

Recent Developments in Regulatory and Competition Scenario of Digital Financial Services in Select Asian Countries

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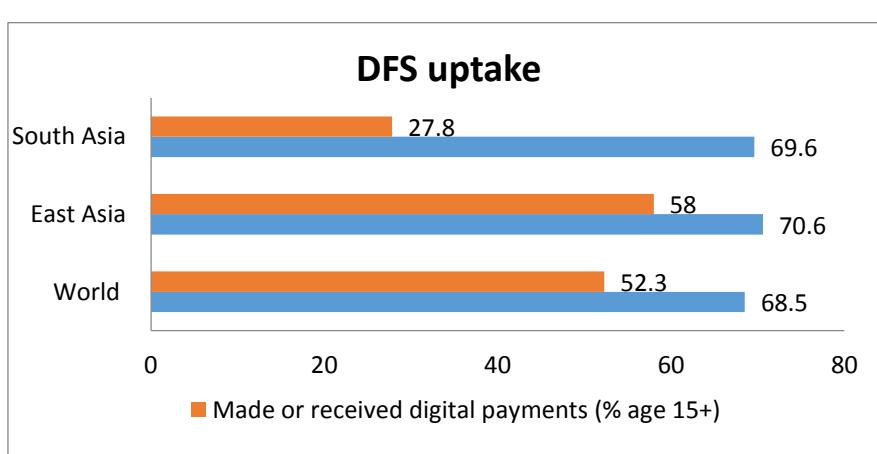
Introduction

The importance of enabling regulatory framework for optimal competition for growth of digital financial services (DFS) cannot be overstated. It has been reported that mobile money services without enabling regulation have activity rates 30 percent lower on average than those with an enabling regulatory environment. Non-enabling regulation can stifle investment, limit the rollout of new services, and raise costs for consumers, inhibit competition, all of which can negatively affect activity rates.¹

This paper reviews regulatory and competition developments in last one year (March 2017

onwards) in DFS sector in select Asian countries. The objective is to understand the focus of regulatory agencies, their approach to competition in the sector, strategy to promote DFS, and challenges which remain. In the review, four countries have been chosen from the east Asian region: China, Indonesia, Thailand, Vietnam and Philippines; and three countries have been chosen from the south Asian region: India, Pakistan and Bangladesh.

The Asian region is unique owing to its divergent experience with respect to DFS. Despite similar levels of bank accounts, the uptake of DFS in the region is significantly different.

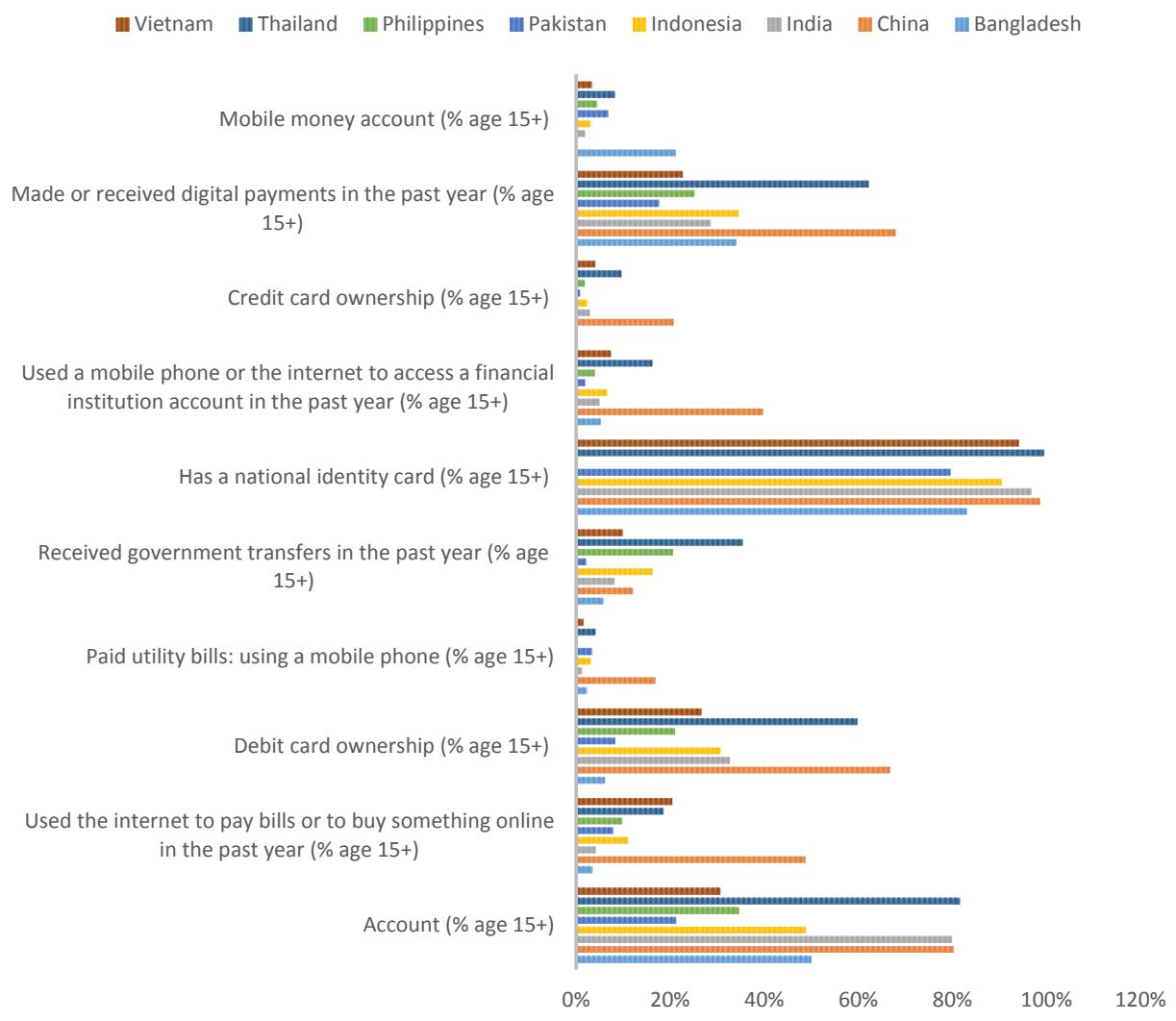


Source: Little Data Book on Financial Inclusion, 2017

In the past one year, developments in DFS in above countries have pervaded areas such as: constitution of national payments systems; creation of standardised quick response (QR) codes; launch of biometric enabled national identification schemes; monetary caps on DFS

accounts; agent interoperability; financial inclusion policies; regulations affecting operations of DFS providers; pricing of DFS; physical presence; regulation of virtual currencies; and governance structures. Each of these areas is discussed below.

SELECT DFS USES IN ASIAN COUNTRIES



Source: Findex 2017

National Payments Systems

In the last one year, several countries have launched/are in the process of launching nation-wide payment systems to facilitate entry of smaller players in DFS market, and allow interoperable payments. This is expected to

level the playing field between the deep-pocketed incumbents and relatively smaller market entrants. For instance, China has hitherto experienced rapid rise of non-bank digital payment service providers, such as Alipay and WeChat Pay, fueled by light touch regulation. Over time, concerns of abuse of

dominant position² have emerged. These dominant service providers are not interoperable and rely on bilateral contracts with other businesses and merchants to provide services to their users, and thus own user data, and have developed their own clearing and settlement mechanisms.³

In April 2016, the People's Bank of China (PBOC), China's central bank and banking regulator, approved creation of Wanglian, which is intended to provide clearing and settlement services to non-bank payment companies in China. In August 2017, PBOC announced that third-party payments companies would have until October 2017 to connect to Wanglian and that the system would go live by the end of June 2018. This is expected to provide small payment providers a chance to avoid building expensive private networks by giving them access to an advanced, nationally accepted payments system.

The Philippines has adopted National Retail Payment System (NRPS) framework to promote the establishment of a safe, efficient, and reliable retail payment system in the Philippines.⁴ The Philippine Payment Management Inc has been recognised as the payment system management body, to assist the central bank in implementing NRPS.⁵ Under the NRPS, The PESONet, which is a batch electronic fund transfer credit (EFT) payment stream, the first automated clearing house (ACH) was allowed on 08 November 2017.⁶

On April 23, 2018, the Bangko Sentral ng Pilipinas (BSP), the central bank and banking regulator of Philippines, launched InstaPay, the latest automated clearing house (ACH) under the NRPS. Through InstaPay, Filipinos are expected to start enjoying safe and affordable

electronic retail payments in real-time. Individuals, businesses, and government institutions will be able to send and receive funds or make payments in real time of up to PHP50,000 per transaction, without limit, in a day. InstaPay will be accessible 24/7, all year round through mobile apps and internet banking facilities provided by participating banks and e-money issuers, with other e-channels following soon. This eliminates the need to go through the trouble of physically travelling and transacting at bank branches or payments counters. Both senders and receivers must have accounts with participating institutions to enjoy instant transfers. The interoperability of InstaPay conveniently allows users seamless transactions between accounts maintained in any of the participating institutions. Bilateral clearing arrangements are no longer allowed as they adversely impacts, if not substantially diminishes, free and fair competition, reduces interoperability and system-wide efficiency, as well as the positive network effects of the NRPS.^{7,8}

India also allowed the Prepaid Payment Instrument (PPIs) issuers to make all know your customer (KYC) compliant PPIs issued in the form of wallets interoperable amongst themselves through Unified Payments Interface (UPI) payment system.⁹ In late 2017, Indonesia also launched a national payment gateway.¹⁰ It has been reported that in Bangladesh, the central bank will launch an 'interoperability' system by June 2018 to facilitate transactions between core banking solutions and mobile financial services.¹¹ The National Payment Switch Bangladesh (NPSB) is now playing the role of a 'mother switch' and will gradually connect all 'child switches' owned or shared by banks in the country.¹²

The launch of national payments systems is expected to boost competition between service providers. However, the real impact on competition will be contingent on nature of access to the central switch to new players. Only technical access to the switch without direct access to clearance and settlement facilities will mean funds will need to be routed through third parties, most likely banks. In such cases, the uneven playing field between market players is likely to remain.

Standardised QR Codes

Like central payment switches, the objective behind standardised QR codes is to reduce the cost of customer acquisition and facilitate interoperable payments. In China, the PBOC has announced plans to standardise QR payment technology, which is expected to boost competition, and enable access to smaller players in the market.¹³ India has also launched BharatQR, an interoperable QR code the world's first interoperable QR code acceptance solution, jointly developed by India's major card networks (National Payments Corporation of India, Mastercard, Visa and American Express).¹⁴ While Bharat QR can be used for making inter-bank payments, non-bank payment service providers have not been included in this initiative. Non-bank service providers will need to link to BHIM-UPI¹⁵ through banks to avail benefits of BharatQR.

It has also been reported that Bank Indonesia (BI), central bank and banking regulator of Indonesia, aims to launch new regulations on the use of QR codes. The regulation will focus on standardising the technology and harmonising the QR code payment system. It follows the growing use of QR codes amongst payment service providers in Indonesia.¹⁶ Thailand has also adopted a single standard QR

code for financial transactions, and e-wallet service providers are poised to ride the wave of the cashless society. It has been suggested that to stimulate the use of electronic and mobile payment, Thailand needs to ensure standard interoperability for e-wallet with QR code payment among nonbank providers and banks. However, Thailand's banks are likely to set standards of payment that are uniquely Thai, making the barrier to entry for new players higher than in other markets. Such developments need to be addressed.¹⁷

Standard QRs have higher likelihood of success if usage is possible through banks and non-banks. As observed in India and Thailand, policy or practices may subdue interoperability, which needs to be avoided.

National Biometric Identification Systems

India's popular unique national biometric identification system, *Aadhaar*, got a shot in the arm in June 2017, when the Government of India made the linking of *Aadhaar* with bank account mandatory. The deadline for linkage has been postponed as the Supreme Court of India is currently examining constitutional validity of *Aadhaar* scheme, especially in light of privacy concerns. On April 20, 2018, the Reserve Bank of India (RBI) issued a circular mandating *Aadhaar* as primary mechanism to conduct customer due diligence/complete KYC obligations.¹⁸ One of the uses of *Aadhaar* is to enable biometrically-enabled electronic KYC, which has the potential to substantially reduce the cost of customer acquisition.

Inspired by India's success in biometric identify and its usage in financial sector, in mid-2017, Pakistan released a regulation requiring all the over-the-counter (OTC) transactions to be

biometrically verified.¹⁹ The KYC regulations were refined to include requirements for ID and biometric verifications of senders and receivers.²⁰ Consequently, as of June 2017, agents were required to have Biometric Verification System (BVS) machines to verify OTC transactions. These regulations are part of the regulator's initiatives on Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT).

However, as mobile money uptake increases, providers will need to ensure their agents are prepared to prevent and mitigate fraud further. Although providers have begun investing in the transition, they are still falling short, and the rollout appears to be slow and targeted due to the high costs of the BVS machines. More than one-third (38 percent) of mobile money agents still lack the required BVS machines. Seemingly only better performing and more experienced agents are being equipped – those with average daily OTC volumes of US\$55 for agents with BVS machines compared to US\$44 for those without them. The absence of verification systems may lead to a downturn in OTC transactions in the short term.²¹

Similarly, in Bangladesh, a move is underway to bring the beneficiaries of social security and welfare programmes under a biometric identity-enabled payment system to help the country shift from cash to electronic payments. DFS lab+ under Access to Information (A2i) of the Prime Minister's Office has taken the move to launch NID biometric identity-enabled payment service initially for the government's social security beneficiaries. The DFS lab+ will launch a pilot project in cooperation with Bangladesh Bank (BB) for the disbursement of the payments, such as allowances to widows, old age beneficiaries and freedom fighters. After successful completion of the pilot project

of the biometric identity-enabled payment service, the system will be introduced for all banking transactions. Beneficiaries will be able to get access to the payment system being authorised and authenticated by means of National ID and biometric identity at their nearest cash points, bank agents, ATM, bank branches, telecom agents, post offices and digital centres. This interoperable payment system is also likely to enable citizens, especially un-banked/under-banked people to receive payments from the government-to-persons (G2P) or persons-to-government (P2G) for essential services, such as registration, land records, taxes, and fees. Key characteristics of the proposed payment architecture are linking the citizens' National ID numbers with his/her accounts and provide ultimate mobility to receive, withdraw and payments.²²

While national identification systems have the potential to result in substantial benefits by ensure direct transfer of benefits to beneficiaries' accounts, they are also fraught with risks. As Indian experience shows, privacy concerns coupled with denial of benefits owing to technological or intermediary errors can result in significant distress to beneficiaries. Pakistan experience has also highlighted that the infrastructure to conduct biometric authentication needs to be ubiquitous to ensure no genuine denial. Further, linkage of national ids only with bank accounts to the exclusion of mobile wallets may result in unequal treatment, despite service providers adopting similar risk mitigation measures.

Monetary Caps in Accounts

To counter possible AML and CFT risks, regulators in several jurisdictions have issued restrictions on amount which is allowed to be kept in their mobile money accounts. For

instance, according to recently issued guidelines by the BB, mobile financial services (MFS) customers can have at most Tk 3 lakh in balance in their accounts from 2018 – a development that is set to come as a blow for the users of the platform. Previously, there was no limit to how much the MFS accounts could have on them at any given time. Earlier in January 2018, the central bank lowered the ceiling for mobile banking transactions, citing that the facility was being abused by 'some vested quarters'. The central bank set a deposit ceiling of Tk 15,000 per day and Tk 10,000 for withdrawals. The previous daily ceiling was Tk 25,000 both for deposits and withdrawals. BB also banned the registration of more than one MFS account to a single national identity card.

As a result, it has been reported that the number of MFS accounts marked a drastic rise in February after the central bank lowered the transaction ceiling. It has been reported that as a result, mobile money users who previously used 10 SIMs for their transactions now have 15 to 20 SIMs to maintain the level they previously maintained. It appears that the limit has inconvenienced mobile money users, but it led to the opening of more accounts to offset the fallout.²³

Similarly, in India, the PPI regulations reduced the outstanding amount which can be held in semi-closed PPIs to INR10,000 from INR50,000. Semi-closed PPIs can be issued by banks and non-banks by accepting minimum details of PPI holder. However, such PPIs are required to be converted into fully KYC compliant semi-closed PPIs within a period of 12 months from the date of issue of PPI. The conduct of full KYC requires collection of proof of identity and address from the customer or conducting KYC verification through e-KYC service. Conducting full KYC can be expensive when compared with

collecting minimum details of PPI holder, and may force PPI issuers to rethink their business strategy. In addition, some consumers might not be interested in obtaining enhanced benefits of full KYC and not willing to part with sensitive information. The revised requirements do away with risk based KYC and takes a one-size-fits-all approach, which may adversely impact interests service providers and consumer.²⁴

The BB is reportedly likely to take a different approach as it is set to introduce a risk based e-KYC system under which bank accounts can be opened without filling in any paper-based documents. Those with e-KYC will be allowed to operate limited-scale transaction through the agent banking network and mobile financial services, in a development that is set to boost the country's financial inclusion cause.²⁵

Further, India has recently issued peer-to-peer lending platform regulations which impose unreasonable caps and adopt one size fits all approach. There are caps on exposures of lenders and amounts borrowed by borrowers. For instance, exposure of a single lender to the same borrower, across all peer to peer lending platforms cannot exceed INR50,000. This is expected to reduce the attractiveness of the platform and the design of products which lenders can offer.²⁶

While well intentioned, amount restrictions on accounts may adversely impact interests of consumers and service providers, without necessarily achieving the objectives. Such restrictions on specific types of accounts/wallets are also likely to adversely impact competition in the market and tilt the balance in favour of incumbents.

Agent Interoperability

Agent interoperability has reportedly boost competition between market players, reduced cost of customer acquisition and servicing, and further financial inclusion. Pakistan remains the world leader in shared agent networks, with the highest rates of non-exclusivity and non-dedication among agents in 2017. Non-exclusivity in agents was 78 percent in 2017, up from 66 percent in 2016. However, it has been reported that large mobile network operators (MNOs) partnered providers increasingly dominate the DFS landscape accounting for over half of the market presence as the market becomes less fragmented.²⁷

On the other hand, Indonesia has most exclusive agent network in the world, as per its regulatory prescriptions. Although the agent numbers are high, the market is dominated by a few players. Also, the geographical reach of the agent networks is limited to areas around bank branches. It has been suggested that regulators should consider allowing non-banks to recruit individual agents so that non-banks (with significant distribution networks) can support financial inclusion efforts and innovate on their digital financial services initiatives. Due to low demand and inability to serve multiple providers, Indonesian agents make limited profits. Permitting non-exclusivity of agents is expected to result in ensuring greater sustainability for individual agents and promote network consolidation.²⁸

In India, despite regulations allowing agent interoperability, it has been reported that several banks do not allow interoperable transactions. Concerns related to transaction failure and longer transaction time inhibit agent interoperability.²⁹ Philippines has recently issued circular allowing agent level interoperability.³⁰

Allowing agent interoperability through regulations may not be sufficient. Regulators need to review the market periodically to ascertain if market players are actually allowing interoperability or if dominant players are emerging subsequent to agent interoperability being allowed.

Financial Inclusion Policies

A top level policy push to promote financial inclusion through DFS has the potential to result in enabling regulatory framework and optimal competition, thus providing the necessary conditions for growth of DFS.

For instance, the Vietnamese government has made both financial inclusion and digitisation keys of its 'Cashless 2020' economic policy framework which aims to provide bank accounts for at least 70 percent of the population aged 15 years or older and to aggressively promote non-cash payments. This will involve equipping 100 percent of supermarkets and shopping centers with point-of-sale devices to accept non-cash payment, ensuring that no less than 70 percent of utility services providers accept non-cash, and making sure that at least half of households in metropolitan areas use digital payment solutions.³¹

Similarly, Bangladesh has issued a National Financial Inclusion Strategy 2018-2021³² which focus on digital financial inclusion. It has also issued a draft of the Payment System Act and issued guidelines on agent banking. Indonesia has also constituted a National Council for Financial Inclusion to steer the financial inclusion agenda.

The Government of India also has a stated objective to promote digital payments. From time to time, it has been incentivising consumers and merchants through schemes, such as cash backs.³³ It has been pointed out such promotional schemes intend to benefit certain specific products launched by banks, resulting in uneven playing field between market players.³⁴ Consequently, the national financial inclusion strategies need to be carefully formulated to ensure they do not unnecessarily distort competition.

Regulations Affecting Operations

Several regulatory agencies have issued guidelines on operations of DFS providers. At times, such guidelines may distort competition.

For instance, Thailand DFS sector has witnessed strong support from the central bank and the National Innovation Agency with the launch of the regulatory sandbox, the PromptPay national e-payment initiative and global acceleration programmes have been very encouraging for fintech entrepreneurs and investors. The only problem now is that both services are driven by banks and are not so open to non-banks, except to pass transactions through sponsor banks. The fees are expected to be higher for non-banks as well.³⁵

Similarly, recently India has prescribed that all existing non-bank PPI issuers are required to have a minimum positive net-worth requirement of INR15 crore as on March 31, 2020. Thereafter, the minimum positive net-worth of INR 15 crore is required to be maintained at all times. Previously, banks and non-banking financial companies (NBFCs) were required to comply with capital adequacy requirements as prescribed by the RBI from

time to time. All other persons were required to have a minimum paid-up capital of INR5 crore and minimum positive net worth of INR1 crore at all the times. The substantial increase in net worth requirement may adversely impact smaller players currently operating in the market, who might not be in a position to comply with the revised requirements by March 2020. Similarly, the eligibility criteria for non-banks to operate peer to peer lending platforms is net owned fund of INR2.5 crore, which may discourage several interested players.³⁶

Some regulators have also taken steps to address the impediments faced by the sector participants. The BB, as per the Prudential Guidelines announced in September 2017, has addressed constraints in DFS market, such as providing clarification regarding roles of agents, oversight by banks; liquidity management by agents; as well as financial literacy requirements for agents, bankers, and customers.³⁷ The State Bank of Pakistan, Pakistan's Central Bank and banking regulator issued draft white label ATM guidelines in September 2017, which is a step in the right direction.

To build a strong and responsible lending fintech sector in Indonesia, it has been suggested that the Financial Services Authority (OJK) and the government must improve regulations to minimise the possibility of risk, such as liquidity mismatch and breach of cyber security. OJK of Indonesia has launched a registration system for fintech startups, marking a formal recognition of the sector. The platform is designed to set the direction of the fintech industry development, supervised by Bank of Indonesia. With clearer regulation, better data security and more consumer protection, fintech in Indonesia can be a national priority to

improve the quality of life as well as galvanise the economy at the macro level.³⁸

In the DFS sector, regulations related to data storage are critical. The RBI has recently mandated that all payment system providers are required to ensure that the entire data relating to payment systems operated by them are stored in a system only in India. This data should include the full end-to-end transaction details/information collected/carried/processed as part of the message/payment instruction. For the foreign leg of the transaction, if any, the data can also be stored in the foreign country, if required.³⁹ Such regulations are likely to adversely impact competition and interests of consumers.

Pricing

Several regulatory agencies have issued regulations with respect to pricing of DFS. Many developing countries have cut down Unstructured Supplementary Service Data (USSD) prices significantly to boost mobile financial services. The Government of Bangladesh has recently formulated USSD pricing policy based on session-based model. Mobile Financial Service (MFS) providers will have to pay carriers according to usage. For each 90-second session Tk 0.85 will be charged provided a successful transaction had taken place. Customers will get two text messages, the cost for which will be bundled within the Tk 0.85 charge. For other non-transactional services such as checking balance, the MFS providers will have to pay Tk 0.40, which they did not previously.

Presently, MFS providers in Bangladesh charge customers 1.8 percent of the amount as transaction fee. For instance, if a customer sent Tk 10,000 through agent, his/her charge would be Tk 180. Of the Tk 180, the MFS providers

forward Tk 25.71 to the mobile operators. Under the current rate, clients are paying a disproportionate amount of money to the service providers.⁴⁰ It has been reported that the changes might increase the cost of delivering the service but service providers will absorb it and later report to the government to review it again.⁴¹

In India, the government has decided that the Merchant Discount Rate (MDR) applicable on all debit cards, BHIM UPI and Aadhaar-Enabled Payment System (AEPS) transactions up to INR2,000 will be borne by the government for a period of two years with effect from January 01, 2018 by reimbursing the same to the banks. This is estimated to cost the exchequer around INR1,050 crore in 2018-19 and INR1,462 crore in 2019-20. It has been reported that while it may be too soon to assess impact of such financial incentives, such incentives may not be the only lever to push stakeholders to adopt digital payments. A holistic service that includes credit extension, low cost, value added services like reminders to consumers and merchants for making payments, networking platform with suppliers, indications on potential credit limits could ensure greater uptake and continued usage.⁴²

In addition, the RBI, India's central bank, has recently capped the MDR for debit card transactions. The cap differs with turnover of merchants (up to or above INR20 lakhs) and acceptance infrastructure used (QR code enabled and others). It has been reported that evidence is mixed with respect to the impact of such cap. A recent study in US found that banks subject to such cap decreased the availability of free accounts, raised monthly fees, and increased minimum balance requirements, with different adjustment across account types. Banks exempt from the cap also adjusted prices

as a competitive response to price changes made by regulated banks. This is very similar to experiences in India wherein regulatory mandates often fail to conduct ex-ante impact assessment on different stakeholders, resulting in banks cross-subsidising such services by restricting access or increasing prices of other services.⁴³

Physical Presence

In order to promote asset light DFS delivery model, several regulators have done away with the stringent physical presence/brick and mortar branch model. For instance, the Monetary Board of BB recently approved the guidelines on the establishment of bank branch-lite units anywhere in the country to facilitate greater access to efficient and competitive financial products and services.⁴⁴

It has also been reported that Philippine banks could soon do away with the capital-intensive brick-and-mortar branches as the Central bank of Philippines, is set to adopt the 'branch-lite' concept as part of efforts to promote financial inclusion.⁴⁵

Virtual Currencies

Different jurisdictions have taken different stands when it comes to regulation of virtual currencies (VCs). For instance, Philippines has always had a favourable attitude toward virtual currencies. It has been swift and timely in releasing its positions, in pace with the growth of cryptocurrencies. Today, the Philippines has one of the most advanced blockchain payments apps in the world, which provides 1.5 million Filipinos alternative access to their finances and other value added services. Filipino regulators were also among the first to announce the regulation of bitcoin as a security.⁴⁶ Several regulators, such as Pakistan and Bangladesh

have issued advisors cautioning investors against VCs.

India has recently issued prohibition against dealing with virtual currencies or provide services for facilitating any person or entity in dealing with or settling VCs.⁴⁷

Governance Structure

The role of appropriate governance structure of the DFS sector is important to ensure its growth. In several jurisdictions, a governance structure involving service providers is being adopted. For instance, in Philippines, the Payment System Management Body (PSMB) has been constituted as an industry-led self-governing body that is duly recognised and overseen by the Bangko Sentral, the central bank.

However, in India, pursuant to the budget 2017-18, the Payments and Settlement Systems Act, 2007 was amended to constitute a Payments Regulatory Board (PRB) in the RBI by replacing the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS). The PRB will have six members, of which three will be nominated, while remaining will be nominated by the central bank, RBI. While the PSS Act was amended, the PRB is yet to be operationalised. The RBI has since dropped the idea of forming a Payments System Advisory Council, an advisory body envisaged earlier to support the BPSS.⁴⁸

Conclusion

The figure below summarises the changes in regulatory regime on certain indicators initiated in covered jurisdictions, during the last one year.

| | China | Philippines | India | Indonesia | Bangladesh | Thailand | Pakistan | Vietnam |
|---|--------|-------------|-------|-----------|------------|----------|----------|---------|
| National Payment Systems | Yellow | Green | Red | Green | Yellow | | | |
| Standard QR codes | Yellow | | Red | Green | Yellow | Red | Green | |
| National biometric IDs | | | Red | Green | | Yellow | Red | Green |
| Monetary caps on accounts | | | Red | | | Red | | |
| Agent interoperability | | Yellow | Red | Green | Red | | Red | Green |
| Financial inclusion policies | | | Red | Green | | Green | | Green |
| Operation related regulations | | | Red | | Green | Red | Green | Yellow |
| Pricing of DFS | | | Red | Green | | Green | | |
| Physical presence | | Yellow | | | Green | | | |
| Virtual currencies | | Green | Red | | | | | |
| Governance structure for DFS regulation | | Green | Red | | | | | |

Legend:

| | |
|-------------|---|
| Yellow | A reform has been proposed |
| Green | Positive impact of the relevant regulatory initiative is being observed |
| Red | Negative impact of the relevant regulatory initiative is being observed |
| Red & Green | The regulatory initiative appears to be having positive as well as negative impacts |

It reveals that in the Asian region, India has made maximum changes to its regulatory regime with respect to DFS. These changes have not necessarily had positive impact, despite perhaps being well intentioned. Several of such changes have faced implementation related

bottlenecks, are fraught with risks and have raised concerns among stakeholders.

Philippines and Bangladesh have been the jurisdictions leading regulatory reforms in DFS sector in past one year. Most of the initiatives

launched by regulators in these countries appear to have, or are likely to have, positive impact on stakeholders.

Most jurisdictions are likely to get their financial inclusion policies correct, i.e. such policies are likely to promote competition and optimal

regulation. However, most jurisdictions are likely to impose unreasonable monetary restrictions on accounts, which may adversely impact interests of stakeholders. Also, there appear to be a clear divide among regulators on the approach to regulate emerging issues, such as VCs.

Endnotes

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- ⁴² Supra Note 25
- ⁴³ *Ibid*
- ⁴⁴ Press release of the Monetary Board dated December 20, 2017
- ⁴⁵ BSP wants banks to establish branches for low-end market, November 13, 2017, The Philippine Star, www.philstar.com/business/banking/2017/11/13/1758563/bsp-wants-banks-establish-branches-low-end-market
- ⁴⁶ <http://www.sunstar.com.ph/article/410334/> The Philippines can be the world's newest tech sandbox
- ⁴⁷ RBI circular dated 06 April 2018 is available at <https://rbi.org.in/scripts/NotificationUser.aspx?Mode=0&Id=11243>
- ⁴⁸ Supra Note 25