





Gunja Kapoor Sidharth Deb



Koan Advisory Group is a New Delhi based policy advisory firm, which combines thorough domain knowledge across multiple technology oriented sectors with continuous engagement of decision makers in industry and government.



Pahle India Foundation (PIF) is an FCRA certified, not for profit policy think tank, established in June 2013 as a Section 8 company. PIF's motto is "Facilitating Policy Change." The motto guides all our activities. At PIF, we undertake research and disseminate its findings to contribute to the necessary paradigm shift in development thinking and practices in India. PIF is committed to enriching the public discourse and also to influence policy formulation that will help India successfully complete its triple transition in economic, political and social fields.

Our aim is to emerge as a credible, trustworthy and neutral bridge between economic agents like firms, farmers and professionals on the one hand and policy makers on the other and to contribute to bringing the three principle stakeholders viz government, industry and academia on the same page and pulling in the same direction - a key condition for ensuring India's success in global markets. PIF currently has an analytically strong team of dedicated researchers who are self motivated. PIF's highly qualified team specialises in analyzing India's political economy and its engagement across verticals that are relatively underworked areas that will permit PIF to create a niche for itself in the research and think tank space in the country.

Gunja Kapoor

Associate Fellow
Pahle India Foundation

Sidharth Deb

Legal Associate Koan Advisory Group

Contents

List of Abbreviations	5
Context	6
Summary of Recommendations	8
Thematic Analysis	11
References	18



List of Abbreviations

USD United States Dollar MAS Monetary Authority of Singapore ADF Acceptance Development Fund MDR Merchant Discount Rates AEPS Aadhaar Enabled Payment System MeitY Ministry of Electronics and Information Technology BHIM Bharat Interface for Money MSME Micro, Small and Medium Enterprises BIS Bank for International Settlements CKYC Centralised KYC NPCI National Payments Corporation of India DEA Department of Economic Affairs DFS Department of Financial Services ECB European Central Bank PSP Payments Regulatory Board ECB European Central Bank PSP Payment Service Providers FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association ITU International Telecommunication Union JAM Jan-Dhan, Aadhaar and Mobile KYC Know Your Customer	INR	Indian Rupee	LVTS	Large Value Transfer Settlement	
AEPS Aadhaar Enabled Payment System AFI Acceptance/Financial Inclusion Fund BHIM Bharat Interface for Money BIS Bank for International Settlements CKYC Centralised KYC CPMI Committee on Payments and Market Infrastructure DEA Department of Economic Affairs DFS Department of Financial Services ECB European Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association INDR Merchant Discount Rates MeitY Ministry of Electronics and Information Technology MSME Ministry of Electronics and Information Technology Ministry of Electronics and Information Technology MSME Ministry Ministry of Electronics and Information Technology MSME Ministry Ministry of Electronics and Information Technology Norto, Small and Medium Enterprises NEFT National Ministry of Electronics and Information Enterprises NEFT National Min	USD	United States Dollar	MAS		
AFI Acceptance/Financial Inclusion Fund BHIM Bharat Interface for Money BIS Bank for International Settlements CKYC Centralised KYC CPMI Committee on Payments and Market Infrastructure DEA Department of Economic Affairs DFS Department of Financial Services EUROPEAN CERT European Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association INSME Micro, Small and Medium Enterprises NEFT National Electronic Funds Transfer NATION National Electronic Funds Transfer POS Point-of-Sale PIF Pahle India Foundation POS Point-of-Sale PRB Payments Regulatory Board PSP Payment Service Providers PSS Payments and Settlements Systems PSP Payments and Settlements Systems PSLRC Financial Sector Legislative Reforms Commission RIA Regulatory Impact Analysis RTGS Real Time Gross Settlement ITU International Telecommunication Union UPI Unified Payments Interface	ADF	Acceptance Development Fund	MDR	Merchant Discount Rates	
BHIM Bharat Interface for Money BIS Bank for International Settlements CKYC Centralised KYC CPMI Committee on Payments and Market Infrastructure DEA Department of Economic Affairs DFS Department of Financial Services ECB European Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association JAM Jan-Dhan, Aadhaar and Mobile MSME Micro, Small and Medium Enterprises MISME Micro, Small and Medium Enterprises MISME Micro, Small and Medium Enterprises NEFT National Medium Enterprises NEFT National Electronic Funds Transfer NPCI National Flectonic Funds Transfer PPF Pahle India Foundation URS Payments Regulatory Board PSP Payments Regulatory Board PSP Payments Aregulatory Board PSP Payments Aregulatory Providers PSS Payments and Settlements Systems RBI Reserve Bank of India RBA Regulatory Impact Analysis UK United Kingdom UFI Unified Payments Interface	AEPS	Aadhaar Enabled Payment System	MeitY	-	
BIS Bank for International Settlements CKYC Centralised KYC CPMI Committee on Payments and Market Infrastructure DEA Department of Economic Affairs DFS Department of Financial Services EUropean Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association JAM Jan-Dhan, Aadhaar and Mobile NPCI National Electronic Funds Transfer NPCI National Electronic Funds Transfer NPCI National Electronic Funds Transfer NEFT National Payments Corporation of India PIF Pahle India Foundation POS Point-of-Sale PRB Payments Regulatory Board PSP Payment Service Providers PSS Payments and Settlements Systems RBI Reserve Bank of India RIA Regulatory Impact Analysis UK United Kingdom United Payments Interface	AFI	Acceptance/Financial Inclusion Fund		Information Technology	
CKYC Centralised KYC CPMI Committee on Payments and Market Infrastructure DEA Department of Economic Affairs DES Department of Financial Services ECB European Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IDA Indian Banks Association ITU International Telecommunication Union NPCI National Electronic Funds Transfer NPCI National Payments Corporation of India PIF Pahle India Foundation POS Point-of-Sale PRB Payments Regulatory Board PSP Payment Service Providers PSS Payments and Settlements Systems PSLRC Financial Sector Legislative Reforms Commission RIA Regulatory Impact Analysis RTGS Real Time Gross Settlement UK United Kingdom Unified Payments Interface	BHIM	Bharat Interface for Money	MSME		
CPMI Committee on Payments and Market Infrastructure DEA Department of Economic Affairs DFS Department of Financial Services ECB European Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association ITU International Telecommunication Union NPCI National Payments Corporation of India PIF Pahle India Foundation POS Point-of-Sale PRB Payments Regulatory Board PSP Payment Service Providers PSS Payments and Settlements Systems RBI Reserve Bank of India RIA Regulatory Impact Analysis RTGS Real Time Gross Settlement UK United Kingdom UPI Unified Payments Interface	BIS	Bank for International Settlements	NEFT	National Electronic Funds Transfer	
Market Infrastructure DEA Department of Economic Affairs DFS Department of Financial Services EUROPEAN Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association ITU International Telecommunication Union Market Infrastructure PRB Payments Regulatory Board PSP Payment Service Providers PSS Payments and Settlements Systems RBI Reserve Bank of India RIA Regulatory Impact Analysis RTGS Real Time Gross Settlement UK United Kingdom UPI Unified Payments Interface	CKYC	Centralised KYC	NPCI	,	
DEA Department of Economic Affairs DFS Department of Financial Services ECB European Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association ITU International Telecommunication Union PRB Payments Regulatory Board PSP Payment Service Providers PSS Payments and Settlements Systems PSP Payments and Settlements Systems RBI Reserve Bank of India RTGS Real Time Gross Settlement UK United Kingdom UPI Unified Payments Interface	CPMI	,			
DFS Department of Financial Services ECB European Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association ITU International Telecommunication Union PRB Payments Regulatory Board PSP Payment Service Providers PSS Payments and Settlements Systems PSS Payments and Settlements Systems RBI Reserve Bank of India RIA Regulatory Impact Analysis RTGS Real Time Gross Settlement UK United Kingdom UPI Unified Payments Interface		Market Infrastructure	PIF	Pahle India Foundation	
ECB European Central Bank FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association ITU International Telecommunication Union JAM Jan-Dhan, Aadhaar and Mobile PRB Payments Regulatory Board PSP Payment Service Providers PSS Payments and Settlements Systems PRB Payments Regulatory Board PRB Payments Regulatory Board PRB Payments Regulatory Board PSP Payments Regulatory Impact Settlements Systems PRB Payments Regulatory Board PRB Payments Regulatory Board PRB Payments Regulatory Board PRB Payments Regulatory Board PSP Payments Regulatory Board PRB Payments Regulatory Board PSP Payments Regulatory Board PRB Payments Regulatory Board PSP Payments Regulatory Board PRB Payments Regulatory Board PRB Payments Regulatory Board PSP Payments Regulatory Board PRB Payments Regulatory Board PSP Payments Regulatory Board PSP Payments Regulatory Board PSP Payments Regulatory Board PSP Payments Providers PSS Payments And Settlements Systems PSS Payments Providers PSS Payments And Settlements Systems PSS Payments And Settlements Syste	DEA	Department of Economic Affairs	POS	Point-of-Sale	
FMI Financial Market Infrastructure FRAND Fair, Reasonable And Non-Discriminatory FSLRC Financial Sector Legislative Reforms Commission IBA Indian Banks Association ITU International Telecommunication Union JAM Jan-Dhan, Aadhaar and Mobile FSP Payment Service Providers PSS Payments and Settlements Systems UR Reserve Bank of India RTGS Real Time Gross Settlement UK United Kingdom UPI Unified Payments Interface	DFS	Department of Financial Services	PRB	Payments Regulatory Board	
FRAND Fair, Reasonable And Non-Discriminatory QR Quick-Response FSLRC Financial Sector Legislative Reforms Commission RIA Regulatory Impact Analysis IBA Indian Banks Association RTGS Real Time Gross Settlement ITU International Telecommunication Union Union UNION UNIFIED UNI	ECB	European Central Bank	PSP	Payment Service Providers	
Non-Discriminatory PSLRC Financial Sector Legislative Reforms Commission RIA Regulatory Impact Analysis RIGS Real Time Gross Settlement ITU International Telecommunication Union UNION JAM Jan-Dhan, Aadhaar and Mobile QR Quick-Response RBI Reserve Bank of India RTGS Regulatory Impact Analysis RTGS Real Time Gross Settlement UK United Kingdom UPI Unified Payments Interface	FMI	Financial Market Infrastructure	PSS	Payments and Settlements Systems	
FSLRC Financial Sector Legislative Reforms Commission RIA Regulatory Impact Analysis IBA Indian Banks Association RTGS Real Time Gross Settlement ITU International Telecommunication Union Union UNION UNIFICATION UNIFICAT	FRAND	Non-Discriminatory Financial Sector Legislative Reforms Commission	QR	Quick-Response	
Commission RIA Regulatory Impact Analysis RIA Regulatory Impact Analysis RTGS Real Time Gross Settlement UK United Kingdom Union			-	·	
IBA Indian Banks Association ITU International Telecommunication Union JAM Jan-Dhan, Aadhaar and Mobile RIA Regulatory Impact Analysis RTGS Real Time Gross Settlement UK United Kingdom UPI Unified Payments Interface	FSLRC				
ITU International Telecommunication Union UNK United Kingdom UPI Unified Payments Interface	ID A		RIA	Regulatory Impact Analysis	
Union UN United Kingdom UPI Unified Payments Interface	IBA	IIIdiali Baliks Association	RTGS	Real Time Gross Settlement	
JAM Jan-Dhan, Aadhaar and Mobile	ITU		UK	United Kingdom	
KYC Know Your Customer	JAM	Jan-Dhan, Aadhaar and Mobile	UPI	Unified Payments Interface	
	KYC	Know Your Customer			

Context

India is embracing digital payments as a key part of its development mandate at an increased pace since demonetisation (November 2016). Both the Reserve Bank of India (RBI) and the central government have taken concerted steps to leverage digital payments, to foster financial inclusion, and to limit illicit monetary transactions.

Financial years 2015-16 and 2016-17 saw the government take steps aimed at curbing cash-based transactions and promoting the adoption of digital payments. Additionally, in 2016, the Department of Economic Affairs (DEA) released forward looking guidelines for policies to promote payments through cards and other digital means. Its key objectives include improving ease of card/digital transactions for individuals and leveraging transaction histories to enhance credit availability and financial inclusion, and creating appropriate incentives to improve the acceptance of digital payments.

Key suggestions made by the DEA in this regard include:1

Rationalisation of Merchant Discount Rates (MDR): Relevant authorities like the Department of Financial Services (DFS) and the RBI, should strive to rationalise MDR for card transactions and formulate a differentiated framework to ease specific categories of digital transactions like public utility and railway payments.

- Enable Infrastructure Penetration: The DEA has recognised that policies should expedite adequate deployment of Point-of-Sale (POS) infrastructure to accept digital transactions. To achieve market penetration, the DEA identified a couple of strategies. First, ongoing POS deployment efforts should be complemented by simultaneous promotion of alternative payment acceptance infrastructure like mobile POS terminals. Second, the government should explore the feasibility of creating an Acceptance/Financial Inclusion Fund (AFI).
- Limit Points of Friction: The DEA believes that Know Your Customer (KYC) identification verification requirements should be based on risk curves and value of transactions in the accounts. Moreover, policymakers should seek to create easy channels for KYC completion (like Centralised KYC (CKYC) registries for multiple financial accounts), to reduce friction in customer on-boarding.
- Others: Other successful digital payments ecosystem imperatives include ecosystem interoperability to increase the utility of basic transaction accounts, and regulations that enable merchants/customers to access instant, low cost micro-credit solutions.

The 2017-18 budget prominently captures the government's vision for digital payments and transforming India into a less-cash economy. Its fiscal policy strategy statement explicitly notes that the private sector is a crucial cog in the overarching digital payments adoption mandate.² The budget identifies tools for enhancing the

http://dea.gov.in/sites/default/files/Promo PaymentsMeans Card Digital 0.pdf

http://indiabudget.nic.in/ub2017-18/frbm/frbm3.pdf, Para 61



adoption of digital payments such as the Jan-Dhan, Aadhaar and Mobile (JAM) trinity, National Payments Corporation of India's (NPCI) products like Bharat Interface for Money (BHIM) and the Aadhaar Pay merchant solution. It is expected that the Government's cash-back and referral bonus schemes linked to these NPCI products will help India achieve 25 billion digital transactions (under the Digidhan Mission). Simultaneously, the government has set specific targets for banks³ to enhance acceptance infrastructure availability.⁴

India has one of the lowest POS penetration rates in the world with around 3 million devices.⁵ Further, indicators suggest that current ecosystem conditions may result in India missing out on its target of 25 billion digital transactions.

Nevertheless, it is believed that India's digital payments landscape has the capacity to unlock value of around USD 500 billion by 2020 (BCG, 2016), if appropriately harnessed. To realise this immense potential and to aid future policy strategies for the coming fiscal (2018-19) and beyond, Pahle India Foundation (PIF) and Koan Advisory Group jointly organised a roundtable entitled 'Accelerating Digital India – what will it take?'6 The discussion was chaired by the Economic Advisor to the Ministry of Electronics and Information Technology (MeitY). It invited participation from a range of actors in the payments ecosystem. The following recommendations are inspired by the discussions at the roundtable.

³ http://indiabudget.nic.in/ub2017-18/bs/bs.pdf, Para 114

⁴ For both POS and Aadhaar based POS infrastructure.

https://rbi.org.in/scripts/ATMView.aspx?atmid=81

⁶ December 11, 2017

Summary of Recommendations

S. No.	Policy Issue	Current Status	Policy Recommendation	
1	Legislative and Regulatory Reform	The current payments regulatory framework is outlined in India's Payment and Settlement Systems (PSS) Act, 2007. Presently, the statute contains limited regulatory and policymaking objectives which are restricted to appropriate supervision of payment systems by the RBI, geared towards market stability. Unlike other advanced jurisdictions, the statutory framework lacks appropriate policy and regulatory objectives, to facilitate competition and innovation of the payments market. The Watal Committee on Digital Payments Report (Watal Committee) opines that such a legal framework has contributed to primacy of banks in India's digital payments ecosystem, which yield sub-optimal market performance.	In line with Watal Committee recommendations, and international approaches observed in countries like the UK, Australia and Sweden, we submit that the PSS Act should be comprehensively reviewed and updated to include: Clear and comprehensive regulatory objectives to promote competition and achieve innovation. Create risk-based market regulations which level the playing field between banking and non-banking Payment Service Providers (PSPs). Allow reasonable access requirements for payments infrastructures and payment systems.	
2	Interoperability	Interoperable payment frameworks are currently skewed in favour of banking players. Further, the NPCI is India's sole retail payment infrastructure and systems operator with numerous roll-out responsibilities. This can lead to an inefficient marketplace, with a glaring risk for single point of failure. Notably, the RBI is the sole operator of Large Value Transfer Settlement (LVTS) systems, namely National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS). Unlike retail payments, non-banks are not allowed to participate in such markets.	On the basis of analysis offered by the Watal Committee and international institutions like the Bank for International Settlements (BIS), European Central Bank, the International Telecommunication Union (ITU) and various jurisdictions, we offer the following recommendations to enhance ecosystem interoperability and concomitant efficiency: Develop a national interoperability strategy fo digital payments and related markets. Expand the payments infrastructure provision markets for both retail and LVTS ecosystems (to limit single point of failure risks). In this context, the government should consider privatising RTGS markets to enable 24/7 availability with multiple system/infrastructure providers. In case the government wishes to maintain the NPCI as the sole retail payments entity, the government should consider categorising it as a public utility entity, and alter its shareholding structure to eliminate institutional biases.	



S. No.	Policy Issue Current Status		Policy Recommendation		
3	Multi-stakeholder Policymaking	Proposed constituents of the new Payments Regulatory Board (PRB), established via Finance Act 2017, includes 3 representatives from RBI and 3 members nominated by the central government. No qualification was offered to central government nominees. Since the amendment in March 2017, the government has not appointed formal members to the institution.	Pursuant to reports recommendations made by the RBI, Financial Sector Legislative Reforms Commission (FSLRC), and the Watal Committee; and international practices observed in countries like Singapore, Jordan and Australia, we offer two recommendations: Clarity should be offered regarding the qualifications of central government nominated members of the PRB. Further, the government should establish a multi-stakeholder Payment System Advisory Council to ensure regulation and policymaking occur in an inclusive and diverse ecosystem.		
4	Last-Mile Infrastructure	In December 2017, the RBI and central government released notifications detailing the current MDR regime for debit card transactions. RBI rationalised differentiated rates based on turnover of merchants. Further, the Central Government announced a subsidy for all digital transactions up to INR 2,000 with reimbursement at the rate of 0.40 per cent per transaction. Reimbursements will be sent to acquiring banks on a quarterly basis. Future reimbursement rates (and related processes) will be determined in consultations with the Indian Banks Association (IBA) and other members of the banking sector, including acquiring banks.	We recommend that central government's MDR subsidy's efficacy should be periodically reviewed on the basis of objective parameters focused on small merchant and rural digital payments adoption. Moreover, future MDR reimbursements should be determined on the basis of stakeholder consultations with all participants within the digital transaction value chain. Pertinently, the current quarterly reimbursement structure could lead to inordinate financial and resource constraints on behalf of infrastructure providers (i.e. merchant acquirers). It is submitted that the government should revise this to a monthly reimbursement process, and then review the costs and benefits of such a policy framework. If the current MDR regulatory approaches do not provide dividends, policies should remain flexible enough to cater to needs of the supply side of the market. To this end, possible policy restructuring could explore deregulation of MDR, evidence based inter-change to avoid price distortion, and set up an Acceptance Development Fund (ADF) to pool market resources to further infrastructure penetration.		

S. No.	Policy Issue	Current Status	Policy Recommendation
5	Adapting Digidhan Mission	The Digidhan Mission, an outcome of the 2017-18 union budget's call for 25 billion digital transactions during the current fiscal, is presently shaped as a one-year campaign to accelerate digital payments.	It is submitted that similar to ecosystem approaches adopted in countries like South Korea and China, the Digidhan Mission should be expanded into a five-year digital financial inclusion strategy (developed with stakeholder inputs) to further India's digital growth story. In this context, key elements for the same should include: • Appropriate policy strategies for development of India's FinTech markets. To this end, it is observed that various jurisdictions have institutionalised regulatory sandboxes and FinTech innovation hubs. Policymakers should explore these policymaking strategies. • KYC verification processes can be points of friction which make it difficult for digital financial services providers to onboard or retain customers. In this context, as endorsed by institutions both domestically and internationally, the government should explore the validity of central KYC registries in easing identity verification processes. Further, it is recommended that KYC policies should adopt risk-based curves as recommended by international organisations like the ITU. • To drive behavioural change towards digital payments, it is submitted that these policies should promote e-commerce companies who are well positioned to practically ease digital transactions.



Thematic Analysis

1. Legislative and Regulatory Reform

In the 2017-18 budget, the Government announced that in order to develop the digital payments ecosystem, there is a need to introduce fundamental structural reforms, including amendments to the PSS Act, 2007. However, there has been no subsequent indication from the government in this direction. The PSS Act was passed at a time when banks were the predominant provider of payments and settlements services. However, with continuing disaggregation of digital transaction chain and new players providing swifter solutions, there is a need to revisit the current framework.

In this context, the Watal Committee recommended updating the PSS Act to include:

- Make payments regulation independent of central banking functions
- Instil an explicit regulatory and policymaking mandate within the framework to promote competition and innovation in the payments market, whilst looking to avoid major market failures.
- Adopt risk-based regulatory approaches to promote a level-playing field. These are technologically neutral and avoid regulatory treatment on the basis of classifications like banks versus non-banks.

The Committee also emphasised that the framework should include provisions to prevent payment system operators from discriminating against certain PSPs from gaining access to particular platforms. Further, it notes that any regulatory measure, before becoming enforceable should undergo appropriate regulatory impact analysis (RIA).

Apart from the domestic considerations mentioned above, Indian policymakers should also pay heed to international best practices. For instance, both UK and Australia have recognised the need to transition payments frameworks away from bank-centric approaches to spur competition and innovation. They focus on principles of regulatory parity between banking and non-banking players, interoperability and open-access to payments systems.7 Specific to competition and innovation objectives, the UK's Financial Services (Banking Reforms) Act, 2013 outlines regulatory objectives for retail payments regulators with respect to effective competition, innovation, and service user interests. Australia's payments regulatory approach also includes an explicit mandate to promote competition and efficiency.8 Additionally, jurisdictions like Sweden have assigned competition authorities to eliminate barriers and promote competition within its payments industry.9

Don Cruickshank, Competition in UK Banking, Section 6.1.3 of the Report; Financial System Inquiry (Chaired by Stan Wallis), Financial System Inquiry Report, 1997.

⁸ https://www.rba.gov.au/payments-and-infrastructure/payments-system-regulation/approach-to-regulation.html

https://www.bis.org/cpmi/publ/d97 se.pdf

As a follow up to the 2017-18 budget announcement, it is submitted that the Government should take steps to amend the PSS Act, 2007 during 2018-19. To this end the government should announce the nature and extent to which it wishes to revise the legislation. Some provisions of the new law should include:

- Regulatory objectives geared towards competition, and consequent innovation
- 2. Create risk-based rules which level the playing field between banks and non-bank
- Allow for reasonable access to important retail payments infrastructure and payment systems

2. Foster Interoperability to Drive Ecosystem Efficiency

Authorities, like the ITUs¹⁰ focus group of digital financial services, inform us that one of the key elements in the development of digital financial markets is interoperability.¹¹ This has even been endorsed by the DEA in its 2016 policy guidelines. Unfortunately, until now, non-banking players have only been allowed access to major retail payment systems like the Unified Payments Interface (UPI) by entering into an arrangement with banks, who also happen to be their competi-

tors. This leads to potential conflicts of interest. In a positive development, RBI recently announced that it intends to induce interoperability between banks and non-banks into the UPI in a phased manner.¹²

In the present landscape, the principal responsibility to expand digital financial markets has been placed at the doorstep of the NPCI, India's sole retail payments operator. However, a single player retail payments infrastructure/operator market with numerous large-scale roll out responsibilities could encounter resource constraints. Keeping this in mind, the Watal Committee highlighted the need for an interoperable framework for both retail digital payments and LVTS operations. The report recommends creating a framework (similar to the power sector) in which multiple infrastructure providers like the NPCI can operate and compete. The Committee opined that such a framework would prevent single point of failure. The Committee was also of the opinion that regardless of the type of service provider, participants should be allowed direct access to payment systems if they meet requisite technical criteria.

BIS and its Committee on Payments and Market Infrastructure (CPMI) characterise interoperable payment systems like those offered by the NPCI

ITU is the United Nations specialized agency for Information and Communication Technologies – ICTs. Much of the work at ITU is done in study groups which comprise diverse expertise. Each study group has a specific focus and participants work together to define the frameworks that will ensure optimum functioning of all services, both existing and future. The main output of a study group is the establishment of technical standards or guidelines (Recommendations). https://www.itu.int/en/about/Pages/whatwedo.aspx

https://www.itu.int/en/ITU-T/focusgroups/dfs/Pages/deliverables.aspx

https://rbi.org.in/scripts/BS ViewMasDirections.aspx?id=11142, See Rule 18





as Financial Market Infrastructure (FMI). They hold that inefficient FMI could lead to proliferation of systemic risks due to inadequate management. Moreover, global financial authorities like the BIS and the European Central Bank (ECB),¹³ have also stated that it is incumbent on sectoral regulators to identify single points of failure in the retail payments market. They point out that disruption of the retail payments market can have wider ramifications across digital payments ecosystem.¹⁴ Further, the ITU's digital financial services focus group has recognised the importance of both, access to payments infrastructure, and timely introduction of interoperability.

Benefits of interoperability for payment systems and participants within both retail payment systems and LVTS systems like NEFT and RTGS, include economies of scale and underlying network effects.

Specific to LVTS, various countries like Mexico, Peru and Jordan, have undertaken measures to allow non-banking PSPs to offer RTGS services. UK has also started public consultation to revamp its RTGS systems. One of the recommendations is to allow non-banking PSPs on such platforms. Interestingly, in jurisdictions such as Switzerland, and Canada, central banks refrain from operating RTGS systems. Moreover, ITU's digital financial services working group on competition aspects held that access to existing payments infrastructure (both RTGS and retail systems) for non-bank payment service providers at Fair, Reasonable And Non-Discriminatory

(FRAND) terms is necessary to ensure a level playing field and ensue ecosystem efficiency and interoperability. ¹⁵ Key policy strategies to foster interoperability include developing clear and precise national interoperability strategies for market guidance/consistency, and eliminating institutional biases from interoperability schemes. For the latter, the ITU has recommended that payments infrastructure governance structures should reflect the interests of all relevant stakeholders. ¹⁶

Based on the considerations discussed above and repeated assertions on the importance of interoperability in the digital payments landscape, the government should announce a national interoperability strategy with participation from all relevant stakeholders. It should consider expanding the payments infrastructure and marketplace beyond the scope of one entity, as the task of last mile service delivery requires an ecosystem solution. If the government does not wish to expand the payments infrastructure and system operator marketplace, it should deem the NPCI as a public utility entity, and accordingly mandate the alteration of its present shareholding structure. Also, the government should consider if the digital payments ecosystem will benefit from making adjustments to NEFT and RTGS systems. For example, allowing LVTS services to be offered by non-banking PSPs, privatising RTGS infrastructure and system operation to create a 24/7 ecosystem that does not have to follow the current limited service provision of the RBI.

¹³ https://www.ecb.europa.eu/pub/pdf/other/paymentsmonetaryfinancialstability200801en.pdf?d3b516314e4c8178fe0a962d27eb7f61

¹⁴ http://www.bis.org/cpmi/publ/d102.pdf

http://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/201703/ITU FGDFS Report-Competition-Aspects-of-DFS.pdf

https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/201703/ITU FGDFS Main-Recommendations.pdf

3. Enable Multi-Stakeholder Policymaking and Regulation

Importance of multi-stakeholder coordination in policymaking already resonates in domestic efforts to substantively reform the digital payments landscape. For instance, the Watal Committee has recommended establishment of a payments regulatory authority that is independent of the RBI. In March 2017, the government amended the PSS Act to constitute a PRB to ostensibly fulfil this mandate for independence. Yet, the PRB's constitution (comprising three RBI officials and three government nominated members) does not reflect the desired stakeholder inclusivity. It must be noted that the amendment fails to stipulate any qualification for central government nominees. Pertinently, the FSLRC working group on payments had also recommended establishment of a payments council (an inclusive multistakeholder body) that supports the payments regulator in setting standards and policy related matters. Similarly, the RBI's Vision 2018 also aims to establish a multi-stakeholder consultative mechanism (Payment System Advisory Council), from across sectors including the payments industry, security experts, technologists and government. The role of such an institution would be to assist the regulator with future policy strategies. 17 Unfortunately, the RBI in

its latest annual report states that due to the aforementioned amendment, such an advisory council is no longer deemed necessary.¹⁸

Internationally, Singapore has established a National Payments Council (2017) headed by their Monetary Authority of Singapore (MAS) comprising of representatives from the supply and demand side of its digital payments ecosystem.¹⁹ Moreover, the ITU's focus group also endorses direct multi-stakeholder advisory/ feedback loops for policymaking regarding digital payments and related markets. For instance, it cited Jordan's Digital Financial Services Council, which comprises of market participants, third party vendors and various regulators across the financial sector to shape policies for nascent digital financial markets.²⁰ Australia's Payment System Board works with the Australian Payments Council (representing industry) to effectively coregulate its payments marketplace.21

As a follow up to last year's amendment (vide Finance Act, 2017) the government should stipulate clear and precise qualifications of individuals to be nominated by the central government to the PRB. Additionally, the government should establish a multi-stakeholder Payments System Advisory Council, to ensure inclusive policymaking and growth of digital payments.

https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/VISION20181A8972F5582F4B2B8B46C5B669CE396A.PDF

http://www.thehindubusinessline.com/multimedia/archive/03196/RBI Annual Report 3196461a.PDF, See Page 136

¹⁹ http://www.mas.gov.sg/News-and-Publications/Media-Releases/2017/MAS-Establishes-Payments-Council.aspx

http://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/201703/ITU FGDFS Main-Recommendations.pdf

²¹ https://www.rba.gov.au/payments-and-infrastructure/payments-system-regulation/pdf/memorandum-2015-08-21.pdf



4. Catalyse Last-Mile Delivery of Payments Acceptance Infrastructure

In October 2016, India had 1.3 million POS terminals (Watal Committee). As discussed earlier, RBI data suggests that post demonetisation the number has gone up to 3 million terminals in November 2017. Independent studies suggest that through appropriate market conditions, and leveraging next-generation payment solution developments India could have around 15 million merchants accepting payments through digital means by 2020.²²

One positive development, unique to the Indian jurisdiction has been the development and promotion of interoperable Quick-Response (QR) codes to provide seamless, low-cost, user friendly digital payments solutions.

To realise this potential, it is incumbent on the marketplace to offer supply side players adequate economic incentives. Policy strategies, as espoused by both government and RBI, so far have been largely consumer and merchant centric. Such an approach is justified when the supply-side is limited to banks whose primary business is credit facilitation and concomitant accrual of interest. However, the supply side infrastructure/service providers include various other intermediaries who facilitate the completion of digital transactions. With artificial price capping, innovation will be stifled as the ability to generate revenue becomes limited.

In December 2017, RBI released a notification detailing its current policy for MDR rates for debit card transactions starting January 2018.²³ Pertinently, the policy is applicable to both 'card-present' and 'card not present' digital transactions. This policy creates a lower MDR ceiling for transactions through QR authenticated transactions, as compared to transaction over POS terminals. This creates differentiated MDR policies for merchants based on the scale of their annual turnover. It notes that small merchants. with turnover of less than INR 2 million from the preceding financial year, can be charged a much lower MDR by merchant acquiring banks. Later that month, the central government announced that it intends to subsidise MDR for all digital transactions through debit cards, BHIM UPI and Aadhaar Enabled Payment System (AEPS), which are equal to or less than INR 2,000.24 Reimbursements for acquiring banks for all such transactions will be done at the rate of 0.40 percent till March 31, 2018. Such reimbursements are scheduled to be carried out on a quarterly basis. The notification also allows for detailed consultation processes with the RBI, IBA and banks for future reimbursement rates and related conditions.

Although the sample space remains nascent, the present subsidy format with deferred compensation is putting a strain on supply-side infrastructure providers. It is observed that since its coming into force, acquirers who provide

http://image-src.bcg.com/BCG COM/BCG-Google%20Digital%20Payments%202020-July%202016 tcm21-39245.pdf, July 2016

https://rbi.org.in/scripts/NotificationUser.aspx?Id=11183&Mode=0

²⁴ http://meity.gov.in/writereaddata/files/gazette notification on subsidizing mdr charges.pdf

infrastructure have continued to pay their dues to both card-issuing banks, and other card payment facilitators. However, in the absence of continuous streams of revenue, acquirers have expressed concerns regarding liquidity and temporary cost-bearing of cost to continue services.²⁵

Previous policy analysis examining MDR framework design like the Watal Committee, on the basis of a wide spectrum of stakeholder representations, remarked that MDR should be high enough to cover costs and incentivize acquiring banks to onboard merchants. The Committee further noted that MDR ceilings tend to stymie card-present digital transactions.²⁶ They specifically recommend that MDR should be left to market forces and, if required, interchange fees charged by card-issuing banks could be regulated on an evidence based observations.²⁷ Research suggests that jurisdictions like the EU, Australia, New Zealand, China, United States, and Mexico tend to regulate interchange fees charged by card issuing banks to merchant acquiring banks.28 Such policy decisions are typically made on the basis of the type of price distortions arising out of prevailing inter-change rates. Indeed, in June 2015, the Ministry of Finance, Government of India, released a draft

proposal to facilitate "electronic transactions" and discussed standardising inter-change rates to avoid price distortions.²⁹ Similar to the guidelines released by DEA in February 2016 for digital and card-based transactions, the Watal Committee also recommends exploring differentiated MDR rates for public utility payments being made through digital means. The report states that with adequate POS deployment, concomitant "network effects" will offer convenience, which incentivises customers to transact digitally.

In 2016, the RBI released a concept paper on card acceptance infrastructure. One of its key recommendations to promote infrastructure penetration was establishing an ADF. Taking inspiration from policymaking approaches observed in Poland, Indonesia and Malaysia, the fund is supposed to be a market-driven initiative where stakeholders in the digital transaction value chain create a corpus for the deployment of payment acceptance infrastructure.

Based on the literature cited above and keeping in mind recent developments, it is submitted that the central government should create certain provisions to update its MDR subsidy notification dated December 27, 2017. We recommend, the Government should undertake

https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/mdr-subsidy-offer-puts-point-of-sale-companies-in-a-spot/article-show/62598507.cms

http://finance.du.ac.in/du-finance/uploads/pdf/Reports/watal_report271216.pdf, See Page 76

http://finance.du.ac.in/du-finance/uploads/pdf/Reports/watal report271216.pdf, See Page 77

https://www.dvara.com/blog/wp-content/uploads/2017/04/IFMR-Finance-Foundation-Comments-on-Rationalisation-of-MDR-for-Debit-Card-Transactions.pdf

https://www.mygov.in/sites/default/files/master_image/My%20Gov%20Proposal_Facilitating%20Electronic%20Transactions 16.6.2015-1.pdf, See 5.2



periodic updates (every quarter) to assess the benefits accrued from the subsidy. Parameters to measure benefits may include POS terminal penetration, overall volume of digital transactions in rural areas, growth of MSME/small merchant POS adoption, etc. Further, it is submitted, that the review of reimbursement rates for MDR subsidy should expand the range of stakeholders being consulted. These additional stakeholders should include card scheme providers, payment gateway service providers, and infrastructure providers. Pertinently, deferred reimbursement on a quarterly basis could place a major financial strain on merchant acquirers. Thus, the government should strive to minimize lag between reimbursement process (on a monthly basis) which limits revenue related constraints experienced by acquirers.

Both the central government and RBI should be mindful that differentiated MDR rates on the basis of merchant turnover could have unintended consequences. Infrastructure providers are in fact incentivised to install their terminals at larger merchants which eventually widens the gap between "haves" and "have-nots".

We further suggest the government should also announce the next steps to follow up on the MDR subsidy. These steps should incorporate the above detailed elements. Also, if MDR regulation is not proving effective (after a period of six months), then policies should be moulded to address other avenues through which digital payments can reach the last-mile.

5. Other Elements to Grow Digidhan

Jurisdictions like the Republic of Korea (Digital Seoul 2020),³⁰ and China (Financial Inclusion Development Plan 2016-2020),³¹ have announced five-year plans to digitise their respective economies. It is recommended that we expand the Digidhan Mission into a five-year financial inclusion mission.

Some elements which should be addressed are:

Enable FinTech Evolution: Several jurisdictions like Australia, China, Canada, Hong Kong, Singapore, UK and Japan have established fintech innovation hubs. Additionally, markets like Singapore, UK, Australia, Abu Dhabi, Indonesia and Switzerland are working with regulatory sandboxes to allow FinTech solution developers to test their products (with negligible penalties) on small scales. The Watal Committee was also of the opinion that India should consider allowing regulatory sandboxes for fintech solution developers. It must be noted that the government and financial regulators should consult with stakeholders on the benefits and pitfalls of institutionalising either fintech innovation hubs or regulatory sandboxes or both.32

http://english.seoul.go.kr/seoul-launches-global-digital-seoul-2020/

http://pubdocs.worldbank.org/en/335801453407732220/ENGLISH-Advancing-Financial-Inclusion-in-China-Five-Year-Plan-2016-2020.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3018534

- Reduce Points of Friction: KYC verification is a point of friction which can create an obstacle for financial service providers to either onboard or retain consumers. Both the Watal Committee and ITU's focus group endorse centralised KYC verification registries. Even the DEA has noted that centralised KYC registries could aid in financial inclusion. It is submitted that financial authorities should consult stakeholders to facilitate channels through which KYC identity verification can be eased. The government should also see how such processes can be eased using Aadhaar (as part of the JAM trinity). Further, the Government should strive to endorse risk-based KYC verification rules on the basis of the value of the concerned transaction/ financial account.33
- Encourage E-commerce: E-commerce companies can tangibly influence users as they begin to realise benefits of transacting digitally. Thus, the government should explore ways to incentivise such companies to drive India towards a less-cash economy.

References

Watal Committee on Digital Payments Report, Medium Term Recommendations to Strengthen Digital Payments Ecosystem, December 2016

BCG, 2016: Digital Payments 2020, The Making of a \$500 Billion Ecosystem in India

Don Cruickshank, Competition in UK Banking, Section 6.1.3 of the Report; Financial System Inquiry (Chaired by Stan Wallis), Financial System Inquiry Report, 1997

BIS 2012: Committee on Payment and Settlement Systems (CPSS), Innovations in Retail Payments

Competition Aspects of Digital Financial Services, March 2017, ITU

³³ https://www.itu.int/en/ITU-T/studygroups/2017-2020/09/Documents/ITU FGDFS Report IdentityandAuthentication.pdf

