoption	Conduct readiness assessment for FSPs (particularly for local and smaller MFIs, banks) to provide DFS training and TA support for technology adoption	FSPs	

Executive Summary

There are a variety of impactful and scalable interventions that programme interventions could support to ensure that fintechs and FSPs play a more meaningful role in advancing financial inclusion in the six markets.

Area of constraints	Addressable 'Challenges'	Intervention Ideas through or that support Tech adoption	Partners Involved and Impacted	Relevant Markets
Payments and Transfers	Enabling critical volume – G2P & P2All	Promote the use of online platforms (for instance, e-money) and social media (for instance, Facebook) to be used for P2P remittances	Central Banks	
		Facilitate regional or bilateral knowledge sharing between central banks or key government institutions on approaches undertaken in other markets around G2P digitisation	Central Banks, Government Institutions	
	Extending access points of physical presence	Facilitate regional or bilateral knowledge sharing between central banks or key government institutions on approaches taken in other markets in developing specific guidelines for branchless banking and agent network management (including the introduction of ANMs) with a focus on consumer protection	Central Banks, Government Institutions	
Credit	Enhancing credit risk assessment and scoring	Support pilots that promote the application of big-data credit-scoring tools with FSPs through a competitive process of selection	FSPs and Fintechs	
		Support pilots to test the use of alternative data for MSE sector – specific or priority geographic or industry clusters where enterprises tend to be smaller and lack collateral through partnerships with P2P lending platforms and interested banks	FSPs and Fintechs	
		Support development of alternative credit scoring by supporting the entry of relevant fintechs and by facilitating partnerships with incumbents	FSPs and Fintechs	
	Designing need-based and innovative products	Identify smallholder value chains and support the development of need-based and innovative products along with digitisation in value chains	FSPs and Fintechs	
Savings	Improving savings access and convenience	Work with key stakeholders to develop segment specific products – that is, savings products for migrant workers, smallholder farmers, and other niche segments	Central Banks, Government Institutions	
Insurance	Enhancing digital delivery of microinsurance products	Support the delivery of microinsurance through digital platforms by facilitating partnerships between local fintechs and incumbents	Fintechs	

Country Assessments

Country Assessment Framework

As guided by the key questions, the study is segmented into three key sections that form the body of the final report. Extensive secondary research forms the initial hypothesis which will then be tested with key stakeholders, towards finalisation.

Mapping of current state and report drafting	1a Key FI Challenges	1b Opportunity for Fintech to Address FI Challenges	2 Country Landscape Assessment for Fintech	3 Enhancing FI Potential of Fintech
Key questions	• What is the current state of financial inclusion ? • What are key customer needs and how well are they being addressed? • Are there specific segments[1] being underserved by the formal financial sector?	• Where in the key product value chain is their room for fintech solution? • Which are the markets where there is a critical need for fintech based on key constraints identified?	• What is the existing regulatory environment for fintech[2] players? • Are other enabling conditions in terms of infrastructure (e.g. mobile/internet penetration, electricity) and ecosystem (e.g. business environment, HR, capital) exist?	• Do fintech players have a strategy to serve lower-income and underserved populations? • What are some of the key challenges faced? • Is there an opportunity for partnerships to be formed with existing players; if yes, where?
Expected output	• Summary statistics and key indicators by country • Supplier landscape and ecosystem • Key constraints in each market	• Value-chain analysis by product and role/function assessment for technology • Mapping of fintech / technology solution to critical needs	• Developing a fintech assessment matrix for target countries based on regulatory, infrastructure and ecosystem (building on existing indices where available) • Enabling establishing baseline understanding of operational challenges faced and ease of implementing intervention	• Framework developed combining country-specific and broader challenges (in sections 3 and 4) that fintechs face • Country-wise recommendations to enhance FI potential of fintech
Stakeholder interviews	Hypothesis validation and additional inputs from stakeholders interviews (fintechs[2])			
Deliverables	Detailed Study Report	Fintech 'Thinkshop'	Country Focus Notes and Blogs / Case-studies	

1. E.g. Youth, Women and MSMEs
2. With focus on emerging non-traditional players
3. Limited to fintechs operating across key product value chains (credit, savings, payments and insurance)

Country Summary
Bangladesh

Overview of Financial Inclusion in Bangladesh

Basic access to banking services and products still remains a challenge in Bangladesh

- The 2017 WEF Global Competitiveness Report states that out of 137 countries, Bangladesh ranks 77th based on the availability and 86th on the affordability of financial services. Banking penetration in Bangladesh remains low, with over 70% of its population having no bank account.
- The state of financial exclusion is also seen from the state of the 'Taka 10' no-frills accounts, which Bangladesh Bank introduced in 2010. These accounts were targeted to promote Direct Benefit Transfers (DBT) and include the financially excluded. However, by 2015, only 14,000 accounts had been opened.
- Data from the World Bank suggests that in 2015, there were 8.2 branches per 100,000 adults in the country, demonstrating the relatively small footprint of the existing bank branch network.
- The banking agent network has increased from approx. 400,000 agents in May 2014 to 577,588 by April 2016 (~ 45% increase)

The microfinance movement has led the way in terms of reaching out to the masses

- Bangladesh has a long association with microfinance that has led the way to reach out to low-income people in both rural and urban areas. The growth in the microfinance sector, in terms of the number of microfinance institutions (MFI) as well as total membership, was phenomenal during the 1990s and continues until today.
- As of June 2014, the microfinance sector comprised of 33.73 million clients (including 8.62 million clients of Grameen Bank) with a total loan outstanding of BDT 403 billion (~USD 4.8 billion) and savings of BDT 237 billion (~USD 2.8 billion).
- Though there are more than a thousand institutions that offer microcredit services, the top-10 large MFIs and Grameen Bank have cornered 87% of total savings of the sector and provided 81% of the total outstanding loan in the microfinance sector.

The Government has shown firm commitment towards introducing policies aimed at advancing financial inclusion

- Bangladesh signed the Maya Declaration in 2011, aimed towards developing frameworks for financial inclusion. In 2015, the country joined Better than Cash Alliance and established a financial inclusion department.
- Presently, Access to Information (a2i), a think-tank of the Prime Minister's Office (PMO) is in the process of drafting a National Financial Inclusion Strategy (NFIS) document.
- Bangladesh Bank is in the process of releasing revised, comprehensive guidelines on MFS. It is expected that these guidelines will clarify the central bank's vision on MFS, interoperability, entry of non-bank players, ways to promote competition, and contours of a risk management framework.

Mobile financial services have the potential to be a game-changer but reliance on OTC poses concerns

- As of April, 2017, Bangladesh had over 117 million mobile phone subscribers. Given the rapid adoption of mobile phones in the country, Bangladesh Bank issued guidelines for Mobile Financial Services (MFS) in 2011 to ensure access to financial services to the unbanked.
- Since then, the MFS sector in Bangladesh has experienced significant growth in terms of the number of users, as well as the number of agents that provide mobile money services.
- Interestingly, Bangladesh accounts for more than 8% of total mobile money accounts worldwide. However, the pattern of transactions suggests that the MFS market in Bangladesh is yet to move beyond basic transactions, such as cash-in, cash-out and payments – many of which are conducted over-the-counter (OTC) by unregistered users.
- These OTC transactions are performed using an agent's mobile money account. However, the proportion of OTC users reduced to 70% in 2016 from 77% in 2014. As of September 2017, there were over 770,000 agents in the country with more than 57 million registered MFS users. Of the registered customers, 52% are active users[1].

[1]An MFS user who has conducted at least one financial or non-financial transaction in three consecutive months (90 days) is considered as an active user.

Key Financial Inclusion Constraints in Bangladesh

Constraints are commonly related to high-cost of access of the key products and could benefit from targeted support to facilitate digital enablement

Need	Bangladesh's Progress to Date	Outstanding Constraints
Savings	• Bangladesh ranks 77th based on the availability and 86th on the affordability of financial services. The country has only 8.2 branches per 100,000 adults. • Access to basic banking services and products remain a challenge in Bangladesh, with over 70% of its population having no bank account. • As a result of the poor access to basic banking services and products, the gross national savings stood at 21.7 % of GDP while bank deposit-to-GDP ratio in Bangladesh stands at 48.11%. • The Global Findex Database suggests that by 2014, around 7.4% of adults had been saving at a financial institution. This had halved in three years, as around 16.6% maintained a savings account with a financial institution in 2011. In contrast, approximately 17% of adults prefer to save outside the formal sector using informal means, which include savings clubs. • Savings at a financial institution for the rural Bangladeshis witnessed a steep decline from 16% in 2011 to 5% in 2014.	• Low disposable income and the high cost of availing savings products mean that LMI customers save little in the formal sector. • Most of the savings from low-income families go to MFIs while securing credit. These savings products are not very customer-friendly with conditions such as lock-in, partial withdrawal, among others. • Factors such as high cost and time involved in travelling to the branch, long waiting times coupled with denial of transactions, complex processes, high transaction and other service charges discourage LMI customers from using formal savings products and services.
Credit	• Out of 137 countries, Bangladesh is ranked 85th in terms of ease of access to loans. Less than half of the population use credit services. Of these, only 9.9% availed credit at financial institutions in 2014. Compared to 2011, there has been a decline by 13.4% in terms of people availing credit services from formal financial institutions. • In Bangladesh, banks are often reluctant to lend money to poor borrowers in the agricultural sector — where nearly half of the population earns its income. • Bangladesh has a long association with microfinance that has led the way to reach out to low-income people in rural and urban areas.	• Low-income customers and microenterprises cannot avail formal credit services because they are unable to offer the necessary collaterals or navigate the complex documentation processes. • High costs of credit and high non-financial costs (such as poor quality of service, delays in approval, over-indebtedness and opportunity cost) result in informal service providers dominating the supply, especially for the lower-income segment. • The absence of a credit bureau makes it difficult for suppliers of credit to understand the needs of borrowers with multiple loans and their indebtedness.

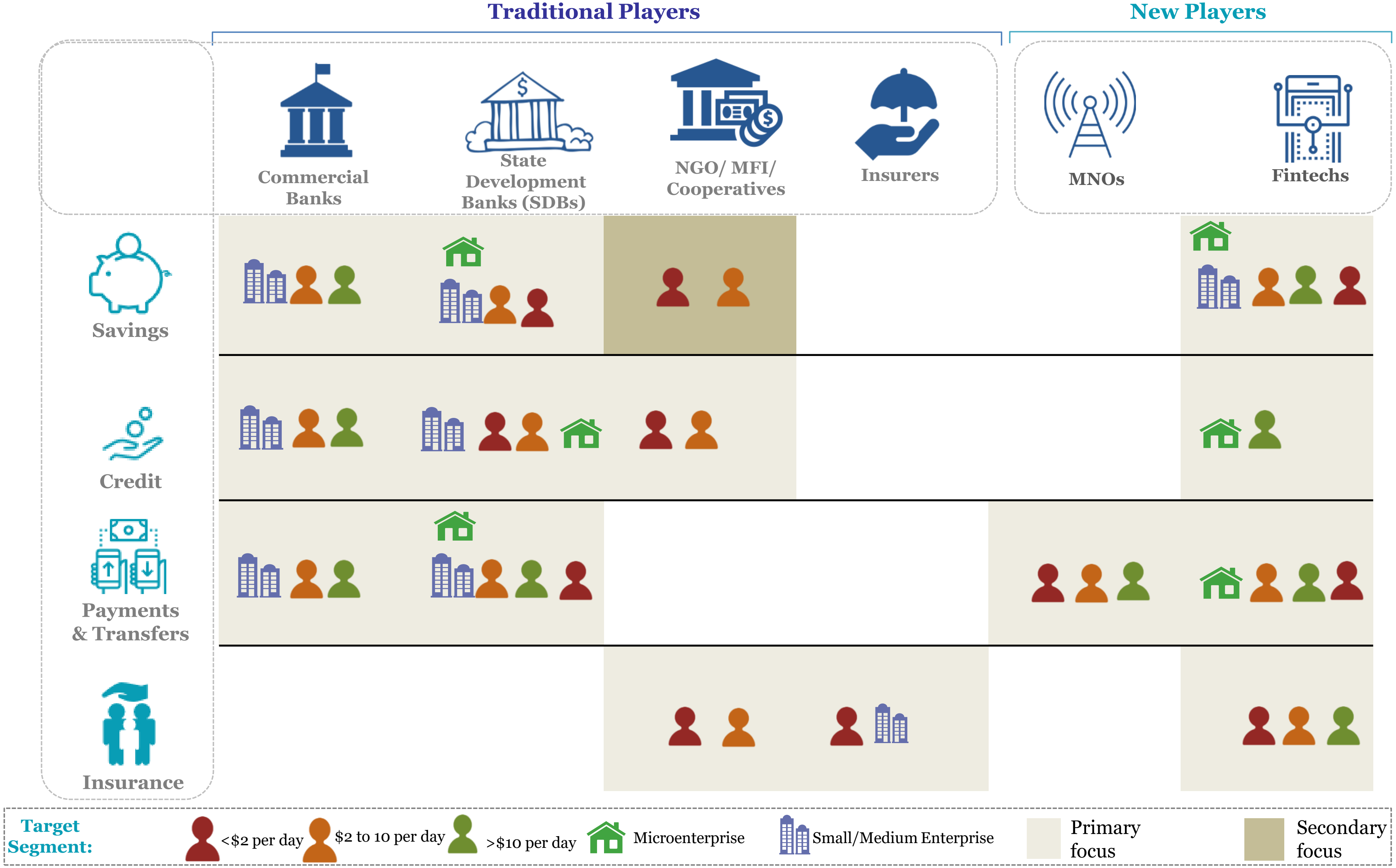
Key Financial Inclusion Constraints in Bangladesh

Constraints are commonly related to high-cost of access of the key products and could benefit from targeted support to facilitate digital enablement

Need	Bangladesh's Progress to Date	Outstanding Constraints
Payments & Transfers	• Bangladesh accounts for more than 8% of total mobile money accounts worldwide. Bangladesh Bank issued guidelines for Mobile Financial Services (MFS) in 2011 to ensure access to financial services to the unbanked. • As of September 2017, there were over 770,000 agents in the country with more than 57 million registered MFS users. Of the registered customers, 52% are active users. • In Bangladesh, there has been an increasing shift towards mobile money for remittances. About 50% of remittances are through formal channels. However, around 70% of all mobile money transactions are conducted using over-the-counter (OTC) services. • Most customers prefer the OTC service for reasons such as illiteracy, difficulty to navigate the menu of the digital payments solutions, and to protect themselves from mistakenly sending money to a wrong mobile money account.	• Limited internet connectivity and high costs of internet access have restricted the uptake of MFS among low-income customers. • Complex processes/menu/User Interface coupled with a limited understanding of technology has marred the uptake and regular usage of MFS among low- and middle-income customers. • Regulations prevent players such as MNOs, which have a country-wide footprint, from entering the MFS space. This limits an otherwise effective distribution channel in the rural areas. Currently, MFS platforms in Bangladesh are sponsored or led by the scheduled commercial banks, as they are members of the payments system.
Insurance	• Insurance Development and Regulatory Authority (IDRA) established by the IDRA Act of 2010 that followed the Insurance Act of 2010 is in charge of regulating and supervising all the insurance companies. • While there has been rapid growth in the insurance sector, it is still a relatively small component of the financial system. Bangladesh's insurance penetration at 0.5% remains one of the lowest in South Asia • The small market that exists is concentrated with the five largest life insurance companies accounting for nearly 70% of the life insurance market. Most non-life insurers belong to groups owned by manufacturing companies. • More than 25 million Microfinance clients have some form of protection plan and death benefit linked to and often in proportion to their loans	• There is still considerable unmet demand for traditional and micro-insurance products. Most insurance companies are located in urban areas and there are a very few branches in rural areas, leaving the large majority of the population unserved. • Low-income customers lack an understanding and appreciation of insurance products, mainly due to limited access to insurers and complexity of products. • Limited trained resources to handle insurance products/ services • These loan linked protection plans offered by MFI's protection plans are often unregulated and could benefit with enabling regulations

The Ecosystem of Supply-side Actors in Bangladesh

MFS actors have a significant role in payments even with low-income customers and given they are bank-led, offer the potential for credit delivery



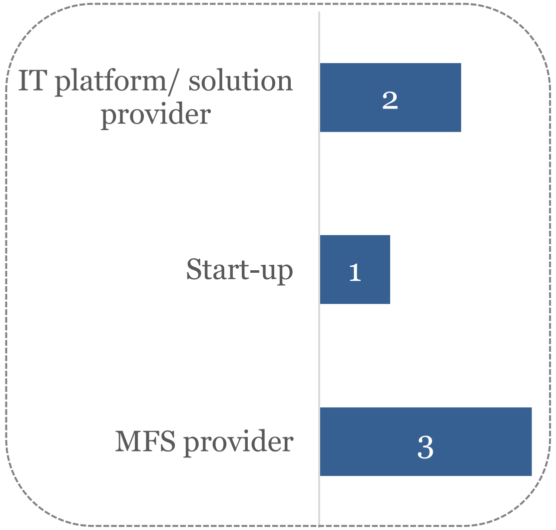
- The SDBs and MFIs/ Cooperatives are the dominant players in serving lower-income segments
- The MFS providers such as bKash, DBBL, mCash, uCash, etc. are essentially owned by/subsidiary of commercial banks and serve all the segments, especially to individuals and MSMEs. However, this is largely limited to the payments space.
- Insurance is served only either directly by dedicated insurers or by MFIs as bundled with credit.
- MNOs such as Grameenphone and Airtel Robi and fintechs are only serving individuals and not businesses; only for payments and savings categories

Source: MicroSave's analysis

Overview of Fintechs in Bangladesh

- In Bangladesh, the fintech ecosystem is primarily led by licensed MFS players. Activities such as cash-in, cash-out, and P2P transfer constitute almost 95% of MFS transactions. Salary disbursement and utility bill payments, among others, constitute remaining 5%.
- Other players in the ecosystem include IT platform/solution providers, such as CloudWell and SSLCommerz.
- There are a few financial service providers (FSPs) who use the technology provided by the MFS players or IT platform/solution providers to distribute their products and services, such as Shakti Foundation for Disadvantaged Women.
- In addition, start-ups like MicroEnsure provide micro-insurance to the low- and middle-income segment.
- The MFS guidelines released by Bangladesh Bank in 2011 gave a major push to the fintech sector and as many as 10 licensed MFS players are operating in the market- the biggest player being bKash, which constitutes 60%, followed by DBBL at 16.6% and remaining 24% by other small players. MFS in Bangladesh is entirely bank-led.

Fintechs interviewed



How are these fintechs addressing financial inclusion?

SSL WIRELESS	Provides a payment gateway for online merchants. Aspiring for PSP license in order to launch financial services for last mile delivery and for collection of MFI payments from LMI
bKash	Mobile Financial Services provider for payments & money transfers through mobile wallet
CloudWell	Online mobile wallet working on organised retail network
MICROENSURE	Provides micro insurance services to low and middle-income clients
SureCash	MFS aggregator for banks, MNOs and MFIs. 85% of its agents are at rural locations. Serves particular segments like school students for scholarship disbursement and farmers of sugar mill corporations.
UCash	MFS provider for payments & money transfers

Aggregated Views from Fintechs that Operate in Bangladesh

The most significant challenges that fintechs face relate to poor access to capital, non-progressive regulations and limited digital literacy

		Specific issues	Description	Severity
Addressable Barriers	**Access to Capital**	High interest rates by banks	High interest rates for bank loans. Challenge funds grants are not significant to support scaling up or are restricted for development of specific donor objectives which do not match with business priorities. Angel investors are the best option in the current scenario.	
	Banking regulations	Enabling regulations for Fintech enterprises	• Fintechs require permission to conduct cash in transactions to the wallet – which limits their ability to offer discounts and cross-selling to promote uptake of products. • Fintechs currently operate under PSO licenses, which do not allow them to build the back-end and the front-end and possess complete control over the platform.	
Addressable Barriers	**Need for more supportive regulations**	Innovation in the fintech sector	There is no sandbox environment for the development of new and innovative ideas, since the banks do not allow the fintechs to innovate with products and services. As such, the market is saturated with mobile wallet products.	
	Digital Literacy	Appropriate user interfaces for low-income, rural segments	Digital education initiatives to customers to access financial products digitally are missing. Customer education on dominant channels such as USSD will be key.	
	Infrastructure	Poor infrastructure	Preferential USSD pricing by MNOs and skewed understanding of USSD pricing policy between MNOs and MFS providers limits the effective usage of USSD for MFS. Interoperability among MFS providers is yet to be achieved.	

“*The key point in a fintech running successfully is how well they are able to understand the needs and wants of the market.*”

Chief External & Corporate Affairs, bKash

Views on Partnerships with Incumbent FSPs

- The Bangladesh Bank is trying to push hard for interoperability. Account-to-account interoperability is still not the norm and prevents seamless money movement across MFS, banks, and other platforms. This, in turn, limits the scope for payments/transfers to be fully digitised and results in friction and inconvenience for customers. Coupled with a situation where one player holds a significant market share of more than 50%, it is unlikely that the other market player can influence change and push the regulator to offer a firmer mandate.
- Regulations do not allow fintech to own the complete online solution and delivery to the last mile. Bangladesh Bank has updated the PSP regulation, to be released shortly, which may motivate banks to support fintechs in developing their own product suites.

Source: MicroSave's analysis and interviews with fintechs

Severity
Low *High*

Aggregated Views from FSPs that Operate in Bangladesh

The most significant challenges faced by FSPs relate to lack of innovative products and absence of regulatory clarity around customer protection

Addressable Barriers

	Specific issues	Description	Severity
Distribution/ Spread of FSP	Partnership/reliance on MNOs	Agency banking is yet to pick up in Bangladesh. Banks have not built relationships with private players such as MNOs which have deep penetration in rural areas. Limited interaction between regulators such as Bangladesh Bank and BTRC is also impeding the growth of MFS.	
Lack of innovation	Disinterest/lack of innovative products	Banks are not interested in product innovation and rely on traditional products and services. This has resulted in immense competition over a few products in the market. Bancassurance, which has a huge potential, is yet to take off.	
	Use of technology	Banks are not swiftly moving towards digitisation (use of IT solutions) which will enable them to reach out to a larger customer base in addition to providing them quicker and safer banking.	
Regulations	High transaction times due to KYC verification	The customers have to undergo KYC verification every time they transact with a new bank which increases transaction time and costs. Adopting eKYC may be a potential solution.	
	Risk Mitigation & Dispute resolution	The central bank has not issued clear risk mitigation procedures, especially with respect to oversight and reporting of consumer redressal procedures.	
	Price of service	Guidance on fair pricing in the market may be useful.	

“*Channel development for geographic reach in the coastal area is the biggest challenge for MFIs.*”

Head of IT, BURO

“*Before we step into digital financial literacy, it is important that we think of digital literacy first.*”

Founder & ED, Shakti Foundation

Views on Partnerships with Fintechs /on Technology adoption

- The current ‘Payment Service Operator’ licence still requires fintechs to partner with banks for cash-to-wallet transactions. This requirement allows the banks to offer discounts or cross-sell to encourage the uptake of products. However, the fintechs are not incentivised to carry out any other activity to add to their business models
- Technology adoption is key in all the processes that banks are undertaking currently. The banks are pushing for partnerships with MNOs to leverage their country-wide footprint and an effective distribution channel in the rural areas. Banks must be open to a hybrid model, easing the restrictions on partnering with MNOs to enable greater transparency, coverage and more profitability in businesses.

Source: MicroSave’s analysis and interviews with FSPs

Severity
Low High

Key Interventions to Address Emerging Challenges in Bangladesh

Area of Constraints	Addressable 'Challenges'	Intervention Ideas through or that support Technology Adoption	Partners/ Actors Involved and Impacted
Demand-side Constraints	Financial/digital literacy	• Demand-side research on appropriate user interfaces for customers with low-literacy levels and through a gender lens	FSPs and Fintechs
Supply-side Constraints	High –cost of serving rural customers for MFIs	• Work with last-mile MFIs to support technology adoption for front- and back-end processes – through readiness assessments and support for training	FSPs and Fintechs
	Fintech and FSP partnerships	• Support research on the development of a business model, which allows technology-sharing by fintechs as part of partnerships with last mile FSPs	FSPs and Fintechs
	Access to capital for fintechs	• Support knowledge sharing among regional Angel investors and facilitate introductions to fintechs selected for business assistance	Angel investor networks, fintechs
	Support to regulators	• Facilitate regional or bilateral knowledge sharing between regulators who have relevant solutions on DFS consumer protection guidelines, proportionate KYC, and to enable fintechs	Bangladesh Bank and relevant regional CBs
Credit	Credit risk assessment and scoring	• Support pilots that promote the application of big-data credit-scoring tools with FSPs. This could be done through a competitive process of selection	FSPs and Fintechs
	Designing need-based and innovative products	• Identify smallholder value chains and support the development of need-based and innovative products along with digitisation in value chains	FSPs and Fintechs

Country Summary
China

Overview of Financial Inclusion in China

Financial Inclusion is high in China – aided by conducive government policies in recent years

- China has made significant progress towards financial inclusion in the recent past, owing to conducive regulations, innovation, and strengthening of the banking sector. Out of 137 countries, China ranks 54th based on the availability and 30th on the affordability of financial services.
- In 2014, 78.9% of all adults owned a bank account in the country as compared to 69% of adults in East Asia and Pacific. In the three years from 2011 to 2014, there had been a 15% increase in the adult population with access to a bank account.
- Guided by China Banking Regulatory Commision (CBRC) and People's Bank of China (PBoC), Village and township banks (VTBs) and other providers in remote regions have taken agency banking initiatives to enable access for rural low-income customers. They have set up mobile units or banks-on-wheels, automated teller machines (ATMs), and placed point-of-sale devices with retailers and other non-banking institutions to provide access.

Private sector innovations drive a noticeable shift towards digital payments in China

- Spurred by increased internet access and with 80% of users accessing the Internet via mobile, there has been a rapid expansion of e-commerce businesses. This has also resulted in around 19% of adults making payments from their account using their mobile phones.
- China also has a domestic real-time retail and commercial payments system, China Interbank Payments System (commonly referred to as CIPS), launched in 2015, supports the Renminbi (RMB) as an international currency.
- China UnionPay is the country's main domestic payment card clearing and settlement system, which is accepted at approximately 26.7 million merchants through e-POS devices. These devices are now also required to have Near-Field Communication (NFC) technology for proximity payments.
- Digital payments have enabled FSPs and fintechs to offer credit products to customers based on their e-commerce transaction history. The lower-income customer segment has also been aided by technology through SIM-card overlay solutions enabling access to bank accounts via feature phones.

Gaps still exist with specific segments needing more attention; reforms are underway

- At the last count, 234 million Chinese adults are still unbanked. Of these, 55% are women, 71% live in rural areas, and 54% live in the poorest 40% of households. Low-wage migrants are challenged by to the residential registration system in China that prevents them from settling in cities and accessing financial services. Access to formal credit is also a challenge, with 9.6% of adults borrowing in 2014.
- The State Council and PBoC have rolled out specific policy guidelines to address the credit-gap in the agriculture and small and medium enterprises (SMEs) sectors.
- The banking sector is undergoing significant reforms to accelerate the access to and use of formal financial services, particularly for the under-banked population. CBRC recently granted licenses to new private banks, including two internet banks: WeBank (Tencent) and MYbank (Ant Financial Group).

Key Financial Inclusion Constraints in China

The existing gaps largely pertain to better serving the rural customer segments and improving interfaces and literacy to enable digital uptake at the last mile

Need	China's Progress to Date	Outstanding Constraints
Savings	• China ranks 54th based on the availability and 30th on the affordability of financial services. Access to basic banking services and products has significantly improved in the recent past, with 78.9% of all adults having a bank account. China's gross savings as a share of GDP stands at around 50%, which is third highest globally. • Rural and poor people constitute many of the 'newly banked adults' with 66% of the poorest quintile and 74% of the rural adults being formally banked. Agency banking initiatives undertaken by VTBs and other providers in remote regions have enabled access for rural low-income customers. • While 52% of the accounts in China fall in the 'high use' category with an instance of savings in the past 12 months, 72.1% of the population saved money in some form in 2014.	• Following the new regulations in 2008, microcredit companies (MCCs) have emerged as a major player particularly in remote parts of the country – for instance, in mountainous or very rural areas. • However, unlike village and township banks (VTBs) or rural cooperative financial institutions, MCCs are unable to take deposits under current regulatory guidelines. This limits their ability to grow and expand their customer base, and increase formal savings further for such communities.
Credit	• Access to formal credit remains a problem in China, with only 9.6% of adults borrowing in 2014. The smaller enterprises, rural poor and low-wage migrants are at a particular disadvantage. • Guided by CBRC and PBoC, financial institutions have made efforts to develop commercially viable and client-oriented loan products for farmers and MSMEs. These efforts resulted in an annual growth rate of 24.3% for agro-related loans between 2007 and 2012. • Peer-to-peer (P2P) platforms have emerged as the avenue of choice for SMEs. A deeply embedded practice of informal lending between friends, relatives, and business partners exists within the local business culture in China. • In this regard, P2P platforms offer the promise of a more transparent alternative. Regulators have been closely watching this space and have issued new regulations in the past year amid instances of fraud, such as Ezubao's SD 7.6 billion scam.	• Although MCCs are providers of financial services, they are not financial intermediaries. Most of them can only provide loans to a limited number of clients. They still face constraints in growth due to limited access to finance. • For the SME sector, there is a lack of an effective credit-rating system. As a result, loans to commercial players are expensive. In the retail market, this issue remains – the PBoC had data on 880 million people, but only maintained credit history on 380 million people. This is less than one-third of the adult population of the country.

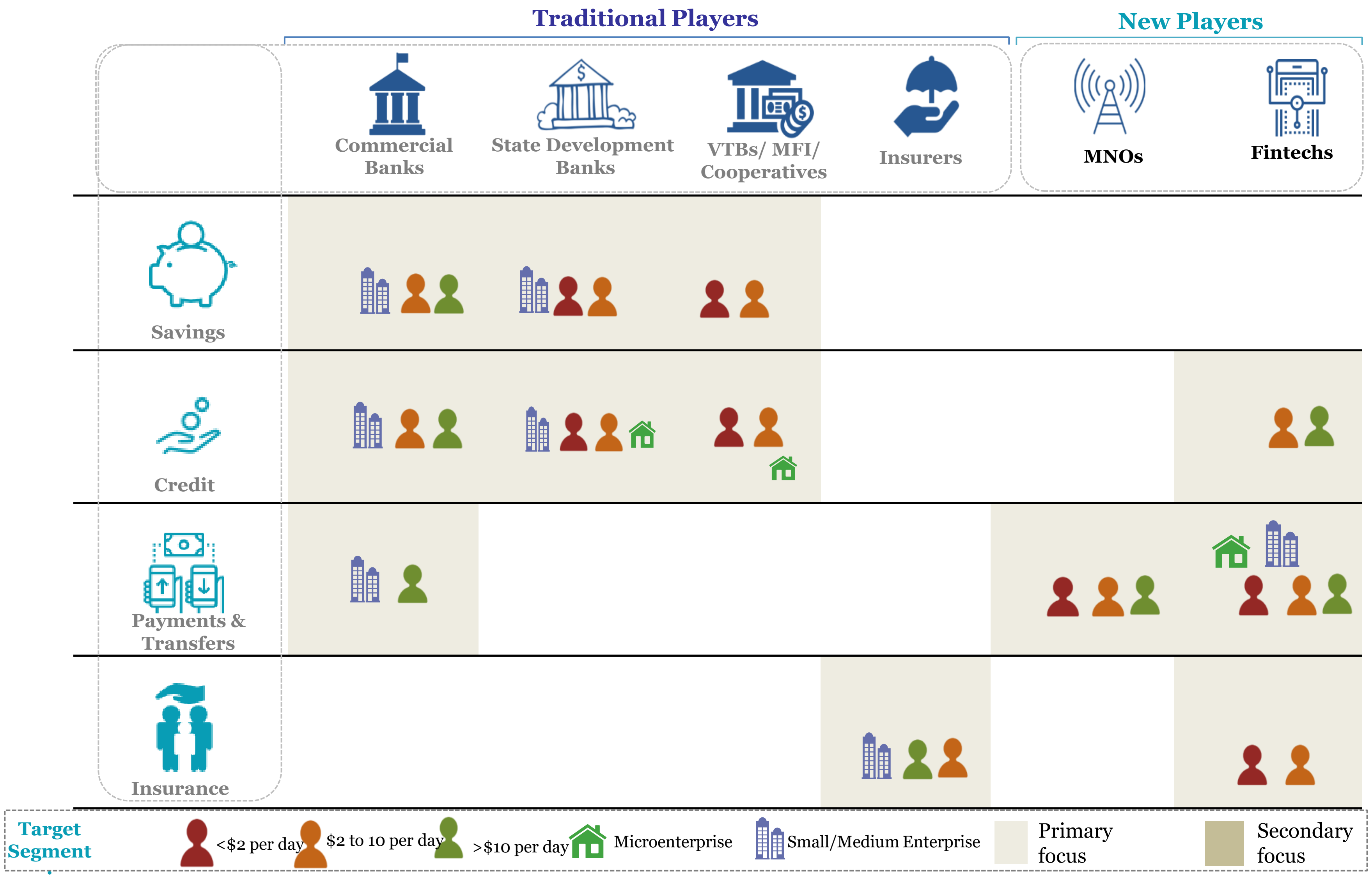
Key Financial Inclusion Constraints in China

The existing gaps largely pertain to better serving the rural customer segments and improving interfaces and literacy to enable digital uptake at the last mile

Need	China's Progress to Date	Outstanding Constraints
Payments & Transfers	• Spurred by increased internet access and with 80% of users accessing the Internet via mobile, the mobile platform has been a significant enabler in digitising payments, even for rural and lower-income segments • WeChat and Alipay lead the largest global market for digital payments. 40% of consumers presently use new payment methods, such as NFC and QR code-enabled e-wallets. These account for a 58% share of the mobile payment market. • Even in the five provinces with the lowest incomes at the national level, mobile phones account for almost 60% of payments. The key enabling factor has been low costs for both merchants and users – digital payment through Alipay or Tencent costs on average 40% less than typical credit card fees.	• Limited youth population, low levels of trust and limited meaningful awareness restrict the growth of mobile financial services (MFS) in the rural areas of the country. • While SIM toolkit (STK) technology has enabled digital payments to work on feature phones as well, low literacy levels in some rural segments limit its application across a broader suite of products. • The security of digital transactions remains a concern. A recent spate of scams involving fake quick response (QR) codes and leaks involving payment data held by third-party platforms point to a need for improvement in the security measures.
Insurance	• Insurance product uptake is steady in China with a penetration rate of 4.2%. • China's insurance premiums have grown more than six times from USD 60 billion to USD 390 billion between 2005 and 2015. Enabling policies have encouraged the development of products relevant to lower-income customers, such as those targeting agriculture risks. • Currently, more than 600 agro-related insurance products covering 90 crop varieties are available. • Perception studies of potential customers by McKinsey finds that protection is the most important factor when consumers choose insurance products and was about three times more important than investment return. However, 33 percent of potential buyers said they could not find a suitable product while 22 percent said they do not think the coverage warrants the premium charged. About 50 percent of the insured expect coverage of 10 or more years of current annual income but are only covered for two to five years.	• Despite the growth in premiums for life and agro-related insurance products, there is still considerable unmet demand for traditional and micro-insurance products. China's insurance penetration rate of 4.2% which is above Asian average of 3.%% but still below the global average of 6.2%. • Low-income customers lack an understanding and appreciation of insurance products. • Small ticket-size transactions and the continued bundling of insurance with other financial products makes reaching this segment difficult.

The Ecosystem of Supply-side Actors in China

With an increasing dominance of fintechs owing to high penetration rates of mobile phones, there is a need for increased partnership with the incumbents to extend offerings beyond payments, at the last mile



- While the financial market was initially dominated by the "big five"[1], the sector witnessed diversification since 2005 with the entry of joint-stock commercial banks, and small and medium sized FSPs.
- Apart from the Agricultural Bank of China, VTBs are also focused on serving the MSMEs and under-banked customer segments in remote areas.
- The non-deposit-taking lenders (NDTLs), including financial and non-financial institutions, such as MCCs and pawn shops, have re-emerged but face difficulty in accessing credit for on-leading.
- Given the ubiquitous presence of mobiles, fintechs are currently playing a major role in in the payments and credit space for MSEs and lower-income customer segments.
- P2P lending platforms such as Creditease have also partnered with MFIs to offer credit
- Three MNOs have piloted mobile payment products that allows users to process taxes, make remittances, and withdraw small amounts

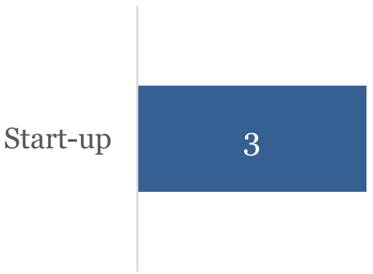
[1] *The 'big five' comprise of the Industrial and Commercial Bank of China, Bank of China, Agricultural Bank of China, China Construction Bank, and Bank of Communication*

Overview of Fintechs in China

Global fintech leader with many innovative use-cases developed as an extension of the recent proliferation in digital payments

- China is home to four of the world's largest fintech 'unicorns'. These are Ant Financial, Lufax, JD Finance, and Qufenqi. As of Feb 2017, fintech investment has tripled to $10bn with a growth of 252% from July 2015 to June 2016. Ant Financial alone received funding of $4.5 billion in 2016.
- Fintech activity is on the rise in the four key areas where new players are fast overtaking traditional banking channels. These are online lending (Yirendai, Lufax, Dianrong, etc.), digital payments (AliPay, Tenpay, 99bill, etc.), insurance (Ping An, Zhong An, PICC, etc.) and personal wealth management (JD Finance, Tongbanjie, etc.).
- Beyond payments, a partnership with fintechs such as Sesame Credit which offer big-data credit scoring allows e-commerce platforms such as Alibaba to offer digital credit to 350 million registered users and 37 million small businesses using the platform.
- Highly efficient and lower-cost P2P lending platforms are also addressing the significant gap in the SME sector. While the sector was hit by a series of fraud scandals and the subsequent regulatory clean-up has resulted in a decrease in the average annualised rates among all the operating platforms from 12.18 % to 9.51 % between January 2016 and February 2017. P2P lending platforms are also offering important wealth management products for an increasing middle-class segment in China looking for higher returns and have started employing robo-advisory solutions.
- Platforms such as Alibaba's Yu'e Bao make investing money into diverse sets of financial products more accessible for low-income populations. These products allow them to invest the money left on digital accounts, leading slowly to long-term savings. From 2013 to 2016, Yu'e Bao has grown to US$117 billion and serves over 152 million customers.
- Much of the innovation seen in China is enabled by a supportive regulatory environment for fintechs that strikes a balance between encouraging innovation and managing risk. The government's "wait and see" approach allows innovation by industry participants within informal limits, under careful supervision by the relevant regulators.

Fintechs interviewed



How are these fintechs addressing Financial Inclusion?

CreditEase helps MSMEs and economically active farmers through partnerships with MFIs and other rural FIs to gain credit facilities by introducing them to loan funding sources and educating them on product features and managing their working capital and consumption through its proprietary online platform

Dianrong, online marketplace lending company offering MSMEs and individuals access to loans ranging in size from 2,500 to 500,000 RMB and 50,000 to 2,000,000 RMB respectively.

TongJuBao (P2Pprotect) brings innovation in customer protection through Community Risk Sharing, which is a contractual framework by which users protect each other and agree on pricing of premiums through an online platform.

"Social Networks, e-Commerce Platforms, and the Growth of Digital Payment Ecosystems in China". BTCA 2017
"Challenges to China's fintech sector". Forbes 2014.
"What's next for China's booming fintech sector". McKinsey. 2016

Aggregated Views from Fintechs that Operate in China

The most significant challenge that fintechs face relates to understanding the behaviour and data of rural customer segments

Addressable Barriers

	Specific issues	Description	Severity
Broadening customer segments	Understanding of demand-side behaviour of rural customers	In the P2P space, there is untapped demand for certain products and with the rural customer segment. For example, Dianrong executive shared the market potential in financing agricultural equipment, where existing credit supply is done the traditional way – paper-based and through physical verification. There is interest to broaden customer segments but getting data for risk assessment can be a costly or an extra effort. Currently, third-party data is used for credit risk assessments.	High
	Linking to rural partners	Unless fintechs have a specific financial inclusion objective e.g. Creditease, serving rural customers requires partnerships with rural organisations which requires investment in staff to build partnerships and marketing suitable products – which adds to both cost and risk.	Medium
	Addressing niche segments	There is market potential in the middle-income segment, where many send their kids to the US. The US lender might want to tap this market and issue USD loans, while the repayment happens in RMB through the P2P platform. Market potential also exists in the SME segment where it is possible to cooperate and offer credit to OEM suppliers, which often struggles with loan access due to collateral. Dianrong, for example, has tied up with Foxconn to verify OEM contracts using blockchain, so that they can serve as loan collateral.	Medium-high
Financial Literacy	Consumer appreciation of investment products	While this is changing, there is a lack of understanding among the middle-income segment of investments products and the value of diversification and protection against inflation. However, this group with expendable income could be motivated to take advantage of Internet-based wealth-management businesses.	Medium-high
Diversification	New markets and products	• There is interest to expand into Southeast Asian markets – while leading fintechs have a tested product some customisation and local partner identification is required. • Dianrong, for example, has been working on developing a payments solution product and has also tried to sell insurance as an investment product without much traction – as health insurance is underutilised in China	Low

Views on Partnerships with Incumbent FSPs

- Regulations allow fintechs to serve as intermediaries between the customers and financial service providers. This can be seen as an opportunity for fintechs to partner with FSPs particularly for credit and expanding access to underserved segments at considerably lower costs

> *"Internet use in China is predominantly through mobiles – even rural people have access to cheap smartphones. Most have bank accounts that are linked to WeChat which everyone uses... the minimum for take-off is already there."*

Director - Strategy & Innovation, Dianrong

> *"Our model works by sharing 'profits', where the excess is shared back with customers – this helps to address some scepticism of Insurance which exists in this market."*

CEO, TongJuBao (P2Pprotect)

> *"This is a data-driven business – we are able to outperform our competitors because of nine years of risk management experience and two million borrowers behind us. To develop a good model, you need both good and bad data."*

Chief Strategy Officer, CreditEase

Source: MicroSave's analysis and interviews with fintechs

Severity
Low → **High**

Aggregated Views from FSPs that Operate in China

The most significant challenge faced by last-mile FSPs relates to building sustainable business models for digitisation and ensuring their predominantly women customers are included in the adoption of digital user interfaces

Addressable Barriers

	Specific issues	Description	Severity
Business model sustainability	Higher costs of serving limited numbers of localised customers	• MFIs particularly those serving rural and remote areas face a higher cost to serve customers. Coupled with limited access to capital (discussed below), this limits their ability to offer more favourable interest rates which currently average at 24%. • Most professional MFIs even in rural areas, have digitised to some extent – using MIS systems or at the very least have moved away from paper-based processes. • Acknowledging the capacity and resource gaps at typical MFIs or cooperatives, Creditease has developed a cloud-based MIS system called "AISHEYUAN' extended to its MFI and cooperative partners – it serves a risk management, data dashboard and creates a seamless interface between Creditease and its grassroots partners. Technology adoption similarly could help at the front-end	
Digital Literacy	Gender and DFS	• Many MFIs and rural organisations serve specific needs of women – in these areas traditional gender roles are still maintained which means that women might not be well-educated (most do not go beyond primary education) and are homebound and reliant on their husbands for income. • Most women have phones and are familiar with apps such as WeChat and understand P2P lending • However, there are still gaps in digital literacy that limit the use of digital interfaces. The women are quite numerate though and there is value in understanding and designing more user-friendly interfaces.	
Regulations	Limits on accepting deposits	• MFIs (MCC) are non-deposit-taking organisations as per current regulations and this limits their ability to provide any asset-building products to customers- beyond credit.	

"Partnerships with P2P lenders offer a good potential to address credit gaps in rural areas. The operational costs are low and they can reach a significant customer base, including the poor and those residing in remote areas. The challenge remains in their ability to identify good clients in this unfamiliar customer segment."

Independent Consultant
Microfinance and Credit Ratings

"In rural areas, women still lag in terms of mobile phone and digital adoption – they are an important and reliable segment that deserves more focus from fintechs."

CEO, Shanxi Xinxiang Women's Development Association

Views on Partnerships with Fintechs / Technology adoption

- There is recognition of the benefits of technology adoption and smaller MFIs value the partnership with P2P lending platforms.
- Fintechs also recognise the untapped potential in rural customer segments as they have provided 15.3B RMB of loans to more than one million rural low-income families. Using big data, cloud computing and financial risk control, fintechs have partnered with local players to extend loan of 700B RMB to SMEs; a third of which have benefited the agriculture sector.

Source: MicroSave's analysis and interviews with FSPs

Severity
Low High

Key Interventions to Address Emerging Challenges in China

Area of Constraints	Addressable 'Challenges'	Intervention Ideas through or that support Technology Adoption	Partners/ Actors Involved and Impacted
Demand-side Constraints	Financial/Digital Literacy	• Demand-side research on appropriate user-interfaces for customers with low-literacy levels and through a gender lens	FSPs, fintechs
	Increasing middle-income segment understanding of wealth management – as an extension of savings	• Designing better digital awareness initiatives through targeted campaigns/drives for niche customer segments in rural and peri-urban areas, focused on the aspects of key financial management, product usage, and digital access (such as diversification of savings and availability of digital platforms for wealth management)	Local FI champions, fintechs
Supply-side Constraints	High cost of serving rural customers	• Identify areas of partnership between FSPs and fintechs for technology transfer to improve efficiency and reduce costs of operations for the last mile FSPs	FSPs, fintechs
	Fintech and FSP Partnerships	• Support pilots which promote development and testing of partnership models that allow technology sharing by fintechs with the last mile FSPs	FSPs, fintechs
Credit	Credit risk assessment and scoring	• Support pilots which promote development and testing of alternative credit scoring mechanisms with FSPs and fintechs	FSPs, fintechs
Insurance	Enhancing digital delivery of microinsurance products	• Support delivery of microinsurance through digital platforms by facilitating partnerships between local fintechs and incumbents	Fintechs

Country Summary
Malaysia

Overview of Financial Inclusion in Malaysia

Financial Inclusion is high in Malaysia – aided by conducive government policies in recent years

- Malaysia has made significant progress towards financial inclusion in the recent past, owing to conducive regulations, innovation, and strengthening of the banking sector. Out of 137 countries, Malaysia ranks 14th based on the availability and 16th on the affordability of financial services.
- In the three years from 2011 to 2014, there had been a 14.5% increase in the adult population with access to a bank account. In 2014, 80.7% of all adults owned a bank account in the country as compared to 69% of adults in East Asia and Pacific.
- Financial inclusion is one of the primary functions of Bank Negara Malaysia (BNM), Malaysia's Central Bank, under the Central Bank Act of Malaysia 2009. Malaysia adopted a Financial Inclusion Framework under the Financial Sector Blueprint, for the period 2011–2020.
- As a result, most households in Malaysia now have access to a wide range of conventional and Islamic finance products and services and carry out electronic payments nationwide.

BNM's Efforts drive a noticeable shift towards digital payments in Malaysia

- Despite the availability of a modern and secure payment system, Malaysians still use cash extensively. Under the Financial Sector Blueprint 2011–2020, BNM aims to enhance the payments infrastructure to realise better coverage, faster settlements, and efficient payment services.
- As a part of the blueprint, the central bank has undertaken multiple initiatives to reduce the use of cash and other paper-based instruments by encouraging the use of debit cards and mobile-based payment solutions. These initiatives have successfully enabled more than two-thirds of the population to transact digitally.
- Other key reforms undertaken by the government and regulator that have shaped financial inclusion in Malaysia include – setting up a credit bureau, introducing an agent banking model, reforming Development Finance Institutions, upgrading the national payment system infrastructure and accelerating the adoption of electronic payments.
- According to BNM's data for 2016, there were 9 million credit cards, 44 million debit cards, and 61 million e-money accounts (including prepaid cards) in circulation. The total number of electronic payments per capita increased to 97 in 2016 compared to 49 in 2011 owing to an increase in card transactions and credit transfers. The penetration of internet banking and mobile banking among the adult population stood at 72% and 28% respectively.

Gaps still exist with specific segments needing more attention; reforms are underway

- While the country has achieved one of the highest levels of financial inclusion among middle-income nations, the ever-growing community of migrant workers still lacks access to formal financial institutions and services.
- The 2014 Global Findex Database suggests that unbanked population in Malaysia largely comprises of adults living in rural areas with low education levels (primary education or less) – including migrant workers.
- A survey conducted by the 'Project Greenback 2.0' team highlights that the level of bank account ownership is low at 22% for plantation workers and at 55% for urban workers.

Key Financial Inclusion Constraints in Malaysia

National financial inclusion indicators fare well but excluded pockets in rural areas and among specific customer segments remain

Need	Malaysia's progress to date	Outstanding Constraints
Savings	• Malaysia ranks 14th based on the availability and 16th on the affordability of financial services. In 2014, 80.7% of all adults owned a bank account in the country. The gross national savings stood at 30% of GDP. • The 2014 Global Findex Database suggests that by 2014, around 81.5% of adults reported having saved money in the past 12 months. Around 79.9% of adults in rural areas exhibited a similar savings pattern. Many adults prefer to save at institutions, such as Pilgrim Fund Board, which offer better returns than conventional bank deposits. • However, there is a growing concern about the low financial literacy level of Malaysians that has been leading to a change in the culture of savings. The Financial Capability and Inclusion Demand-side Survey conducted by Bank Negara Malaysia in 2015 reported that more than 75% of Malaysians find it difficult to even raise MYR 1,000 (~USD 245) to meet emergency needs and only a quarter of Malaysians have any form of investment.	• Banks use their agent banking channel to serve low-income clients in more rural and remote areas. However, BNM's Guidelines on Responsible Financing mandate physical verification of KYC documents of customers at bank branches. • This added step of physical verification at bank branches adds to the inconvenience and non-financial costs (such as delays in approval and opportunity cost) of availing formal savings products through agents for various customers in rural areas availing services through agents.
Credit	• Malaysians have been borrowing more and saving less. Out of 137 countries, Malaysia is ranked 29th in terms of ease of access to loans. Almost half of the people in Malaysia use credit services. Of these, only 19.5% availed credit at a formal financial institution in 2014. • Access to formal credit for the low-income population has improved. In 2014, 15% of the poorest 40% of the population availed credit from a financial institution as compared to only 3% in 2011. • The expansion of credit in the country has resulted in higher household indebtedness levels (89.1% of GDP). According to available data, home buyers schemes like the 1Malaysia People's Housing Programme (PR1MA), higher loan limits for civil servants and higher inflation could further raise household debt. BNM has issued Responsible Lending Guideline which limits an individuals' ability to leverage.	• Low-income customers and microenterprises cannot avail formal credit services because they are unable to offer the necessary collaterals or navigate the complex documentation processes. • Most of the formal credit supply is concentrated in the Kuala Lumpur and other major cities. The credit gap is viewed to be the largest for SMEs outside the Klang Valley (Greater Kuala Lumpur area).

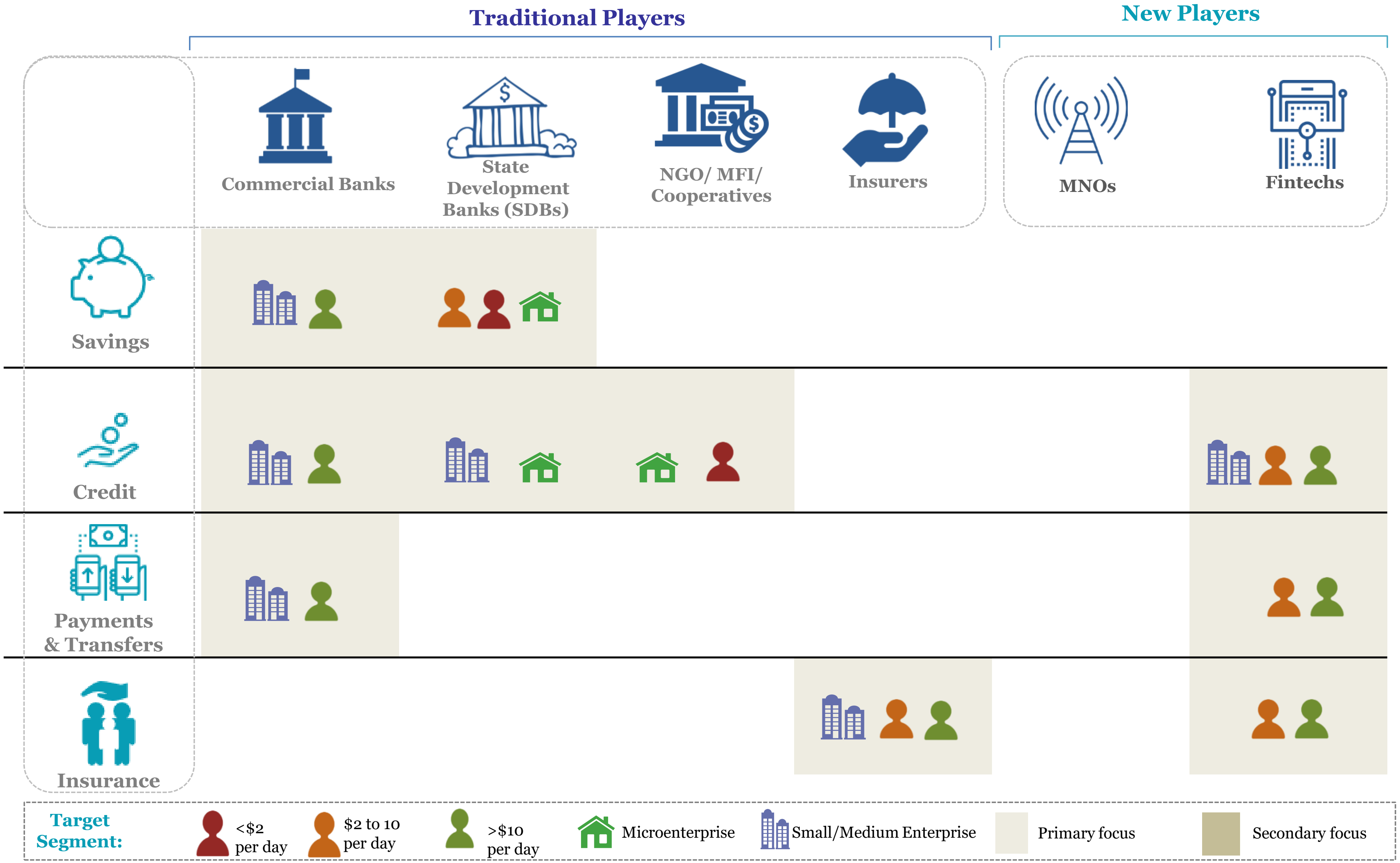
Key Financial Inclusion Constraints in Malaysia

National financial inclusion indicators fare well but excluded pockets in rural areas and among specific customer segments remain

Need	Malaysia's progress to date	Outstanding Constraints
Payments & Transfers	• Despite the availability of a modern and secure payment system, Malaysians still use cash extensively. BNM aims to enhance the payments infrastructure to realise better coverage, faster settlements, and efficient payment services. • According to BNM's data for 2016, there were 9 million credit cards, 44 million debit cards, and 61 million e-money accounts (including prepaid cards) in circulation. Usage of debit cards and credit cards is relatively higher than the other countries in the region at 18.6% and 16.9% of the adult population, respectively. • The total number of electronic payments per capita increased to 97 in 2016 compared to 49 in 2011 owing to an increase in card transactions and credit transfers. • The penetration of internet banking and mobile banking among the adult population stood at 72% and 28% respectively.	• Access to formal financial institutions continues to be a substantial problem for the migrant labour force. • Migrant workers prefer non-bank remittance service providers over banks owing to the convenience of location, ease of transaction, and speed and reliability of the channel.
Insurance	• Malaysia's insurance and 'takaful', or Islamic insurance, segment have recorded consistent growth in recent years. In 2015, total assets of these segments expanded by 5.6% to MYR 264 Billion. 32% of adults own 17.2 million life insurance policies. • Within the life insurance and family takaful segment, the growth of takaful contributions has been notable, accounting for almost 18% of new premiums and contributions. • Malaysia's ETP aims to achieve insurance and takaful penetration to 75% of the population with the sector's value as a percentage of GDP to rise to 4% from 2.8% by 2020. • For non-life products such as moto-insurance, upcoming detariffication (insurance companies to decide insurance prices using their own methods) will allow for risk-based premium pricing.	• There is still considerable unmet demand for traditional and micro-insurance products among low-income customers. • Despite the introduction of 1Malaysia Micro Protection Plan (1MMPP), policyholders are not getting optimal insurance coverage. The per capita sum assured of MYR 41,055 (~USD 10,053) is still way below the amount needed to support one family member in the event of the death or disability of the breadwinner.

The Ecosystem of Supply-side Actors in Malaysia

The state-owned banks have the largest mandate to serve the last mile; commercial banks have also made efforts through agency banking models



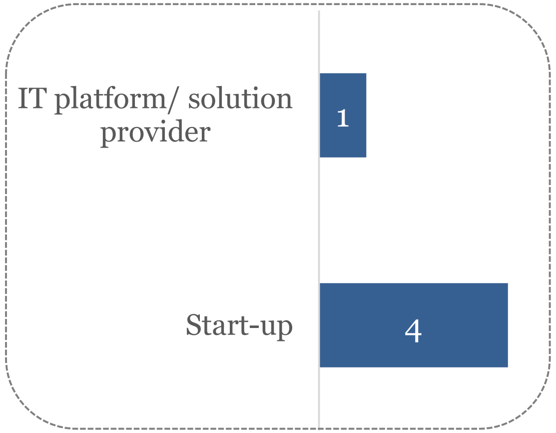
- The commercial banks in Malaysia are focused on serving the high income customers as individuals and small or medium enterprises as entities.
- State-development banks such as Agrobank, offer credit and savings products. The primary customer segments fall under the agriculture and allied sectors.
- MFIs in Malaysia provide micro-credit to the low-income customer segments.
- BNM has been proactive in recognising fintechs as a catalyst for the development of progressive financial services. The Central Bank established the Financial Technology Enabler Group (FTEG) and issued a Financial Technology Regulatory Sandbox Framework.
- The sandbox framework grants regulatory flexibilities to financial institutions and fintechs to test new solutions in a live, contained environment within specified timeframes and parameters.

Source: MicroSave's analysis

Overview of Fintechs in Malaysia

- Malaysian fintechs are innovating in certain key areas across the four principal products. These are payment (P2P payments, online payment enablement, mobile wallet, crypto-payment), credit (P2P lending, crowdfunding, alternative credit decisions), insurance (robo-advisors, online payment enablement) and investment (robo-advisors, low-cost trading platforms).
- Banks in Malaysia have a keen interest in supporting fintech through initiatives such as accelerators and innovation labs. Some key developments include:
  - Maybank, the largest bank by market share in Malaysia, provides a platform for innovators to showcase their ideas.
  - Another large bank, CIMB, launched its incubation programme, 'Innochallenge', in 2015 to ideate and create new fintech solutions by mentoring start-ups.
  - RHB Bank plans to evaluate, fund, and mentor fintechs by organising hackathons and has planned to set aside 20% of its capital expenditure on executing new digital strategies.
  - Maybank and CIMB have also entered into a partnership with Ant Financial Services Group, wherein they would act as the settlement and merchant acquirer bank to enable an Alipay mobile wallet in Malaysia.
- BNM has been proactive in recognising fintechs as a catalyst for the development of progressive financial services. Its efforts have been to ensure the continued relevance of the financial services sector with increasing use of technology. The Central Bank established the Financial Technology Enabler Group (FTEG) and issued a Financial Technology Regulatory Sandbox Framework.

Fintechs interviewed



How are these fintechs addressing Financial Inclusion?

SOFTSPACE	They operate in the MPOS space enabling SME retailers to accept card payments
CROWDO	Crowd funding solutions including equity crowd funding and peer-to-business lending
KATSANA	GPS solution that allows risk-based premiums and offers rewards, savings to motor vehicle owners
MyCash Online	e-wallet service with specific focus on migrants allowing them to transfer cash, pay utility bills, and do international airtime top up, etc.
money match	Fully digital peer-to-peer currency exchange platform with e-KYC functionality to conduct cross-border remittances and exchange foreign currencies – this is mainly targeted at more affluent platforms

Aggregated Views from Fintechs that Operate in Malaysia

The most crucial challenge that fintechs face is their limitation to broaden beyond urban customer segments given competing priorities for growth and low fintech awareness

Addressable Barriers

	Specific issues	Description	Severity
Dealing with Banks	Turn around time	• Decisions take time due to bureaucratic processes at banks	◒
	Perception of fintechs	• While most banks have issued statements or launch their own fintech initiatives, depending on the banks, the openness to dealing with or engaging fintechs is mixed	
Last-mile Customer Fintech Literacy	Low awareness outside of KL	• Most fintechs are focused on the urban and middle-income or affluent market segments unless they are serving niche segments like migrant workers as in the case of MyCash. • They are also unlikely to serve a specific FI objective, with most in the payments space offering the value proposition of reduced transaction cost and increased convenience (anytime access). • It is also viewed that take-up of their services will be mostly in Kuala Lumpur where customers are savvier. Many are in the start-up phase and do not have bandwidth or budget to invest in a marketing campaign in tier 2-3 cities.	●
Expensive licenses	Costs of acquisition	• Remittance fintechs find the costs of remittance license as required by BNM to be prohibitive. Hence, they need to partner with money transfer companies which could be challenging.	◒
HR/Talent	Challenge to find suitably skilled staff	• There is a considerable brain-drain from the country and the best talent is not necessarily attracted to start-ups as a first choice • BNM has recognised this and started the 'FintechHacks' programme and has been conducting roadshows at local universities to spur interest in youth and inspire the development of solutions	◕

Views on Partnerships with Incumbent FSPs

- Fintechs are open to partnership with banks and applaud the BNM's Fintech Sandbox approach in the validation it offers and helps raise their profile, as many are start- ups and otherwise might not be taken seriously by the incumbents
- While banks have publically embraced fintechs, there is still some scepticism as to how much of that will translate to real action and the incumbents are generally not viewed to be pro-innovation
- Cost structures and pricing are still an issue when partnering with banks, which charge a fee per transaction as long as their APIs are accessed, and does not make business sense for fintechs.

"*National Banks in Malaysia need to open up a bit. They have already taken a step by launching a sandboxing license. This could be a huge step for fintechs as it will give them the opportunity to experiment with less risk involved.*"

CEO & Founder, MyCashOnline

"*There is enough room for both banks and fintechs – in the MSME credit space there is a significant number of loans that incumbents turn down due to their risk appetite.*"

CEO & Co-Founder, Crowdo

"*BNM's proactive approach in enabling and promoting fintech through its sandbox is much appreciated by local players – I think this is a first even at global level.*"

CEO & Co-Founder, MoneyMatch

Source: MicroSave's analysis and interviews with fintechs

Severity
Low ◔ ◒ ◕ ● High

Aggregated Views from FSPs that Operate in Malaysia

The significant challenge faced by FSPs in serving the last mile relates to stringent KYC requirements and low customer financial and digital literacy

		Specific issues	Description	Severity
Addressable Barriers	**Stringent KYC guidelines**	Need for Physical Verification of ID for bank account opening	• BNM has issued Agent Banking guidelines which allow banks to appoint agents to extend their reach to more rural and remote clients. However, BNM's 'Responsible Finance' guidelines still require physical verification of accepted KYC documents as is done at bank branches which is often time inconvenient for customers. • Although appointed agents may provide the service of facilitating opening of saving accounts, the decision to approve customer's application for the opening of saving accounts and issuance of Automated Teller Machine (ATM)/debit cards must be performed by financial institutions.	●
		Lack of essential documents for loan approvals	• While there is demand for credit, lower-income customers lack the required KYC documents such as income statements or property ownership proof. • While a few banks have explored alternative solutions such as acceptance of bank statements, transaction activity or balances on accounts are too low to help the case.	◕
Addressable Barriers	**Low financial literacy in the rural and lower-income segment**	Lack of understanding of products as well as trust in digital interfaces	• The perception among the larger commercial banks is that customers in more rural communities or niche segments such as estate workers or migrant workers still lack understanding of the key products and on their prudential use. • Improving access through digital interfaces would require some targeted campaigns and understanding of customer behaviour to build appropriate nudges and incentives.	●

"We understand the regulators' need for KYC and consumer protection in some processes but this limits financial inclusion to some extent – perhaps some room for e-KYC."

Head, Mass Banking, Community Financial Services, Maybank

"I really see fintechs as business customers of banks in the near future – they will be customer facing for most retail products and they can leverage the bank's back-end facilities and licenses to operate."

Head, Digital Innovation, RHB Bank

Views on Partnerships with Fintechs /on Technology adoption

- A recent survey indicates that 81% of FIs in Malaysia are worried about losing out to fintechs
- Banks shared mixed views about the role of fintechs in disrupting the sector; they were convinced about the role of technology in optimising distribution and products and were generally open to partnerships with fintechs.
- While some players recognise the rise of some large platforms such as WeChat and the threat they pose to incumbents, local fintech players are at a stage where their potential and business case needs to be proven.
- It is also viewed that the incumbents have the advantage of having experience of multiple cycles, particularly more with regard to credit – where this experience is critical.
- Other players acknowledge that the highly specialised nature of most fintechs (that is, singular product offering) and ability to innovate gives them a particular edge and banks might not be able to compete on this front
- However, this results in multiple opportunities to collaborate e.g. Maybank and RHB are willing to share their APIs, with the latter partnering with Lending Circles on P2P lending.

Source: MicroSave's analysis and interviews with FSPs

Severity

Low ◔ ◑ ◕ ● High

Key Interventions to Address Emerging Challenges in Malaysia

Area of Constraints	Addressable 'Challenges'	Intervention Ideas through or that support Technology Adoption	Partners/ Actors Involved and Impacted
Demand-side Constraints	Financial/digital literacy	• Targeted financial literacy drives for niche segments that are in more rural areas, which also includes a component of digital access	BNM, FSPs and Fintechs
Supply-side Constraints	Enablement of e-KYC	• Facilitate regional/bilateral knowledge sharing between central banks and key government institutions on approaches undertaken in other markets around enablement of e-KYC / proportionate KYC	Central banks, government institutions
Credit	Credit risk assessment and scoring	• Support pilots that test the use of alternative data for MSE sector – specific/priority geographic or industry clusters where enterprises tend to be smaller and lack collateral through partnerships with P2P lending platforms and interested banks	FSPs and fintechs

Country Summary
Myanmar

Overview of Financial Inclusion in Myanmar

Basic access to banking services and products still remains a challenge in Myanmar; reforms are underway

- The 2016 WEF Global Competitiveness Report states that out of 140 countries, Myanmar ranks 138th based on the availability and 135th on the affordability of financial services. The country has one of the lowest levels of financial inclusion in Southeast Asia, with over 77% of its population having no bank account.
- Myanmar's history of economic isolation has resulted in limited and underdeveloped financial institutions and generally very low access to commercial financial services. High inflation over the past decade and a number of bank crises have also prompted many to invest in gold and commodities instead.
- The financial intermediaries are undergoing a rapid transformation, and commercial banks are opening up to retail and SME customer segments – lack of access to finance is still the most frequently identified obstacle to doing business in Myanmar. The government is focusing on financial inclusion and has issued a guideline to banks to target opening of one bank account per household.
- The potential for microfinance is enormous in Myanmar. However, few regulated / formal institutions provide microcredit and fewer are able to reach significant scale. While the unmet demand for microcredit is estimated at close to USD 1 Billion, the estimated total loan portfolio of licensed MFIs is approximately USD 118 Million.

Progress depends mainly on whether policies and regulations enable the appropriate financial infrastructure and the adoption of international best practices for a modern and open financial system

- Financial liberalisation reforms in the past four years have gradually helped the expansion of access to finance. Deposit rates have been made more flexible within a fixed band and the capital-to-deposit restriction have been eased leading to banking sector deposits grow by 50% a year between 2012 and 2014.
- The Financial Inclusion Roadmap 2014 – 2020 for Myanmar proposes that the goal of financial inclusion in Myanmar will be best assured by pursuing two main outcomes:
  - ❑ Strengthened financial sector support to financial inclusion (addressing market barriers across product categories through formal intermediation)
  - ❑ Better financial inclusion for priority segments (agriculture, livestock, fisheries, MSMEs, and low-income households)
- While the new Financial Institutions Law is intended to address existing issues and provide a comprehensive legal framework, its enforcement relies primarily on banking supervision capacity of the Central Bank of Myanmar (CBM) in a rapid growth environment.

MFS can be potential game-changer as smartphone penetration and usage is high – digital applications could address 30% of payments gap and 28% of credit gap

- The 2016 regulation on mobile financial services issued by CBM allow MNOs and non-banks to provide mobile-led financial services – this is promising but must be supported by interbank and agent interoperability for real-time implementation. The digital payments infrastructure is also marred by power outages, software issues, and the weak telecommunications and internet connectivity.
- According to the Myanmar Telecommunications Ministry, the mobile phone ownership among adults increased from 7% in 2012 to over 90% in 2016. Smartphone usage is extremely high at 80%, even by global standards, and at least a third of smartphone holders use data.
- The confluence of high smartphone penetration with limited access to financial services presents an opportunity for MFS – to move transactions away from cash, given the associated hassle factors such as long distances at high costs associated with prevailing delivery channels, inconvenient operating hours and long delays at banks.
- There is an increasing trend of domestic migration driven by increasing urbanisation. Remittances are an important use case for such P2P payments and with recipients largely in rural areas, offers unique potential to scale up financial services at the last mile.

Key Financial Inclusion Constraints in Myanmar

There are multiple constraints for every product type; high smartphone penetration offers potential to address some of these issues digitally

Need	Myanmar's Progress to Date	Outstanding Constraints
Savings	• Myanmar ranks 138th based on the availability and 135th on the affordability of financial services. The country has only 3.41 branches per 100,000 adults. • Access to basic banking services and products remain a challenge in Myanmar, with over 77% of its population having no bank account. As a result of the poor access, the gross national savings stood at 18.7 % of GDP. • The Global Findex Database suggests that by 2014, around 12.8% of adults had saved at a financial institution over a 12 month period. Further, only 7% of the country's poor population saved at a financial institution.	• Low per capita income has an impact on the ability to save and leads to dealing in cash. • Many people still do not have an ID Card. Existing ID cards are still handwritten and cannot be verified in a town other than where it was issued. • Factors such as the high cost and time involved in travelling to the branch, long waiting times coupled with denial of transactions, complex processes, high transaction, and other service charges discourage LMI customers from using formal savings products and services. • Savings account uptake is limited due to uncompetitive interest rates (for instance, 36+% from gold/private intermediation versus 8% from savings). Further, the local currency has seen constant devaluation, losing on average 10% per year versus the USD.
Credit	• Myanmar is ranked 140th in terms of ease of access to loans. Less than half of the population use credit services. Of these, only 15.5% availed credit at financial institutions in 2014. • The informal financial sector constitutes the largest source of lending. few regulated / formal institutions provide microcredit and fewer are able to reach significant scale • While the unmet demand for microcredit is estimated at close to USD 1 Billion, the estimated total loan portfolio of licensed MFIs is approximately USD 118 Million. • CBM is about to issue the license to set-up a credit bureau for the banks in the country. The bureau is a joint-venture between Myanmar Bank Association (MBA) and Singapore-based NSP Holdings.	• The credit delivery infrastructure is still inadequate because of the absence of a national credit bureau and an industry-wide reliance on manual, paper-based processes to make credit decisions. • The informal process where village leaders and group leaders are consulted to identify creditworthiness of applicants and avoid multiple lending to the same set of clients – there is still no effective credit-scoring mechanism. • There is a significant lack of appropriate products that particularly address the agriculture sector.

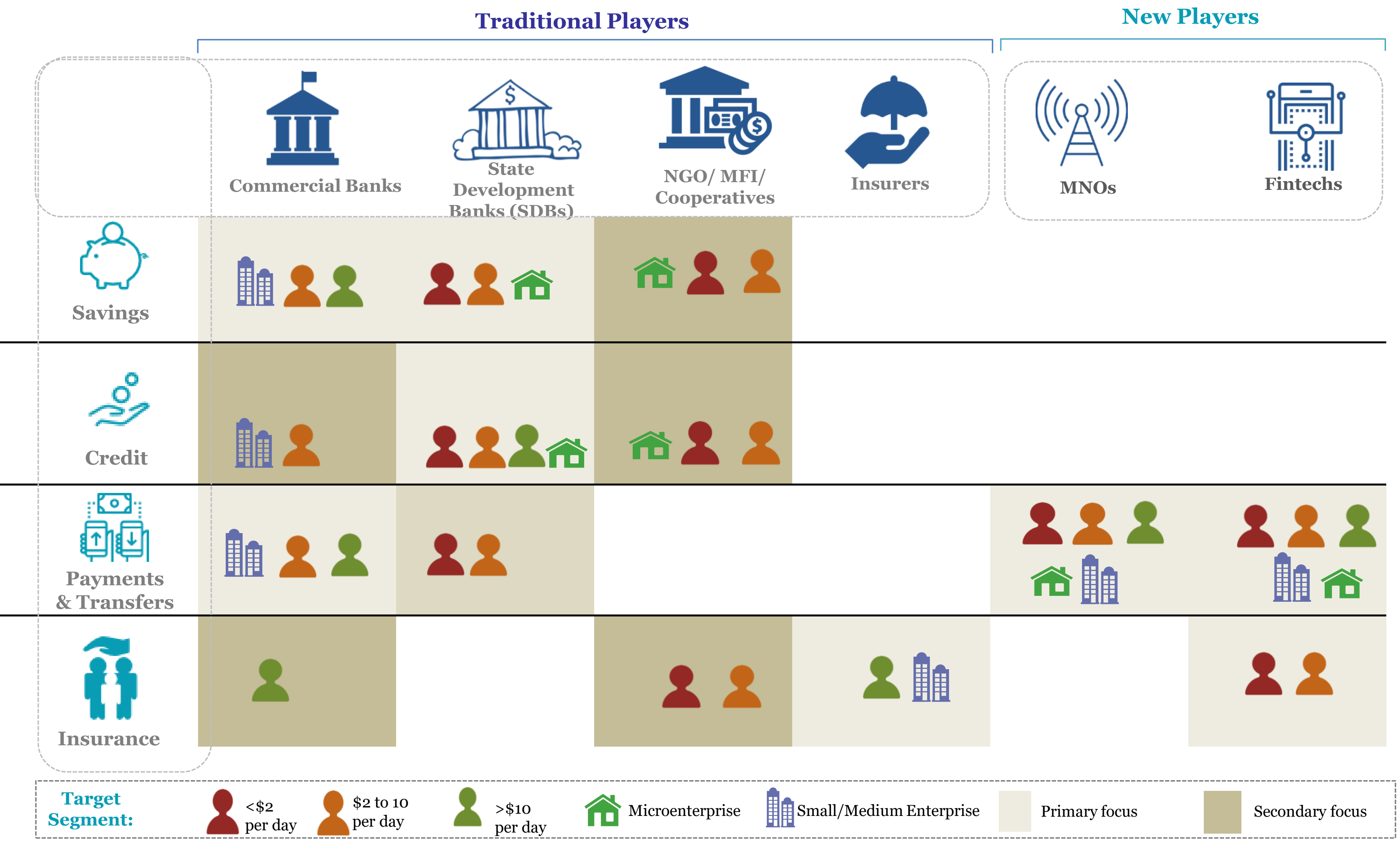
Key Financial Inclusion Constraints in Myanmar

There are multiple constraints for every product type; high smartphone penetration offers potential to address some of these issues digitally

Need	Myanmar's Progress to Date	Outstanding Constraints
Payments & Transfers	• CBM's regulation on mobile financial services allow MNOs and non-banks to provide mobile-led financial services. Interbank, Banks-Non-banks, Agent interoperability are being set up in terms of the initial regulatory environment and infrastructure. • CBM-NET, the real-time gross settlement system is in place. Myanmar Payment Union has allowed ATM interoperability for its member banks. • Mobile phone ownership among adults increased from 7% in 2012 to over 90% in 2016. Smartphone usage is extremely high at 80% and at least a third of smartphone holders use data. • 1.5% of the population receives government transfers (the largest is the civil service pension scheme with 843,000 beneficiaries) delivered by Innwa Bank and Myanma Economic Bank. • Driven by increasing urbanisation, there is an increasing trend of domestic migration. Remittances are an important use case for such P2P payments and with recipients largely in rural areas.	• Government expenditure on social protection and assistance may be developed as a use case once the Social Protection Strategic Plan is launched over the next 10 years. This could hugely benefit from a coordinated plan to digitize G2P payments • The cash distribution is prominent due to low bank account penetration and prevailing mistrust among people for banks. • e-money agents and ATMs exist mostly in urban or peri-urban centres. • Infrastructure for e-money needs to be upgraded to allow interoperability of services between players.
Insurance	• Until 2013, Myanma Insurance, the state-owned insurance company, was the sole life and non-life insurer operating in the country through a network of 40 branches. • As part of the liberalisation of the insurance market, 12 new licenses were granted to privately-owned, domestic operators in 2013. • Three Japanese insurers were authorised in 2014 to underwrite policies in the Thilawa Special Economic Zone. Currently, there are 24 foreign insurers with representative offices in the country. However, the insurance market remains closed to foreign insurers. • Penetration remains low at only 0.7% of GDP for non-life and 0.01% of GDP for life insurance products. Mandatory products such as 'Motor Third Party Liability' dominate the market and are concentrated in the urban centre around Yangon.	• There is still considerable unmet demand for traditional and micro-insurance products among LMI customers. • Most insurance companies are located in urban areas and there are far fewer branches in rural areas, leaving the large majority of the population unserved. • Low-income customers lack an understanding and appreciation of insurance products, mainly due to limited access to insurers and complexity of products.

The Ecosystem of Supply-side Actors in Myanmar

Fintechs can considerably advance financial inclusion beyond payments through partnerships with banks and other FIs operating in the last mile



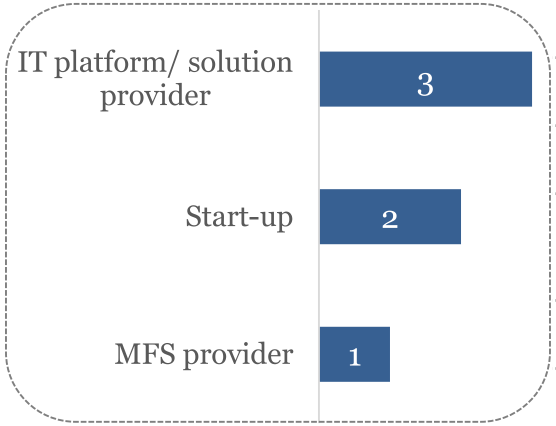
- Given the country's history, state development banks are the key providers of financial products and services to lower-income customers
- While the MFI sector has expanded significantly with the entry of foreign players recently, demand exceeds supply by four times. They remain key supply-side actors at the last mile.
- Commercial banks are still familiarizing themselves with the mass-market retail business and are currently focused on building their access network across the country
- With the launch of MFS regulations last year, the playing field for MNOs and fintechs to operate has been levelled; they continue to scale by making significant progress in building their agent network beyond urban centres.

Source: MicroSave's analysis

Overview of Fintechs in Myanmar

- The fintech landscape in Myanmar witnessed a major boost with the issuance of regulation on mobile financial services by the CBM in 2016. The MFS regulation allows MNOs and non-banks to provide mobile-led financial services independently. The step can be seen as the culmination of two factors:
  - ❑ The steep rise in mobile phone penetration – from 7% in 2012 to over 90% in 2016. Further, the usage of smartphones is extremely high at 80%.
  - ❑ The surge in the number of people using the Internet – from less than 2 million in 2014 to more than 39 million in 2015-16, after the Ministry of Transport and Communications allowed foreign telecom operators to enter
- The Global Findex Database suggests that by 2014, only 23% of the population had access to formal financial services which created scope for unconventional players. The confluence of high smartphone penetration with limited access to financial services presents an opportunity for MFS providers.
- Wave Money is the only player to have secured an MFS license and started offering its services in mid-2016. It is a joint venture between Telenor, First Myanmar Investment and Yoma Bank, which allows its users to transfer money through mobile phones or in-person through its agent network.
- Myanmar's larger private banks have been preparing for the fintech challenge by investing heavily in their own IT systems and providing their own mobile-banking networks to customers. There are at least nine mobile bank networks already available, offering online banking, top-ups for mobile phones and bill payments services.
- Another fintechs operating in Myanmar include Mywallet Plus - which provides an online payment platform specialising in utility bill payments, e-commerce processing, customer bill payments and Red Dot - which enables users to purchase mobile top-ups, pay bills and buy products at shop partners.

Fintechs interviewed



How are these fintechs addressing Financial Inclusion?

wave money	Only licensed MFS player in Myanmar
ongo	Wallet-based payment solutions in partnership with a bank
OOJIBO	Digital money transfer across countries, any time through mobile phones/ WaveMoney agents
dot	Cash –acceptance network and digital platform for payments and transfers. Key services include mobile top-up, bill payment, voucher payments and an advanced coupon, rewards and customer management platform
Stonestep	Technology provider for microinsurance companies
CNP	Payment aggregator for the MFS players

Aggregated Views from Fintechs that Operate in Myanmar

The most significant challenge that fintechs face relates to the regulatory treatment of actors

Addressable Barriers

	Specific issues	Description	Severity
Modus Operandi of Banks	High turnaround time for decisions	Banks are hierarchical and any new partnership or venture requires a considerable amount of time. That said, there are a number of fintechs that already work with banks and offer their services through the bank partner's license such as Ongo and Oojibo	
Policies & Regulations	Lower transaction limits	While MFS guidelines have been issued, banks are still at an advantage due to the higher transaction limits allowed on their wallets	
	Enforcement of MFS guidelines/ licenses	Despite the guidelines, unlicensed microfinance players still exist in the market. It poses significant risk from a consumer protection viewpoint.	
Agent Networks	Digital literacy and OTC	Players view that this market will likely to evolve in the OTC direction initially with some level of self-initiated transactions. While there is high smartphone use and increasing understanding of the payments product, high dependence on cash still results in higher reliance on agents	
	Infrastructure	Poor roads and lack of mobile connectivity in certain remote/conflict areas impede spread of agents	
Business Environment	Access to local capital and start-up culture	• Local investors do not understand start-up culture where equity share with founders is the norm. They expect full ownership with injection of capital • Several start ups find incorporation and taxation procedures as cumbersome and as a result, some fintechs are legally incorporated in Singapore	

Views on Partnerships with Incumbent FSPs

- Fintechs are open to partnerships and see the potential in leveraging FSP's ability to offer a wider suite of products
- There are already some pilot projects testing partnerships between fintechs and FSPs and there is room for more, particularly at the last mile as some key players will be technologically ready by end of the year
- While this was not the case six months ago, banks are starting to recognise the difficulty in 'distribution' – building agents and figuring out the right incentives to maintain them

"The real challenge in Myanmar is cash, not the banks. So for MFS providers to succeed, street-level engagement is important. Agent networks are bound to play a big role."

CEO, OnGo

"With an insurance penetration of only 0.08%, there is a huge opportunity for Insurtechs. But the demand is not real, despite the huge opportunity."

Country Lead, StoneStep

"Interoperability could be a nut-cracker. If the banks can agree, it would help fintechs to optimise their cost and serve better. Banks here have gone through an overhaul, but until they are stable, it is difficult to do an IT project with them."

Head Financial Products, Red Dot

Source: MicroSave's analysis and interviews with fintechs

Severity

Low High

Aggregated Views from FSPs that Operate in Myanmar

The most significant challenge faced by FSPs relates to training and getting their internal teams familiarised with DFS, with special attention required for smaller, local MFIs

Addressable Barriers

	Specific issues	Description	Severity
Technology Adoption	Understanding & Readiness	• Most of the commercial banks and more established MFIs (typically foreign-born with the exception of local player Proximity Finance) have recently or are in the process of on-boarding a CBS system • Piloting and getting these systems is a current priority of IT teams • The smaller MFIs, in particular, require support with understanding the benefits of technology integration	
Technology Adoption	Cost	Access to capital is still an issue for smaller MFIs	
Human Resources	DFS training & competency	An estimated 15,000 new employees are hired in the financial sector each year and training them is considered as a bottleneck. Extensive efforts are required to familiarise teams at both HQ and branches with new systems and processes	
Interoperability	Between Banks	Currently, making payments between banks is an issue as there is no real-time payment settlement system/gateway. Through Myanmar Payment Union (MPU), the ATMs connect but banks are yet to connect.	

"*All telecom operators have their own wallets; all banks have their own payment systems. Everybody works on their own; there needs to be somebody that comes in and forces people to work together. The government could help.*"

MD, CB Bank

Views on Partnerships with Fintechs / on Technology Adoption

- The top three banks (in terms of market share) have taken a branch-led approach while the smaller domestic and private players are more open to digital approach. They (smaller banks) are currently exploring suitable agency banking models. However, no bank has successfully implemented a fully operational model as of now.
- There has been a considerable change in terms of banks' attitude and openness towards partnerships with third-party agent managers in the last six months. Faced with multiple priorities on their end, they realise that outsourcing 'distribution' might be the most cost-effective and practical option and recognise that some fintech players are better placed to do this task.
- The smaller and domestic MFIs are resource-strapped and faced with the need to potentially consolidate given the latest Microfinance guidelines released last year. A dedicated effort to access the cost-benefit impact of technology adoption would also be useful as the smaller players have a small client base in singular geographic regions across the country.
- The commercial banks and the foreign-born MFIs are best placed for technology adoption; the state development banks would require extensive support – this is being addressed by the World Bank and ADB.

Source: MicroSave's analysis and interviews with FSPs

Severity

Low *High*

Key Interventions to Address Emerging Challenges in Myanmar

Area of Constraints	Addressable 'Challenges'	Intervention Ideas through or that support Technology Adoption	Partners/ Actors Involved and Impacted
Demand-side Constraints	Financial/Digital Literacy	• Understand key gaps in awareness and trust barriers in use of DFS to design targeted financial literacy drives for niche segments in more rural areas including a digital access component	FSPs, fintechs
Supply-side Constraints	Technology Readiness	• Conduct readiness assessment for local and smaller MFIs and TA support for tech adoption	FSPs
	HR bottleneck	• Support the DFS training of IT and relevant operations teams in FSPs, particularly in MFIs	FSPs
	Fintech and FSP Partnerships	• Facilitate dialogue between both groups of actors through industry events	FSPs, fintechs
Payments and Transfers	Enabling critical volume – G2P & P2All Extending access - Points of physical presence	• Promote the use of online platforms (e.g. e-money) and social media (e.g. Facebook) for P2P remittances • Facilitate regional/bilateral knowledge sharing between central banks and key government institutions on approaches undertaken in other markets around enablement of e-KYC / proportionate KYC, G2P digitisation and developing specific guidelines for branchless banking and agent network management	CBM and other key government institutions
Credit	Credit risk assessment and scoring	• Support development of alternative credit scoring (that is, support MNOs for alternative credit scoring) by supporting the entry of relevant fintechs and facilitating partnerships with incumbents. This could be done through a competitive process of selection	FSPs and fintechs
	Suitable products responding to demand such as in agri-finance	• Identify smallholder value chains that could benefit from improved product development or digitisation in value chains	FSPs
Savings	Savings access and convenience	• Work with key stakeholders to develop need-based and segment specific products such as savings products for migrant workers, smallholder farmers and other niche segments	CBM

Country Summary
Nepal

Overview of Financial Inclusion in Nepal

Basic access to banking services and products still remains a challenge

- Nepal's GDP per capita is USD 729.53 (2016) with 25.2% of the country's population living below poverty line, making it one of the poorest in the world. The 2017 World Economic Forum (WEF) Global Competitiveness Report states that out of 137 countries, Nepal ranks 82nd based on the availability and 80th on the affordability of financial services.
- There are four classes of financial institutions licensed by the Nepal Rastra Bank (NRB): 28 commercial banks (A class), 67 development banks (B class), 41 finance companies (C class) and 42 MFIs (D class). Access to and use of formal financial services has been very low in Nepal. The country has 9.58 bank branches per 100,000 adults. In 2014, only 33.8% of all adults owned a bank account in the country compared to 46.4% of adults in South Asia.
- The findings of World Bank's Access to Financial Services Survey for Nepal indicate that financial NGOs and cooperatives run a close second to banks as the largest provider of deposit accounts, serving 18% of households. Microfinance and regional rural development banks are a distant third provider of deposit accounts, serving only 4% of households – mainly the poor, rural ones.

The government has shown firm commitment towards introducing policies aimed at advancing financial inclusion

- A number of financial outreach policy initiatives are underway together with a long-term development strategy to help the country graduate from a least developed country status by 2022 and meet UN's sustainable development goals as well as become a middle-income country by 2030.
- Nepal's Banks and Financial Institutions Act (BAFIA) governs all activities of banks and is a central path for advancing financial inclusion in the country
- NRB, under its deprived sector lending directive for class A, B, C financial institutions has made it compulsory to make low-cost funds available for MFIs, thus increasing access to financial services to underserved areas. In coordination with the government, NRB has introduced a number of policy models such as Grameen Bank model, wholesale microfinance model, direct lending model, project-based micro credit model, financial non-government organisations (FINGOs) model, and cooperative model.
- Recently issued guidelines for licensing of PSOs and PSPs has attracted applications from 87 DFS/ fintechs which were earlier working as technical service providers (TSPs) for the incumbent FSPs with almost identical and limited service offerings.

Large foreign remittances received by Nepalese households, mostly from migrant workers, is a missed opportunity for increasing access to formal financial services

- Remittances constitute 29.1% of Nepal's GDP and the amount may be as much as five times higher than the total foreign grants and loans that Nepal received in 2013-14.
- The amount of remittances could be doubled if the government signs a labour agreement with major destination countries for skilled or semi-skilled migrants. Remittances can set in motion a chain of development benefitting a large section of underserved and unserved Nepalese population.

Key Financial Inclusion Constraints in Nepal

Low disposable income, unclear regulations and reluctance to invest in technology continues to hamper overall inclusion

Need	Nepal's Progress to Date	Outstanding Constraints
Savings	• Nepal ranks 82nd based on the availability and 80th on the affordability of financial services. The country has 9.58 bank branches per 100,000 adults. • Access to basic banking services and products remain a challenge in Nepal with 33.8% of all adults having a bank account. The gross national savings is 42.36% of the country's GDP. • The Global Findex Database suggests that by 2014, around 16.4% of adults had saved at a financial institution over a 12 month period. Further, only 8% of the country's poor population saved at financial institution.	• Nepal's GDP per capita is USD 729.53 (2016) with 25.2% of the country's population living below poverty line. Low per capita income has an impact on the ability to save and use cash for most of the transactions. • Factors such as high cost and time involved in travelling to the branch, long waiting times coupled with denial of transactions, complex processes, high transaction, and other service charges discourage LMI customers from using formal savings products. • On the supply-side, low transaction volumes and high operating costs outweigh potential revenue from the low-income population.
Credit	• Nepal is ranked 72nd in terms of ease of access to loans. More than half of the population use credit services. Of these, only 11.9% availed credit at financial institutions in 2014. • Informal sources such as private money lenders and family or friends constitute the largest source of credit. • In coordination with the government, NRB has introduced a number of policy models such as the Grameen Bank model, a wholesale microfinance model, direct lending model, project-based microcredit model, FINGOs model, and cooperative model.	• Low disposable income and limited public participation in formal financial services have hindered the capital accumulation and formulation for financial institutions. This has led to an increase in the cost of capital and high cost of credit for these institutions. As a result, informal FSPs dominate the credit supply to the low-income customers and micro-enterprises in the country. • Low-income customers and micro-enterprises are unable to offer the necessary collaterals or navigate the complex documentation processes to avail formal credit services. • Limited trained resources to manage, supervise, and monitor credit services.

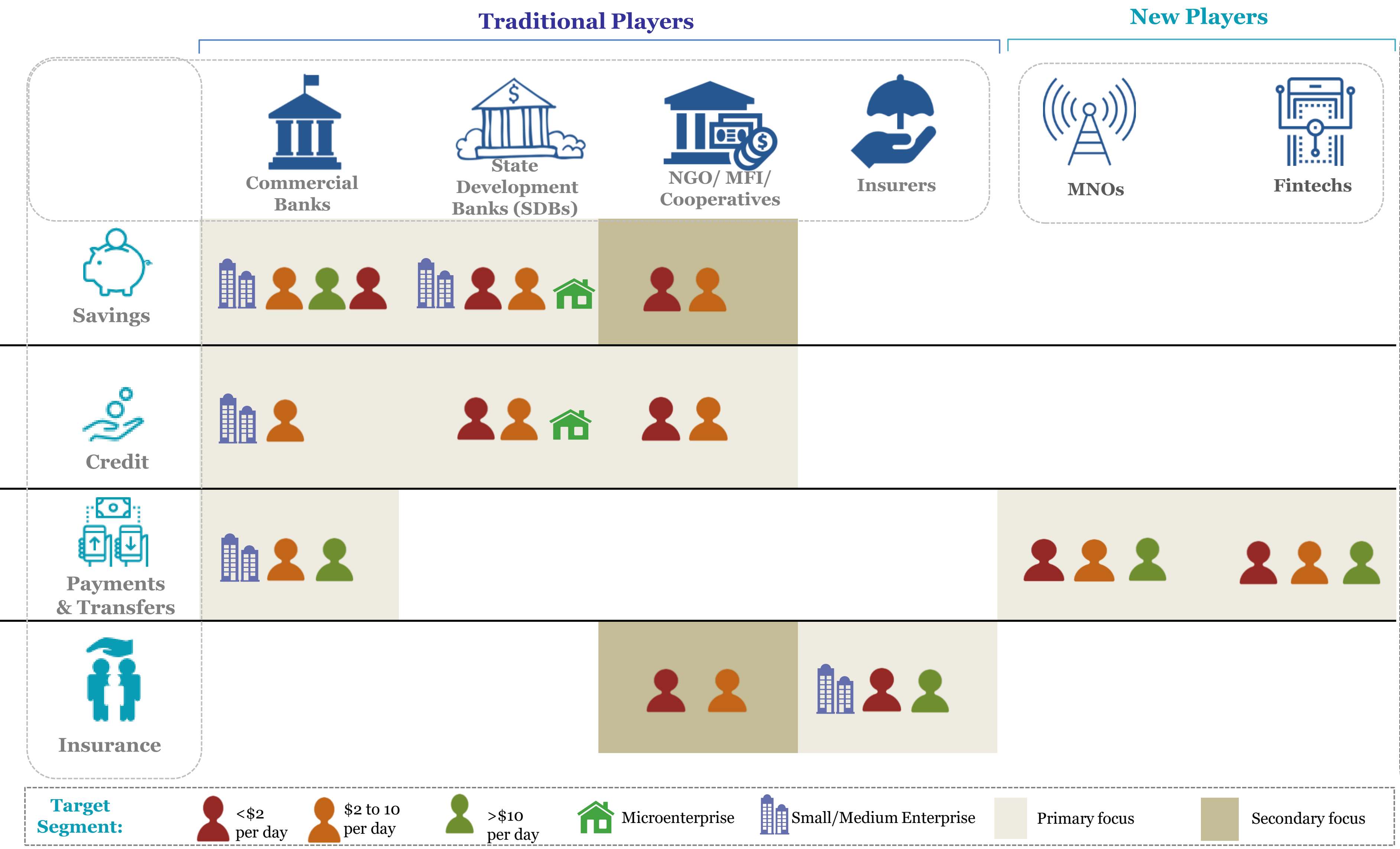
Key Financial Inclusion Constraints in Nepal

Low disposable income, unclear regulations and reluctance to invest in technology continues to hamper overall inclusion

Need	Nepal's Progress to Date	Outstanding Constraints
Payments & Transfers	• More than two-thirds of remittances from abroad are received via informal channels. • Only 1% of Nepalese population uses credit cards, while just 0.5% of the total population use debit cards. • Only 15 commercial banks, 2 development banks and 2 finance companies are providing some form of e-banking services to their branch network. • Recently issued guidelines for licensing of payment system operator (PSO) and payment service provider (PSP) has attracted applications from 87 DFS/ fintech providers which were earlier working as TSPs for the incumbent FSPs with almost identical and limited service offerings	• Low levels of meaningful awareness related to usage and benefits of MFS has led to a continued dependence on cash-based transactions and agent-assisted transactions. • A lack of adequate infrastructure (telecommunication and electricity) coupled with high costs of accessing the Internet have limited the uptake of MFS among the low and middle-income customers. • The absence of a public-owned national financial switch and real-time intra-bank transfers has resulted in high cost and TAT for card-based transactions and electronic payments/transfers.
Insurance	• Insurance Board of Nepal, the apex regulator, controls and supervises 9 life insurance, 17 non-life insurance and one reinsurance company • Premium volume for Nepalese life insurance companies has grown by 11.3% in 2011-12 and for non life insurance sector by 14.67%. • Microinsurance schemes offered by MFIs, Co-ops and SACCOs in Nepal are social protection fund products (SPF), life, credit/life, healthcare, accident/disability, livestock and crop insurance. The products are available both in rural and urban areas, though the majority of the hill and mountain districts are not covered.	• Low-income customers lack an understanding and appreciation of insurance products, mainly due to limited access to insurers and complexity of products • Small ticket-size transactions and the continued bundling of insurance with other financial products makes reaching this segment difficult.

The Ecosystem of Supply-side Actors in Nepal

Incumbent FSPs can partner with fintechs to develop a cost-effective, reliable, and accessible payments solutions



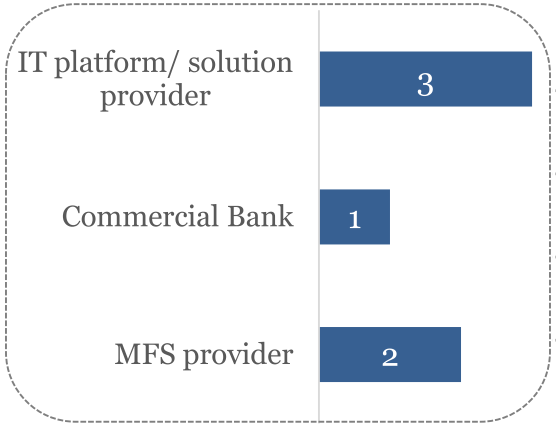
- State development banks and commercial banks are key providers of financial products and services in urban (71%) and rural (58%) areas
- Formal financial services have a lower uptake among rural and lower-income segments
- Locally based formal (co-operatives and MFIs) and informal (moneylender, savings group, family) FSPs have the largest market share of clients
- With the exception of cooperatives, formal providers with traditional distribution channels are largely focused on urban areas and follow high cost model of branches. Agent based financial services, digital channels, internet banking remain nascent outside of remittance market
- The launch of PPI regulations mandates all payment service providers including mobile network operators and payment system operators to obtain license from NRB to provide online and mobile payment services to their clients

Source: MicroSave's analysis

Overview of Fintechs in Nepal

- The fintech landscape in Nepal is limited mainly to remittance services, banking platforms and mobile telecom services. Majority of these initiatives have been undertaken by different offshore institutions through their subsidiaries in Nepal. Only a few institutions such as F1Soft International Pvt Ltd have evolved as leading fintechs offering multiple services such as online payment gateway, mobile banking system, internet banking system, cards management system, and digital wallet
- A lack of adequate infrastructure (telecommunication and electricity), high risk aversion exhibited by FSPs, and limited appreciation of DFS by the public continue to be key hurdles in the growth of the fintech landscape. While the use of the Internet for social media has witnessed a significant increase (4 million Viber users and 5-6 million Facebook users), the same customer segment has not appreciated the use of the Internet for financial services
- Globally, investors and incumbent FSPs are accustomed to the modern tech growth curve with a three to five-year investment horizon. However in Nepal, owing to the slow growth of the overall formal financial services sector (barring international remittances), the investors and incumbent FSPs have been hesitant to inject capital into the fintech market
- Since the country’s topography causes limitations for the banking sector to expand to far-flung areas, the banks have started partnering with fintechs to offer digital payment solutions such as mobile wallets, mobile and kiosk banking. Supported by the Nepal Microfinance Bankers’ Association, 34 microfinance entities in Nepal have partnered to establish a fintech, Nepal FinSoft, to build and maintain a shared core banking platform
- Recently issued guidelines for licensing of PSOs and PSPs has attracted applications from 87 DFS/ fintechs which were earlier working as technical service providers (TSPs) for the incumbent FSPs with almost identical and limited service offerings

Fintechs interviewed



How are these fintechs addressing Financial Inclusion?

- Provides mobile internet, tablet banking system; card management system; online payment gateway and digital wallet to almost 90% of Nepal’s financial institutions
- HelloPaisa is offered as SaaS (Software-as-a-service) to banks
- Provide remittance, financial and insurance services in rural areas using its agent network
- Leading microfinance bank in Nepal providing deposit and loan products to rural customers
- Offers remittance services and have entities in Malaysia and the US. It has tied up with cooperatives to reach rural and remote customer segment in Nepal

Yostartups; BeamBiz; *MicroSave* primary Survey; Nepal economic forum; New Business Age; smergers.com; startupsnepal.com; https://nrb.org.np/psd/files/Licensing_Policy_in_English-2016.pdf

Aggregated Views from Fintechs that Operate in Nepal

The most significant challenge that fintechs face relates to complex partnerships with banks, unclear regulations and poor digital literacy

Addressable Barriers

	Specific issues	Description	Severity
Modus Operandi of Banks	Reluctance to inject capital into the fintech market; Complex partner on-boarding processes	Banks have been reluctant to foster the growth of fintech through investments as they do not see a compelling business case. Further, the complex and time-consuming processes of banks require considerable time to forge partnerships with fintechs. However, there are fintechs that already work with banks and offer their services through the bank partner's license such as F1Soft, Finaccess and Janaki Tech	
Policies & Regulations	Enabling Regulations for Fintechs	While PSO and PSP guidelines have been issued, fintechs still feel that the guidelines need to be more clear and conducive from the industry perspective. Regulations are at a nascent stage and the process of getting approval is complex and time-consuming with ambiguity at certain steps.	
Agent Networks	Digital literacy and OTC	While there is high mobile phone penetration and increasing use of social media platforms, limited awareness and understanding of DFS has led to a continued dependence on cash-based transactions and higher reliance on agents. Fintechs view that the market will evolve in the OTC direction initially with some level of self-initiated transactions	
	Poor infrastructure	Lack of adequate infrastructure in terms of electricity supply, roads connectivity and mobile connectivity in the hills and mountain region impede spread of agents and regular usage of DFS	

"Customers still perceive that a mobile is only to make calls or radio or taking photos. Mobile as a medium for payments needs to be worked on."

CTO, Chaudhary Group

"The model of providing MFS in Nepal needs to change. Telcos need to develop lucrative, cost-effective deals for both the supply and demand-sides"

Chief Product Officer, F1Soft

Views on Partnerships with Incumbent FSPs

- Fintechs are open to partnerships and see the potential in leveraging FSP's ability to offer a wider suite of products
- There are already some the banks that have partnered with fintechs such as F1Soft, Finacces, and Janaki Tech to offer digital payment solutions such as mobile wallets, mobile and kiosk banking

Source: MicroSave's analysis and interviews with fintechs

Severity

Low High

Aggregated Views from FSPs that Operate in Nepal

The most significant challenge faced by FSPs relates to limited understanding and readiness for technology adoption and lack of adequate payments infrastructure

Addressable Barriers

	Specific issues	Description	Severity
Technology Adoption	Understanding and Readiness	• Majority of the commercial banks and some of the established MFIs have partnered with fintechs to offer technology-based services such as branchless banking, mobile banking and mobile wallets. However, service offerings are limited and almost identical • While piloting these systems is a current priority, the FSPs have been largely reluctant to invest in developing in-house technology as they do not see a compelling business case • The smaller FSPs (banks and MFIs) require support with understanding the benefits of technology integration	
	Cost	Access to capital continues to be a key challenge for the smaller FSPs to grow their operations to meet the existing demand	
Human Resources	DFS training & competency	Missing opportunities due to lack of trained resources to manage, monitor and supervise DFS continues to be a bottleneck in augmenting the uptake of DFS in the country	
Interoperability	Interoperability between Banks	The absence of a public-owned national financial switch and real-time intra-bank transfers have resulted in high cost and TAT for card-based transactions and electronic payments/ transfers	

"*Technology-based financial services are the only solution to reach out to the underbanked population in far-flung areas in Nepal.*"

Head of Microfinance, Muktinath Bikas Bank

Views on Partnerships with Fintechs / on Technology adoption

- The commercial banks and the established MFIs are best placed for technology adoption
- Reluctance to invest into in-house technology has fostered the partnerships between commercial banks and fintechs. FSPs have also realised that outsourcing might be the most cost-effective and practical option
- A dedicated effort to access the cost-benefit impact of technology adoption would also be useful as the smaller players have a small client base across the country
- Some of the MFIs are looking for tying up with TSPs to implement IVR and OTP facilities to increase transaction security and better serve customers

Source: MicroSave's analysis and interviews with FSPs

Severity: *Low* — *High*

Key Interventions to Address Emerging Challenges in Nepal

Area of Constraints	Addressable 'Challenges'	Intervention Ideas through or that support Technology Adoption	Partners/ Actors Involved and Impacted
Demand-side Constraints	Financial/digital literacy	• Demand-side research to assess the understanding and trust barriers in use of technology for financial services of technology along with appropriate user-interfaces for customers with low-literacy levels and through a gender lens	FSPs and Fintechs
Supply-side Constraints	Technology readiness	• Conduct readiness assessment for smaller FSPs (MFIs) and TA support for tech adoption	FSPs
	HR bottleneck	• Support DFS training of teams in FSPs particularly in MFIs	FSPs
	Fintech and FSP partnerships	• Support research on the development of a business model that allows technology sharing by fintechs as part of partnerships with last-mile FSPs	FSPs and Fintechs
Payments and Transfers	Enabling critical volume – G2P & P2All	• Facilitate regional or bilateral knowledge sharing between central banks and key government institutions on approaches undertaken in other markets around G2P digitisation and developing specific guidelines for branchless banking and agent network management with a consumer protection focus through exposure visits	NRB and other key government institutions
	Extending access - points of physical presence		
Credit	Credit risk assessment and scoring	• Support the development of alternative credit scoring by supporting the entry of relevant fintechs and facilitating partnerships with incumbents	FSPs and Fintechs
	Suitable products responding to demand such as in agri-finance	• Identify smallholder value chains that could benefit from improved product development or digitisation in value chains	FSPs

Country Summary
Vietnam

Overview of Financial Inclusion in Vietnam

Basic access to banking services and products still remains a challenge

- The 2017 World Economic Forum (WEF) Global Competitiveness Report states that out of 137 countries, Vietnam ranks 78th in terms of the availability and 60th on the affordability of financial services.
- Access to and use of formal financial services has been very low in Vietnam. Only 31% of all adults own a bank account in the country compared to 69% of adults in East Asia and the Pacific. Only 11% of the low-income customers have access to banks. More women than men have a bank account.
- Distance is regarded as the biggest barrier to owning a bank account. Vietnam has only 3.8 bank branches per 100,000 adults, ranking 104th out of 144 countries according to 2015 data from the World Bank. However, the country has an ATM network at 24 ATMs per 100,000 adults.
- The current regulatory framework does not permit banking agents or correspondents in Vietnam which makes the expansion of banking services to low-income segments more expensive and thus less viable.

Government's Commitment towards 'Cashless 2020'

- Vietnam is yet to formulate and adopt a National Financial Inclusion Strategy (NFIS). It is neither a member of Alliance for Financial Inclusion nor is a signatory to the Maya Declaration.
- The government has taken a policy decision to effectively reduce cash transactions and improve electronic payment methods by 2020. This plan aims to provide the required infrastructure and equipment, such as the creation of an automatic payment centre by State Bank of Vietnam to connect consumers, businesses, and commercial banks.
- By 2020, the government aims to curb the ratio of cash to total liquidity to not higher than 10% by promoting non-cash payments in the country. The official target is to provide bank accounts to at least 70% of the population (15 years old and above); to equip 100% supermarkets, shopping centres and distribution agents with point-of-sale (POS) devices to accept non-cash payments; to ensure that 70% utility service providers and telcos accept non-cash payments; and to enable 50% of individuals and households in urban areas metropolitan cities to use digital payment solutions.

Vietnam has the ingredients to ride the wave of digital financial services (DFS)

- Vietnam currently has a mobile penetration rate of 140%, an adult literacy rate of 94.5%, more than 40 million internet users, and smartphone ownership by 55% of the population.
- With a high percentage of internet users and mobile subscribers along with low banking penetration, mobile wallets have immense potential in the region. Currently, almost 10 million customers use mobile wallets from over ten different service providers.
- A 2016 VISA study on consumer payment attitudes suggests that consumer preference for electronic payments in Vietnam has grown by 8% with the greater use of cards, increased penetration of smartphones, and growth of mobile and e-commerce.

Key Financial Inclusion Constraints in Vietnam

Poor accessibility, limited product and service offerings, and low participation of private sector FSPs continue as the key challenges towards greater financial inclusion

Need	Vietnam's Progress to Date	Outstanding Constraints
Savings	• Vietnam ranks 78th in terms of the availability and 60th on the affordability of financial services. The country has only 3.8 bank branches per 100,000 adults, one of the lowest in the region and in the world. • Only 31% of all adults own a bank account in the country while only 11% of those in the bottom 40% of the income distribution have access to banks. • As a result of the poor access to basic banking services and products, the gross national savings stood at 31.26% of the GDP with a low bank deposits-to-GDP ratio at 15%. • The Global Findex Database suggests that by 2014, around 14.6% of adults had been saving at a formal financial institution. This had doubled in three years, as only 7% maintained a savings account with a formal financial institution in 2011. In contrast, approximately 39% of adults prefer to save outside the formal sector, using informal means, which include savings clubs.	• Low disposable income and the high cost of availing savings products mean that LMI customers manage to save little in the formal sector. • Factors such as high cost and time involved in travelling to the branch, long waiting times coupled with denial of transactions, complex processes, high transaction and other service charges discourage LMI customers from using formal savings products and services.
Credit	• Out of 137 countries, Vietnam is ranked 69th in terms of ease of access to loans. Almost half of the population use credit services. Of these, only a fifth (18.4%) availed credit at formal financial institutions in 2014. • Compared to 2011, there has been only a slight increase (2.2%) in terms of people who avail credit services from formal financial institutions. Interestingly, only 1.8% of people approach informal lenders in the country. • Trade Finance Programme aims to help the local business' to expand trade opportunities • While SMEs account for 95% of the total enterprises in Vietnam, only about 30% of them are able to secure credit facilities from banks despite the different measures undertaken by the government to support SME development	• Existing asset/collateral-based credit products offered by state-owned banks do not meet the requirements of the low- and middle-income customers segment. • Low-income customers and microenterprises cannot avail formal credit services because they are unable to offer the necessary collaterals or navigate the complex documentation processes. • Limited trained resources to manage, supervise, and monitor credit services.

Sources: *MicroSave* expert opinion, World Bank Global Findex Data (2014), IMF Selected Issues Series,
Vietnam Financial Sector Assessment, Strategy and Roadmap- Report by Asian Development Bank
Responsible Finance in Vietnam- IFC,
Vietnam's Small and Medium Sized Enterprises Development: Characteristics, Constraints and Policy Recommendations

Key Financial Inclusion Constraints in Vietnam

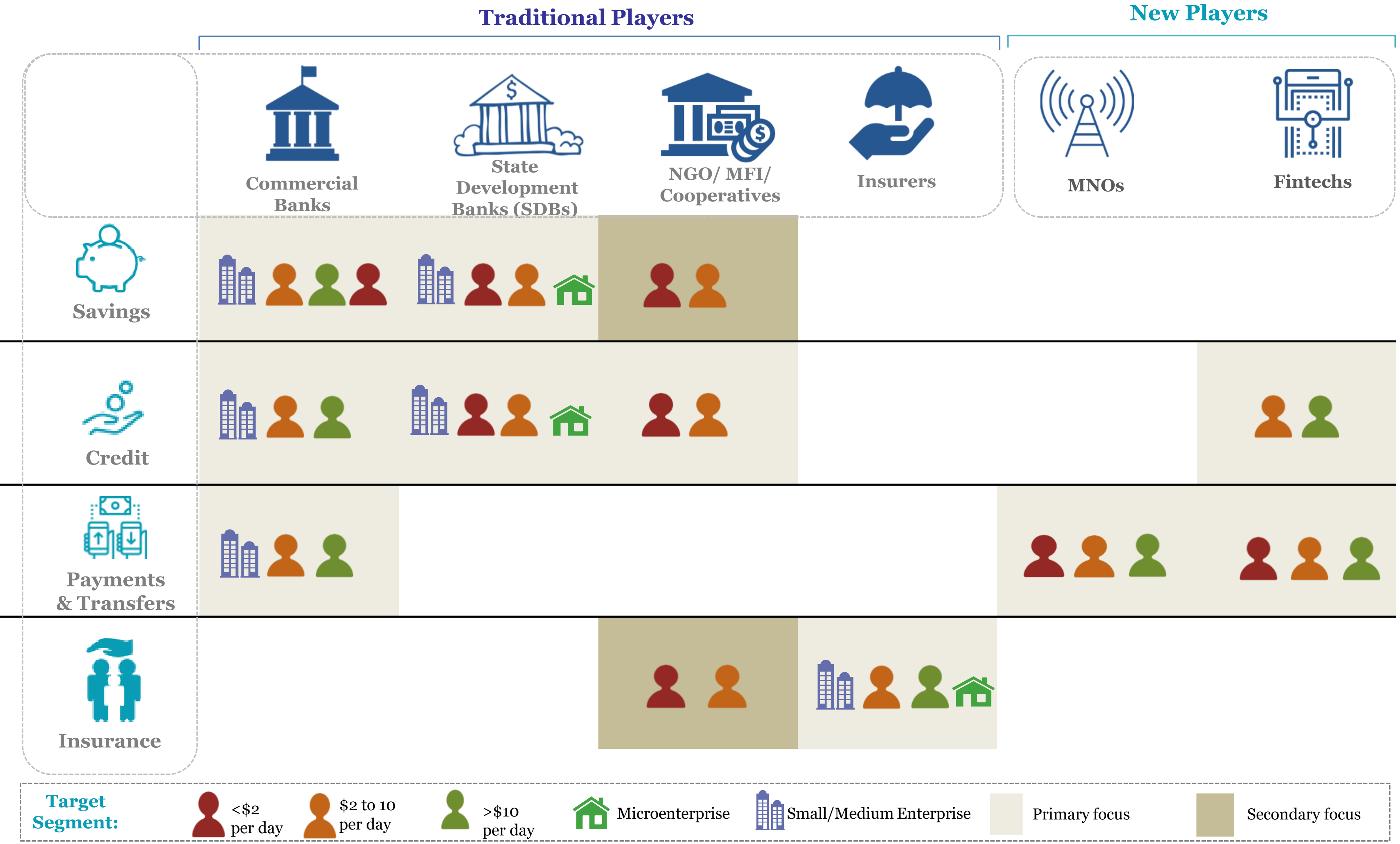
Poor accessibility, limited product and service offerings, and low participation of private sector FSPs continue as the key challenges towards greater financial inclusion

Need	Vietnam's Progress to Date	Outstanding Constraints
Payments & Transfers	• The Central Bank enhanced payment infrastructure for greater coverage, faster settlements and efficient payment. • In 2010, there were only 49 card-issuers with 11,500 ATMs and 52,000 POS terminals. This increased to 16,753 ATMs and 217,470 POS terminals by end-2015. • The Global Findex Database suggests that by 2014, around 26.5% adults owned a debit card while 26% transacted electronically. Only 3% adults used a debit card to make payments in 2014. • Consumer-led electronic payments grew by 8% on account of a greater use of cards, increased smartphone penetration, and e-commerce	• Low financial literacy and high dependence on cash have led to cash payments accounting for over 90% of all transactions. • Complex processes/menu/user interface coupled with a limited understanding of technology has marred the uptake and regular usage of DFS/MFS among the low- and middle-income customers. • Commercial or state-owned banks are reluctant to adopt digital banking because of security issues related to ICT network, transmission, central management platform, and e-banking technology applications.
Insurance	• A limited number of organisations provide microinsurance to the low-income customers based on the directive issued by the Prime Minister and Ministry of Finance • The insurance market is largely dominated by credit life products	• Low-income customers lack an understanding and appreciation of insurance products, mainly due to limited access to insurers and complexity of products • Small ticket-size transactions and the continued bundling of insurance with other financial products makes reaching this segment difficult. • Limited trained resources to handle insurance products or services

Sources: *MicroSave* expert opinion, World Bank Global Findex Data (2014), IMF Selected Issues Series,
Vietnam Financial Sector Assessment, Strategy and Roadmap- Report by Asian Development Bank
Responsible Finance in Vietnam- IFC,
Vietnam's Small and Medium Sized Enterprises Development: Characteristics, Constraints and Policy Recommendations

The Ecosystem of Supply-side Actors in Vietnam

Fintechs have an opportunity to expand into credit, savings and insurance by partnering with commercial and state development banks



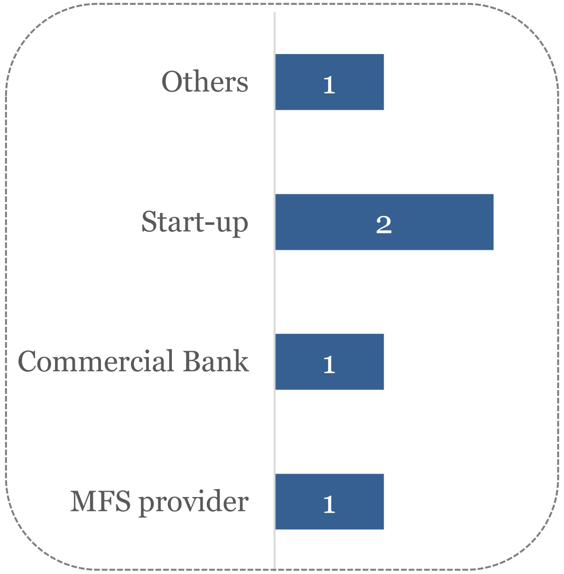
- In Vietnam, much of the financial services provided by banks have mainly concentrated on the middle and higher income segments
- State-owned or policy banks cover all the lower-income segments - especially microenterprises and lower-income segments
- Fintechs have immense opportunity in partnering with banks to provide microenterprises with financing options, lower and middle-income segments with insurance, credit and savings products
- Fintechs are still building up best models to help finance small, micro and medium enterprises with working capital finance
- Regulations in Vietnam allow fintechs to innovate in these spaces.

Source: MicroSave's analysis

Overview of Fintechs in Vietnam

- Despite the limited availability of basic financial services, Vietnam's increasing number of young internet users has turned the country into an attractive market for organisations offering innovative financial services companies. Banks and other FSPs have started offering services such as mobile banking, online payment, and e-wallet services
- The fintech market in Vietnam is in its infancy, with around 30 players involved in payments services. They are online transactions (such as OnePay), physical agent networks (such as MOMO and BankPlus), and POS/mPOS (such as ibox and MoCa). Other players are involved in crowdfunding (such as FirstStep and FundStart), cryptocurrency, personal finance, data management (such as CircleBi), and banking through digital channels (such as Timo).
- Buoyed by the potential of the market, the Vietnamese fintech sector raised USD 129 million in 2016. Fintech start-ups Payoo, VNPT E-Pay, MOMO, and F88 led the deal values. Available data suggests that by 2020, the fintech market in Vietnam will grow at an annual rate of 21% to reach USD 11.4 billion in terms of total transaction value.
- State Bank of Vietnam has established a steering committee to promote the growth of the fintech ecosystem in the country.

Fintechs interviewed



How are these fintechs addressing Financial Inclusion?

SoftPay.mobi	mPOS card-based payment technology facilitator that accepts national and international credit and debit cards and allows any individual or business to become a merchant accepting card anytime, anywhere in Vietnamese territory. It also has a business model of providing financing to small and medium wholesale players.
Vimo	App-based and OTC e-wallet service primarily facilitating P2P and P2B fund transfer services in addition to bill payment, mobile recharges, remittances including non-accountholder transfers using CICO points. At present, its services target the young urban population in urban centres like Ho Chi Minh City and Hanoi.
momo mobile money	E-wallet and OTC payment service provider catering to customers across all segments. They provide remittance, utility payments, loan repayment and consumer finance products to the unbanked population through a network of 5,000 agents. More than 60% of agents are located in rural areas.
timo VPBank	An aspiring digital lifestyle bank focused on the young urban middle-class in Vietnam, it offers personal banking solutions and remittance services via its smartphone-based app. Timo leverages the banking licence of VP bank.
	A cryptocurrency service provider that offers international remittance services to rural areas of Vietnam, bitcoin exchange services, and is also a training platform for bitcoin-related activities in Vietnam.

Aggregated Views from Fintechs that Operate in Vietnam

The most significant challenge that fintechs face relate to limited access to capital, an absence of enabling regulations, and limited digital literacy

Addressable Barriers

	Specific issues	Description	Importance
Business Sustainability	Venture and Capital Funding	• No fintech has yet reached this stage. The business models of most of the fintechs do not seem to be well supported by market level insights. • Funders and investors set agenda for fintechs, thus higher pressure for viability • Capital gain tax is 30% in Vietnam and this deters venture capitalists from investing in fintech sector	
Customer's Trust	• A 'cash is king' market • Barring the urban millennials, most markets do not understand and trust these new services	• Trust in digital payments systems is an issue since Vietnam is largely a cash-based economy • The 35+ age group, especially in rural areas, lacks the understanding and experience of modern payment systems • Cash-in and Cash-out (CICO) points outside the urban areas are very patchy, that creates challenges for the rural customer to benefit much from these offerings	
Agent Networks	Digital literacy and OTC/ dependency on cash	While there is high mobile phone penetration and increasing use of social media platforms, limited awareness and understanding of DFS has led to a continued dependence on cash-based transactions and higher reliance on agents	
Policy and Regulations	Enabling regulations around eKYC and agent banking guidelines	• The DFS regulatory landscape is still evolving in Vietnam. With elements like eKYC missing, most fintechs find client onboarding to be a challenging and costly option • A bank led DFS model makes it difficult for the 70% of the country to access DFS as they do not have a bank account • Vietnam does not currently have regulations that allow for agency CICO points. While entities like MOMO and BankPlus have temporary exemptions, this needs to be formalised	

> *"P2P lending in Vietnam is struck due to regulatory issues, as SBV currently does not approve of the model. Once done, this would regulate the P2P lending space and would increase the confidence of venture capitalists to invest in startups in the P2P space."*
>
> Khiem Tran, Venture Capitalist

Views on Partnerships with Incumbent FSPs

- Partnering with banks helps emerging fintechs to leverage the bank's network and offer products and services to a potentially captive and large customer base. Fintechs (such as MOMO) in e-wallet and remittance space, tie up with banks to facilitate e-wallet operations.
- Tie up with banks can enable fintechs to offer more wide range of banking services like the case of TiMo which leverages the banking license of VP bank.
- Fintechs like MOMO are tying up with private consumer finance companies to become a vehicle for disbursement and repayment, through its agency network. Such entities are also facilitating premium payments for insurance companies.

MicroSave
Market-led solutions for financial services

Source: MicroSave's analysis and interviews with fintechs

Severity
Low High

Aggregated Views from FSPs that Operate in Vietnam

The most significant challenge faced by FSPs relates to limited understanding and readiness for technology adoption and overwhelming dependence on cash transactions

Addressable Barriers

	Specific issues	Description	Importance
Capacity – building	Underdeveloped technical capability of FSPs focused on rural markets	MFIs and policy banks are two types of FSPs that are at forefront of serving the rural and financial inclusion market. However, most such entities are quite weak when it comes to IT systems and robust operational processes, with a good chunk of their operations done manually. There is a need to support these institutions to help adapt their systems and processes to integrate with DFS opportunities offered by fintechs.	
Cash-based Economy	Overwhelming cash culture and lack of awareness and trust in DFS	The FSPs still see DFS as an urban phenomenon in Vietnam because they think that cash is still the overwhelmingly preferred mode of transaction in the country, and it is only the young people in the urban centres that have taken a liking to DFS options offered by fintechs. This is because most of the population, especially in the rural areas, is little aware of DFS and hence a lack of trust in them vis a vis cash.	
Lack of well-established delivery channel	Lack of CICO agent points in rural areas	While mobile penetration is increasing rapidly in Vietnam, the market is in its infancy when it comes to agent networks that can facilitate CICO transactions in the rural areas. It limits the utility of DFS providers to rural market-oriented FSPs whose main offerings remain savings, credit, and remittances.	
Viable business model	FSPs are not aware of the cost implications of using DFS in partnership with fintechs	The FSPs interviewed, while interested in exploring possible opportunities of partnering with fintechs to use DFS in their business in reaching out to financially excluded and rural markets, they are not aware of cost implications and modifications needed in existing operations and processes to use new technology.	

"We have not looked at DFS yet, mostly because our IT and MIS systems are not yet ready."

Director, International Relations, TYM Fund

Views on Partnerships with Fintechs / on Technology Adoption

- Banks and other FSPs such as established MFIs are best-placed for technology adoption and have started offering services such as mobile banking, online payment and e-wallets services.
- A dedicated effort to access the cost-benefit impact of technology adoption would also be useful as the smaller players have a small client base across the country.

Source: MicroSave's analysis and interviews with FSPs

Severity

Low *High*

Key Interventions to Address Emerging Challenges in Vietnam

<table>
<tr><th>Area of Constraints</th><th>Addressable ‘Challenges’</th><th>Intervention Ideas through or that support Technology Adoption</th><th>Partners/ Actors Involved and Impacted</th></tr>
<tr><td>Demand-side Constraints</td><td>Financial/digital literacy</td><td>• Demand-side research on appropriate user interfaces for customers with low-literacy levels and through a gender lens</td><td>FSPs and Fintechs</td></tr>
<tr><td rowspan="3">Supply-side Constraints</td><td>Technology readiness</td><td>• Conduct a readiness assessment for FSPs (state-owned and managed banks) and TA support for tech adoption</td><td>FSPs</td></tr>
<tr><td>HR bottleneck</td><td>• Support DFS training of teams in FSPs, particularly in state-owned and managed banks as well as private sector FSPs</td><td>FSPs</td></tr>
<tr><td>Fintech and FSP partnerships</td><td>• Support research on the development of a business model that allows technology-sharing by fintechs as part of partnerships with last-mile FSPs</td><td>FSPs and Fintechs</td></tr>
<tr><td rowspan="2">Payments and Transfers</td><td>Enabling critical volume – G2P & P2All</td><td rowspan="2">• Facilitate workshops or exposure visits for State Bank of Vietnam (SBV) and other key government institutions to understand the approaches other governments have taken around G2P digitisation and developing specific guidelines for branchless banking and agent network management</td><td rowspan="2">SBV and other key government institutions</td></tr>
<tr><td>Extending access - points of physical presence</td></tr>
<tr><td rowspan="2">Credit</td><td>Credit risk assessment and scoring</td><td>• Support the development of a low cost and shared database of customer’s credit history to function as a credit bureau
• Support the development of alternative credit scoring by supporting the entry of relevant fintechs and facilitating partnerships with incumbent FSPs</td><td>FSPs and Fintechs</td></tr>
<tr><td>Suitable products responding to demand such as in agri-finance</td><td>• Identify smallholder value chains that could benefit from improved product development or digitisation in value chains</td><td>FSPs</td></tr>
<tr><td>Savings</td><td>Savings access and convenience</td><td>• Work with key stakeholders to develop need-based and segment specific products such as savings products for migrant workers, smallholder farmers, and other niche segments</td><td>FSPs and Fintechs</td></tr>
</table>

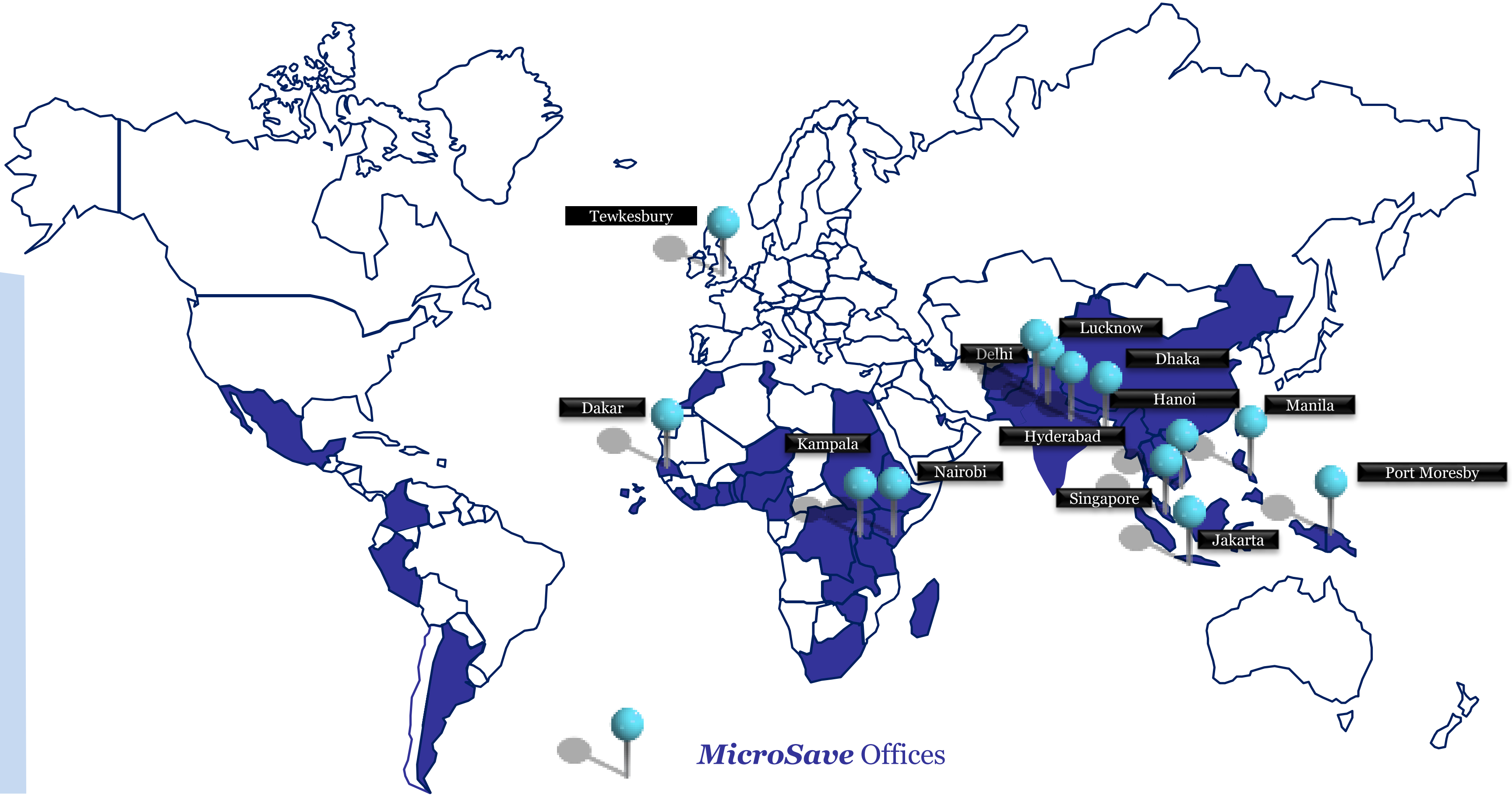
About *MicroSave*

190 staff

11 offices

Projects in 40+ developing countries.

Worked with 300+ government and private sector institutions in Africa & Asia.



MicroSave partners with participants in financial services ecosystems to achieve sustainable performance improvements and unlock enduring value.

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