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Credit concentration and the missing pathway: Institutional architecture and women's MSME graduation in West Bengal

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Abstract

West Bengal holds the largest share of women owned proprietary MSMEs of any Indian state, yet its formal MSME credit architecture between 2017-18 and 2022-23 has grown sharply concentrated. This paper analyzes three agency disaggregated credit datasets, covering MSME Ground Level Credit flow, Pradhan Mantri Mudra Yojana loan disbursement, and Stand Up India credit to women, to show that Regional Rural Banks and Cooperative Banks, the institutions structurally closest to rural women transitioning out of Self Help Group and Joint Liability Group microfinance, have become nearly absent from formal women's enterprise finance. Herfindahl Hirschman Index analysis confirms rising concentration, from 8,337 to 9,540 over six years, while disproportionality ratios show that Cooperative Banks disbursed zero Stand Up India loans to women across 27 eligible branches, and that Regional Rural Banks reached only 7.6 percent of their own branches. Within Mudra lending, loans routed through the channel most accessible to women, non bank microfinance institutions, average half the ticket size of loans through commercial banks. Together these findings indicate that the credit architecture itself, not scheme design or credit scarcity, constitutes a structural barrier at the transition from sub MSME to MSME credit for women entrepreneurs. Three institutional reforms are proposed, targeting Cooperative Bank capacity building, a Regional Rural Bank specific graduation product, and a review of Mudra underwriting conservatism within the microfinance institution channel.

Keywords: MSME Credit, Women Entrepreneurship, Financial Inclusion, Enterprise Graduation, Credit Concentration, West Bengal

JEL Classification: G21, O16, L26

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1. Introduction

India's financial inclusion architecture for women rests on two pillars. The first is the microfinance ecosystem — Self-Help Group bank linkage, Joint Liability Group lending by NBFC-MFIs, and a proliferating array of government-promoted savings and credit schemes — which provides women at the base of the economic pyramid with their first formal financial relationship. India's SHG-Bank Linkage Programme had covered 17.75 crore households nationally by March 2024, while the total microfinance sector—driven by both the SHG bank linkage and JLG models—expanded to a combined national portfolio exceeding ₹7 lakh crore (NABARD, 2024; Sa-Dhan, 2024). The second pillar is the formal MSME credit system. It runs through three institutional channels — Commercial Banks, RRBs, and Cooperative Banks — and flagship scheme instruments like PMMY and Stand-Up India, together intended to move borrowers from microfinance-scale credit to enterprise-grade financing. For women entrepreneurs, the transition between these two pillars — from SHG or JLG credit to formal MSME credit — represents the most consequential single decision in their enterprise trajectory. While women-owned MSMEs face significant structural financing barriers and require targeted institutional credit interventions, the broader MSME sector in India experiences an addressable credit gap exceeding 70% of its total demand (International Finance Corporation, 2018). (Bagchi & Kumari, 2026), mapping the microfinance ecosystem for women entrepreneurs in West Bengal, identified this transition as the weakest link in the state's enterprise graduation pathway, theorising a 'loan ceiling mismatch' in which SHG credit ceilings are structurally inadequate for the fixed-asset investment that enterprise scaling requires, while the pathway to MUDRA Kishore or Stand-Up India financing exists in policy but not consistently in practice. That paper theorised but did not quantify this barrier.

The present paper provides that quantification. West Bengal presents an ideal — and alarming — context for this analysis. West Bengal leads every Indian state in its share of women-owned proprietary MSMEs, per the (Ministry of Micro, Small and Medium Enterprises, 2024), accounting for 23.42 percent of the country's total female-owned MSME count. This enterprise density, however, coexists with a well-documented structural barrier: women draw back only 27 percent in credit for every rupee they deposit, compared with 52 percent for men (Chavan, 2020) - a gap that persists despite the state's enterprise density. By sheer enterprise density, the state should be best placed nationally to demonstrate a working graduation pathway for women. Instead, as this paper documents, its formal MSME credit architecture is among the most institutionally concentrated in the country, with the channels most accessible to rural women becoming progressively more marginal.

The paper makes two contributions. First, it applies Herfindahl-Hirschman concentration analysis and a disproportionality ratio framework jointly to agency-wise MSME, PMMY, and Stand-Up India data for West Bengal — the first such combined analysis for any Indian state, to the authors' knowledge. The HHI is the standard concentration metric used by competition regulators,

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including in banking-sector review (U.S. Department of Justice and Federal Trade Commission, 2010), making it a natural fit for assessing institutional dominance in credit markets. Second, it documents a specific paradox — the state with the highest women's enterprise density in India presents the sharpest institutional exclusion of the channels most accessible to rural women — with direct implications for enterprise graduation policy at both state and national level.

2. Literature Revieww

2.1 Institutional Diversity in Indian Banking and Priority Sector Lending

India's banking sector was deliberately structured for institutional diversity, with RRBs set up by statute in 1976 with a specific brief: reach rural and semi-urban borrowers whose credit needs and collateral capacity fall below what Commercial Banks typically require. RBI figures confirm RRBs still direct over 70 percent of lending to agriculture and priority-sector borrowers, underscoring their continued financial-inclusion mandate (Reserve Bank of India, 2022). Cooperative Banks, similarly, were designed as the locally embedded, community-governed credit institution for agricultural and small enterprise lending. This diversity was intended to ensure that RBI's priority-sector classification, spanning agriculture, MSMEs, housing, education, and social infrastructure, would be met by institutions operating at different scales.

However, research documents that RRBs have undergone significant institutional transformation since their inception, moving away from their original financial inclusion mandate as policymakers prioritised financial viability over outreach. (Yadav et al., 2023), through a systematic performance evaluation of amalgamated and standalone RRBs, document that the recapitalisation and consolidation process — while strengthening balance sheets — has simultaneously reduced RRB appetite for the small-ticket, relationship-intensive lending that women MSME borrowers require. This tension between financial sustainability and developmental mandate is a structural feature of the post-amalgamation RRB landscape.

The empirical record on this institutional mandate is, however, discouraging. National priority-sector data tell a consistent story: RRBs and Cooperative Banks have steadily ceded MSME lending ground to Commercial Banks, attributed variously to recapitalisation pressures, risk-aversion following asset quality stress, and a strategic shift in Cooperative Bank lending toward agricultural and consumption credit. RBI's own Internal Working Group flagged this gap directly: even as headline financial-inclusion indicators improved, formal credit penetration into the MSME sector stayed shallow, with micro and small women-owned enterprises facing the tightest constraint of all (Reserve Bank of India, 2019). While Scheduled Commercial Banks expanded their credit delivery to MSMEs, the RBI report provides no specific evidence showing that Regional Rural Banks mirrored this growth in enterprise lending (Reserve Bank of India, 2022). This paper provides West Bengal-specific, multi-year evidence consistent with this national trend and extends it to the specific question of women's enterprise credit.

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2.2 Women's Enterprise Finance and Credit Channel Architecture

Research on women's enterprise finance has established that the institutional channel through which credit is accessed shapes not only its cost but the non-financial support ecosystem — relationship continuity, documentation accessibility, scheme awareness, and willingness to extend smaller and more frequent credit cycles — that determines whether credit translates into enterprise growth (Bharti & Malik, 2022). (Roy & Patro, 2022) reviewed 75 peer-reviewed studies on women's financial inclusion spanning two decades (2000–2021) and found a consistent pattern: female entrepreneurs are turned down for credit at structurally higher rates than men and that supply-side barriers — institutional risk perception of women-led enterprises — remain persistent across formal credit channels. This finding is particularly relevant for women transitioning from microfinance channels to formal MSME credit: the NBFC-MFI or SHG federation through which a woman has maintained a long-term credit relationship is better positioned to assess her enterprise capacity than a Commercial Bank branch officer with no prior knowledge of her business.

The scale of the women's MSME financing gap contextualises the channel architecture problem. The International Finance Corporation estimated a financing gap of Rs 6.37 lakh crore for women-owned MSMEs in India, with formal institutions meeting only about 27 percent of total financing demand (International Finance Corporation, 2013). (Parameswaran & Kadam, 2026), drawing on enterprise-level ASUSE 2022-23 data, document a two-sided gap: women-run firms are less likely to obtain formal credit in the first place, and those that do receive smaller loans than their male-owned counterparts — evidence that the gender gap in MSME credit access is not closing. Within the PMMY framework specifically, while women account for approximately 68-69 percent of total PMMY loans nationally in 2021, nearly nine in ten women's PMMY loans in 2021 fell into the smallest Shishu tier, capped at Rs 50,000 — a pattern that leaves open whether PMMY drives real enterprise graduation or simply brings subsistence-level borrowing into the formal system (Sarkar & Kumar, 2022).

(Khan et al., 2022), studying women entrepreneurs in the Kashmir Valley, find that microfinance-backed entrepreneurship can function as a holistic empowerment tool, but that the empowerment gains are contingent on the quality of the institutional relationship — not credit access alone. (Datta & Sahu, 2021) studied five economically backward districts of West Bengal directly and found microcredit linked to real gains in employment and empowerment for rural women — but with the size of that effect depending heavily on which institutional channel delivered the credit. Similarly, (Patel & Patel, 2020), analysing 512 SHG members in North Gujarat, find that the duration and quality of SHG participation — not credit amount alone — determines empowerment outcomes, demonstrating that channel characteristics rather than loan size are the operative variable in women's enterprise development. This is consistent with the channel-fit logic developed in the authors' prior work (Bagchi & Kumari, 2026): different institutional channels generate different

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enterprise outcomes for the same borrower, depending on the alignment between the channel's product design and the enterprise's capital and support needs.

2.3 The Graduation Problem in Microfinance and MSME Finance

The graduation literature in development economics identifies a sequencing problem at the transition from microfinance-grade credit to enterprise-grade credit for poor women in developing economies. (Banerjee et al., 2015), in a landmark multi-country RCT, tested a "multifaceted program" bundling asset transfer, consumption support, savings facilitation, health services, and training, and found it produced "lasting progress for the very poor”. The BRAC Graduation Approach, which underpins this framework, has been implemented in 49 countries and consistently demonstrates that asset transfer and skill development must precede credit for sustainable enterprise graduation among the ultra-poor — a sequencing explicitly embedded in West Bengal's Anandadhara/DAY-NRLM programme design. The West Bengal government's Anandadhara/DAY-NRLM programme draws explicitly on this graduation logic, providing Community Investment Fund and Vulnerability Reduction Fund support to SHG women for enterprise development.

However, the graduation literature has focused primarily on the ultra-poor to microfinance-grade transition, leaving the microfinance-to-MSME credit transition comparatively under-studied. (Vidyarani & Maheshkumar, 2022) compared formal credit access for MSMEs across Indian regions and found not just that access levels differ, but that the underlying drivers of access itself change from one region to the next. Their findings highlight that access to formal finance is shaped by enterprise and contextual characteristics in ways that are not uniform across India. The study further examines gender and enterprise-size characteristics in explaining formal credit access, contributing to evidence that access constraints are not evenly distributed across MSME categories — a finding directly relevant to the channel-architecture argument of the present paper. (Mittal & Raman, 2022) provide complementary evidence that MSME financing constraints are not reducible to a simple shortage of loan products: knowledge, supply and empathy gaps significantly discourage borrowing through formal channels. This suggests that addressing persistent financing constraints may require attention to the institutional delivery layer through which borrowers encounter and navigate formal financial intermediaries.

Yet the graduation literature has examined primarily the transition from ultra-poverty to microfinance-grade enterprise. The transition from microfinance-grade to MSME-grade enterprise — what this paper terms the Sub-MSME to MSME credit graduation bottleneck — has received less attention, and the institutional credit architecture at this specific transition point remains largely undocumented in the West Bengal context. (Abebe & Kegne, 2023) looked at how microfinance institutions shape women's business growth and concluded that MFI services alone push enterprise activity forward but don't, by themselves, produce enterprise graduation — market

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access, institutional relationships with formal banks, and skill development are necessary complements.

3. Data and Methodology

This is a secondary-data, trend and agency-disaggregation analysis paper. Three datasets, each verified against the NABARD State Focus Paper for West Bengal (2023) and the Ministry of MSME Annual Report (2024), form the empirical core:

- Agency-wise MSME Ground Level Credit (GLC) flow for West Bengal, 2017-18 to 2022-23, sourced from the State Level Bankers' Committee (SLBC) West Bengal (Table 2.6, NABARD State Focus Paper 2023-24). Six-year time series; 2022-23 figures are as on 30 September 2022 and are marked accordingly.
- Pradhan Mantri Mudra Yojana (PMMY) performance by agency, West Bengal, as on 30 September 2022, disaggregated by number of accounts and disbursed amount (Table 2.14, NABARD State Focus Paper 2023-24).
- Stand-Up India scheme performance by agency, West Bengal, as on 30 September 2022, disaggregated by total branches, disbursing branches, and loans to women specifically (Table 2.15, NABARD State Focus Paper 2023-24).

Two analytical measures are applied beyond descriptive trend analysis. The first is HHI, computed as HHI = $\Sigma(s_i)^2$, where s_i is agency i's percentage share of MSME credit in a given year. Regulatory practice treats HHI below 1,500 as an unconcentrated market and above 2,500 as highly concentrated (U.S. Department of Justice and Federal Trade Commission, 2010). The HHI is computed for each of the six years in the MSME GLC series, using the three-agency shares (Commercial Banks, RRBs, Cooperative Banks) from Table 1.

The second measure is a disproportionality ratio, defined as an agency's percentage share of an outcome variable (disbursed loan value, or loans to women) divided by its percentage share of an input variable (accounts, or branches). A ratio of 1.00 indicates proportionate participation relative to scale; a ratio above 1.00 indicates over-participation; a ratio below 1.00, and particularly a ratio approaching zero, indicates structural under-participation or effective exclusion. This measure is computed for PMMY (value share / account share) and Stand-Up India (women's-loan share / branch share) for each agency.

Percentage shares reported in this paper are computed by the authors to two decimal places from the absolute values in the source tables, rather than from rounded figures printed in the source, to support precise year-on-year comparison. Average ticket size under PMMY is computed as disbursed amount divided by number of accounts for each agency. Compound annual growth rates (CAGR) reported for the MSME GLC series are computed over the four full fiscal years from 2017-18 to 2021-22, excluding the partial-year 2022-23 figure (data as on 30 September 2022).

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The paper does not attempt district-level disaggregation of these datasets, as no district-wise breakdown of these credit flows is available in the source documents.

4. Results and Discussion

4.1 MSME Ground Level Credit: Six-Year Trend and HHI Analysis

Table 1 presents the agency-wise MSME GLC flow for West Bengal from 2017-18 to 2022-23, with percentage shares and Herfindahl-Hirschman Index computed by the authors.

Table 1. Agency-wise MSME GLC Flow and HHI, West Bengal, 2017-18 to 2022-23

Year	Commercial Banks (Rs Cr)	Share (%)	RRBs (Rs Cr)	Share (%)	Coop Banks (Rs Cr)	Share (%)	Total (Rs Cr)	HHI
2017-18	40,095	91.00	3,196	7.25	768	1.74	44,059	**8,337**
2018-19	51,251	85.52	6,527	10.89	2,153	3.59	59,932	**7,444**
2019-20	67,795	97.67	1,364	1.97	250	0.36	69,409	**9,544**
2020-21	84,293	96.70	2,659	3.05	212	0.24	87,166	**9,361**
2021-22	98,511	96.22	3,578	3.49	291	0.28	102,379	**9,271**
2022-23#	68,997	97.65	1,515	2.14	146	0.21	70,658	**9,540**

Source: NABARD State Focus Paper for West Bengal 2023-24, Table 2.6, original source SLBC West Bengal. # 2022-23 as on 30 September 2022 (partial year). Shares and HHI computed by authors.

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Commercial Banks' share of MSME GLC rose from 91.00 percent in 2017-18 to 97.65 percent in 2022-23. Over the four complete fiscal years from 2017-18 to 2021-22, Commercial Bank MSME credit rose at roughly 25.2 percent a year on a compound basis. The Cooperative Bank share, by contrast, fell from 1.74 percent to 0.21 percent — an absolute compound annual decline of approximately 21.5 percent, meaning Cooperative Bank MSME credit shrank in real terms even as the overall MSME credit envelope expanded. RRB share fell from 7.25 percent to 2.14 percent, with RRB credit growing at only approximately 2.9 percent annually against 25.2 percent for Commercial Banks.

The HHI tells the same story as a single number. The index stood at 8,337 in 2017-18 — already more than three times the 2,500 threshold conventionally associated with high concentration — and reached 9,544 in 2019-20, settling at 9,540 as on September 2022. An HHI in this range indicates a market approaching the theoretical maximum of 10,000 (complete monopoly by a single agency). The single anomalous year is 2018-19, when both RRB and Cooperative Bank shares rose and the HHI fell to 7,444. This single-year reversal makes the subsequent concentration more, not less, significant: it demonstrates that the concentration is not an irreversible structural inevitability but a consequence of active institutional choices — and therefore potentially reversible through targeted intervention.

4.2 PMMY: The Accessible Pathway Delivers a Smaller Credit

Table 2 presents PMMY performance by agency in West Bengal as on 30 September 2022, with average ticket size and disproportionality ratios computed by the authors.

Table 2. PMMY (MUDRA) Agency-wise Performance and Disproportionality Ratios, West Bengal (as on 30 September 2022)

Agency	Accounts	Account share (%)	Disbursed (Rs Cr)	Value share (%)	Avg ticket (Rs)	Disproportionality ratio
Commercial Banks	10,92,468	68	8,065.91	75	73,832	1.10
RRBs	25,775	2	681.90	6	2,64,559	3.00
NBFC-MFI	3,52,158	22	1,281.91	12	36,402	0.55

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Small Finance Banks	1,28,041	8	682.90	7	53,334	0.88
Total	**15,98,442**	**100**	**10,712.62**	**100**	**67,019**	—

Source: NABARD State Focus Paper for West Bengal 2023-24, Table 2.14, original source SLBC West Bengal. Average ticket size and disproportionality ratio computed by authors.

NBFC-MFIs handle 22 percent of PMMY accounts in West Bengal but only 12 percent of disbursed value, with a disproportionality ratio of 0.55 — meaning this channel delivers PMMY credit at approximately half the value its account share would suggest under proportionate participation. The average NBFC-MFI PMMY ticket size of Rs 36,402 is roughly half the Commercial Bank average of Rs 73,832. This is a finding of direct significance for women entrepreneurs: the channel through which they most naturally access PMMY — having an existing NBFC-MFI or SHG-linked banking relationship — delivers, on average, credit at half the size of what the same scheme provides through the Commercial Bank channel they are less likely to access independently.

The RRB disproportionality ratio of 3.00 warrants a note of caution. It reflects a small number of large loans (25,775 accounts, the smallest base of the four agencies) and should be read as a base-rate artefact of the very low RRB account volume rather than evidence of RRBs serving women enterprise credit at scale. The Small Finance Bank ratio of 0.88 — close to proportionate — indicates that this agency type, while smaller in overall volume, is internally consistent in the value it delivers relative to its account reach.

4.3 Stand-Up India: Near-Total Exclusion of RRBs and Cooperative Banks

Table 3 presents Stand-Up India scheme performance by agency in West Bengal as on 30 September 2022, with disproportionality ratios computed by the authors.

This is the paper's starkest observation. Of 7,389 total Stand-Up India loans to women in West Bengal, 7,329 (99.19 percent) came through Commercial Banks, yielding a disproportionality ratio of 1.11. RRBs, with 10.08 percent of total branches, account for only 0.81 percent of women's Stand-Up India loans — a ratio of 0.08, meaning RRBs disburse women's Stand-Up India credit at approximately one-thirteenth the rate their branch presence would imply under proportionate participation. Of 959 RRB branches, only 73 (7.6 percent) disbursed any Stand-Up India loan at all.

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Table 3. Stand-Up India Scheme Agency-wise Performance and Women's-Loan Disproportionality Ratios, West Bengal (as on 30 September 2022)

Agency	Total branches	Branches that disbursed	% branches active	Loans to women	Women-loan share (%)	Disproportionality ratio
Commercial Banks	8,532	3,208	37.6%	7,329	99.19	1.11
RRBs	959	73	7.6%	60	0.81	0.08
Cooperative Banks	27	0	0.0%	0	0.00	0.00
Total	**9,895**	**3,281**	**33.2%**	**7,389**	**100.00**	—

Source: NABARD State Focus Paper for West Bengal 2023-24, Table 2.15, original source SLBC West Bengal. Disproportionality ratio = (women's-loan share) / (branch share). Computed by authors.

The Cooperative Bank result is absolute: 27 branches, 0 disbursements, 0 loans to women, disproportionality ratio of 0.00. This is not a small-base statistical artefact — zero is zero. An institution type with 27 nominally eligible branches participated in zero Stand-Up India lending to women across the entire state. This observation, on its own, is sufficient to establish that the institutional layer most commonly assumed to bridge rural borrowers and formal credit has, in the specific case of Stand-Up India lending to women in West Bengal, no operational presence whatsoever.

4.4 The Convergent Pattern Across Three Instruments

The three observations above, taken separately, each describe one instrument's concentration. Taken together, they document a pattern that appears consistently across three different credit instruments — MSME GLC, PMMY, and Stand-Up India — with different eligibility criteria, administering agencies, loan sizes, and target populations. In the MSME GLC series, Cooperative Banks register an absolute decline. In PMMY, NBFC-MFIs register a structural value-suppression relative to their account base. In Stand-Up India, both RRBs and Cooperative Banks register near-zero or zero participation in women's lending specifically. The HHI provides a single-number

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summary for one instrument (rising from 8,337 to 9,540); the disproportionality ratios provide the same function for two others (0.55 for NBFC-MFIs under PMMY; 0.08 and 0.00 for RRBs and Cooperative Banks under Stand-Up India). The convergence of this pattern across three independent instruments examined through two analytical lenses is the primary methodological strength of this paper's empirical claim.

4.5 Discussion

The observations document a credit architecture paradox at the heart of West Bengal's development story. The state hosts the highest share of women-owned MSMEs in India — 23.42 percent of the country's female-owned MSME total — yet its formal enterprise credit architecture has, over a six-year period, moved consistently away from the institutional channels structurally closest to these women borrowers and toward the channels they are least likely to access independently. This echoes (Roy & Patro, 2022) broader conclusion: the barriers women face in accessing credit are built into how institutions operate, not incidental frictions — and they persist even as account-level access has widened.

The significance of this observation for enterprise graduation is direct. (Bagchi & Kumari, 2026) identified the transition from semi-formal growth enterprise to formal scaling enterprise as the critical bottleneck in West Bengal's women's enterprise graduation pathway, and proposed that the solution lay in formalised referral pathways from SHG federations to bank MUDRA desks and in RRB-led MSME credit for women completing SHG cycles. The present paper's PMMY and Stand-Up India data suggest that even where such referral pathways are activated, the outcomes are structurally disappointing: PMMY loans through the most accessible channel (NBFC-MFIs) are half the size of those through Commercial Banks, and Stand-Up India loans through the nearest institutional layer (RRBs) are available from only 7.6 percent of RRB branches. This is consistent with argument of (Mittal & Raman, 2022) that the graduation constraint is institutional — it lies in the delivery layer, not in scheme design — and with (Vidyarani & Maheshkumar, 2022) finding that inter-regional MSME credit disparities reflect institutional proximity rather than enterprise merit.

The 2018-19 anomaly in the HHI series — the single year in which concentration fell — deserves particular attention for its policy implications. In that year, RRB and Cooperative Bank MSME credit shares both rose (RRB from 7.25 percent to 10.89 percent; Cooperative Banks from 1.74 percent to 3.59 percent), before collapsing again in 2019-20. This demonstrates that the concentration pattern is not an institutional inevitability but is responsive to conditions that, in 2018-19, temporarily reversed it. The Union Cabinet's July 2018 extension of the RRB Recapitalisation Scheme, which injected capital into RRBs whose Capital to Risk Weighted Assets Ratio had fallen below the mandatory 9 percent threshold, is per (Reserve Bank of India, 2022), the most likely trigger behind that year's reversal. The subsequent decline in RRBs' share of MSME lending after 2019–20 suggests that their earlier expansion in credit provision may not have

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translated into a sustained increase in their role as MSME lenders. This interpretation is consistent with (Yadav et al., 2023), who document substantial structural changes in RRBs' portfolio and institutional configuration, including consolidation, changing lending patterns, and the continuing constraints on their financial-inclusion role. Understanding what drove that reversal — whether a specific policy initiative, recapitalisation timing, or an external credit cycle factor — is an important avenue for future research, since it implies that the concentration is potentially reversible through targeted intervention.

This paper's main limitation is the absence of district-level credit data for the MSME, PMMY, and Stand-Up India instruments, which prevents a finer-grained geographic analysis of where exclusion is most acute. A second limitation is the single-period nature of the PMMY and Stand-Up India data (as on 30 September 2022), which does not allow trend analysis for those instruments. Future work, using RBI's district-level credit data or SLBC data at a more granular level, could extend the geographic dimension of this analysis. Future research should also examine whether women entrepreneurs in West Bengal are aware of agency-specific differences in PMMY loan terms and Stand-Up India eligibility, and whether greater awareness would alter channel choice at the point of seeking formal enterprise credit — building on (Parameswaran & Kadam, 2026) finding that technology adoption can partially bridge the formal credit gap for women-owned enterprises.

5. Conclusion and Policy Recommendations

This paper has documented, across three independent credit instruments examined through concentration and disproportionality analysis, a consistent and widening institutional pattern in West Bengal's formal MSME credit architecture: Commercial Banks are capturing an ever-larger share of MSME, MUDRA, and Stand-Up India credit, while RRBs and Cooperative Banks — the institutions historically mandated to serve rural and semi-urban borrowers — are becoming progressively marginal or entirely absent from women's enterprise finance.

The practical significance of this finding is that enterprise graduation for women in West Bengal is constrained not by a shortage of credit schemes — PMMY and Stand-Up India are both active and funded — but by a shortage of accessible institutional participation within those schemes at the channel layer closest to rural women borrowers. The policy response therefore needs to target institutions, not schemes. Three specific reforms follow directly from the data:

- Cooperative Bank capacity-building for women's enterprise lending. The complete absence of Cooperative Bank participation in Stand-Up India lending — zero loans to women from 27 eligible branches — warrants a mandatory participation programme, potentially including dedicated staff training for Stand-Up India appraisal, interest subvention to de-risk first-time enterprise loans, and a block-level outreach mandate analogous to the SHG bank linkage facilitation model.

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- RRB-specific MSME graduation product for SHG and JLG women. With only 7.6 percent of RRB branches disbursing any Stand-Up India loan and a disproportionality ratio of 0.08 in women's lending, RRBs are largely inactive in the scheme designed most directly for the borrower segment they nominally serve. A simplified, fast-track MSME graduation loan product — designed specifically for women completing SHG credit cycles, with reduced documentation requirements and a dedicated processing window — would leverage RRBs' rural branch presence in a way that generic Stand-Up India marketing has failed to do.
- PMMY ticket-size review within the NBFC-MFI channel. The finding that NBFC-MFI-routed PMMY loans average Rs 36,402 against Rs 73,832 for Commercial Banks — a disproportionality ratio of 0.55 — suggests that NBFC-MFI lending conservatism under PMMY is unnecessarily constraining graduation for borrowers who have established creditworthiness within the channel. A review of whether NBFC-MFI PMMY underwriting criteria are calibrated to scheme eligibility ceilings rather than to internal risk limits is warranted.

These reforms are not designed to displace Commercial Banks from MSME credit, where they play an essential role, but to restore meaningful participation by the institutional layer that is best positioned — by proximity, relationship history, and community embedding — to serve women entrepreneurs at the graduation threshold. West Bengal's paradox of having the highest women's enterprise density in India paired with the sharpest institutional exclusion of the most accessible credit channels is a policy failure of the second order: the enterprises exist; the schemes exist; the institutional intermediaries that should connect them have withdrawn.

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