

Digital Technologies for Financial Inclusion in the Banking Sector

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ABSTRACT:-Financial inclusion is one of the most complex aspects in the context of inclusive growth and development. The economic development of any country depends on the accessibility of affordable financial services. Inadequate access to banking services is a problem facing a significant population across India. The banking sector has made concerted efforts to promote financial inclusion to reach the large section of the hitherto financially excluded Indian population. The Effective use of Digital Technologies in banking sector offers a range of solutions to these problems. One of the most crucial steps taken by the government of India is JAM- Jan Dhan, Aadhar and mobile. This study examines the contributions of digital technologies underlying the JAM trinity in financial inclusion. The study shows that JAM as a social revolution, have made increases in the penetration of banking services.

Keywords: Financial Inclusion, Digital technology, JAM- Jan Dhan, Aadhar and mobile.

1. INTRODUCTION

Financial inclusion is considered an important for building a strong foundation of a country's financial infrastructure, which will in turn facilitates sustainable growth and development (Subbarao, 2009). Banking services and digital technologies are the main pillars for successful implementation of financial inclusion in the country. The technological advancements need for extending banking services to the unbanked population and the available technology, along with the impetus by the government in ensuring banking system to deploy cost effective technology to transform the financial ecosystem in India (Singh, 2017). Digital inclusion is the groundwork for financial inclusion. Unbanked economies have tapped the potential of digital technology, particularly in the internet space, to measure the impact of technology-driven inclusion.

Different countries have different approaches for financial inclusion based on various parameters. As a means of the formal financial system, India has adopted a bank-led model for financial inclusion to introduce a range of products related to savings, payments, and credit together (Chakrabarty, 2012). The economic and digital empowerment of its citizens has been a key underlying theme of the government policies. The Effective use of Digital

Technologies in banking sector offers a range of solutions to these problems. One of the most crucial steps taken by the government of India is JAM- Jan Dhan, Aadhar and mobile. JAM trinity, an acronym for **the Jan DhanYojana** (financial inclusion program), **Aadhaar** (biometric identification for residents) and **Mobile** number to ensure less destructive and targeted delivery of services to the intended beneficiaries. The vision of this initiative focusses on the active penetration of the banking services both by public and private participants for enabling a successful transition to a financially inclusive economy.

2. REVIEW OF LITERATURE

C Rangarajan (2008) concluded his committee report highlighted the need to modify the credit and financial services delivery system to achieve greater inclusion. He further recommended that despite the fact banks and other financial institutions can also take some efforts on their own to improve the absorptive capacity of the clients, it is equally important for Government at various levels to initiate movements to enhance the earnings capacity of the interior sections of the society. The two together can bring about the anticipated change of greater inclusion quickly. **Sharma & kukreja** (2013) in their study focused on the significance offinancial

inclusion in firming up the India's spot in relation to other countries economy. Using state-level data, **Ghosh** (2016) documents sturdy complementarities between mobile telephony and financial inclusion, the magnitude of which is ominously higher in case of financial use as compared to access. **Koku** (2015) exposed that financial inclusion does have a multiplier effect on the economy as a whole, conquered via greater savings collective from the colossal segment of the population at the bottom of the pyramid. Deeper engagement of unbanked population through the prescribed financial system could lead to the improvement of their financial circumstances and living standards, allowing them to create financial assets, generate income and form resilience to meet macroeconomic and livelihood shocks **Chibba** (2009).

Chakrabarty (2012) specified that the utility of using UID (Aadhaar) is very much effective for the users in different ranges. Linking the UID number to a universal, available, and reasonable micropayments model can convert the access the poor have to banking services in the country. This conversion, ultimately, aims at empowering each individual in India. **Gupta** (2011) noted that the Indian banking sector today is contending with the issue of financial inclusion. The operating cost of providing financial inclusion and charges imposed on the users is important dimensions of the progression of financial inclusion. Technology can play a significant role in reducing operating cost of providing banking services, particularly in the rural and unbanked areas. There are technologies that could drive the evolution in financial inclusion. **Kolodinsky & Hilgert**, M. A. (2004) Revealed that the banking industry with some vision into factors that will likely affect consumer acceptance of e-banking technology and highlights areas of distinct consideration in the implementation of these new technologies. Relative benefit and compatibility jump to the top of the list of characteristics of e-banking technologies to high spot for consumers. The Government has also noted that reaching out successfully to the 'last mile' by exploiting the JAM trinity is the major challenge confronting the widespread use of JAM (**Government of India**, 2016).

DIGITAL TECHNOLOGIES UNDER JAM TRINITY: A TOOL FOR FINANCIAL INCLUSION IN BANKING SECTOR

The JAM trinity is the association of three digital technologies Jan Dhan, Aadhaar and Mobile Number to drive financial inclusion by increasing the penetration of banking services. The JAM Trinity is a hallmark policy intervention in the last man delivery of benefits, eliminating multiple mid-channel layers and empower citizens using technology. JAM trinity – Jan Dhan Yojana, Aadhaar and Mobile Numbers is a potential game changer for financial inclusion, especially in strengthening the India's position in relation to the other countries economy. While the evidence on the ground is quite impressive and suggests that PMJDY accounts, Aadhaar cards and mobile phones are mutually reinforcing, with each tending to complement the other. The contributions of digital technologies underlying the JAM trinity which led outreach of banks to the financial inclusion, are as under.

PRADHAN MANTRI JAN DHAN YOJANA

Pradhan Mantri Jan Dhan Yojana (PMJDY) is a national mission for financial inclusion in India, which ensure an integrated approach to access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner. The bank also offers RuPay debit cards to the beneficiaries which has an inbuilt accident insurance cover of INR1,00,000. The Direct Benefit Transfer (DBT) will remove multiple layers of intermediaries for a smooth flow of benefits with the aim of inclusive growth of the economy. The first phase of PMJDY, which was from 15 August 2014 to 14 August 2015, improved the financial inclusion in India significantly. Currently, the mission is in its second phase with a healthy progress report.

After the success of completion of the first phase of PMJDY, which was from 15 August to 14 August 2015, improved the financial inclusion in the country significantly. Presently, the scheme is in its second phase with a healthy progress report. As per reports, Banks have opened 33.9 Crore accounts under PMJDY and have issued 26.99 Crore RuPay Cards.

Pradhan Mantri Jan - Dhan Yojana
(Beneficiaries as on 16/01/2019)

S · N o		No of Beneficiaries (In Crores)			No Of Rupay Debit Cards (In Crore s)	Deposit s in Account s (In Crores)
		Rural	Urba n	Tot al		
1	Public Sector Banks	14.71	12.51	27. 22	22.30	70227.3 7
2	Region al Rural Banks	4.73	0.89	5.6 2	3.71	15267.5 7
3	Private Banks	0.62	0.44	1.0 6	0.98	2439.63

Source: PradhanMantri Jan DhanYojana website as on 16/01/2019

Achievements under Pradhan Mantri Jan - DhanYojana (PMJDY) for financial inclusion has made remarkable penetration in terms of access of banking service and insurance products. Under PMJDY scheme approximately 33.9 crore accounts have been opened with more than hundred crore of deposit balance- 53 percentage women Jan Dhan account holders and 59 percentage Jan Dhan accounts are in rural and semi urban areas. The progress reports show that More than 83 percentage operative Jan Dhan accounts (except the states of Assam, Meghalaya, J&K) are Aadhaar enabled, with issuance coverage of approximately 24.4 croreRuPay cards to these account holders. The evidence shows that almost 13.16 crore Aadhaar Enabled Payment System (AEPS) transactions have taken place and approximately 13.98 crore subscribers under PradhanMantriSurakshaBimaYojana (PMSBY) with 19,436 claims, involving an amount of Rs. 388.72 crore settled so far.

AADHAAR

Citizen identity is an important characteristic of effective governance. The Unique Identification Authority of India (UIDAI) is a program started by the Government of India with an objective to provide the Unique Identification number called Aadhaar for each and every citizen. Aadhaar is further linked to individual bank accounts to the aid uniqueidentification of the beneficiaries and help the government to implement and deliver the benefits of

both, the existing and newwelfare schemes with greater ease.

The ADHAAR Enabled Payment System offers financial services like cash deposits, cash withdrawal, balance enquiry, remittance of fund and Aadhaar to Aadhaar fund remittance that are inter- bank or intra- bank in nature at Micro ATMs maintained business correspondents. AEPS- empowers the bank customers use Aadhaar to access their Aadhaar-enabled bank account to perform banking transactions and facilitate disbursements of government funds of any central or state government bodies, using AADHAAR and authentication thereof as supported by UIDAI. AADHAAR Enabled Payment System (AEPS) provides online, interoperable financial inclusion transaction at Micro ATM through business correspondents in an interoperable way using the AADHAAR authentication. Aadhaar being a payment platform, the government planning to use AEPS to generate demand for small and medium-term loans as parts of its financial inclusion outreach.

MOBILE

Mobile phones are likely to lead digital growth in India with over 920 million subscribers and tele density of over 80 percent, mobile money offers an extensive way to deliver DBT benefits to a larger population. With the recent introduction of the Unified Payments Interface (UPI), revolutionized the way in which retail payments are made in the country. The mechanism permits a one-click, two-factor authentication on mobile phones across bank accounts, based on the Immediate Payment Service (IMPS) platform. Unlike the IMPS, which needs details such as a Mobile Money Identifier - a seven-digit number issued by a bank - mobile and account numbers to complete a transaction, UPI will necessitate only one identification and does not require information regarding the bank account details of the parties.

Technological advancements that use mobile penetration and payments banks to their benefit are likely to further financial inclusion. The comprehensive reach of mobile phones in the country offers an innovative low-cost channel to extend the reach of banking products and services. Mobile-based pre-paid instruments (E-wallets) is the powerful adoption of cashless transactions- remittances and other banking services for complete and self-sustainable inclusion. All these movements, that reflect the shift towards financial inclusion by reaching the unreached in the banking sector.

IMPLICATIONS OF THE STUDY AND CONCLUSION

This paper provides information on the role digital technology for financial inclusion in the banking sector in India. This study would help the policy makers to gain insight into identifying the contribution of digital technology underlying the JAM trinity- JhanDhan, Aadhaar and Mobile for financial inclusion. This study also provides insight about the need for innovations that can help the banking sector to adopt a proper blend of JAM trinity through proper use of technologies.

Financial inclusion has been the initiative of the government to extend the universal access to banking services with at least one basic bank account for every household. Technology act as an enabler in the implementation of the financial inclusion process and various services being provided by various agencies is aimed at extending banking services to the unbanked populations. The banks and financial establishments need to invest in technology to enable delivery of financial products and services in a transparent, righteous and equitable manner, for inclusive growth of the economy.

REFERENCES

- [1] Chakrabarty, N. K. (2012). UID (Aadhaar)- Its effect on financial inclusion. *The Management Accountant*, 47(1), pp:35-37.
- [2] Ghosh, S. (2016). Does mobile telephony spur growth? Evidence from Indian states. *Telecommunications Policy*, 40(10-11), pp:1020-1031.
- [3] Ghosh, S. (2017). Financial inclusion, biometric identification and mobile: unlocking the JAM trinity. *International Journal of Development Issues*, 16(2), 190-213.
- [4] Government of India (2016). *Economic Survey 2015-16*. Government of India: New Delhi.
- [5] Gupta, S. K. (2011). Financial Inclusion-IT as enabler. *Reserve Bank of India Occasional Papers*, 32(2), pp:129-147.
- [6] Kolodinsky, J. M., Hogarth, J. M., & Hilgert, M. A. (2004). The adoption of electronic banking technologies by US

consumers. *International Journal of Bank Marketing*, 22(4), 238-259.

- [7] Kumar Bijoy (2018), "Financial Inclusion in India and PMJDY: A Critical Review" "ISSN 2300-5963 ACSIS, Vol. 14. Pp39-46.
- [8] Sakariya, S. (2013). Evaluation of financial inclusion strategy components: Reflections from India. *Journal of International Management Studies*, 13(1).
- [9] Sharma Anupama, Kukreja Sumita, (2013). An Analytical Study: Relevance of Financial Inclusion for Developing Nations. *Research Invent: International Journal of Engineering and Science*, pp.15-20.
- [10] Singh, A. (2017). Role of technology in Financial Inclusion. *International Journal of Business and General Management (IJBGM)*, 5(5), 2319-2275, pp 1-6.
- [11] Chattopadhyay, S. K. (2011). *Financial Inclusion in India: A case-study of West Bengal. RBI Working Paper Series - WPS (DEPR): 8/2011*
- [12] Subbarao, D. (2009). Financial Inclusion - Challenges and Opportunities. *Bank for International Settlements, BIS*, 1-8.