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Digital doorstep banking: Female banking agents lead digital financial inclusion through the pandemic and beyond

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ADBI Working Paper Series

**DIGITAL DOORSTEP BANKING:
FEMALE BANKING AGENTS LEAD
DIGITAL FINANCIAL INCLUSION
THROUGH THE PANDEMIC AND BEYOND**

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Abstract

This paper discusses the business correspondent (BC)–agent banking model in India against the backdrop of community-based rural livelihood programs, its relevance in facilitating financial inclusion in underserved rural geographies, and its potential to address the gender gap in financial inclusion. In recent years, India has made significant progress toward financial inclusion with the support of technological and policy innovations, but there remains a gap in access to basic banking services for women, particularly rural women. The launch of the Pradhan Mantri Jan Dhan Yojana (PMJDY) in 2014 resulted in the opening of 420 million bank accounts, of which 53.26% belonged to women, though surveys have suggested that almost 55% of women remained registered inactive users. The World Bank-supported rural livelihood programs in India have been instrumental in the institutional strengthening of 6.9 million women’s self-help groups (SHGs) and have facilitated their access to savings and credit to the tune of US\$3.7 billion (INR260 billion) and US\$56 billion (INR3600 billion), respectively, while creating an ecosystem for the deployment of female members as BC agents across rural India. The paper uses a gender and technology lens to explore the role of female banking agents in facilitating access to social security transfers using fingerprint-based biometric authentication solutions during the nationwide pandemic-related lockdown in India between March 2020 and July 2020. Using data from multiple small samples of banking agents, this paper describes the on-the-ground challenges observed in the provision of basic banking services to access cash transfers during the pandemic. Extrapolating from this experience, the paper makes a case for strengthening the agent banking ecosystem, improving the delivery architecture for direct benefit transfers (DBTs), encouraging competition between banking service providers, and providing demand-based financial products and services to expand gender-focused financial inclusion further.

Keywords: Financial inclusion, gender, agent banking, India

JEL classification: G21, G23, G28, G29

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1. INTRODUCTION

1.1 State of Financial Inclusion in India

Research has recognized financial inclusion as a key driver of welfare and poverty reduction. Access to safe, easy, affordable credit, savings, insurance, and other financial services is critical to mitigate risk, provide a buffer against economic shocks, provide social security, create opportunities for economic and social inclusion, and accelerate growth. Further, extensive documentation has shown that empowering women via financial inclusion programs leads to robust improvements in family health, children's education, and household savings (Duvendack and Mader 2019). Despite the broad international consensus regarding the importance of access to financial services as a crucial poverty alleviation tool, rural Indian women remain a critically underserved demographic, especially if we look beyond group-based micro-credit delivery models.

While the move toward digital financial services in recent years has improved access to basic financial services for households through the use of mobile money and digital wallets, payment cards, and other financial technology applications, there remains a gap in access to basic banking services, especially in rural India. According to the World Bank's 2019 estimates, 52,489 rural bank branches, just a third of the 150,000 bank branches across the country, serve 66% of rural Indians,¹ spread across more than 650,000 villages (Reserve Bank of India, RBI).² Spatial analysis of RBI bank branch data and population census 2011 data has shown that nearly 596,000 villages remained unbanked (without a bank branch) as of October 2019, with only 45,675 unique villages having a bank branch. However, there has been a drastic improvement in rural bank access in terms of the average distance of unbanked villages to a bank branch in the nearest village or town, which declined from 43.5 km in 1951 to 4.3 km in 2019 (Garg and Gupta 2020).

India's financial inclusion score, according to the CRISIL Inclusix index³, is 58.0 on a scale from 1 to 100, and only 14 districts out of 666 score a full 100. The report indicated significant regional variation in the extent of bank penetration between states, as Table 1 shows.

Recognizing this lacuna, the Reserve Bank of India has endeavored to expand the organized financial system (RBI 2006) to serve unbanked/under-banked areas, encourage the establishment of physical rural bank branches, open no-frills basic savings bank deposit accounts (BSBDA accounts), and provide coverage via banking agents, known as business correspondents (BCs). In this context, the business correspondent (BC) or banking agent⁴ network model has proven to be a low-cost, innovative solution to address financial inclusion in rural India.

¹ "Rural Population. World Bank Staff Estimates Based on the United Nations Population Division's World Urbanization Prospects: 2018 Revision." <https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS>.

² Database on Indian Economy. RBI's Data Warehouse. <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications#!17>.

³ The CRISIL Inclusix score relies on four tangible, measurable dimensions: bank penetration, credit penetration, deposit penetration, and insurance penetration. For more information: <https://www.crisil.com/content/dam/crisil/crisil-foundation/generic-pdf/crisil-inclusix-financial-inclusion-surges-driven-by-Jan-Dhan-yojana.pdf>.

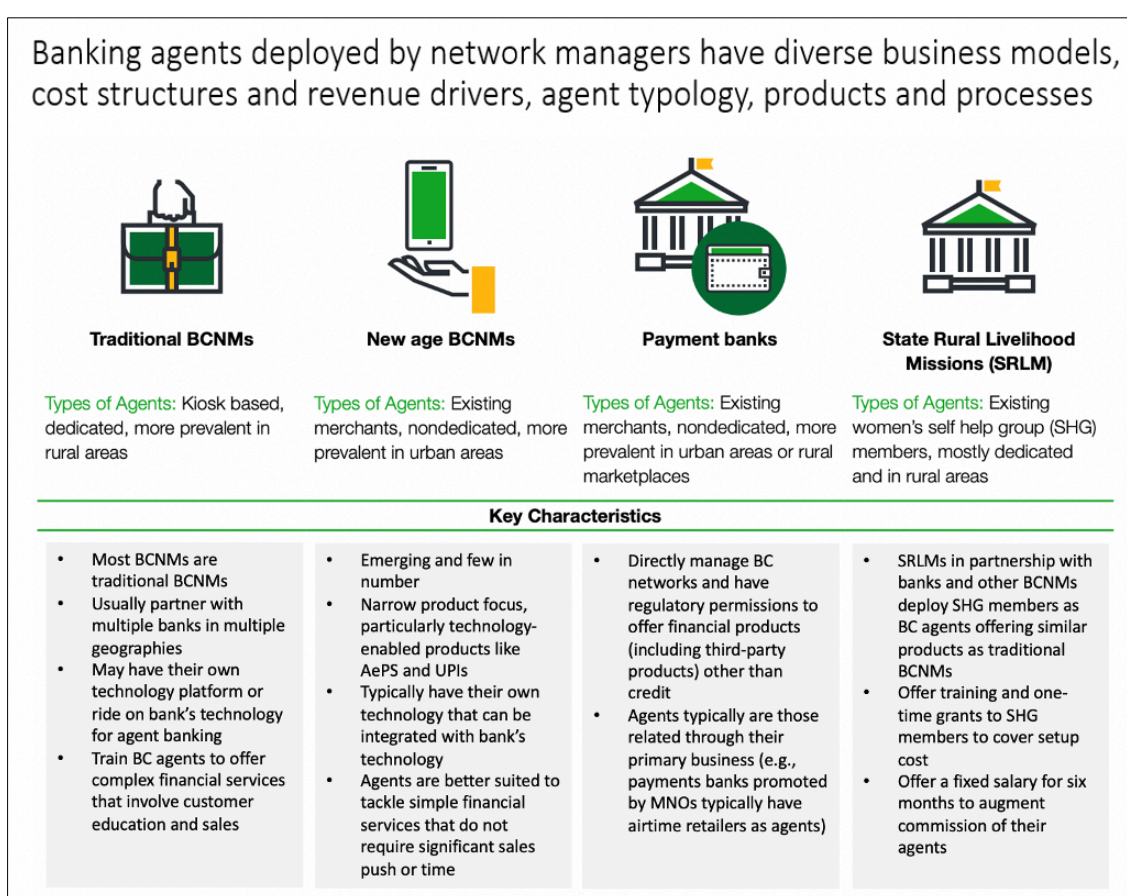
⁴ In subsequent sections, we use business correspondent (BC) and banking agent interchangeably.

Table 1: Financial Inclusion across Indian States, CRISIL Inclusix

State	CRISIL Inclusix Scores			CRISIL Inclusix Ranks		
	2016	2015	2014	2016	2015	2014
Kerala	90.9	92.1	90.3	1	2	2
Andhra Pradesh	78.4	80.3	78.5	7	8	8
Odisha	63	60.6	54.4	16	17	22
Maharashtra	62.7	58.9	54.6	17	21	21
Jharkhand	48.2	44.2	40.3	26	28	30
Bihar	38.5	33.2	30.6	32	35	35
All India	58	56.2	53.2			

Source: CRISIL Inclusix.

Figure 1: Different Operational Models of Business Correspondent-Based Banking



Source: CGAP and MicroSave Consulting (2020).

The RBI propounded the BC model in 2006, following the recommendations of the Khan Committee report (RBI 2005)⁵, allowing banks to appoint third-party individual agents, either directly or through aggregators (called business correspondent network managers—BCNMs) to provide banking services on their behalf. Thereafter, in December 2013, the Nachiket Mor Committee advocated a detailed set of design principles for building the requisite architecture to move toward universal financial

⁵ Subsequently recommendations to improve operations were made by the Committee on Financial Inclusion, which C. Rangarajan chaired (RBI 2008) as well as by the Mor Committee (RBI 2014).

inclusion by 2016 (RBI 2013). The major recommendations included the provision of universal electronic bank accounts to all adults, universal access to payment and deposit services at reasonable charges, sufficient access to formal credit, universal access to deposit and investment products at reasonable charges, universal access to risk and insurance management products at reasonable charges, and, lastly, the right to suitability.

1.2 Leveraging Digital Technology to Expand BC Services across Rural India

The RBI Financial Inclusion Plan (FIP) progress report in March 2020 showed that 94.4% of the 8,687 villages across the country with a population of more than 5,000 have access to banking services (RBI 2020). Further, as of 30 September 2019, 99.2% of the 491,490 villages with a population of fewer than 2,000 have banking service coverage, mostly through the BC channel. This progress is remarkable when compared with the figures from the previous year, when only 75.5% of villages with a population of more than 5000 and 97.8% of villages with a population of fewer than 2000 had coverage.

Table 2: RBI Financial Inclusion Plan: Progress Report

Particulars	March 2010	March 2019	March 2020*	December 2020*
Banking Outlets in Villages—Branches	33,378	52,489	54,561	55,073
Banking Outlets in Villages>2000—BCs	8,390	130,687	149,106	851,272
Banking Outlets in Villages<2000—BCs	25,784	410,442	392,069	385,537
Total Banking Outlets in Villages—BCs	34,174	541,129	541,175	1,236,809
Banking Outlets in Villages—Other Modes	142	3,537	3,481	3,440
Banking Outlets in Villages—Total	67,694	597,155	597,217	1,295,322
Basic Savings Bank Deposit Accounts (BSBDAs)—Through BCs (No. in Lac)	130	3,195	3,388	3,601
	(13 million)	(319.5 million)	(338.8 million)	(360.1 million)
Basic Savings Bank Deposit Accounts (BSBDAs)—Through BCs (Amt in Crore)	1,100	53,195	72,581	77,163
	(157.1 million US\$ ^a)	(7,599.2 million US\$)	(10,368.7 million US\$)	(11,023.3 million US\$)

* Provisional numbers.

^a US\$1 = INR70.

Source: RBI Annual Reports: <https://m.rbi.org.in/Scripts/AnnualReportPublications.aspx?Id=1288>.

While coverage has certainly improved, it is notable that the report deemed a village to be “covered” if it is mapped to at least one banking outlet (including a BC agent) providing basic banking services. In several cases, the BC agent services a cluster of villages, known as a sub-service area (SSA), and is therefore available to each village by rotation on a part-time basis, often at irregular intervals.

The RBI 2020 FIP revealed that, while there was a 14% increase in the BC agent-serviced bank outlets (BC outlets) in villages with a population of fewer than 2000 between March 2019 and March 2020, there was a 4% decrease in BC outlets in villages with populations greater than 2000. Notably, while the number of BSBDAs has grown by 6%, the corresponding value of transactions that customers have performed via BCs in these accounts has grown by an impressive 36%, indicating existing customers’ progressively higher usage of the BC channel. We also noted a five-fold increase in the number of BC outlets in villages with a population of fewer than 2000 between March 2020 and December 2020, which the RBI attributed to the reclassification of a particular bank’s business activity (RBI 2021).

Although the RBI does not provide data on the exact number of deployed BC agents, according to the Pradhan Mantri Jan Dhan Yojana (PMJDY) website of the Department of Financial Services (DFS, Ministry of Finance, Government of India), 126,000 BC agents (also known as bank *mitras*) are operating across the country, divided into SSAs. The BC registry, which the Indian Bankers Association⁶ maintains, pegs this number at about 160,000, while other reports and estimates, such as the one that the Business Correspondent Federation of India (BCFI)⁷ and its members provide, indicate that this number could be anywhere between 1 and 2 million, including urban agents. Notably, a gender breakdown of BCs operating across the country is not available publicly. The disparate reporting of BC agent numbers across agencies highlights the need for a more comprehensive centralized registry and systematic tracking of banking agents.

Financial inclusion in India received a fillip with the launch of the Pradhan Mantri Jan Dhan Yojana (PMJDY), which led to the opening of 420 million bank accounts, on 10 March 2021. This was possible through the linking of no-frills or basic “Jan Dhan” bank accounts with unique biometric IDs and mobile numbers or the JAM trinity (Jan Dhan–Aadhaar–Mobile) with the backing of the India Stack platform.⁸ The banking agent platform played a critical role in the opening of basic bank accounts through the use of the Aadhaar-based e-KYC (paperless Know Your Customer) service, which leverages the same agent banking channel to link the new bank account to the customer’s unique Aadhaar and associated demographic and biometric data at the backend. This unique innovation of biometric-based e-KYC resulted in the opening of more bank accounts using the BC agent platform than the traditional bank branch channel (ACCESS 2021).

A bank account for every household became a reality in rural India, such that 65.83% (276.5 million) of the total bank accounts that customers opened under the PMJDY belonged to rural/semi-urban centers and 53.26% of them belonged to women (232.7 million).⁹ Further, while stand-alone state-wise and bank-wise data are available on the PMJDY website, a state-wise breakdown of data with a bank-wise and gender-wise ratio is not available in the public domain.

The JAM trinity boosted the quantity of direct benefit transfers (DBTs) to beneficiary bank accounts by reducing the leakage in the system. Government estimates suggested that the institutionalization of DBTs for social security schemes and governance reforms, including the removal of duplicate or fake beneficiaries and fraudulent transactions, has resulted in cumulative savings of INR1,78,396.65 crore (US\$25,485.2 million) across all schemes as of March 2020.¹⁰

1.2.1 The Aadhaar Enabled Payment System (AePS): Biometric Authentication-Based Interoperable Payment System for Banking Transactions

The National Payments Corporation of India (NPCI) introduced the Aadhaar Enabled Payment System (AePS) in 2016 to facilitate digital transactions linked to the JAM trinity. The AePS allows customers of Aadhaar-linked bank accounts to conduct

⁶ IBA Registry. <https://www.iba.org.in/iba/home/HomeAction.do?doBCPortal=yes>.

⁷ BCFI. <https://bcfi.org.in/>.

⁸ IndiaStack. <https://www.indiastack.org/about/>.

⁹ As of 10 March 2021. <https://pmjdy.gov.in/account>.

¹⁰ Gol. “Direct Benefit Transfer.” <https://dbtbharat.gov.in/estimatedgain>.

financial transactions—namely, fund transfers, payments, cash deposits, withdrawals, and bank balance enquiries—through Aadhaar-based biometric authentication.

Most often, AePS transactions take place via a BC using a micro-ATM device, which could be a smartphone/tablet/laptop/desktop attached to a biometric fingerprint scanner. This BC-assisted AePS-based transaction service, which allows cash-in–cash-out and fund transfers, is particularly useful for rural cash-driven geographies where customers lack the technological know-how and smartphones necessary to conduct digital transactions independently and the physical bank branch network is hard to access.

Harnessing digital technology has helped to resolve an age-old malaise whereby a single, simple hand-held device is able to allow transactions to/from and between multiple banks. The AePS platform supports interoperable, inter-bank or “OFF-US” transactions, for which the customer account may be at a different bank (issuing bank) from the BC’s banking partner (acquiring bank). By allowing OFF-US transactions and eliminating the dependence on a particular bank’s agent, this seemingly straightforward system has been a game changer in promoting financial inclusion.

In these cases, the issuing bank must pay an interchange fee to the acquiring bank for servicing its customers. “ON-US” transactions, on the other hand, are those for which both the issuing and the acquirer bank are the same (i.e., the agent and the customer belong to the same bank). This “interchange fee”-based revenue model provides an initial business case for banks to sustain investments in establishing and managing a distribution network of BCs. Several private sector banks, such as ICICI Bank, IDFC First Bank, FINO Payment Bank, Yes Bank, RBL, and so on, have collectively deployed thousands of BC agents in rural un(der)-banked villages to generate revenue through the interchange fee and allied incomes.

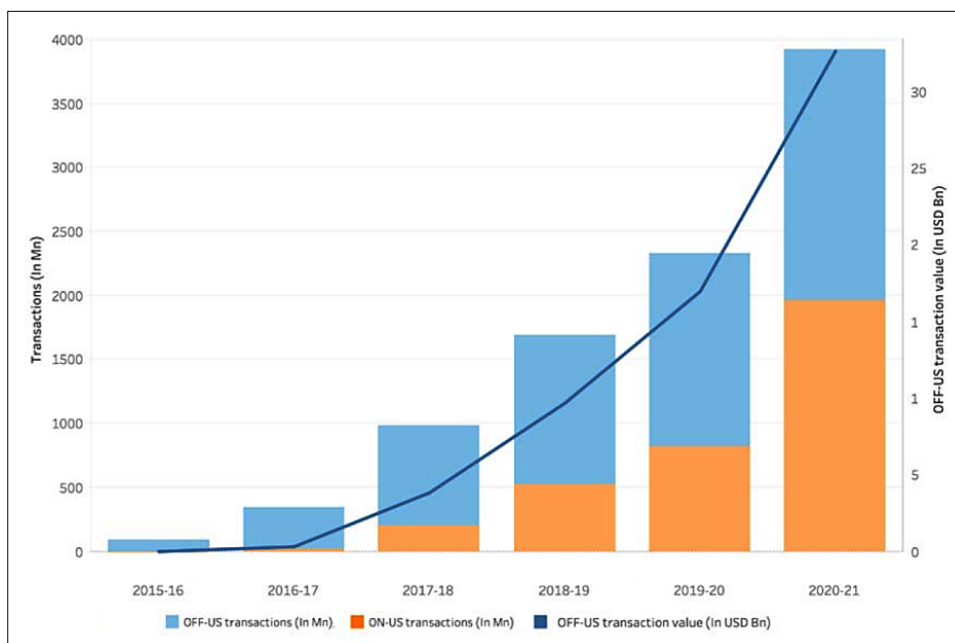
The AePS platform is the world’s largest payment integrated biometric system and has achieved astounding year-on-year growth since its launch in 2016 owing to exponential growth in OFF-US AePS transactions in the recent years despite the discontinuation of interbank AePS-based cash deposit facilities in 2018–19 (Figure 2). During the FY2020–21, 1946.3 million inter-bank transactions,¹¹ with a value of US\$32.29 billion/INR2,260.5 billion, took place over the AePS Micro-ATM platform.

In comparison, public sector banks (PSU banks) have been slower to capitalize on this business potential and have deployed fewer agents of their own beyond the mandated numbers under government-led initiatives. While the BC model has unlocked a revenue stream and increased banking points for the acquiring banks (mostly private sector) in un(der)-banked areas, it has resulted in a larger outflow of funds from issuer banks (mostly PSU banks) in the form of “interchange” fees plus “switching costs” paid to the National Payment Corporation of India (NPCI).¹² This has adversely affected some of the larger PSU banks that were already struggling to scale up their business operations due to their fragile financial health.

¹¹ Between April 2020 and March 2021, these included non-financial transactions like balance enquiries, mini statements, and so on.

¹² “NPCI Procedural Guidelines.” https://www.npci.org.in/PDF/AePS/Procedural_Guidelines-AePS%20_2.0.pdf.

Figure 2: Growth in the Value and Volume of AePS Transactions



Note: Rural/urban disaggregated data are not available for both regular BC transactions and AePS transactions.
 Source: NPCI, AePS product statistics.

Research has documented well the resistance from some PSU banks to allowing and encouraging rural OFF-US AePS transactions due to their high cost. Several news reports have also linked this to unfair practices on the part of BC agents, who often resort to “round-tripping” of transactions, which drives up the costs and outflows from PSU banks (Bhakta and Ray 2018). To combat this, PSU banks have also tried to impose limits on the number of OFF-US transactions that a customer and a BC agent can perform, a practice that has been a point of friction between PSU and private banks. The RBI and the DFS have reviewed this practice through the Indian Banks’ Association (IBA) and the National Payments Corporation of India (NPCI) (Inventiva 2018). Consequently, the NPCI has released an advisory statement defining the standardized limits for AePS transactions for all member banks to follow (NPCI 2020).

Despite the steady growth in both the number and the volume of AePS transactions, the challenge of transaction failures remains significant. Transactions on the AePS system can fail for three main reasons—biometric mismatches, technical reasons (internet connectivity and bank system issues), and other reasons (incorrect details entered, insufficient funds, etc.). Previously, official documents and academic studies have reported high transaction failure rates of the AePS system in the case of inter-bank transactions (Bhakta 2017; Balasubramanian et al. 2019). In 2017, the Economic Survey of India 2017, citing data from the NPCI on the AePS, found that transaction failures occurred more frequently for OFF-US transactions. The survey indicated that a possible difference in the failure rates could be that “larger banks are declining transactions originating from smaller remitting banks” and warned banks against untoward interference.

While it is possible to resolve transaction failures related to biometric mismatches, incorrect details, or insufficient funds through financial literacy training, technical and systemic issues require higher-level interventions. Overall, failures of inter-operable transactions are a cognizable obstacle in moving toward an economy that relies less on cash. AePS transaction failures are explored in detail in subsequent sections of this paper.

2. THE GENDER GAP IN BANKING SERVICES AND FINANCIAL INCLUSION

There has been a substantial increase in the number of female account holders following the success of the PMJDY. However, women continue to lag behind in the usage of banking services (Kohli 2018) (despite accounting for 53.26% of PMJDY accounts¹³). Several other studies have documented the gender-based disparity in the access to and use of financial services. The financial inclusion insights “Wave 5” report highlighted that, of the total increase in the number of active basic account users since 2015, only 9% were women and almost 55% women surveyed were registered inactive users (Financial Inclusion Insights 2018). The Global Findex report of 2017 (World Bank 2017) estimated that the gender gap in terms of inactive accounts was about 12%. Similarly, in terms of access to credit, bank loans to women comprised only 7%, compared with 30% for men (Chavan 2020). Ghosh and Vinod (2016) documented that households with a woman as the head of the family have 10% lower access to formal finance than households with a male head.

Further, for women in rural geographies, the barrier to accessing financial services increases substantially. The physical distance from bank branches causes time and cost trade-offs and prevents women from completing transactions along with other caregiving responsibilities and socio-cultural factors that limit mobility. Another hindrance is the lack of identification and other necessary documents to open bank accounts. Lastly, attitudes and mindsets within the community and summary treatment from bankers can preclude financial inclusion for women (Murata and Sioson 2018). Women are even more under-represented in business banking; their share in the business loan portfolio declines as the size of the business increases (Deléchat et al. 2018).

These traditional barriers arise even in new domains, where anecdotal evidence and the studies that MicroSave Consulting, GIZ, and NABARD conducted have indicated that socio-cultural barriers prevent women from transacting with male BC agents (Thakur et al. 2016) (Mehta and Lahiri 2015) and relying on digital financial technology. As a corollary, field experience has validated the assertion that the appointment of female banking agents is a firm step toward bridging the gender gap in financial inclusion. While no official gender-disaggregated data are available in the public domain in spite of having a BC registry, discussions with industry experts have indicated that female banking agents account for no more than 15% of agents in the country; sample surveys that indicated that female banking agents comprise only about 8–12% of the total number have corroborated this (Chatterjee, Khanna, and Srivastava 2018).

¹³ As of 10 March 2021. <https://pmjdy.gov.in/account>.

2.1 Experiences from Deploying Women as Banking Agents

2.1.1 NABARD–GIZ Pilot and NRLM Scaling Up: Female SHG Members as Banking Agents

NABARD and GIZ made the first structured attempt at deploying and mainstreaming women as banking agents in 2013–14 under the Rural Financial Institutions Program (RFIP).¹⁴ Part of this initiative involved a pilot of the Bank *Sakhi* (female banker friend) model—an approach that deployed female self-help group (SHG) members as banking agents. The pilot successfully demonstrated that female SHG members as BC agents effectively delivered basic banking services in their communities and encouraged women to engage in financial transactions. An assessment of the program in Uttar Pradesh and Madhya Pradesh (Mehta and Lahiri 2015) revealed that female customers in rural areas regarded female banking agents as more approachable. The report also highlighted that, with appropriate support and training, female banking agents performed as well as or even better than their male counterparts.

The Bihar Rural Livelihoods Promotion Society (JEEViKA), an autonomous body under the Department of Rural Development, Bihar, which has been instrumental in deploying female community members as banking agents, reported similar findings (Pinto et al. 2020). In February 2021, about 1,700 female banking agents with support from JEEViKA in Bihar completed approximately 440,900 financial transactions, with a total value of US\$24.5 million (INR1.72 billion). Female BCs were more inclusive in their business approach and encouraged a higher number of female customers to conduct transactions in addition to supporting low-value transactions (which generate lower commission).

Building on this experience, the Deendayal Antayodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM),¹⁵ under the financial inclusion fund of the World Bank-supported National Rural Livelihoods Project, modified and adopted the SHG-BC model to deploy it at scale across the country. The DAY-NRLM supports 6.9 million SHGs across the country through capacity-building initiatives, initial capitalization, and the establishment of credit linkages with the formal banking sector. These SHGs have a cumulative membership of 75.2 million women, who have successfully leveraged approximately US\$56 billion as loans from banks since 2013–14 (Kumar et al. 2020). However, to date, most of these loans have been in cash, which SHG office bearers have withdrawn at bank branches to distribute further to the members during group meetings.

To expand access to banking services, some female members of this extensive network of active rural women’s SHGs are undergoing training as Bank *Sakhis* to serve as BCs in rural communities. Under the Bank *Sakhi* program of the DAY-NRLM, State Rural Livelihoods Missions (SRLMs) help to identify and train women as BC agents for banks and their BCNM partners. They facilitate the training, examination, certification, and accreditation of female BCs following the established norms of the Indian Institute of Banking and Finance (IIBF)¹⁶ in partnership with Rural Self Employment Training Institutes (RSETIs).¹⁷ The DAY-NRLM finances this while also providing female BCs

¹⁴ A bilateral cooperation program with joint implementation of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the Government of the Federal Republic of Germany and the National Bank for Agriculture and Rural Development (NABARD) on behalf of the Government of India. https://www.giz.de/en/downloads_els/sakhimodel.pdf.

¹⁵ GoI. “Deendayal Antodya Yojana.” <https://aajeevika.gov.in/>.

¹⁶ IIBF. http://www.iibf.org.in/iib_newannouncementFromJuly17.asp?newsno=09.

¹⁷ RSETIs: Rural Self Employment Training Institutes.

with financial assistance in the form of soft loans and grants to purchase hardware and cover other establishment costs. The program also offers basic honorariums ranging between US\$28.57 (INR2,000) and US\$57.14 (INR4,000) for the first 6 to 12 months on the job, assuming that these female BCs will earn sufficient commission thereafter. Banks and BCNMs therefore need to liaise with the SRLMs to access a trained cadre of agents, whom they may co-opt and who provide ongoing supervision and technical support services to begin field operations. In the past 18 months, the IIBF has trained and certified over 35,000 women as BC agents, which is a remarkable feat by industry standards.

As a result of this collaboration, 21,790 female SHG members are working as banking agents with several public and private sector banks in over 20 states. In January 2021, close to 20,000 female BCs carried out approximately 2.4 million transactions worth INR10.08 billion (US\$144 million). Through its Financial Inclusion Fund, NABARD has been providing banks with additional financial assistance since January 2016 to support¹⁸ and boost the impacts of this intervention.

2.1.2 Female Business Correspondents Providing Banking Services for Women

Emerging data indicate that the concerted effort to deploy women as banking agents has helped to bridge the rural gender divide in financial inclusion as female banking agents are able to serve a higher number of female customers in their area of operations, overcoming some of the social and cultural barriers that prevent women from performing financial transactions. A study of female BCs that the Centre for Digital Financial Inclusion (CDFI) conducted found that more than half of the customers of female agents were women (CDFI 2019). These agents also provided banking services to the elderly and differently abled members within their communities.

Sample data from a partner PSU bank in Bihar show that female agents, with the support of JEEViKA, performed better than their male counterparts (*within the same state and bank*) in terms of conducting a higher number of transactions and earning higher commission (Table 3). While there is a need for more data on the operations and reach of male banking agents to make a suitable comparison, the initial insights from this small sample suggest that, with the right support, female agents can perform on a par with, or better than, their male counterparts.

Table 3: Comparison of the Performance of JEEViKA Female Agents vs Non-JEEViKA Male Agents, September 2018–August 2020

Parameters	JEEViKA Female Agents	Non-JEEViKA Male Agents
Total number of transacted BCs (sum)	4,497	7,593
Average number of agents	214	362
Number of total transactions (cumulative)	2.25 million	3.46 million
Amount of total transactions (in INR)	8,524,923,097 (US\$121.8 million)	12,428,568,088 (US\$177.6 million)
Average ticket size (total transactions) (in INR)	3,792 (US\$54.2)	3,597 (US\$51.4)
Number of accounts opened	75,198	140,913
Total commission earned (in INR)	33,907,369 (US\$484,391)	53,192,239 (US\$759,889)
Average number of transactions (total) per BC	500	455
Average amount of transactions (total) per BC (in INR)	1,895,691 (US\$27,081)	1,636,846 (US\$23,384)
Average number of accounts opened (per BC)	17	19
Average commission (in INR) (per BC)	7,540 (US\$108)	7,005 (US\$100)

Source: Authors, JEEViKA data.

¹⁸ NABARD Circulars. <https://www.nabard.org/circulars.aspx?cid=504&id=24>.

To understand the nature of banking operations and the customer profiles of female banking agents, a pilot of a digital application to track transactions took place between December 2019 and December 2020 in Bihar. An average of 18 BC agents participated on a monthly basis and shared summaries of their daily transaction data during this period (see Table 4 for a summary). The data reveal that 71% of the total transactions that these BCs performed were for female customers.

Table 4: Summary of Daily Transactions that the JEEViKA Application Recorded (December 2019 to December 2020)

	Male		Female	
	No.	Volume (INR)	No.	Volume (INR)
A/c opening		123		627
Deposit	2,158	15,807,177 (US\$225,817)	4,306	23,197,433 (US\$331,392)
Withdrawal	12,288	34,775,801 (US\$4,96,797)	35,072	81,909,061 (US\$1.2 million)
Immediate Payment Service (IMPS)	1,031	5,315,919 (US\$5.3 million)	1,141	7,327,310 (US\$7.3 million)
Fund transfer	242	3,076,394 (US\$43,948)	291	3,333,030 (US\$47,615)
Total	15,719	58,975,291 (US\$842,504)	40,810	115,766,834 (US\$1.65 million)
	Total		%	
	No.	Volume (INR)	Female %	Male %
A/c opening		750	84%	16%
Deposit	7,016	42,727,272 (US\$610,390)	61%	31%
Withdrawal	47,364	116,685,472 (US\$1.7 million)	74%	26%
Immediate Payment Service (IMPS)	2,335	14,161,034 (US\$14.2 million)	49%	44%
Fund transfer	537	6,435,434 (US\$91,315)	54%	45%
Total	57,252	180,009,212 (US\$2.57 million)	71%	27%

Source: Authors, JEEViKA data.

While we lack comparable data for male agents, these data also provide important insights into the financial transactions that women favor. Poor women have limited underlying banking use cases in a cash-dominated rural economy with the exception of the withdrawal of government cash transfers (DBTs). Table 4 confirms that cash withdrawals occur five times more frequently than deposits and are the dominant transaction type.

Further, SHGs and their female members have been dependent on brick-and-mortar banking structures to withdraw loans, deposit savings, and make repayments. Therefore, the presence of female agents in areas with high SHG penetration is a compelling motivator for female members to use this facility as well as a step toward promoting digital transactions in an ecosystem that is largely cash dependent. Access to a female banking agent can support female SHG members in conducting their regular group transactions in a more convenient, secure, and transparent manner and encourage other women (non-group members) in the vicinity to use formal banking services.

The digitization of these cash flows (especially loan repayments) within SHGs not only allows the tracking of transactions but also produces a significant complementary effect in that individual members are able to build credit histories that may help them to access higher-value individual loans in the future. For banks, this could improve transparency in operations by providing a digital trail for the current outstanding group loans of approximately US\$17 billion¹⁹ as well as ensuring compliance with the RBI regulatory requirements for lending banks to report group member-level borrowing

¹⁹ As of March 2021.

to credit bureaus.²⁰ However, the pace of progress toward the digitization of loan disbursements and repayments has yet to accelerate.

Lastly, the deployment of women as BC agents has broader implications for the rural economy as it encourages women to play a more entrepreneurial role as barefoot bankers. In addition to a sustainable business opportunity, the platform has contributed to women's empowerment, especially as banking in rural areas has traditionally been a male bastion.

3. BUSINESS CORRESPONDENTS AND BANKING DURING THE COVID-19 LOCKDOWN

When the COVID-19 crisis hit India, the GoI announced a three-week nationwide lockdown starting on 25 March 2020 to contain transmission. It implemented restrictions on movement and economic activity as well as strict enforcement of social distancing norms under the lockdown, which was originally to end on 17 May 2020. It eased the lockdown on 8 June 2020 after several extensions; however, individual states continued to impose state-level and local restrictions in response to local conditions.

On 26 May 2020, the government announced the INR1.70 lac crore (US\$24,285.7 million) Pradhan Mantri Garib Kalyan Yojana (PMGKY) relief package to provide a social safety net for the poor, whom the lockdown had affected the most.²¹ It announced cash transfers of INR500 (US\$7.1) per month for 3 months to approximately 204 million PMJDY female account holders as part of this package, along with other social security transfers to vulnerable sections. Recipients could withdraw these cash transfers in a staggered manner from the nearest bank branch, ATM, or BC agent in compliance with social distancing norms.

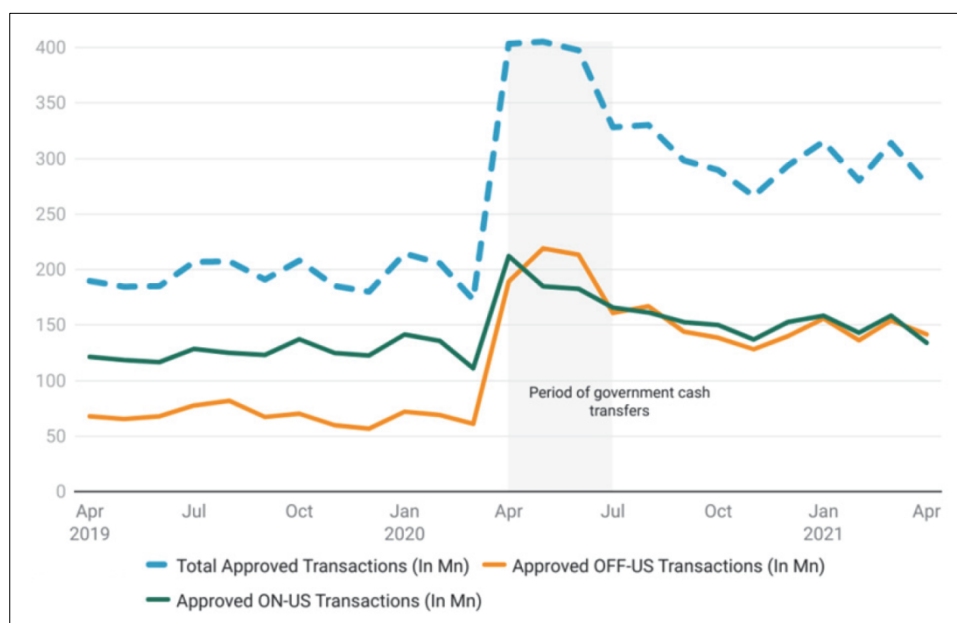
When the lockdown restrictions severely curtailed access to financial services and cash flows in the rural economy, the GoI allowed the BC network freedom of movement and declared it to be an "essential service". BCs proved to be a crucial link in enabling access to the critical PMGKY transfers (Pinto and Arora 2020). This is evident from the 133% jump in the recorded number of AePS transactions in April 2020 (over the previous month) corresponding to the release of the first tranche of the government cash transfers.

During the lockdown, in several low-income states (LISs), female banking agents worked tirelessly to provide cash flows in their villages together with their male counterparts²² and were a critical link in the chain to support last-mile service delivery. Given the paucity of available structured data, records that different ecosystem partners maintained are presented below to highlight the coverage and reach of the female banking agents with the support of the DAY-NRLM.

²⁰ See the respective RBI circulars for more details: https://www.rbi.org.in/Scripts/BS_CircularIndexDisplay.aspx?Id=10227 and <https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=10449&Mode=0>.

²¹ <https://pib.gov.in/PressReleaseframePage.aspx?PRID=1608345>.

²² Ministry of Rural Development, GoI. Press Release. <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1613916>.

Figure 3: AePS Transactions, April 2019–April 2021

Source: NPCI, AePS Product Statistics.

Aligned with the spike in AePS transactions that we described above, the field and MIS reports that the MoRD maintains exhibit similar trends. The Bank *Sakhi* program recorded a 46% increase in the number of female agents that it deployed between April and June 2020, despite prevalent lockdown restrictions at that time. However, while new BCs joined the network and dormant female agents were encouraged to restart operations, the pandemic negatively affected the transaction volumes that these female agents processed, much like those of other BC agents across the country.

Overall, despite an increase in the total number of transactions between May and June 2020, the data reveal a decline in the volume of transactions over the same period. In April 2020, 9,071 female BCs (Table 5), with the support of the DAY-NRLM, completed 2.3 million transactions amounting to INR38,441 lac (US\$54.9 million). The average transaction values of these female banking agents continued to remain significantly lower than their pre-lockdown activity in February and March, which is perhaps indicative of the slowdown in the overall economic activity.

Table 5: NRLM-Supported Female Agents, Monthly Progress Reports, 2020

	February	March	April	May	June
Female SHG members as banking agents	6,217	6,958	9,071	10,497	13,270
Number of transactions	767,801	909,729	2.3 million	2.2 million	2.6 million
Volume of transactions (in lacs)	27,501 (US\$39.3 million)	32,325 (US\$46.2 million)	38,441 (US\$54.9 million)	45,345 (US\$64.8 million)	42,702 (US\$61 million)
Average transactions per BC	124	130	253	208	193
Average ticket size of transactions	3,582 (US\$51.2)	3,553 (US\$50.8)	1,676 (US\$24.0)	2,081 (US\$29.7)	1,660 (US\$23.7)

Source: Authors. DAY-NRLM progress reports.

3.1 Banking during COVID: A Case Study of Bihar and Odisha

Interactions with female banking agents and project staff showed that, while there was a spike in transaction volumes during the COVID-19 lockdown, especially in the form of cash-out transactions immediately after the announcement of the relief package, a corresponding rise in AePS “OFF-US” transaction failures occurred. Dvara Research (Raghavan 2020) published a report indicating that, in April 2020, the average failure rate of AePS transactions was 39%, ranging from 10% to 62% across providers.²³

To understand these trends, we reviewed a small data sample of female banking agents from a private sector bank in Bihar and a PSU bank in Odisha. While they operate in similar rural settings, there are notable differences in the financial inclusion parameters of the two states, primarily because Odisha has higher bank branch penetration. Industry experts have suggested that the number of private sector BC agents is higher in Bihar than in Odisha perhaps because Bihar is an active inward-domestic-remittance corridor with a higher population density.

Owing to the difference in the number of agents for whom data are available across both states, our analysis focused on trends and averages across states. In subsequent sections, transactions broadly refer to cash withdrawals that the AePS platform supports. The available data do not allow for causal attribution of cash withdrawal activities and amounts to specific government cash transfers or to the gender of the customer.

For Bihar, the data that we used are from March to July 2020 and draw from the transactions of 40 rural, female BC agents of a private sector bank, for which an average of 33 BCs were active²⁴ on a daily basis. The BC agents mostly performed OFF-US withdrawal transactions as an acquirer, such that they served customers of other banks, mostly PSUs. For Odisha, the data follow the same period and include 126 rural, female BC agents of a public sector bank, for which an average of 90 BC agents were active. They performed mostly ON-US withdrawal transactions as an issuer, such that they served customers of the same public sector bank. Sample data from the two states also revealed that the average transaction numbers per BC agent were higher in Bihar than in Odisha.

To understand the implications of the lockdown for BC transactions, we describe the trends over nine time periods (T0–T8) of varying durations, linked to the COVID-19 lockdown and associated government announcements.

To understand the implications of the lockdown for the transaction volumes, we calculated the average number of daily transactions that all the BC agents in our sample attempted (both successful and failed transactions), for each of the reference periods, and plotted this for both private and public sector banks.

²³ “Fix the Problems in Aadhaar-Based Cash Transactions.” *Mint*, 8 May 2020. <https://www.livemint.com/opinion/columns/fix-the-problems-in-aadhaar-based-cash-transactions-11588930862806.html>.

²⁴ Perform at least one transaction during the day.

Table 6: Transaction Trends in Bihar and Odisha between March and July 2020

#	Dates	Notes
T0: Pre-lockdown	1–21 March 2020	In the pre-COVID19 lockdown period, we assume normal transactions. The announcement of the Janta curfew occurred on 19 March and its observation on 22 March. No transactions took place on 22 March.
T1: Lockdown announced	23–30 March 2020	Lockdown from 25 March; announcement of the PMGKY relief package on 26 March. As per government directives, crediting of PMGKY transfers would take place on 2 April 2020.
T2: Cash transfers (PMJDY account holders)	3–10 April 2020	It was possible to withdraw PMGKY cash transfers in a staggered manner between 3 and 9 April 2020.
T3: Continued transactions, withdrawals	11 April–3 May 2020	Regular transactions took place while observing the restrictions associated with the COVID-19 lockdown.
T4: Cash transfers 2.0	4–11 May 2020	Period for staggered withdrawal of the second cash transfer.
T5: Continued transactions, withdrawals	12 May–4 June 2020	Regular transactions while observing the restrictions associated with the COVID-19 lockdown.
T6: Cash transfers 3.0	5–10 June 2020	Period for staggered withdrawal of the third cash transfer.
T7: Continued transactions, withdrawal	11–30 June 2020	Regular transactions with the easing of restrictions associated with the first phase of “unlocking” to begin on 8 June.
T8: Continued transactions, withdrawals	1–31 July 2020	Regular transactions with the easing of restrictions associated with “unlocking.”

Source: Authors.

For both banks, we observed an initial drop in transaction volumes immediately after the lockdown (in T1) linked to the restrictions on economic activity and movement. However, a spike in the number of transactions in the following periods corresponds to the announcement of the PMGKY cash transfers to the beneficiaries’ bank accounts.

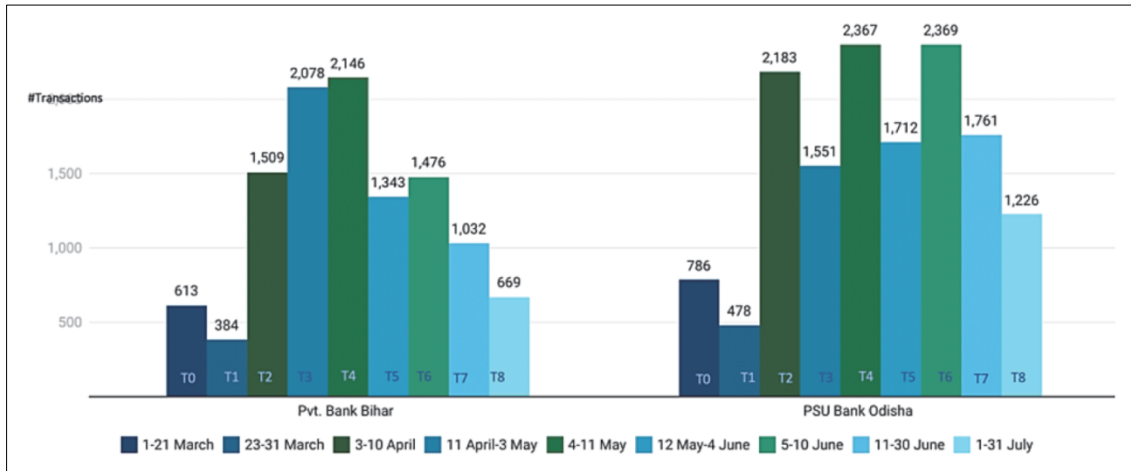
The staggered withdrawal that the government announced and the daily limits on volumes that BC agents were able to handle resulted in spillover transaction activity, as evident in the surge in transactions reported in T3, T5, and T7 (post-cash transfer periods). However, the transaction activity remained higher in T8 (associated with the unlocking of the economy) than in pre-lockdown levels.

In the case of the private sector bank in Bihar, it is possible to link some of the spillover in the periods after cash transfers to failed transactions—all OFF-US in nature—which required the beneficiary to visit the BC point again after a few days to reattempt the transaction. A 37% drop in the number of transactions occurred during the week immediately after the announcement of the lockdown (T1), following which growth of almost 211% took place until June.

Similarly, in Odisha, a 39% drop in the number of transactions was apparent during the same period (T1). The growth in transactions during subsequent periods was approximately 137% until June. This suggests greater reliance on the BC agent network in Bihar than in Odisha, perhaps due to the lower bank penetration in Bihar. While the absolute numbers of transactions performed (partly because of the difference in the BC sample size) vary between the private sector BCs in Bihar and the PSU BCs in Odisha, the overall trends in transactions are almost identical.

Figure 4: Daily Withdrawal Transactions

A.



Notes:

1. The green bars represent periods assigned for staggered withdrawal of government social security transfers.
2. The graph depicts the number of daily transactions attempted (includes both successful and failed transactions) by all sample SHG-BC (female) agents averaged for number of days in the reference period.

B.



Source: Authors, using partner bank data.

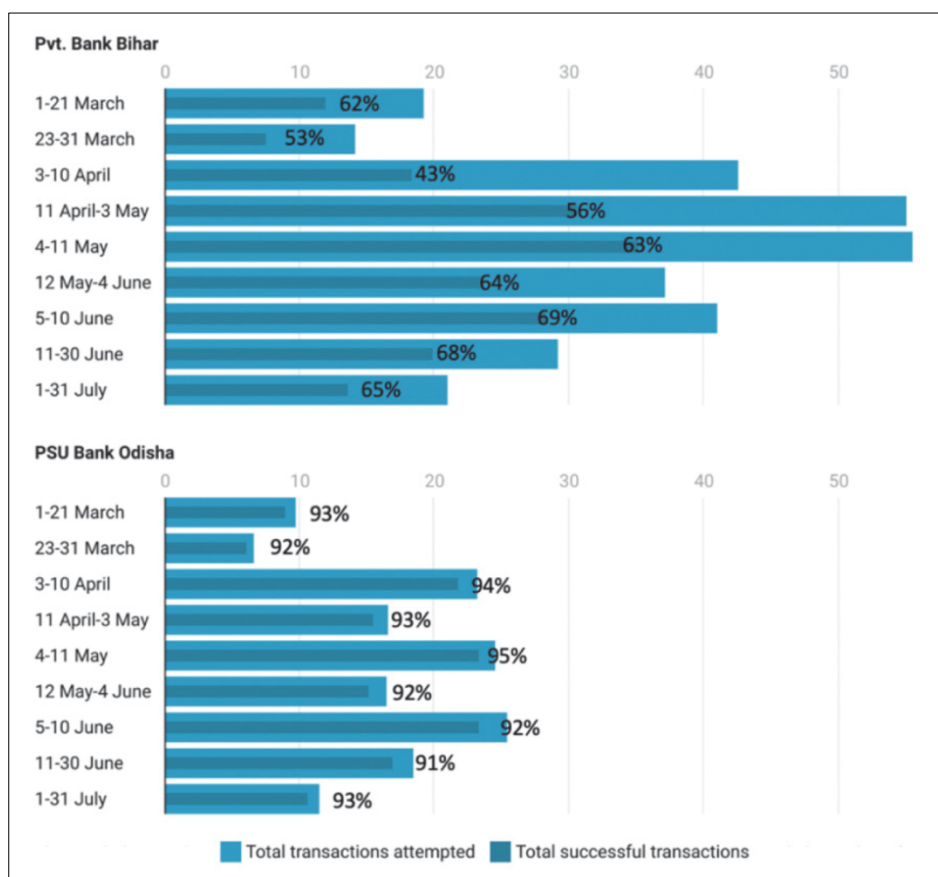
Similarly, at the BC agent level, we noted that, in Bihar, the average daily transactions attempted per BC agent dropped from 19 pre-lockdown (T0: between 1 and 21 March) to 14 in the following period (T1: 23–31 March) and then reached over 50 daily transactions following the initiation of the cash transfers. In Odisha, the number of

transactions attempted per BC agent was significantly lower. However, the overall trends in the two states were similar.

BC productivity during and after the lockdown in both states rose by over 100%. This clearly demonstrates that the female BC agents also responded to the critical situation and worked overtime to fulfill the banking needs of the rural community, much like their male counterparts across the country.

However, there are significant differences between private sector BCs in Bihar and PSU BCs in Odisha in the number of successful transactions performed and the total number of transactions attempted, as the chart below shows. This is largely due to the nature of the partner bank—BCs associated with the private sector bank performed only OFF-US transactions (in this case) and experienced a much lower success rate than PSU BCs in Odisha, who performed mainly ON-US transactions and a lower number of transactions overall.

Figure 5: Cash Withdrawal Transactions per BC Agent



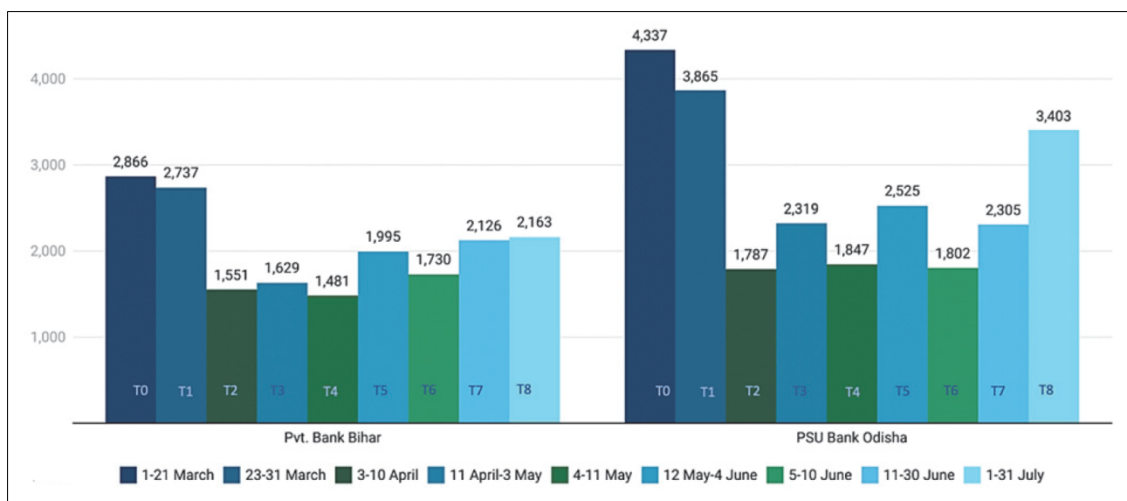
Note: The graph depicts the average transactions per BC agent. The average is calculated based on the daily number of transactions reported per BC agent for the reference period. The percentage of successful transactions to the total is captured for each time period.

Source: Authors, using partner bank data.

The average transaction value (commonly known as the average ticket size) was much lower than prior to the COVID-19 lockdown (March 2020). This is likely to be because of the reduced economic activity and uncertainty associated with the lockdown and the prevalent situation. The implications of reduced economic activity were more severe in the case of Odisha, where the average transaction value in the pre-lockdown period

(T0) was much higher than that in Bihar. There was a steep drop, comparable to that of Bihar, in the average transaction value in Odisha in the periods after T2 (with the exception of T8).

Figure 6: Average Transaction Value



Notes:

1. Cash withdrawals in INR.
2. The average ticket size charted above refers to the average transaction value of a “successful” withdrawal performed by a BC agent for the reference period.

Source: Authors, using partner bank data.

While it is evident that female BC agents have been successful in ensuring cash flows in the rural economy, a steep rise in transaction failure rates for the private sector bank-linked Bank *Sakhis* in Bihar meant lower revenues and a higher cost/effort for them.

3.2 Rising AePS Transaction Failures during Covid

Transaction failures compounded the challenges that the rural poor faced during testing times, and several news reports documented the two main reasons for these failures, namely biometric mismatches and transaction timeouts, particularly in the case of interbank transactions. Improper Aadhar linkage, insufficient funds, and blocked/frozen accounts were other common reasons. A single transaction failure may lock out the account holder from conducting further transactions for 24 hours or more.

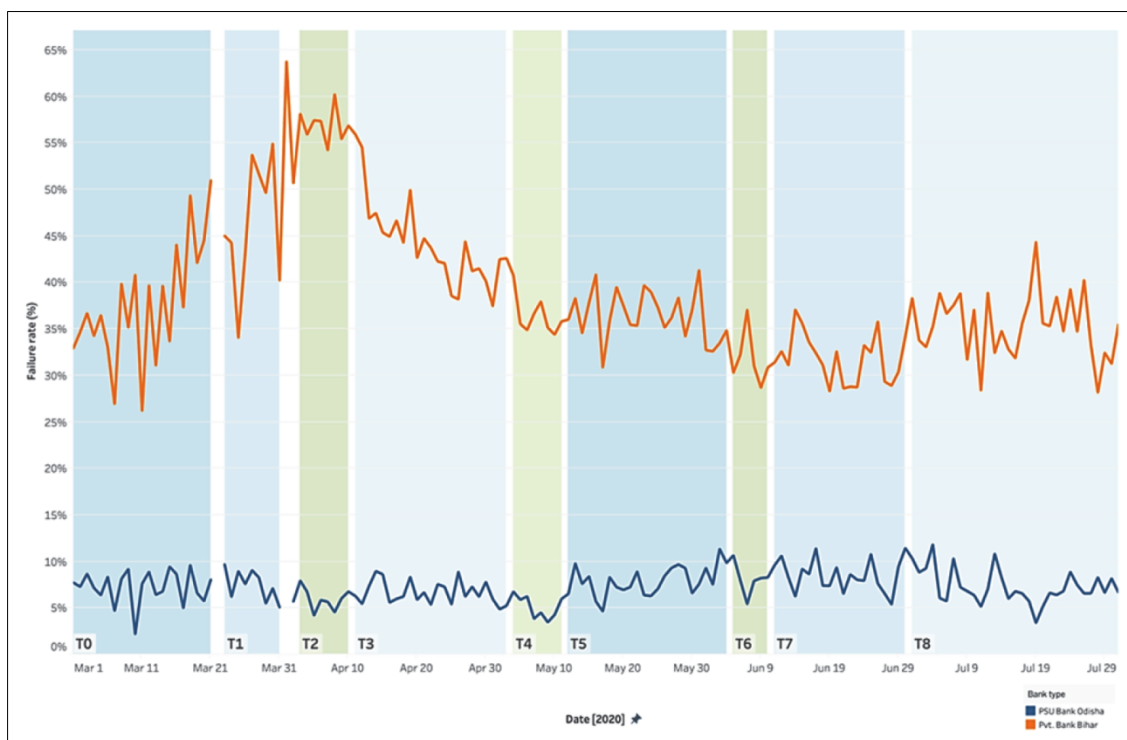
Accordingly, during the first phase of the PMGKY COVID-19 relief package cash transfers, we noted that the transaction failure rates that BC agents operating on behalf of the private bank in Bihar experienced were 57% on average, compared with 38% pre-lockdown. While the system seems to have stabilized and transaction failure rates reduced to the pre-lockdown levels during the second and third phases of cash transfers, this is a considerably higher total than those experienced by the PSU bank’s BC agent sample in Odisha, where the transactions were mostly “ON-US.” In Odisha, the failure rates remained at similar levels even after the lockdown despite the increased pressure on the banking system and spikes in the daily transaction activity.

Table 7: Transaction Failure Rates

Date	Private Bank BCs in Bihar: AePS Transaction Failure Rate (OFF-US Transactions Only)	PSU Bank BCs in Odisha: AePS Transaction Failure Rate (Mostly ON-US Transactions)		
		Overall Failure Rate	ON-US Failure Rate	OFF-US Failure Rate
1–21 March	38%	7%	0%	10%
23–31 March	47%	8%	0%	10%
3–10 April	57%	6%	2%	9%
11 April–3 May	44%	7%	2%	11%
4–11 May	37%	5%	2%	8%
12–4 June	36%	7%	1%	10%
5–10 June	31%	8%	3%	11%
11–30 June	32%	9%	1%	11%
1–31 July	35%	7%	1%	10%

Source: Authors, using partner bank data.

Figure 7: Daily Withdrawal Transaction Failure Rate



Source: Authors, using partner bank data.

We noted that most cash transfers applied to the PMJDY accounts of female beneficiaries, which PSU banks (issuer) opened required an inter-bank withdrawal transaction in the case of Bihar’s sample private bank-affiliated BC agents. However, in Odisha, we found that only 24.54% of the total transactions that BCs completed were OFF-US (inter-bank) in nature. Here, only 1.7% of the ON-US transactions failed compared with 10.03% of the OFF-US transactions.

The transaction summary of the sample seemed to imply that the success rate of an ON-US transaction that a PSU bank's own BC agent initiated is higher than the success rate of OFF-US interbank transactions that a private sector bank's BC agent initiated. Interactions with key stakeholders also suggested that the increase in transaction failures was largely due to the increased network and bandwidth requirements for a spike in the demand for services, mostly in the case of inter-bank transactions.

Our assessment of BC transactions during the COVID-19 cash transfers is in line with the findings of previous studies that we discussed earlier. Suffice it to say that, for rural customers, these transaction failures mean the inability to confirm whether a failed transaction has debited their account, and they may need to wait for an extended period without reversal of debits (sometimes even 14 days). They also incur costs when returning to the banking agent to complete the transaction and lose daily wage hours in the process. This could have serious implications for the push for digital financial inclusion, deterring rural customers who are already hesitant and suffering distress due to the COVID-19 situation.

4. CONCLUSION AND WAY FORWARD

Four public sector banks (PSBs) account for a majority of the PMJDY accounts according to data from 24 March 2021.²⁵ PSBs hold nearly 74% of PMJDY accounts, and regional rural banks hold about 24%, with only about 2% in PSBs. However, private sector banks are increasingly employing the BC channel to leverage this opportunity to serve rural areas sustainably through the interbank transaction fee that they receive for transactions that their acquiring agent network supports.

Building on lessons from implementation, especially in the light of COVID-19 and the efforts to build back economic growth, this paper argues for financial inclusion strategies premised on a strong banking agent network and a gender focus. In the following sub-sections, the paper covers the structural and technical challenges and possible solutions that require a multi-pronged, multi-stakeholder approach to maintain the positive impact of these initiatives with the aim of furthering financial inclusion.

4.1 Building a Resilient BC Ecosystem to Further Financial Inclusion as a Business Case

Private sector banks have deployed a large-scale network of BC agents and plugged the gap that PSU banks left, evident from the exponential rise in inter-bank AePS transactions in recent years. As we discussed earlier, the RBI's annual report of FY19–20 (refer to Table 1) also showed that, while the growth in the number of BSBDA accounts that customers opened through the BC channel has plateaued, the number and value of transactions occurring through this channel is continuing to rise steadily, highlighting the critical role of BC agents in facilitating access to banking services. The following institutional and structural mechanisms are necessary to enhance financial inclusion in rural areas.

- Several technological and policy measures are necessary to address the high transaction failure rates of OFF-US AePS transactions. Banks need to upgrade their IT system capacities to ensure negligible failure rates for inter-bank transactions in compliance with a recent NPCI circular that advocated for better

²⁵ Gol. "Pradhan Mantri Jan Dhan Yojana." 24 March 2021. <https://pmjdy.gov.in/BankwiseLatest>.

management of banks' transaction loads.²⁶ AePS failures in times of crisis can have adverse effects, adding to the anxiety and uncertainty that beneficiaries experience and deterring them from using the BC channel recurrently (Balasubramanian et al. 2019). There is a need to enforce a prescribed failure rate for banks and to encourage the automation of reconciliation of failed transactions to reduce the turnaround time involved in crediting funds back to customers' account in compliance with the relevant regulations. Regular tracking of bank performance, especially the transaction failure rates and the public disclosure of such performance indicators, including the average turnaround time for redressal/reversal of failed transactions and compensation for customers, could help to improve the performance.²⁷ Customer protection and grievance redressal mechanisms that are easily accessible and enforceable are critical to build rural customers' faith in the channel's service delivery ability.

- Learning from the additional support that some banks provided agents with during the pandemic and the DAY-NRLM's support for its female banking agents, hiring banks must provide social security benefits and cash-carrying risk cover for BC agents to mitigate or reduce risk and boost morale within the agent network. Further, in accordance with an April 2014 circular of the RBI,²⁸ banks must meet the working capital needs of BC agents to enable them to expand their operations, and it is necessary to consider the cash that the BC agents handle as the cash in hand of the concerned bank.

Interactions with BC agents indicated that, most often, the compliance burden of supporting working capital requirements, social security cover, and cash-carrying risks falls on BCNMs. In many cases, BCNMs also do not provide the required working capital or cash-carrying risk cover, which adds to the cost and effort of operations and erodes the revenue margins of banking agents. Providing BC agents with low/no-cost working capital will make a considerable contribution to strengthening the agent network and will encourage more women to take on the role of BC agents in rural areas. An added incentive for banks is that support for the working capital requirement of BC agents would count toward their priority sector lending targets.

- The pandemic has highlighted the need for alternative/additional identity and transaction authentication systems to augment the capacity of the current AePS system, which requires biometric authentication linked to fingerprint scans. Field reports have pointed to both the reluctance of users to conduct transactions and the possibilities of transmission in the absence of regular disinfection given the "high-contact" nature of the solution. There is a need to explore alternative backup options and contactless solutions, including a simplified OTP system linked to the customer's mobile number or authentication linked to iris and facial recognition technologies (IRFT) connected to the existing Aadhar database. While instituting these alternative technologies will be a welcomed demand- and supply-side solution, expanding and mainstreaming this solution will require both investments in hardware and a grievance redressal mechanism and systems to secure the privacy of customers.

²⁶ NPCI Circular NPCI/AePS/2020_21/006. 24 August 2020.

²⁷ RBI Circular. <https://rbi.org.in/scripts/NotificationUser.aspx?Mode=0&Id=11693> and <https://rbi.org.in/scripts/NotificationUser.aspx?Mode=0&Id=11946>.

²⁸ RBI circular: RPCD.FID.BC.No. 96/12.01.011/2013–14. 22 April 2014.

- Encouraging competition among banks in un(der)-banked rural areas and providing more products and services through the BC channel will help both to deepen financial inclusion and to support sustainable BC operations (Uzma and Pratihari 2019). For example, while some banks allow customers to open small-value recurring or fixed deposits electronically at the BC point, in most cases, the physical paper trail still needs to supplement this action. Banks also restrict the encashment and closure of such deposits for credit into the customers' savings accounts (of small denominations) digitally through the BC channel. This inhibits the mobilization of savings in rural areas, especially among women. While institutional directions to improve the range of micro-banking products and services for delivery through the BC channel could encourage customers to move beyond cash-in–cash-out services, a larger service offering would also improve the earnings stream for BC agents via increased commission.

4.2 Female BCs as a Means to Reduce the Gender Gap in the Provision of Financial Services

The policy focus on the expansion of the number of female BCs, coupled with the PMJDY transfers to women's accounts, is a powerful indicator that the well-being of women and their households is a priority for the government. As section 2.2 discussed, the results from earlier assessments of the SHG-BC approach that both the DAY-NRLM and the NABARD–GIZ conducted suggest that female agents serve a larger proportion of female customers, while female customers are more comfortable approaching female BC agents.

- Many of the PMJDY accounts that receive the PMGKY cash transfers may belong to first-time female users of agent banking services. AePS transaction statistics (section 3.0)²⁹ show sustained usage of the platform beyond the spike in observed volumes during the period of COVID-19 relief transfers (April 2020–June 2020) and a 68% growth in total volumes between FY2019–20 and FY2020–21. The current crisis could present an opportunity to build suitable (micro-banking) financial products for these women based on their cash flows and needs and to expand cashless merchant payments in rural areas. In areas with high penetration of women's bank accounts and usage, for instance in areas with high levels of SHG and other community-based organization (CBO) activity, the appointment of trained female BC agents can play a critical role in moving from basic financial inclusion to financial deepening for women. Currently, PSU banks have roughly 15,000 rural bank branches with SHG loan portfolios of over INR50 lac (USD5 million) each, which banks could prioritize for engaging female agents.
- There is a need to consolidate the different BC databases that stakeholders maintain into a single, comprehensive national BC registry. The RBI could mandate the IBA to release periodical state- and bank-wise summaries of gender-disaggregated data on BC agents under the BC registry that they already maintain.³⁰ Alternatively, the feasibility of the NPCI leading this initiative could undergo examination since it provides services to all types of banks for AePS transaction switching and related activities. The RBI and DFS should also release more granular data on state- and bank-wise gender-disaggregated

²⁹ For more details: <https://www.npci.org.in/what-we-do/aeps/product-statistics>.

³⁰ IBA. "Business Correspondents (BCs) Registry." <https://www.iba.org.in/bcregistry/>.

PMJDY-BSBDA account usage on the demand side in line with gender-disaggregated BC agent data on the supply side for the sector. This is particularly critical in light of the recent analysis, which suggested that about half of India's poor women may still not have coverage under the PMJDY and were therefore excluded from the recent cash transfers under the COVID-19 assistance package (Pande et al. 2020).

- A recent FinEquity publication highlighted that collecting and analyzing gender-disaggregated data can inform evidence-based financial inclusion policy and regulation as well as enhancing the effectiveness of national-level efforts.³¹ Under the Alliance for Financial Inclusion's (AFI) Denarau Action Plan,³² several member countries have committed to building a road map for more gender-focused financial inclusion policies and regulation. While India has been part of the AFI network, it has yet to adopt gender-specific targets and reporting. It would be a progressive initiative for India to have specific gender-based financial inclusion targets, not only restricted to the opening of bank accounts but also along various usage metrics.

Drawing on data from Bihar and Odisha, we described how the current COVID-19 crisis has highlighted the need for and role of female BC agents in promoting financial inclusion and easier access to banking facilities in rural economies. Encouraging women to participate as BC agents on a larger scale will require additional institutional support mechanisms to make the BC business sustainable and profitable in the long term. This would require convergence between policy actors, such as the MoRD and NABARD, as well as the DFS and RBI, to encourage and incentivize banks to hire female BC agents and offer suitable, customized products that encourage micro-savings until the benefits of the incremental scale and gender balance start accruing.

³¹ More details: <https://www.findevgateway.org/paper/2020/11/gender-data-financial-inclusion>.

³² AFI Global. "Denarau Action Plan." https://www.afi-global.org/sites/default/files/publications/2018-10/Denarau_FS18_AW_updated_digital.pdf; AFI Global. 2017. "Sex Disaggregated Data Toolkit." Guideline Note No. 26. 2017. https://www.afi-global.org/sites/default/files/publications/2017-03/GuidelineNote-26%20FID%20Gender%20Data%20Toolkit_digital.pdf.

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