UPI and Business Correspondents Model as Game Changer

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This article highlights how public sector banks can adapt technology and data science to utilise the Unified Payments Interface and business correspondents model for robust credit growth rate while being champions in the financial inclusion schemes of the government in the country.

The views expressed in the article are of the author only and not necessarily of the organisation in which she works.

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Public sector banks (PSBs) play a crucial role in financial inclusion in India in terms of penetration, opening of bank accounts, and mobilising deposits in the bank accounts opened. As per the Reserve Bank of India (RBI), in March 2023, out of 1.63 lakh branches of scheduled commercial banks (SCBs) in India, PSBs have 90,445 branches, which are 2.1 times more than the 42,279 branches of private sector banks (PvSBs). As far as automated teller machines (ATMs) and customer relationship managers (CRMs) are concerned, in the corresponding period, PSBs have 1.38 lakh ATMs and CRMs which are 1.79 times more than the ATMs and CRMs of the PvSBs.

Further, in March 2023, PSBs have opened 162.22 crore deposit accounts which is 3.9 times more than the 41.28 crore deposit accounts opened by the PvSBs. The deposit balance in PSBs' deposit accounts is ₹110.50 lakh crore which is almost 1.8 times more than the deposit balance of ₹60.75 lakh crore in the PvSBs. On average, one PSB branch serves 17,936 account holders, each having an average deposit balance of ₹68,117. Whereas, on average, one branch of PvSB serves 9,764 account holders each with an average deposit balance of ₹1.47 lakh. Thus, on average, one branch of PSBs serves almost double the number of account holders than that of the PvSBs with the average deposit balance of PSB account holders much lower than that of the PvSB.

Under the National Mission of Financial Inclusion, Pradhan Mantri Jan Dhan Yojana (PMJDY) is being implemented by the Government of India (GoI). Under it, out of the 48.70 crore accounts opened as of March 2023, only 1.39 crore (3%) are opened in PvSBs, whereas the remaining 97% are opened in the PSBs or their sponsored regional rural banks (RRBs).

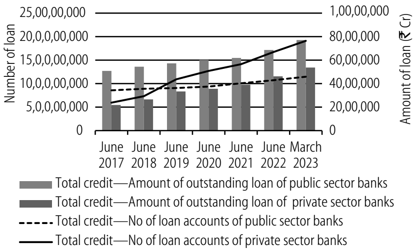
PSBs have invested huge human power and cost in the completion of know your customer (KYC) updation for its huge base of account holders, and creation of a digital infrastructure pipeline, namely Jan Dhan–Aadhaar–Mobile (JAM) trinity, ensuring smooth direct benefit transfer (DBT) to eligible beneficiaries under various financial inclusion and welfare schemes of the GoI post 2014. This has ensured plugging the possible leakages in the public distribution system and thus resulted in savings of public funds.

However, while PSBs remained engaged in these activities of national importance during the past nine years, PvSBs focused more on their credit portfolio. They have utilised the new digital infrastructure and various credit guarantee schemes of the GoI, RBI's business correspondents' policy, etc, for their robust credit growth. As a consequence, the number of loan accounts of the PvSBs in March 2023 reached 15.29 crore which is 1.3 times higher than that of the PSBs (11.47 crore). However, the amount of outstanding loan in March 2023 of the PSBs is ₹77.08 lakh crore, which is 1.4 times higher than the amount of outstanding loan of ₹53.69 lakh crore in March 2023 of the PvSBs. As a result, the estimated credit–deposit ratio of PSBs and PvSBs turned out to be 69.8% and 88.4%, respectively, in March 2023, despite PSBs having larger penetration and footfall in their branches than the PvSBs. It may also be noted that the average ticket size of the loan accounts of PSBs and PvSBs in March 2023 are ₹6.72 lakh and ₹3.51 lakh, respectively. Thus, PvSBs are processing smaller ticket-size loans than the PSBs.

Analysis of Credit Data

This article analyses the time-series data of total loans provided by PSBs and PvSBs in terms of number and amount over almost the past seven years since June 2017 to March 2023 to check whether there is a specific time period when the PvSBs surpassed the PSBs in terms of the number of loan accounts and also the trend in the case of the amount of outstanding loan. It has also been attempted to see a similar time-series analysis for six major occupations for which over 97% of the total loan accounts of

Figure 1: Comparison in Number and Amount Outstanding of Total Loan of Public and Private Sector Banks



Source: RBI (2023a).

Figure 2: Comparison in Number of Loan Accounts for Agriculture by Public and Private Sector Banks

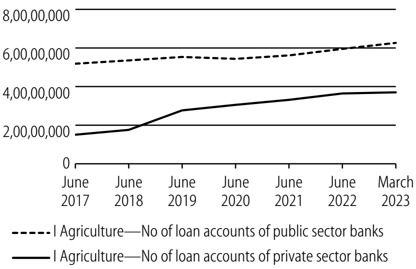


Figure 3: Comparison in Loan Amount Outstanding for Agriculture by Public and Private Sector Banks (₹ cr)

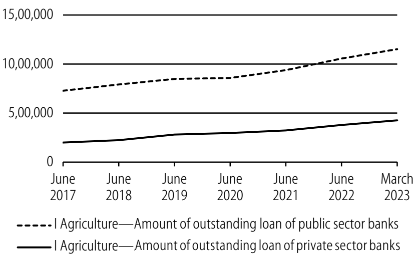


Figure 4: Comparison in Number of Loan Accounts for Manufacturing and Processing by Public and Private Sector Banks

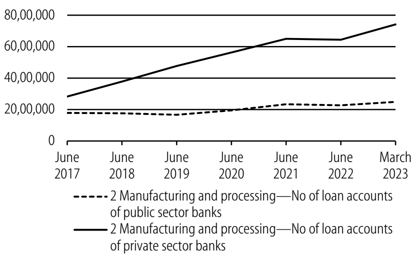


Figure 5: Comparison in Loan Amount Outstanding for Manufacturing and Processing by Public and Private Sector Banks (₹ cr)

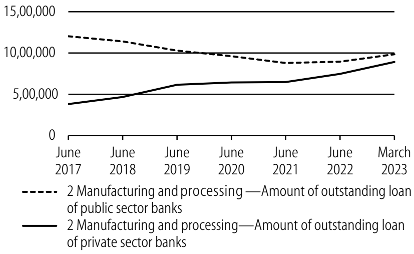


Figure 6: Comparison in Number of Loan Accounts for Transport Operators by Public and Private Sector Banks

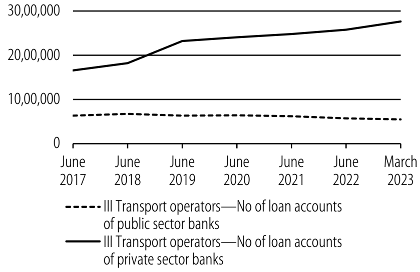


Figure 7: Comparison in Loan Amount Outstanding for Transport Operators by Public and Private Sector Banks (₹ cr)

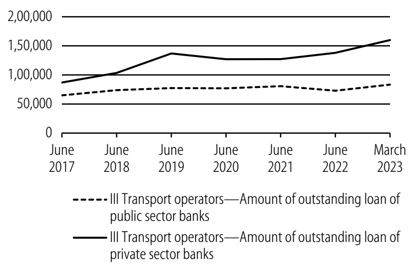


Figure 8: Comparison in Number of Loan Accounts for Professional and Other Services by Public and Private Sector Banks

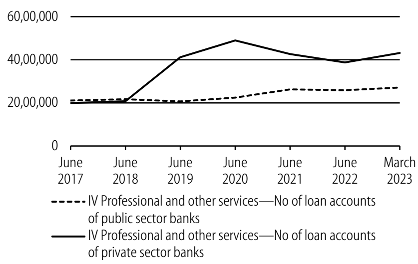
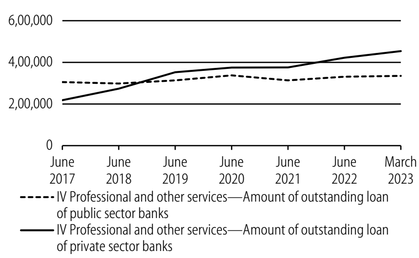


Figure 9: Comparison in Loan Amount Outstanding for Professional and Other Services by Public and Private Sector Banks (₹ cr)



both PSBs and PvSBs are outstanding as of March 2023. These occupations are agriculture, manufacturing and processing, transport operators, professional and other services, personal loan accounts, retail traders, etc. Further, in terms of the amount of outstanding loan, these six occupations constitute 67% of the total outstanding loan portfolio of PSBs and 73% of the total outstanding loan portfolio of the PvSBs, as of March 2023.

Figure 10: Comparison in Number of Personal Loan Accounts Issued by Public and Private Sector Banks

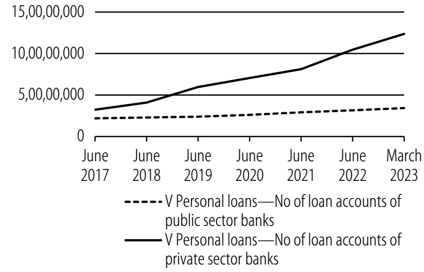


Figure 11: Comparison in Loan Amount Outstanding in Personal Loan Accounts Issued by Public and Private Sector Banks (₹ cr)

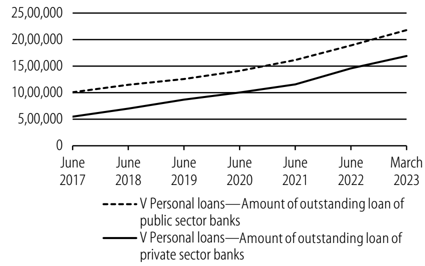


Figure 12: Comparison in Number of Loan Accounts for Retail Trades by Public and Private Sector Banks

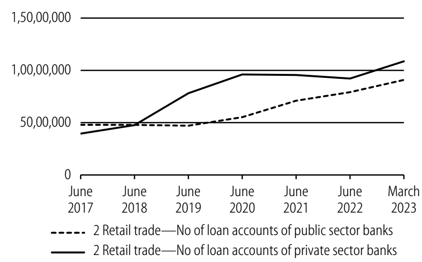
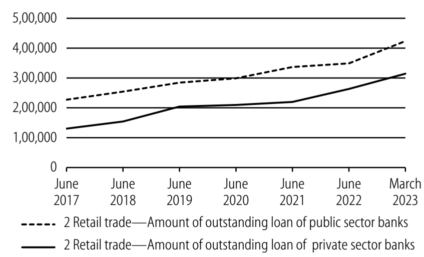


Figure 13: Comparison in Loan Amount Outstanding for Retail Trades by Public and Private Sector Banks (₹ cr)



Post 2018–19, the number of outstanding loan accounts of PvSBs became higher than the number of outstanding loan accounts of PSBs and the gap increased over time (Figure 1). As far as the amount of outstanding loans is concerned, PSBs are still having higher amounts, however, the gap between the amounts of both types of banks is decreasing over the years. Thus, PvSBs are very aggressively enhancing their credit portfolio, both in terms of number and amount and reaching out to a greater number of customers with their credit products than PSBs.

Occupation-wise observations from Figures 2 to 13 (p 24) are provided: (i) agriculture (Figures 2 and 3): number of loan accounts and amount of outstanding loan both are higher for PSBs than PvSBs; (ii) manufacturing and processing (Figures 4 and 5): number of loan accounts is greater for PvSBs and the gap between them is increasing post 2017–18. Amount of outstanding loan for PvSBs is catching up as PSBs are showing negative growth; (iii) transport operators (Figures 6 and 7): number of loan accounts and amount of outstanding loan are greater for PvSBs and the gap is increasing hugely post 2018–19; (iv) professional and other services (Figures 8 and 9): post 2017–18, both the number of loan accounts and amount of outstanding loan provided by PvSBs became higher than PSBs and the gap is increasing; (v) personal loan accounts (Figures 10 and 11): (a) number of loan accounts is greater for PvSBs and the gap is increasing hugely post 2017–18, and (b) PSBs have provided a higher amount of outstanding loan. However, the growth pattern in the amount of loans is similar for PSBs and PvSBs; (vi) retail traders (Figures 12 and 13): post 2018–19, the number of loan accounts for PvSBs became higher than the number for PSBs and the gap is increasing. PSBs have provided a higher amount of outstanding loan. However, the growth pattern is similar for PSBs and PvSBs except during 2020–21 when PSBs showed faster positive growth than PvSBs.

Thus, from the above figures, it is evident that PvSBs are more aggressive in smaller ticket size retail credit portfolios than the PSBs. Based on field visits to different branches of PSBs and private sector branches and discussions with the officials, it has been observed that most of the PSBs are still dependent on the traditional modes of paper- and physical visit-based loan processing only and there is very minimal use of data-based decisions and use of technology in the evaluation of assets used as security for assessing the creditworthiness.

Role of digital footprints and business correspondents in bank-credit business: For data-based decision-making in the creditworthiness of account holders, it is necessary to have information about their digital footprints. Onboarding the account holders as well as the entities from whom the account holders make payments for purchases of goods and services like physical and online traders, utility service providers like domestic gas, electricity, telephone, internet, entertainment services, etc, local government bodies accepting various taxes, educational institutions, hospitals, religious bodies, transport service providers in organised and unorganised sectors, etc, on various digital payment modes like Unified Payments Interface (UPI), card-accepting quick response (QR) code, etc. With the government's push for the promotion of digital payments, PSBs have onboarded their account holders on various digital payments mode to a large extent but they are lagging behind the PvSBs in onboarding the payment-accepting entities on various digital payment modes or establishing the data connection with such data points.

Moreover, the technology- and data-based credit decisions require regular engagement with such credit takers to make them financially literate and disciplined about repayment of credits at regular and short intervals. This kind of regular engagement with the credit takers could be done by bank *sakhis* from the self-help groups (SHGs) who are trained for activities of business correspondents and live in the same neighbourhood as the credit takers and are aware of them. RBI's business correspondent policy allows banks to engage them for identification of borrowers, collection and preliminary processing of loan applications, and submitting them at banks, creating awareness and advise on debt counselling, post-sanction monitoring, follow-up for recovery, recovery of principal or collection of interest, etc. Although many PvSBs are aggressively utilising business correspondents for these credit-related activities on a commission basis, there is hesitation on the part of the PSBs to engage the business correspondents in such activities on a commission basis yet. PSBs mostly keep the business correspondents engaged in account opening, social security onboarding, and withdrawal and deposit of cash by the account holders new to the bank, primarily, on a commission basis. Engaging business correspondents only for these purposes will not enhance their income and create a bottleneck in improving credit–deposit ratio in such areas where the banking services are dependent on business correspondents in the absence of nearby bank branches.

Digital payment infrastructure to get digital footprints for credit decisions: Let us now see how PvSBs have strengthened their infrastructure to get information about the digital footprints of account holders of different banks. Such information could be analysed by statisticians for analysis-based assessment of creditworthiness of account holders.

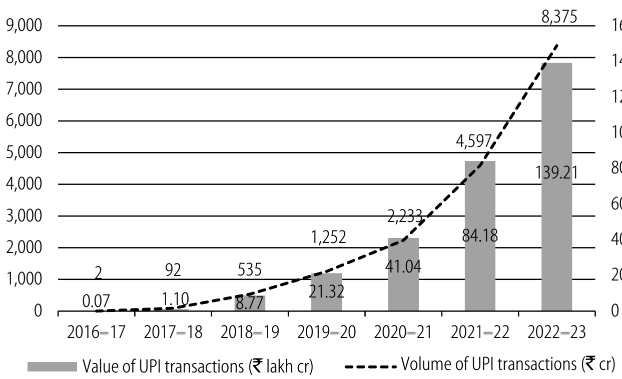
The PSBs have only 13.92 lakh (17.9% of total) point of sale (POS) machines deployed to accept card payment, whereas PvSBs have deployed 57.10 lakh (73.3% of total) POS machines (Table 1). The number of debit cards issued by PSBs is much larger at 65.16 crore (67.8% of the total) than 21.70 crore (22.6%) debit cards issued by PvSBs. Thus, maximum PSB debit cards are issued for digital transactions at POS machines deployed by PvSBs. Otherwise, they are used for cash withdrawals at ATMs or kept idle. PvSBs (5.96 crore) have issued more than double the number of credit cards than the PSBs (2.07 crore). Similarly, in the case of UPI QR codes, PvSBs have deployed 20.89 crore (81.5% of the total) QR codes

Table 1: Digital Payment Acceptance Infrastructure, March 2023

	No of Point of Sale Machines to Accept Card Payment (lakh)	Percentage (%) to Total	No of Credit Cards (lakh)	Percentage (%) to Total	No of Debit Cards (lakh)	Percentage (%) to Total	No of UPI QR Codes (lakh)	Percentage (%) to Total
Public sector banks	13.92	17.9	206.57	24.2	6,516.53	67.8	115.31	4.5
Private sector banks	57.10	73.3	595.87	69.9	2,170.06	22.6	2,089.13	81.5
Total	77.90	100.0	853.03	100.0	9,612.59	100.0	2,563.7676	100.0

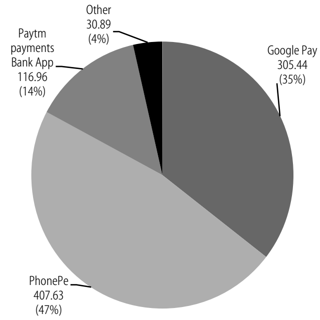
Source: RBI (2023b).

Figure 14: Performance of UPI Transactions



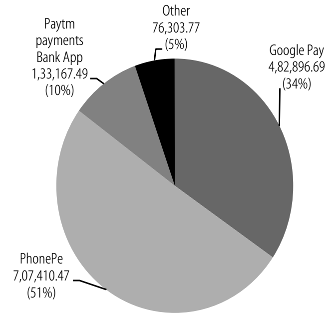
Source: NPCI (2023a).

Figure 15: Volume of Customer-initiated UPI Transactions in March 2023 (₹ cr)



Source: NPCI (2023b).

Figure 16: Value of Customer-initiated UPI Transactions in March 2023 (₹ cr)



Source: NPCI (2023b).

against PSBs deploying only 1.15 crore (4.5% of the total). Thus, for both POS machines and UPI QR codes, PvSBs have a very large penetration of digital payment acceptance infrastructure where people make digital payments and thus have a large database of digital payment footprints to analyse for credit business.

Role of UPI in credit decision: Let us now look into the details of UPI-related issues as it is the most used mode of digital payments in India. Figure 14 shows how the volume and value of UPI transactions have grown over the years since its launch in 2016.

It can be observed from Figure 14 that both the volume and value of transactions under UPI are increasing steadily. Table 2 shows the major players in the UPI ecosystem, their brief roles, and present numbers.

Transaction performance on the UPI apps of PSP banks or TPAPs: In March 2023, there were 860 crore UPI transactions induced by customers worth ₹14 lakh crore on different apps of the banks or third party application providers (TPAPs). Out of these, 860 crore customer-induced transactions, 830 crore (96.4%) transactions worth ₹13.23 lakh crore (94.5%) are on only three apps, namely PhonePe (50.5% of total value), Google Pay (34.5% of total value) and Paytm (9.5% of total value). Figures 15 and 16 show the volume and value of customer-initiated UPI transactions on major applications in March 2023.

Out of these three applications being used majorly by the customers, two are of TPAPs, namely PhonePe (having Yes Bank, ICICI Bank, and Axis Bank as PSP banks) and Google Pay (having Axis Bank, HDFC Bank, ICICI Bank and State Bank of India [SBI] as PSP banks). And the third major performing UPI app is the Paytm Payments Bank app. Thus, the apps developed by the majority of the banks, including the PSBs remain grossly underutilised in spite of incurring expenditure on developing the applications and getting regulatory permission to operate them.

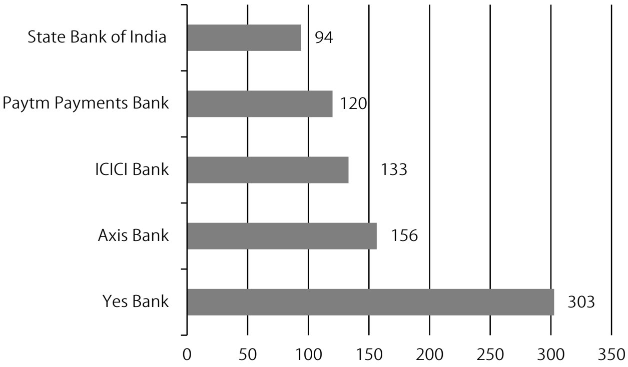
As per NPCI, PSP banks, either through their own app or TPAP's app, on board and register the end-user/customers on UPI and link their bank accounts to their respective UPI IDs. The PSP bank is

Table 2: Major Players in UPI Ecosystem and Position of PSBs

S No	Major Player	Brief Major Role	Number in December 2022	Position of PSBs
1	NPCI	Owns and operates the UPI platform and approves the participation of other players in the UPI ecosystem	1	-
2	Issuer banks/ financial institutions	NPCI-approved banks/financial institutions whose customers can do UPI transactions either through bank's/financial institution's own UPI app (in case they have their own UPI app) or through TPAP	387	All 12 PSBs are issuer banks
3	PSP banks	NPCI-approved banks that has their own UPI app	52	All 12 PSBs are PSP banks and have their own UPI apps
4	Prepaid payment instrument (PPI) issuer and PSP	NPCI-approved PPIs has its own UPI app and whose users can use their UPI app	12 (ICICI Bank and IDFC First Bank are working as PPI issuers and PSP)	NIL
5	TPAP's app	NPCI-approved TPAP who can participate in UPI only through PSP bank	23 TPAPs participating through one or more PSP banks. The PSP banks through which TPAPs are operating are: Axis Bank (11 TPAPs), Yes Bank (four TPAPs), Federal Bank (one TPAP), IDFC First Bank (two TPAPs), HDFC Bank (three TPAPs), ICICI Bank (seven TPAPs), IndusInd Bank (one TPAPs), SBI (two TPAPs), RBL Bank (one TPAP), Kotak Mahindra Bank (one TPAP), Cosmos Cooperative Bank (one TPAP)	Only one PSB (SBI) is operating as PSP bank of two TPAPs

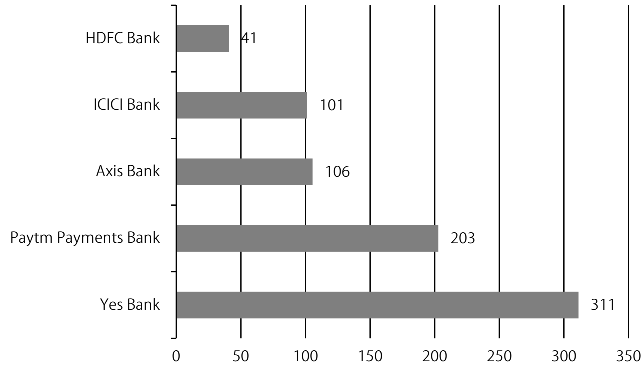
Source: NPCI (2022).

Figure 17: Top 5 UPI Payer PSP Performance in March 2023, Total Volume (₹ cr)



Source: NPCI (2023b).

Figure 18: Top 5 UPI Payee PSP Performance in March 2023, Total Volume (₹ cr)



Source: NPCI (2023b).

responsible for the authentication of the end-user/customer at the time of their registration, either through its own app or TPAP's app. PSP bank has to store all the payment data, including UPI transaction data collected for the purpose of facilitating UPI transactions, only in India. Thus, it seems that the UPI transaction-related data linked to the mobile number of the account holder becomes available to the PSP bank of the app that the customer is using. More specifically, if a PSB account holder is using the TPAP app for UPI transactions, their mobile number, through which the UPI transaction data is made, becomes available to the PSP bank of the TPAP.

UPI performance of top five payer and payee PSP banks: As per the data published by NPCI in March 2023, only five banks constitute 92% of the 879 crore total UPI transactions as payer PSP (that is, banks who have onboarded customers on UPI and created their UPI ID and from there the "customers are making the UPI transactions. They may be customers' own banks or customers' TPAP's PSP banks). Further, in respect of payee PSP, the top five banks constitute 87% of the 879 crore total UPI transactions in March 2023. Figures 16 (p 26) and 17 show the performance of the top five payer and payee PSP banks in terms of UPI transaction volume (in crore) in March 2023.

It can be seen from the above figures that the majority of the UPI transactions are being done by Yes Bank, Axis Bank, ICICI Bank, HDFC Bank, SBI who are also the PSP banks of the major two TPAPs, namely PhonePe and Google Pay, and also by Paytm Payments Bank. Thus, the UPI transaction-related mobile number, frequency, amount, etc, information about other banks' account holders' who are using these two TPAPs' apps becomes available to these PSP banks of the two TPAPs. There may be an inherent cost to this data getting shared for the PSBs which remain unaccounted for. The shared data may help the PSP banks of these two TPAP apps to target UPI users for credit purposes.

In addition to the above, PSBs, where maximum account holders have their bank accounts, may be incurring additional expenditure on account of processing fees to the TPAPs and their PSP banks. PSBs having their own UPI app can very well save this additional cost of processing fees by onboarding their own customers on their app, providing their own apps' QR code to more and more payment outlets, and encouraging them to use their own app for accepting UPI payments. The technical decline on their apps needs to be within the market limit for better customer experience. Further, onboarding more and more customers on their own UPI app and encouraging the customers to do UPI transactions on the same app will also reduce the PSBs' operational costs on account of cash withdrawals and deposits to a great extent.

In Conclusion

As can be seen from the above analysis, there is a potential for retail credit growth for the PSBs across the country and specifically in the areas having new bank account holders through financial inclusion steps of the government. To tap these opportunities, the different verticals of PSBs like financial institution, digital payment acquirement, and credit (including agriculture, micro, small and medium enterprises [MSMEs], SHG, retail, housing, etc) need to work in close coordination for the utilisation of digital payment data and business correspondents model for regulated activities like lead generation, regular follow up, etc, in the credit business.

PSBs need to popularise their own UPI app and QR codes amongst the entities where the account holders make payments for purchases of goods and services like physical and online traders, utility service providers like domestic gas, electricity, telephone, internet, entertainment services, etc, local government bodies accepting various taxes, educational institutions, hospitals, religious bodies, transport service providers in organised and unorganised sectors, etc. This needs to be done in a mission mode by providing a durable static UPI QR code having audio facilities.

PSBs may adopt this as their board-approved plan for small credit business growth and may provide targets to their own branches to onboard a targeted number of current account and savings account holders who are receiving payments for selling different goods and services, on their own UPI app QR code. Software may be updated to provide MSMEs data-driven value-added services like basic monthly accounts on UPI payments received, etc. This may have snowball effect in the credit growth in future with potential linkages with manufacturers of products and retail traders.

The branch managers and concerned staff may be trained to understand the importance of the exercise in terms of getting input for growth in the retail credit business. The data so generated may be utilised by the banks for credit business along with meticulously planned call centre service to approach potential loanees and engaging trained, supervised business correspondents for follow-up, routine collection, etc, in the credit business.

PSBs may aggressively become PSP banks of TPAPs to get more credit leads. A sufficient number of trained business correspondents may be actively engaged in RBI-approved credit business-related activities for better customer–bank relations.

REFERENCES

Ministry of Finance, Department of Financial Services (2023): pmjdy.gov.in.

NPCI (2022): UPI, https://www.npci.org.in/what-we-do/upi/live-members, https://www.npci.org.in/what-we-do/upi/ppi-apps, https://www.npci.org.in/what-we-do/upi/3rd-party-apps.

— (2023a): "NPCI: UPI Product Statistics," https://www.npci.org.in/what-we-do/upi/product-statistics.

— (2023b): "UPI Apps, UPI Ecosystem Statistics," March, https://www.npci.org.in/what-we-do/upi/upi-ecosystem-statistics.

RBI (2023a): Quarterly Basic Statistical Returns of Scheduled Commercial Banks, March Quarterly Basic Statistics Return (BSR)-1: Outstanding Credit of Scheduled Commercial Banks (Table 3.7), Reserve Bank of India, https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=55865.

— (2023b): Payment System Indicators, March 2023, Bank-wise ATM/POS/Card Statistics, Reserve Bank of India, https://www.rbi.org.in/Scripts/ATMView.aspx?atmid=145.