

Performance of Mudra Yojana: Convergence Dynamics and Policy Drivers in India's Southern States



Working Paper

COUNCIL FOR SOCIAL DEVELOPMENT

(An Autonomous Research Institute supported by Indian Council of Social Science Research,
Government of Telangana and Reserve Bank of India)

Southern Regional Centre

5-6-151, Rajendranagar, Hyderabad-500030, Telangana, India
+91 40 24016395 | Email: director@csdhyd.org | www.csdhyd.org

WP No. 006/2025

October 2025

**Performance of Mudra Yojana:
Convergence Dynamics and Policy Drivers in
India's Southern States**

**Deba Prasad Rath
Dyuti George Jacob
Rewanth Raichooti**



COUNCIL FOR SOCIAL DEVELOPMENT

**(An Autonomous Research Institute supported by Indian Council of Social Science Research,
Government of Telangana and Reserve Bank of India)**

Southern Regional Centre

**5-6-151, Rajendranagar, Hyderabad-500030, Telangana, India
+91 40 24016395 | Email: director@csdhyd.org | www.csdhyd.org**

CONTENTS

ABBREVIATIONS

ACKNOWLEDGEMENTS

LIST OF TABLES

LIST OF CHARTS

SECTION – I 1
Introduction

SECTION – II 7
Literature Review

SECTION – III 15
Empirical Methodology

SECTION – IV 19
Analysis of Results

SECTION – V 31
Policy Recommendations

SECTION – VI 33
Concluding Observations

REFERENCES 37

ANNEXURE – 1 42

Table 1: Summary of the National Level Analysis

**Table 2: Summary of Regional Analysis for the
Southern States**

ABBREVIATIONS

EMEs	Emerging market economies
GDP	Gross Domestic Product
GoI	Government of India
MFI	Micro Finance Institution
MSMEs	Micro, Small, and Medium Enterprises
MUDRA	Micro Units Development and Refinance Agency
NABARD	National Bank for Agriculture and Rural Development
NBFCs	Non-Banking Financial Companies
NPA	Non-Performing Asset
OBC	Other Backward Caste
OEM	Original Equipment Manufacturer
PMMY	Pradhan Mantri Mudra Yojana
RBI	Reserve Bank of India
RRB	Regional Rural Bank
SBI	State Bank of India
SC	Scheduled Caste
SHG	Self-Help Group
SFB	Small Finance Bank
ST	Scheduled Tribe
UN SDG	United Nations Sustainable Development Goal

ACKNOWLEDGMENTS

We acknowledge our sincere gratitude to Prof. D. N. Reddy, Managing Committee member, CSD, Hyderabad for suggesting to the RBI Chair Professor of CSD to undertake and guide research on the disbursal dynamics of Mudra loans and examine the possible existence of a skewed pattern predominantly in favour of a few districts in proximity to Hyderabad and make some policy suggestions. The work has been taken up in right earnest treating the same as a micro project. Effort is underway to collect district-level data for the scheme from MUDRA.org.

Mr. Dyuti George Jacob and Mr. Rewanth Raichooti, the two Research Interns attached to the Chair from Symbiosis International University, Pune and Christ University, Bangalore, were deployed as a part of the team to work on the micro project of MUDRA. While waiting for getting the district-level data, we have ascertained that based on secondary state-level and category-wise data on MUDRA scheme as presently available in public domain, a long period analysis could be adopted for unraveling the distribution dynamics - emerging from the leadership position of Southern states in per capita MUDRA loan disbursement - and identifying policy insights.

Our profound thanks to Prof. Shantha Sinha, Chairperson, CSD, Hyderabad and Prof. Reddy for their suggestions at various stages on the project report on MUDRA, and Dr. Sujit Kumar Mishra, Professor & Regional Director, CSD, Hyderabad, for providing support in completing this research work. We thank Prof. Sanatan Nayak, Babasaheb Bhimrao Ambedkar University, Lucknow for having reviewed and making detailed comments which have been incorporated, while absolving him of errors remaining, if any, which are solely of the authors.

The help received from Shri Y.S.S. Prasad, Smt. K. Mahalakshmi, Shri P. Kumar, and Shri J. Vijay Kumar, at various stages, is acknowledged. Views expressed are personal and not of the Reserve Bank of India or the Institute to which the author is affiliated.

LIST OF TABLES

Table 1	India <i>vis-à-vis</i> Select Countries - Comparative Programmes	3
Table 2	Comparative Delivery Models	5
Table 3	Results of Club Convergence Test	19
Table 4	Policy Insights: Key Policy Lessons for EMEs	29

LIST OF CHARTS

Chart 1	Regional Per-Capita Loan Disbursement from 2015-2016 to 2023-2024	1
Chart 2	State-wise Per-Capita Mudra Loan Disbursement from 2015-16 to 2023-24	23

Performance of Mudra Yojana: Convergence Dynamics and Policy Drivers in India's Southern States

Deba Prasad Rath*
Dyuti George Jacob
Rewanth Raichooti

ABSTRACT

The objective of this study is to investigate the convergence patterns and distributional dynamics of Mudra loan disbursements across the southern states of India, given their leadership position in the scheme among all Indian states, and to undertake a specific assessment of the state of Telangana. Much of the existing literature on Mudra Yojana has been descriptive in nature, emphasizing progress reports and trend overviews, but offering little econometric evidence on the structural drivers shaping disbursal outcomes. To address this gap, we employ the Phillips and Sul (2007) club convergence methodology on state-level disbursal data spanning 2015–16 to 2023–24. Our findings highlight a mixed picture: at the national level, there is clear divergence in per capita disbursal rates, but within the South, states show weak convergence—suggesting long-term alignment but ongoing short-term disparities. The evidence points to two key factors driving southern states' relative success: women-focused Self-Help Group-based lending models, which leverage social capital to increase access, and higher institutional quality, which reduces risks and transaction costs through more reliable enforcement and safeguarding mechanisms. These results carry three key policy implications. First, financial inclusion strategies must recognize regional heterogeneity: a uniform “one size fits all” approach risks entrenching lagging states in low-disbursal equilibria. Second, targeted measures—such as digital infrastructure, risk-sharing guarantees, and customized graduation pathways—can help weaker states catch up with high-performing clusters. Third, the Mudra experience illustrates how integrating financial inclusion with broader institutional and social frameworks enhances both reach and resilience and directly contributes to United Nations' select Sustainable Development Goals in India. In a wider perspective, India's experience offers a transferable playbook for other emerging markets and developing economies pursuing micro and small enterprise state-supported credit initiatives for job creation and inclusive growth - strengthen local institutional capacity, build on community networks, and tailor programme design and adapt credit models to the realities of different regional “clubs.”

Keywords - Pradhan Mantri Mudra Yojana, MSME, Club Convergence, Financial Inclusion, Self-Help Groups

* RBI Chair Professor, CSD, Hyderabad; Research Intern from Symbiosis International University, Pune; and Research Intern from Christ University, Bangalore.

SECTION – I

Introduction

Financial inclusion has emerged as a cornerstone of inclusive development strategies in emerging market economies (EMEs), particularly in India, where a significant proportion of the population operates outside the formal financial systems. Despite progressive policy efforts and the proliferation of financial institutions, access to affordable credit remains limited, especially for small and informal enterprises. The issue is particularly acute in the case of Micro, Small, and Medium Enterprises (MSMEs), which are widely recognized as the backbone of India's economy, playing a pivotal role in the nation's progress towards the 'Viksit Bharat' vision. These enterprises not only foster entrepreneurial dynamism but also play a crucial role in regional development and poverty alleviation¹. However, MSMEs encounter a multitude of structural and operational challenges that impede their growth, such as access to finance, asymmetric information, skill development gaps, and infrastructure gaps, among others, with the most prominent being financial constraints². In response to these challenges, the Government of India launched the Pradhan Mantri Mudra Yojana (PMMY) on 8 April 2015, with the primary objective of extending collateral-free microcredit to non-corporate, non-farm small and micro enterprises. The Mudra loan scheme can be viewed as a flagship initiative of our country aimed at poverty alleviation, balanced regional growth, and promoting entrepreneurial initiatives, envisaged to

¹MSMEs do impart entrepreneurial dynamism in India—primarily via young and scalable firms in sectors like textiles, garments, auto components (tiered to OEMs), and food processing. Young firms drive job creation and “creative destruction.” India’s employment growth is disproportionately driven by young firms, often micro and small enterprises (MSMEs) (GoI, Economic Survey, 2018–19).

²Estimated credit gap of MSMEs is Rs.20-25 lakh crore. 14-16 per cent of MSMEs have access to formal credit.

strengthen the growth process as the flagbearer of the Government's development schemes in the future.

Noteworthy to mention that MUDRA scheme is part of a global trend—state-supported micro/small-enterprise credit as a financial-inclusion and job-creation lever; it is among the world's largest micro/small-enterprise credit programmes. Other EMEs with similar programmes are: Indonesia's KUR, Bangladesh's MFI-led microcredit, Nigeria's MSMEDF, Brazil's BNDES microcredit, Kenya's YEDF/WEF, and China's inclusive finance mandates; thus, each offers lessons for the Global South.

Expanding access to affordable credit for micro and small enterprises is a common challenge across emerging economies. Countries have pursued different institutional models, ranging from government refinance schemes to MFI-led initiatives and regulatory mandates. Table 1 briefly compares India's MUDRA scheme with similar programmes in Indonesia, Bangladesh, Nigeria, Brazil, Kenya, and China, highlighting target groups, delivery models, and distinctive innovations.

Table 1: India *vis-à-vis* Select Countries - Comparative Programmes

Country	Programme	Nomenclature	Focus / Target Group	Innovations / Distinctive Features
India	PMMY (MUDRA)	Pradhan Mantri Mudra Yojana – Micro Units Development and Refinance Agency	Collateral-free loans up to ₹10 lakh (<i>Shishu, Kishor, Tarun</i>) for micro/ small enterprises; promotes women entrepreneurs and job creation.	Tiered loan structure; integration with SHGs and digital platforms; refinance through MUDRA.
Indonesia	KUR	Kredit Usaha Rakyat (People’s Business Credit)	Subsidized loans to MSMEs <i>via</i> banks.	Partial credit guarantees; capped interest rates; strong integration with banking system
Bangladesh	MFI-led Microcredit	Microfinance Institution-led (<i>e.g.</i> , Grameen, BRAC, ASA)	Collateral-free loans, primarily to poor women.	Social collateral <i>via</i> group lending; women-centric model; repayment discipline through peer monitoring
Nigeria	MSMEDF	Micro, Small and Medium Enterprises Development Fund	Loans/grants for MSMEs, focused on women and underserved regions.	60 per cent allocation for women; delivered <i>via</i> microfinance banks; includes capacity-building
Brazil	BNDES Microcredit	Banco Nacional de Desenvolvimento Econômico e Social	Low-interest productive microcredit for small entrepreneurs.	State development bank anchor; focus on productive activities; partnerships with NGOs/local agents
Kenya	YEDF	Youth Enterprise Development Fund	Credit, training, and market linkages for youth.	Blends loans with entrepreneurship training; youth employment focus.
Kenya	WEF	Women Enterprise Fund	Affordable credit and support for women entrepreneurs.	Group-based lending; integrates financial literacy and mentoring.
China	Inclusive Finance Mandates	普惠金融 (Pūhuì jīnróng, Inclusive Finance)	Affordable credit for small businesses, farmers, marginalized groups.	Regulatory mandates; digital finance integration (<i>e.g.</i> , Alipay, WeBank); state-driven inclusion targets.

Source: Authors’ compilation

MSMEs and the MUDRA Scheme

According to the Ministry of MSME, micro, small, and medium enterprises contribute approximately 30 per cent to India's Gross Domestic Product (GDP), 45 per cent to manufacturing output, and nearly 40 per cent to total exports, while also employing over 110 million people (Ministry of MSME, 2022). They constitute the second-largest sector in India. MSMEs not only play a crucial role in providing significant employment opportunities at comparatively lower capital costs than large industries but also aid in the industrialization of rural and backward areas. This helps reduce regional imbalances, ensures a more equitable distribution of national income and wealth, and promotes balanced development. The government's 'Viksit Bharat' initiative, aimed at transforming India into a developed nation, heavily depends on the dynamism and resilience of the MSME sector to drive innovation, create jobs, and boost the country's global competitiveness.

However, MSMEs in India have historically faced significant challenges in accessing credit for the formal sector primarily due to inadequate collateral, limited credit histories, and a lack of financial literacy. The limited availability of collateral, coupled with cumbersome documentation procedures and high perceived risk by formal financial institutions, often excludes these enterprises from accessing adequate and timely credit (*RBI Annual Report*, 2020). To address these issues and unlock the potential of MSMEs, the Government of India established the Micro Units Development and Refinance Agency (MUDRA) as a specialized institution to facilitate collateral-free credit to the sector (Dasa *et al.*, 2024). The scheme, implemented through MUDRA Ltd., provides credit that can be utilized for a range of purposes, including working capital, purchasing machinery, upgrading technology, and expanding operations. MUDRA loans are disbursed through a wide network of financial institutions, including Commercial

Banks, Regional Rural Banks (RRBs), Small Finance Banks (SFBs), Non-Banking Financial Companies (NBFCs), and Micro Finance Institutions (MFIs), thereby ensuring financial inclusion in its true sense. At a cross-country level, the MUDRA scheme can be compared with its global peers (Table 2).

Table 2: Comparative Delivery Models

Model	Scheme/Country	Advantages	Risks
Refinance/ Guarantee Model	MUDRA, KUR, MSMEDF	Scale, low fiscal cost	Weak outreach, bank risk aversion
Direct MFI/ Cooperative Model	Bangladesh, Brazil, Kenya	Deep reach, women- focused	High cost, donor dependency
Quota/State-Mandate Model	China, partly Kenya	Huge scale, policy alignment	Political risk, reduced discipline

Source: Authors' compilation

Since its inception, the scheme has disbursed over ₹28 lakh crore in loans, benefitting more than 47 crore borrowers, a majority of whom belong to marginalized and underbanked communities (*PMMY Annual Report, 2024*). Women have also greatly benefited from the Mudra loans, securing over 67.9 per cent of loan accounts. Over 50.62 per cent of the loan accounts have been sanctioned to those belonging to the weak and marginalized community, like SC, ST, and OBC. The loans under PMMY are available under four categories, which are: Shishu (for loans up to ₹50,000/-), Kishore (covering loans above ₹50,000/- and up to ₹5 lakh), Tarun (covering loans above ₹5 lakh and up to ₹10 lakh), and Tarun Plus (covering loans above ₹10 lakh and up to ₹20 lakh)³.

³The Tarun Plus category was introduced in the 2024–25 fiscal year, as per the Union Budget 2024–25. It offers loans between ₹10 lakh and ₹20 lakh to eligible entrepreneurs who have fully repaid their previous Tarun loans. The notification for Tarun Plus was issued on October 25, 2024. According to available data, in just four months of FY 2024–25, about 24,557 Tarun Plus loans totalling roughly ₹3,790 crore were sanctioned. By mid-2025, data shows ₹4,930 crore in sanctions across 34,697 borrowers.

The MUDRA experience illustrates how integrating financial inclusion with broader institutional and social frameworks enhances both reach and resilience and directly contributes to United Nations' select Sustainable Development Goals (SDGs) in India - by promoting financial inclusion, enabling micro-enterprises, creating jobs, and fostering economic empowerment, thereby contributing to poverty reduction. This financial access enables the poor to transition from informal to more sustainable self-employment and wage employment opportunities, directly addressing poverty (SDG 1); the scheme helps formalize the informal economy by bringing more small businesses under a structured financial framework, and thus decent work (SDG 8); Mudra's focus on providing finance to small and micro-enterprises contributes to reducing inequalities by offering a platform for growth to those previously excluded from the formal financial system, and thus reduced inequalities (SDG 10); and a significant number of loans under the PMMY are taken by women entrepreneurs, making them key players in economic participation and growth. Mudra advances economic empowerment for women, creating platforms with equitable opportunities for their further growth and development. and thus, gender equality - financial inclusion of marginalized groups (SDG 5).

In this paper, we argue that the varying performance of Indian states under the MUDRA scheme offers a microcosm of how financial inclusion policies can drive or hinder SDG progress. For India, this suggests the need for state-specific strategies and complementary policies. For other countries, the MUDRA experience provides a roadmap on leveraging microfinance to achieve inclusive and sustainable development—but only when integrated with broader ecosystem reforms and capacity-building efforts.

Toward this objective, this paper is structured into six main sections. Section I explores the Pradhan Mantri Mudra Yojana (PMMY), outlining its origin, its underlying rationale, and the progress achieved since its inception. Section II engages with the existing body of literature, offering a thematic review that underscores both the gaps and the relevance of the present study. Section III describes the empirical approach adopted, detailing the methodology and data used in the analysis. Section IV presents the findings from both national and regional tests, with a specific focus on the state of Telangana. Section V offers a few policy recommendations based on the observed trends and disparities among the constituent states. Section VI concludes.

SECTION – II

Literature Review

Pradhan Mantri Mudra Yojana (PMMY)

The Mudra Yojana has been positioned at the heart of India's financial inclusion and MSME development policy. A broad set of studies recognize the scheme's role in fostering entrepreneurship, especially among women, SHGs, and marginalized groups, while enabling collateral-free credit support for micro-enterprises and allied agricultural sectors. It has been celebrated as an enabler of self-employment, a driver of the \$5 trillion economy vision, and a means of strengthening backward and rural communities (Mahesh, Aithal and Sharma, 2021; Dasa *et al.*, 2024).

Despite these contributions, the literature consistently highlights operational challenges. Low credit ceilings, limited reach in rural areas, and significant regional disparities in adoption are common themes (Dasa, 2024; Geeta,

Bharthwaj, Gayatri, and Akash, 2022). Several studies also point out structural limitations, such as high levels of non-performing assets (NPAs) in the Shishu category, weak infrastructure in underserved regions, and procedural inefficiencies within implementing agencies (Kumar and Shobana, 2024; Solanki and Chhikara, 2022; Pandey and Tripathi, 2022).

The role of MSMEs and financial inclusion initiatives, particularly the MUDRA Yojana,, has been central to India's development discourse. Pal and Choudhary (2022) underscore the critical contribution of MSMEs to India's Viksit Bharat vision, noting their substantial share in GDP, exports, and employment. Their study emphasized the alignment of MSMEs with sustainable development goals (SDGs) and called for enhanced access to green finance and tailored, region-specific policy interventions. Complementing this, a growing body of literature has explored the impact of PMMY on entrepreneurship, financial inclusion, and economic growth.

While Dasa *et al.*, (2024) acknowledged the PMMY's positive role in strengthening allied agricultural sectors and promoting women's entrepreneurship, the study also highlighted significant shortcomings. In particular, low credit disbursement and regional disparities in access undermine the scheme's broader objectives of financial inclusion and balanced development. This dual perspective suggests that although PMMY has created important opportunities, its uneven implementation limits its transformative potential. SBI Research (2025) further documented a positive shift toward disbursing PMMY funds in financially weaker states—such as Bihar, Uttar Pradesh, Odisha, and the North East—and emphasizes the scheme's role in empowering women-led MSMEs through growing loan amounts and deposits. In contrast, an analysis by GS Score revealed that loan distribution continues to favour regions with higher credit–deposit ratios

and larger states, indicating persistent regional imbalances despite PMMY's intended reach.

Similarly, Geeta, Bharthwaj, Gayatri, and Akash (2022) revealed limited awareness of PMMY among rural women in Telangana, resulting in declining uptake despite the scheme's inclusive potential, and suggested the need for intensified financial literacy and outreach initiatives. Kumar and Shobana (2024) corroborated the scheme's positive impact on microenterprise formation and financial access; however, they drew attention to structural challenges, including elevated non-performing assets (NPAs) in the Shishu category and infrastructural deficits in underserved regions. Solanki and Chhikara (2022), through empirical analysis of implementing agencies, identified key constraints to effective PMMY implementation, namely technological inadequacies, weak infrastructure, and administrative inefficiencies, and advocate for institutional capacity building and procedural streamlining. Public awareness patterns are further examined by Jamela Salasty, Kanagavalli, and Arumugam (2023), who found general familiarity with PMMY but insufficient knowledge of its operational specifics, with peer networks and media emerging as primary sources of information. Bharti and Verma (2022) focused on social equity in loan distribution, finding that while Scheduled Tribes have shown marked improvement in access, marginalized groups continue to face barriers linked to documentation, literacy, and systemic bias. From a banking perspective, Pandey and Tripathi (2022) analyzed PMMY's effect on sectoral NPAs, noting that although Shishu loans exhibited higher default rates, post-2019 regulatory and policy interventions have mitigated associated risks. Dynamic coastal and high-growth states captured a disproportionate share of benefits, while lagging areas like the Northeast and weaker sectors such as manufacturing remained under-served (Kar, Jha and Kateja, 2008; Jayagopal, 2024).

Overall, the evidence suggests that PMMY is impactful, but requires greater institutional capacity, targeted region-specific interventions, and stronger financial literacy programs to reach its full potential.

Self-Help Groups

The literature on microfinance and Self-Help Groups (SHGs) in India and South Asia presents a nuanced understanding of their role in advancing poverty reduction and women's empowerment.

Emerging from Muhammad Yunus's pioneering microfinance model and institutionalized in India through the launch of NABARD's SHG-Bank Linkage Programme in 1992, Self-Help Groups (SHGs) have become central to India's microfinance architecture. Evidence from early studies demonstrates clear improvements in income, savings, and access to credit among SHG participants, lifting as much as 15 per cent of households above the poverty line (Puhazhendi, 2000; Puhazhendi and Satyasai, 2000; Puhazhendi and Badatya, 2002). NABARD itself projected SHGs as a scalable model capable of reaching 100 million rural poor (NABARD, 1995; 2001). Comparative experiences from Bangladesh validate these outcomes, with institutions such as BRAC and PRADAN successfully deploying group-based lending to address the collateral problem (Kabeer, 2005; Kabeer and Nojonen, 2004; Dash and Kabeer, 2004). However, these benefits tend to be more substantial for those closer to the poverty line, while extremely poor households often require more customized support (Hulme and Mosley, 1996). Beyond economic outcomes, SHGs have shown the potential to foster broader forms of empowerment. Studies document improvements in women's self-esteem, legal awareness, and mobility, alongside reported reductions in domestic violence (Singh and Pande, 2022; Islam and Narzary,

2021; Gusanti and Awasthi, 2024). State-specific programmes such as Odisha's Mission Shakti and Telangana's Stree Nidhi illustrate the potential of women's collectives to foster entrepreneurship and enhance financial status (Mishra and Mishra, 2024; Firdouse, 2024). Political and civic empowerment has also been observed in states such as Andhra Pradesh and Bihar, where SHG participation has translated into deeper community engagement (Harita and Reddy, 2024; Deepa and Bose, 2024). Nonetheless, challenges remain. Many groups still face limited market access, insufficient training, and infrastructural barriers, particularly in less-developed regions (Radha *et al.*, 2024). These hurdles are often reinforced by prevailing social norms and gender dynamics, which can restrict women's autonomy even within empowered settings. It is increasingly recognized that empowerment extends beyond financial independence, encompassing changes in social norms, greater legal awareness, and the development of leadership skills (Patel and Mistry, 2024). Findings on intra-household dynamics are mixed: while some studies note improvements in decision-making power and a decline in domestic conflict (Hashemi *et al.*, 1996), others report minimal or even negative effects, particularly when men dominate the use of women's loans (Goetz and Sen Gupta, 1996; Holvoet, 2005). The orientation of microfinance institutions also matters—those with a more socially grounded approach, like BRAC and MYRADA, tend to yield deeper community impact than minimalist, finance-first models such as SHARE (Kabeer and Matin, 2004; Cortijo and Kabeer, 2004). While SHGs and microfinance have delivered considerable benefits across economic and social dimensions, their success depends on a range of contextual factors. Long-term impact requires more than financial services alone. It calls for supportive institutions, regionally responsive interventions, and an understanding of empowerment that goes beyond income to include social transformation.

Information Asymmetry

The discourse on information asymmetry in financial markets, particularly in the context of emerging market economies such as India, reveals its pervasive influence on credit access, institutional effectiveness, and broader economic decision-making (Akerlof, 1970; Sony and Bhaduri, 2021). Akerlof's (1970) seminal "market for lemons" model introduced the concept of adverse selection, where informational imbalances between parties lead to the dominance of low-quality goods and the eventual breakdown of markets. This framework has been widely applied to credit markets in underdeveloped regions, where trust-based arrangements and high interest rates emerge as coping mechanisms in the absence of formal credit histories and verifiable borrower information. Expanding on these ideas, Sony and Bhaduri (2021) explore how Indian firms navigate asymmetric information in capital structure decisions. Their study finds that firms with lower information asymmetry indicated by greater analyst coverage and reduced forecast errors prefer equity over debt, in line with the pecking order theory. Moreover, their inclusion of dual issuances reflects firms' efforts to strategically balance financing instruments to minimize adverse selection costs, a strategy shaped by India's institutionally weak environment characterized by family dominance and governance constraints. Complementing this theoretical and corporate lens, Muhammad Yunus's foundational work on the Grameen Bank offers a grassroots solution to the same problem. Initiated in 1976 in Jobra village, Bangladesh, Yunus's model demonstrated that microcredit based on peer monitoring, trust, and group liability could overcome the limitations of conventional banking, including lack of collateral and formal guarantees (Yunus, 1976, 1999). The formalization of the Grameen Bank in 1983 and its behavioural

framework, embodied in the “Sixteen Decisions⁴,” marked a paradigm shift in development finance by addressing moral hazard and adverse selection while fostering financial inclusion, gender equity, and self-reliance (Yunus and Jolis, 2007). These insights are particularly relevant to India’s rural credit landscape, where entrenched challenges, such as high transaction costs, poor infrastructure, cognitive constraints, and gendered financial dynamics, hinder effective financial intermediation (Choudhury, 2004; Garikipati, 2008; Semmler, 2016). Choudhury (2004) critiques top-down programmes such as the Integrated Rural Development Programme (IRDP) for focusing on disbursement targets rather than borrower sustainability, resulting in high default rates. While informal lenders and SHGs supported by NABARD demonstrate greater efficiency through social trust and peer accountability, they too face issues of opportunism and limited scalability.

⁴The “**Sixteen Decisions**” are a set of social commitments that Professor Muhammad Yunus and the Grameen Bank in Bangladesh introduced in the 1980s. These were not just about repaying microcredit, but about transforming the lives of poor borrowers (especially rural women) by promoting self-reliance, social discipline, and community solidarity. Muhammad Yunus’s Sixteen Decisions, formulated with Grameen Bank borrowers in Bangladesh, were a deliberate attempt to move microfinance beyond credit into the realm of social transformation. By combining loan discipline with commitments to education, sanitation, housing improvement, nutrition, gender justice (anti-dowry, anti-child marriage), and collective solidarity, they became a social charter that embedded development values within everyday financial practice.

India’s Self Help Groups (SHGs), while not explicitly modeled on the Sixteen Decisions, reveal a strikingly similar trajectory. Emerging under NABARD’s SHG–Bank Linkage Programme and later scaled through government schemes (SGSY, NRLM), SHGs adopted group norms that echoed Grameen’s ethos: compulsory savings, regular meetings, mutual support in crises, anti-dowry campaigns, investments in health, education, sanitation, and collective bargaining for livelihoods. In both contexts, women were the primary agents, reflecting the recognition that women-centered finance catalyzes broader social change.

The comparison suggests that the “credit-plus” approach pioneered by Yunus found fertile ground in India’s SHG movement. While Grameen codified social responsibilities through the Sixteen Decisions, Indian SHGs localized these principles into flexible group norms suited to diverse cultural and regional contexts. The lesson for microfinance more broadly is that financial inclusion gains depth and sustainability when anchored in community-based social commitments, rather than being restricted to transactional credit delivery.

Semmler (2016) and Garikipati (2008) further underscore intra-household tensions, noting that women's control over SHG loans often leads to a misalignment with male-driven agricultural priorities, thus complicating repayment obligations. Together, these studies converge on the need for a comprehensive reform strategy involving simplified procedures, financial literacy with behavioural insights, gender-sensitive lending models, and innovative mechanisms such as the Grameen approach to effectively mitigate information asymmetry and promote sustainable, inclusive financial systems.

Need for Research

Almost the entire existing literature of the PMMY scheme is descriptive in nature. A lot of the work that currently exists evaluates the progress of the scheme in select areas using simple descriptive statistics tools. As a result, insights into the first principles that drive the disbursement rates are underexplored, leading to a dearth of ideas to better leverage this scheme to achieve India's financial inclusion objectives. Even among the existing works, the scope is limited to aggregate-level data for the country or a specific state, but it lacks a comprehensive multi-stage regional analysis to better understand causal relationships. Therefore, our study is aimed at addressing these research gaps on the PMMY scheme in the following key dimensions: scope, methodology, and policy. Accordingly, our specific research objectives:

- To apply the Philips and Sul (2007) club convergence test and evaluate the disbursal performance of a government welfare scheme across the Indian states, analyse the co-movements across the states and to identify the underlying common patterns, and explore reasons for heterogeneity in performance in this regard;

- To conduct a regional analysis of the Southern states to understand the key drivers shaping the disbursal patterns; and
- To formulate policy recommendations based on the findings to amplify the loan disbursal trends and to strengthen the scheme's role in advancing the financial inclusion goals.

Given the heterogeneity in economic structures, financial infrastructure, and entrepreneurial ecosystems across states, a granular evaluation can offer insights into spatial disparities in credit access and highlight states that may be lagging or outperforming. Such an analysis is essential for evidence-based policymaking and for tailoring interventions that can be targeted towards low-performing states to enhance the effectiveness of credit delivery mechanisms at the subnational level.

SECTION – III

Empirical Methodology

‘Club convergence’ is an advanced concept in the field of Growth Economics – a tool to address the heterogeneity observed in the convergence patterns of economies or regions. Conditional convergence assumes that all economies will eventually reach a common steady state. Here, the entire region is considered to be on the same growth path. Club convergence, on the other hand, recognizes that while a general convergence path may be unlikely, subgroups (or "clubs") within economies with similar structural characteristics or initial conditions may converge to their distinct steady states. This approach allows for the possibility of multiple convergence equilibria within a larger set, reflecting real-world observations where groups of countries or regions grow together but remain distinct from others. The rationale for employing club convergence analysis arises from empirical evidence that global or national economies rarely converge as a

whole; rather, they tend to form clusters with similar growth trajectories. This phenomenon of "polarization" suggests that while some regions converge towards higher-income steady states, others may stagnate at lower levels, resulting in persistent inequality. The club convergence framework, therefore, provides a more nuanced understanding of growth dynamics and is particularly relevant for policy analysis. It helps identify which groups of economies are catching up and which are lagging, thereby enabling targeted interventions to reduce this disparity.

Source and Nature of Data used

The data for the research was sourced from Mudra.org – the official database – which provides state-wise loan disbursement data for the Mudra Yojana from 2014 onwards, dividing into three loan categories: Shishu, Kishore, and Tarun. The period of our analysis spans from 2014–2015 to 2023–24, covering the latest available data. The disbursement data was converted to per-capita figures using state-wise population estimates, as the research aims to examine heterogeneity among loan disbursement patterns across states and explore potential reasons for it.

Why the Phillips-Sul Method?

The Phillips and Sul (2007) method models convergence as a nonlinear, time-varying process. This allows for identifying individual-specific transition paths and endogenous convergence clubs. (Sichera and Pizzuto, 2019) This advantage makes it suitable for analyzing cases with large panel data encompassing diverse units, such as countries, states, or firms. It is also useful in uncovering hidden patterns of convergence and divergence.

Step 1: Construction of the Relative Transition Parameter

The relative transition parameter for each unit is defined as:

$$h_{it} = \frac{X_{it}}{\frac{1}{N} \sum_{i=1}^N X_{it}} :$$

This parameter tracks the evolution of each unit relative to the panel average, effectively removing the common trend and focusing on relative dynamics. It compares how each state compares to the group average at every point in time. This effectively removes the common trend and focusing on relative dynamics which gives a better description of how states move in comparison to each other.

Step 2: Cross-Sectional Variance Calculation

The cross-sectional variance of the relative transition parameters at each time ‘ t ’ is given by:

$$H_t = \frac{1}{N} \sum_{i=1}^N (h_{it} - 1)^2,$$

Step 3: The Log-t Regression Test

To formally test for convergence, the log-t regression is performed to improve test accuracy by accounting for slow convergence rates:

$$\log \frac{H_1}{H_t} - 2 \log L(t) = a + b \log t + u_t,$$

Here, H_t is the cross-sectional variance of loan relative disbursements which measures the spread among the states. The key parameter is ‘ b ’, under the null hypothesis of convergence, and $b \geq 0$. The test statistic is the t-value for ‘ b ’. If the t-statistic is

greater than -1.65, the null hypothesis of convergence is not rejected at the 5 per cent significance level.

Decision Rule (Phillips & Sul, 2007)

- Null hypothesis = Convergence
- If **t-stat** > **-1.65** → Fail to reject → Evidence of convergence
- If **t-stat** ≤ **-1.65** → Reject → Evidence of divergence

Results can be interpreted as:

- If the data shows overall convergence, then the model will only return 1 club where all the regions are included.
- If the convergence test fails, then we see the formation of groups or clubs within the data. The presence of several clubs indicates that subgroups are converging to different steady states. This often reflects underlying structural differences, disparities, or initial conditions.

The identification of convergence clubs has profound economic policy implications. The formation of clubs reveals the existence of persistent economic disparities and the failure of some regions or countries to catch up with more advanced regions. This could be due to different structural and policy limitations, which could be addressed through targeted policy implementation. This, in turn, enables policymakers to design interventions for lagging groups, address structural barriers, and promote inclusive growth. This will also facilitate greater transmission of knowledge and capital from the achievers to the laggards.

In addition to the convergence analysis outlined above, descriptive statistical techniques were employed to provide an initial overview of the dataset's characteristics and visually explore the properties of the variables under our study.

A series of graphical representations, like histograms and line graphs, was constructed, which enabled the identification of trends, outliers, and potential anomalies.

SECTION – IV

Analysis of Results

The empirical exercise was carried out using data sourced from Mudra.org on absolute disbursals of Mudra loans for each of the states and union territories in India since the inception of the scheme, converted to per-capita values, and applying Philips-Sul convergence test on them in Stata software, results of which are illustrated below (Table 3). A total of 279 observations were used in the regression analysis for all Indian states, and 45 observations were used in the regression analysis for southern states. The independent variable Log t captures the non-linear trend of per-capita loan disbursals across time. The original Stata output for the same has been included in Annexure 1.

Table 3: Results of Club Convergence Test

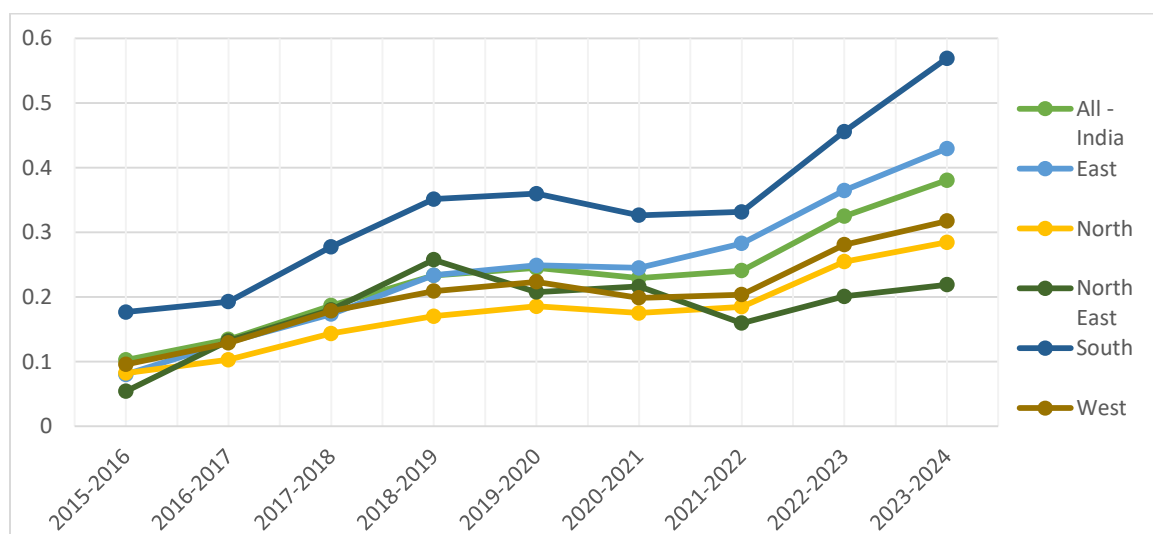
Region Tested	Estimated Coefficient of Log (per-capita disbursals of Mudra loans)	t-statistic	P value	Decision	Interpretation
All Indian States (National)	–0.0905	–8.39	0.000	Reject convergence	States diverge; uneven loan disbursal across India
Southern States (Regional)	–0.0249	–0.71	0.479	Fail to reject convergence	Weak/conditional convergence; South moving toward a common long-run path

Note:

1. Critical Value of t statistic > -1.65 – Convergence.
2. P value < 0.05 – Statistically significant.
3. $R^2 = 0.20$ - The model for All-India explains about 20 per cent of the variation in relative transition paths - reasonable for macro-level heterogeneity.
4. $R^2 = 0.0117$ - The model for southern states explains almost no variation, consistent with high short-run heterogeneity, but possible long-run convergence.

The foremost indicator to verify if the test results show convergence or divergence of the per capita disbursements of Mudra loans is to check the t – statistic value. From Table 1, it can be seen that the t -statistic has crossed the threshold limit and is smaller than the critical value of -1.65. This shows that at the national level, there exists a case of divergence. The p -value ensures statistical significance and makes the coefficient value fit for interpretation. Since the p -value of 0.000 is statistically significant the coefficient value of -0.09 is a sign of clear divergence *albeit* at a slow pace. This result is a sign of the stratification within the states of India and how different states have adopted different growth paths for the same scheme. The stratification or heterogeneity could be due to various reasons such as state government policies, level of awareness among the public regarding the schemes, women’s participation, incentives to engage in entrepreneurship, and socio-political factors, among others. This is an interesting proposition to be explored through further regional analysis.

Chart 1: Regional Per-Capita Loan Disbursement from 2015-2016 to 2023-2024



Source: Authors’ compilation – Mudra.org.

Chart 1 has the entire country divided into five regions while also plotting the all-India performance in terms of per capita disbursements. South India leads the pack, followed by East, and both these regions remain above the national average. The remaining three regions, namely, West, North, and North-East, are below the national average and are placed in that order.

The regions are categorized as follows for analysis:

- North – Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Madhya Pradesh, Punjab, Uttar Pradesh, and Uttarakhand
- North East – Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura
- East – Bihar, Chhattisgarh, Jharkhand, Odisha, and West Bengal
- West – Goa, Gujarat, Maharashtra, and Rajasthan
- South – Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Telangana

The union territories of Andaman and Nicobar Islands, Dadra and Nagar Haveli, Daman and Diu, Lakshadweep, and Puducherry were outliers to the data with their negligible figures and were thus excluded from the analysis.

Southern states are showing a rising trend in per-capita loan disbursements. States like Karnataka and Tamil Nadu have constantly been the top-performing states in the country. The remaining regions, including the national average, were similarly placed in 2015, but over the years have adopted slightly different growth patterns. East, consisting of states like Bihar and West Bengal, has over the years increased its per-capita loan disbursements, and from 2020-21, it has consistently remained above the national average, and continues to show an upward-looking trend. The trend shown by the Southern and Eastern regions throws an interesting paradox, which we will discuss later in the paper and will be crucial in our policy

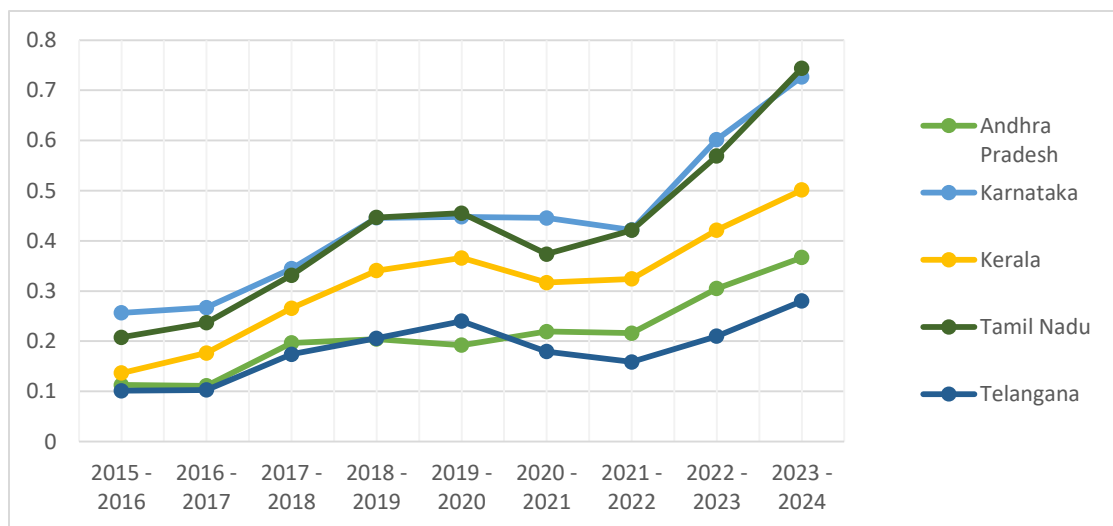
recommendations. The Western and Northern regions have followed a similar growth path, remaining below the national average since the beginning of the scheme, and show an upward *albeit* slow growth trend. The region of North-East had reported the lowest per-capita loan disbursements in the first year. With a healthy growth, it peaked in 2018-19, surpassing even the national average, and was second only to South. However, thereafter, a downward trend occurred, falling to its lowest in 2021-22. Since then, it has recovered slowly and shows a promising upward trend.

Regional Analysis of Southern States

A detailed analysis of the Southern region and its emergence as the clear leader in the Mudra scheme since 2015 will be the focus of our regional analysis, based on the Philips and Sul convergence test for the Southern region (Table 3).

As can be seen, the Southern states show a case of convergence as the t-statistic value of -0.71 is greater than the critical value of -1.65. However, the p-value of 0.479 is not statistically significant. This prevents us from making conclusive statements about the performance within the Southern region. However, the Southern states of Tamil Nadu and Karnataka have been leaders of the scheme since its inception. Other Southern states have also performed exceptionally well. Such a result of weak convergence within the region could be on account of states like Telangana, which still have a long way to convergence with the other states in the region.

Chart 2: State-wise Per-Capita Mudra Loan Disbursement from 2015-16 to 2023-24



Source: Authors' compilation – Mudra.org.

Chart 2 illustrates the performance of the Southern states over time, revealing an encouraging trend. Despite some degree of stratification, all states exhibit a positive growth trajectory in per capita loan disbursals. This trend aligns with the empirical evidence from our convergence analysis, which indicates that the Southern region is on a path toward convergence. The commendable performance of the southern states can be attributed to two broad factors:

1. Government schemes: Schemes like 'Mahalir Thittam' in Tamil Nadu, 'Gruhalakshmi' in Karnataka, 'Kudumbashree' in Kerala, 'YSR Cheyutha Scheme' in Andhra Pradesh and 'Indira Mahila Shakti Scheme' in Telangana have all focused on financial inclusion specifically of women.
2. Socio-cultural and administrative factors- According to the India Justice Report 2025, the Southern states lead with the best ranking in terms of Legal aid, Police, Justice and Prisons. Such conducive factors encourage entrepreneurs to set up businesses, women to engage in productive activities, and foster an environment of growth and development.

Among the Southern states, the case of Telangana is noteworthy.

Telangana although appears to be a laggard within the Southern region also has various schemes for financial inclusion focused on women, such as ‘Indira Mahila Shakti Scheme’ which aims to empower over one crore women through various livelihood schemes and Self- Help groups, and the ‘Cheyutha scheme’ aims at empowering women through direct benefits transfer. The ‘Mahalakshmi scheme’ launched in 2023 aims to empower women from underprivileged households by providing ₹2500 per month to the women heads of families below the poverty line, LPG cylinders at ₹500, and free bus travel across Telangana. Under the broader framework of the ‘Abhaya Hastham’ initiative, the Government of Telangana has introduced a series of welfare-oriented schemes aimed at enhancing social equity and improving living standards. Notable among these are ‘Gruha Jyothi’, which provides 200 units of free electricity to every household; ‘Indiramma Indlu’, which offers land and financial assistance of ₹5 lakh for house construction to individuals without permanent housing; and ‘Yuva Vikasam’, which ensures educational support through the provision of Vidya Bharosa Cards to five lakh students. Collectively, these schemes reflect a comprehensive approach to social welfare, targeting essential needs such as housing, energy access, and education (*Socio Economic Outlook, 2024*). Telangana has also focused on digital empowerment schemes, like the ‘Digital Telangana Initiative’ for a comprehensive digital transformation of Telangana with the aim of training one member of each household to be digitally literate. In the context of Mudra, the Telangana MSME policy of 2024 deserves attention. The scheme earmarks ₹600 crore over a period of 5 years. 20 per cent of every plot in a new industrial area will be reserved for MSMEs. The government under this scheme, provides 25 per cent subsidy, up to ₹30 lakh for MSMEs, and women get an additional 10

per cent up to ₹20 lakh. MSMEs owned by SC/ST individuals get a 50 per cent subsidy, up to ₹1 crore.

As a result of these initiatives, the MSME registration on the TG-iPASS portal have grown by over 11 per cent to 15 per cent yearly. These results are a testimony to Telangana's gradual growth in per-capita Mudra loan disbursement and the consequent upward trajectory (Chart 2).

As highlighted earlier, in addition to financial inclusion initiatives, effective governance, accountability, and transparency play a key role in creating an enabling environment for industrial and economic development. In this context, programs such as 'Praja Palana' serve as comprehensive social safety net schemes, encompassing support for the elderly, assistance for women, and a range of scholarship initiatives. The program is designed to streamline administrative processes, ensure the direct delivery of benefits to targeted beneficiaries, and strengthen mechanisms of transparency and accountability. It aims to establish a governance framework that is responsive to the needs of vulnerable populations, thereby promoting inclusive and equitable development across the state. Complementing this initiative is 'Praja Vani' - a structured public grievance redressal platform that empowers citizens to voice concerns and monitor the resolution process, thereby enhancing participatory governance and reinforcing public trust in administrative institutions.

Due to the widespread prevalence of various schemes, there exists a strong Self-Help Group ecosystem in Telangana. At the same time, the state exhibits a notably lower per capita Mudra loan disbursement (₹2,653.5) compared to other South Indian states. Several factors contribute to this discrepancy. First, the robust credit access provided by SHGs, facilitated through initiatives like Telangana Mahila Shakti and the Society for Elimination of Rural Poverty (SERP), likely acts as a

drag for the demand for individual Mudra loans among SHG members, as their financial needs are met through group-based lending. Second, awareness of the Mudra Yojana appears limited among non-SHG borrowers, such as individual entrepreneurs and urban micro-enterprises, in contrast to the intensive outreach for SHG bank linkages. The gaps in banking infrastructure, particularly in rural areas, may restrict access to Mudra loans for non-SHG borrowers, unlike the streamlined bank linkages for SHGs. Third, Telangana's economic structure, heavily weighted toward information technology and large-scale industries, may result in fewer non-SHG micro-enterprises seeking Mudra loans, as evidenced by a decline in registered MSME units (175 in 2024-25 compared to 3,974 in 2021-22). Furthermore, information asymmetry also affects banks, which may hesitate to lend to non-SHG micro-enterprises due to incomplete borrower information or perceived risks, particularly in rural areas with limited credit histories. Additionally, state-specific schemes, such as zero-interest loans under Telangana Mahila Shakti, may compete with Mudra loans, diverting both SHGs and individuals to alternative credit sources.

Discussion of the Results

The findings of our study contribute to the growing body of literature on the credit-based financial inclusion strategies. These findings are discussed in this section with a special focus on their relevance for the countries in the global south.

a. Divergence at the National Level and Weak Convergence among the Southern States

Our study finds significant heterogeneity in the loan disbursal rates among the states at a national level (coefficient:- 0.09). This divergence echoes earlier findings in loan disparities in access to credit in India (Burgess and

Pande, 2005), which found that state interventions and institutional support, like the opening of bank branches in rural areas, significantly shape the credit access levels in India. From a theoretical perspective, these findings are consistent with the conditional convergence hypothesis, which posits that convergence is not a natural outcome of similar growth trajectories but is contingent upon structural similarities across the states. The weak convergence (coefficient: -0.02) observed in the southern states also echoes the same phenomenon, given that states like Tamil Nadu, with a relatively dynamic credit market, and states like Telangana, with a relatively nascent financial market, coexist within the southern states. This is probably the reason for a case of weak convergence where there is a mix of high performers like Tamil Nadu and relatively low yet improving performers like Telangana coexist simultaneously within the same group of states. For the global south, this highlights a crucial insight: government-driven credit schemes may produce regionally uneven outcomes unless complemented by broader institutional equalization strategies.

b. SHG-Based Lending and the Microfinance Paradigm

The government's successful implementation of financial inclusion schemes based on a women-led SHG (self-help group) lending is a key factor that separates the high-performing states from the rest. This is a result of the effectiveness of a group lending strategy as demonstrated by Dr. Muhammad Yunus with his work on the Grameen Bank Model. This phenomenon is also consistent with the works of economists like George Akerlof and Joseph Stiglitz, who showed that peer-monitoring mechanisms reduce adverse selection and moral hazard in credit markets with imperfect information. Grameen Bank operationalized these ideas,

showing that SHGs can create reputational collateral where traditional collateral is absent. Our findings reinforce these theoretical insights by illustrating that SHGs act as effective intermediaries in PMMY's implementation, particularly for women and first-generation entrepreneurs. In this sense, India's experience with SHG-based MUDRA lending provides evidence for the scalability of microfinance mechanisms in other developing country contexts, where structural credit constraints are all pervasive.

c. Structural Determinants: Institutions, Justice, and Policing

While short-term convergence depends on credit flows, long-run convergence in financial inclusion is contingent upon the strength of institutions. The literature on law, finance, and development (Acemoglu and Robinson, 2012) highlights how justice delivery systems, contract enforcement, and security of property rights shape credit market development. In the context of the PMMY scheme, the lack of robust support structures for small and medium enterprises (SMEs) may undermine the sustainability of disbursements. Strengthening policing and justice mechanisms reduces risks of default and enhances trust in credit relations. For the global south, where state capacity is uneven, our findings align with Douglas North's argument that institutional underpinnings, rather than just policy interventions, determine long-run trajectories of financial sector deepening (North, 1991).

d. Implications for the Global South

Taken together, these findings suggest that the PMMY scheme offers important lessons for other developing economies that are seeking to balance financial inclusion with structural equity (Table 4). Divergence at

the national level highlights the need for context-specific institutional strengthening, while weak convergence at the regional level illustrates the potential of policy-driven credit schemes to foster gradual harmonization. SHG-based lending validates the enduring relevance of the microfinance paradigm, while the emphasis on justice, policing, and digital empowerment places financial inclusion within a broader framework of institutional and technological transformation.

Table 4: Policy Insights: Key Policy Lessons for EMEs

1. **Graduation Pathways Prevent "Permanent Micro"**
 - India's Shishu→Kishore→Tarun ladder ensures entrepreneurs scale over time. Other EMEs should design similar graduation thresholds.
2. **Risk-Sharing Beats Heavy Subsidies - Adopt a Hybrid Model and Limit Fiscal Risk**
 - Use guarantees and risk-sharing rather than direct subsidy
 - Combine refinance + MFI partnership
 - Partial credit guarantees (Indonesia's KUR, India's CGTMSE) mobilize banks sustainably, Subsidy-only models risk fiscal burden
 - More Infants can become "giants - tilt support from size-permanent, older micro units to *growth-oriented* MSMEs - *e.g.*, time-bound incentives, easier credit with performance data (e-invoicing/Udyam⁵), faster payments, tech upgrading cluster/GVC linkages, and simpler compliance.
3. **Gender and Youth Targeting Works with Proper Channels**
 - Nigeria's 60 per cent women allocation and India's 68 per cent female share show targeting is feasible, but needs female agents, literacy drives, and flexible collateral norms.

⁵Udyam registration is a government initiative in India, facilitated by the Ministry of MSME, for registering and classifying MSMEs. It serves as a single-window system to streamline the registration process, declare their MSME status and provides access to various government benefits and schemes.

4. Digital Rails Multiply Impact - Embed digital infrastructure

- Universal ID + digital payments
- Aadhaar, UPI, Jan Dhan in India and M-Pesa in Kenya reduce delivery cost, enable real-time monitoring, and cut leakage. EMEs should invest in digital ID and payment systems.

5. Partner where Banks are Weak

- In under-banked regions, MFIs and cooperatives (Bangladesh, Brazil) remain critical. Refinance agencies should blend both banks and MFIs.

6. Monitor Graduation, Not just Loan Approvals

- Programmes should track whether borrowers move up loan tiers, increase turnover, and formalize businesses—rather than focus only on disbursal volumes
- Publish borrower movement across tiers

7. Safeguards against Over-Indebtedness

- Require cohort monitoring, vintage NPAs, and sunset clauses on subsidies

Source: Authors' compilation

The Indian case demonstrates both the promise and limitations of state-driven financial inclusion initiatives, providing a template for the global south where structural inequalities, institutional fragilities, and digital transitions remain central challenges.

India's MUDRA shows that scale, digital rails, and graduation pathways can democratize credit. For other EMEs, adapting these principles—while tailoring delivery to local financial ecosystems—offers a roadmap for inclusive, sustainable entrepreneurship finance.

SECTION – V

Policy Recommendations

National Level Recommendations

SHGs are a proven mechanism for mobilizing credit and fostering entrepreneurship, particularly among women and rural communities. South India's success in Mudra disbursement is partly attributable to its strong SHG networks, such as Andhra Pradesh's largest SHG network in the country, Telangana's SERP-supported ecosystem, among others. This can be attempted to replicate in lagging regions by integrating Mudra with SHG programs, training SHG members on accessing Mudra loans, incentivizing SHG participation by offering reduced interest rates or additional credit lines to SHGs that achieve high Mudra loan uptake and supporting transition to individual enterprises for scaling up businesses, bridging the gap between group and individual lending.

Women are critical to the success of Mudra loans, with 62 per cent of job growth from 2015 to 2018 attributed to women-led enterprises. However, barriers such as limited awareness and access persist, particularly in North and West India. These can be overcome by partnering with women's organizations to conduct outreach and provide application support, like successful models in South India, offering tailored financial literacy training programs to improve women's understanding of Mudra loans, loan repayment, and business planning, addressing barriers like low financial literacy and tracking Mudra loan disbursements by gender to identify and address disparities, ensuring equitable access across regions.

Marginalized communities, including SC/ST and OBC groups, face systemic barriers to financial services, contributing to lower Mudra disbursement in regions like North India. For this, special schemes for marginalized groups must be

introduced for SC/ST and OBC entrepreneurs, modeled on existing social justice initiatives. Documentation requirements must be simplified, and applicants with limited literacy or resources must be supported, ensuring accessibility for marginalized groups. There must also be a regular analysis of disbursement data to identify social inequities and implement corrective measures, such as targeted outreach in aspirational districts.

According to the India Justice Report 2025, access to justice, fairness, judicial backlogs, judge and police strength vary across Indian states. A robust justice system indirectly supports economic stability, fostering an environment conducive to entrepreneurship and loan demand. To address this, we must use the insights to prioritize financial inclusion efforts in regions with weaker justice systems, allocate resources to strengthen police infrastructure and training in regions like North East India, where economic activity may be hampered by instability and ensure legal aid services are available to micro-entrepreneurs facing legal challenges in loan applications or business operations, particularly in marginalized communities.

Information asymmetry is another significant barrier, where banks hesitate to lend due to incomplete borrower information, particularly in North East and West India. To address this, banks must train staff and financial intermediaries like NBFCs, MFIs to effectively promote Mudra loans and assess borrower creditworthiness using alternative data, such as transaction histories.

Telangana and Mudra Yojana

To improve Telangana's per capita Mudra loan disbursement, specific strategic actions are necessary. First, the state should launch targeted awareness campaigns to promote Mudra loans among non-SHG entrepreneurs, using local media, digital

platforms, and community networks to replicate the successful outreach used for SHGs. Second, encouraging the growth of non-SHG micro-enterprises through incentives like subsidies and entrepreneurial training could boost the number of Mudra applicants, especially in sectors such as retail and small-scale manufacturing. Third, expanding banking infrastructure, including non-banking financial companies (NBFCs) and bank branches in rural areas, would improve access to Mudra loans for individual borrowers. Fourth, addressing information gaps on the banking side requires capacity-building for financial institutions, such as training loan officers to evaluate micro-enterprise creditworthiness using alternative data (*e.g.*, transaction histories) and streamlining documentation requirements. Fifth, aligning state schemes like Telangana Mahila Shakti with Mudra's goals would reduce competition and ensure both SHG and non-SHG borrowers benefit from the scheme. Sixth, improving financial literacy through workshops designed for non-SHG borrowers would clarify Mudra's advantages and application procedures, encouraging more applications. Lastly, establishing a state-level task force to monitor Mudra disbursement and resolve operational challenges would enable data-driven interventions, helping Telangana's micro-enterprise ecosystem fully utilize the PMMY and complement its SHG successes.

SECTION – VI

Concluding Observations

The national-level analysis revealed stratification among the states, empirically demonstrating a case of divergence. This signals to policymakers the need for thorough restructuring in the lagging states to reduce regional disparities. The slow rate of divergence offers hope that with effective policy implementation, there could be eventual convergence at the national level.

The convergence analysis of Southern states suggested an interesting yet inconclusive weak convergence - the five states in question are not necessarily following a shared or uniform growth path, as disparities persist in their development trajectories. The internal dynamics of the region, studied with a closer examination of individual state-level patterns, brought Telangana to focus. The results highlight the need for more tailored, region-specific policy approaches that can promote more balanced and inclusive growth.

As of Telangana, while the state has demonstrated commendable policies and has encouraged the growth of MSMEs and thereby Mudra, there still lies a long way for Telangana to grow by ensuring the existing policies are being implemented efficiently, focusing on skill development, adopt modernized technology and facilitate greater financial access through targeted Mudra drives and increased financial literacy to address issues of awareness among the public and information asymmetry among the bankers.

From the analysis, we observe the importance of a robust SHG network, empowerment of women entrepreneurs, upliftment of the backward community and a conducive social environment for businesses to flourish. These are fundamental aspects which impact the development of any region. The national level divergence indicates a shortfall of the country to improve its standing on these parameters. On the contrary, the Southern states show a converging trend implying their better performance. This is driven by the policies which must be implemented across the lagging states to improve their PMMY loan disbursements and contribute to the greater goal of Viksit Bharat. The study also underlines a blueprint for developing economies who struggle with heterogeneous and stratified conditions to adopt context specific policies while acknowledging the

importance of certain core aspects of community lending, empowerment of women and weaker sections and social justice.

India's MUDRA shows that scale, digital rails, and graduation pathways can democratize credit. For other EMEs, adapting these principles—while tailoring delivery to local financial ecosystems—offers a roadmap for inclusive, sustainable entrepreneurship finance.

The SDG Agenda 2030, or the 2030 Agenda for Sustainable Development, is a global plan of action adopted by all UN member states in 2015 to achieve sustainable development by 2030, focusing on 17 Sustainable Development Goals (SDGs) that address social, economic, and environmental challenges to end poverty, protect the planet, and promote peace and prosperity for all - core principle "Leave No One Behind". Toward this objective, differential SDG performance across Indian states serves as a policy laboratory—showing what works, what doesn't, and under what conditions. For other developing countries, these lessons underscore the value of decentralization, human capital investment, data-driven governance, and local innovations—all crucial for driving the 2030 Agenda forward. The differential performance of Indian states under the MUDRA scheme offers valuable insights into how financial inclusion and micro-enterprise development can influence progress on the Sustainable Development Goals (SDGs). These variations across states not only reflect how local factors shape outcomes, but also offer concrete policy lessons for India and other developing countries aiming to align similar financial inclusion schemes with the SDG agenda (Table 4).

The outstanding performance of southern Indian states in implementing the MUDRA scheme demonstrates that microfinance, when aligned with local governance, gender-sensitive outreach, and strong human development

foundations, can significantly advance multiple SDGs. This reflects more than just efficient implementation—they reveal a structural alignment of financial inclusion policies with socio-economic development models in the region.

For India, this differential performance holds valuable policy insights and offers a blueprint to replicate across lower-performing regions not only for enhancing India's Sustainable Development Goals (SDG) outcomes, but also for other countries, adopting or considering similar microfinance-led development strategies, it reinforces the idea that microcredit must be part of a broader, integrated development ecosystem to be truly transformative.

There may be great value in extending the analysis to the district level, where disbursement patterns and development gaps may be more visible, and could throw valuable insights for grassroots-level planning and implementation.

REFERENCES

- Acemoglu, D., and Robinson, J. (2012). Why States Fail?.
<https://www.jstor.org/stable/23242794>
- North, D. C. (1991). Institutions. *The Journal of Economic Perspectives*, 5(1), 97–112
- Agrawal, D. H. (2023). Role of Microfinance and Self-Help Groups in Rural Women Empowerment: A Study of Two Sub Districts under Mahisagar District, Gujarat. *International Journal for Multidisciplinary Research*, 5(6), 1–8.
<https://www.ijfmr.com/papers/2023/6/10298.pdf>
- Akerlof, G. A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84(3), 488–500.
<https://doi.org/10.2307/1879431>
- Bharti, S., and Verma, P. (2022). Social Equity in Loan Distribution under PMMY: Barriers for Marginalized Groups. *Economic and Political Weekly*, 57(12), 45-53
- Burgess, R., and Pande, R. (2005). Do Rural Banks Matter? Evidence from the Indian Social Banking Experiment. *American Economic Review*, 95(3), 780–795.
<https://doi.org/10.1257/0002828054201242>
- Choudhury, S. (2004). Transaction Cost and Asymmetry of Information: The Twin Odds of Indian Commercial Banks in Rural Credit Market: Theoretical Fragility (MPRA Paper No. 34951). *Social Change and Development*, 2(1), 157–174.
<https://mpra.ub.uni-muenchen.de/34951/>
- Dasa, M. K. (2024). The Contribution of MUDRA in Supporting MSMEs and the Associated Agricultural Sector in Both Rural and Urban India. *International Journal of Creative Research Thoughts*, 12(9), 1161–1165.
<https://www.ijcrt.org/papers/IJCRT2409275.pdf>
- Dasa, K., and Ramulu, M. (2024). Evaluation of the Pradhan Mantri Mudra Yojana Performance Across the Indian States. *International Journal for Multidisciplinary Research*, 6(5). ResearchGate
- Dash, M., and Kabeer, N. (2004). Microfinance and Asset Ownership: Evidence from South Asia. *Development Studies Review*, 20(4), 119-134

- Deepa, and Bose, D. K. (2024). Empowering Rural Women through Self-Help Group in Vaishali District of Bihar. *International Journal of Agriculture Extension and Social Development*, 7(8), 249–253.
<https://doi.org/10.33545/26180723.2024.v7.i8d.920>
- Dhindsa, K. S., and Sandhu, S. (2023). Empirical Study on Self Help Groups Active Participation in Empowering Women, Punjab, India. *Studies of Applied Economics*, 41(2), 1–11. <https://doi.org/10.25115/eea.v41i2.7094>
- Fernandez, S. (1998). Overcoming Barriers to Credit for Rural Poor: The Role of Self-Help Groups. *World Bank Working Paper*, No. 35
- Firdouse, F. (2024). Impact of Self-Help Groups on Women Empowerment in Telangana. *International Journal of Scientific Research in Engineering and Management*, 8(10), 1–6. <https://doi.org/10.55041/IJSREM37879>
- Geeta, S., Bharthwaj, P., Gayatri, K., and Akash, R. (2022). Awareness and Uptake of PMMY among Rural Women in Telangana. *International Journal of Social Economics*, 49(9), 1156-1170
- Goetz, A. M., and Sen Gupta, R. (1996). Voice and Visibility: Women and Microcredit in Rural Bangladesh. *Critical Studies Review*, 22(3), 496-507.
- Government of India (2019). *Economic Survey*, 2018–19
- Government of Telangana. (2024). MSME Policy Order. <https://uncomplycate.com/wp-content/uploads/2024/10/Govt-of-Telangana-MSME-Policy-Order.pdf>
- Government of Telangana. (2024). Socio Economic Outlook-2024. Directorate of Economics and Statistics. <https://www.des.telangana.gov.in/publications/Socio%20Economic%20Outlook-2024.pdf>
- GS Score. (2019). Pradhan Mantri Mudra Yojana – A Step Towards Financial Inclusion, June
- Gusanti, R., and Awasthi, R. (2024). Social and Psychological Impacts of SHGs in India and South Asia. *Journal of Development Studies*, 60(1), 113-130
- Harita, S., and Reddy, B. (2024). Political Empowerment of Women through SHG Participation in Andhra Pradesh. *Asian Journal of Political Science*, 32(1), 75-89

- Hashemi, S. M., Schuler, S. R., and Riley, A. P. (1996). Rural Credit Programs and Women's Empowerment in Bangladesh. *World Development*, 24(4), 635-653
- Holvoet, N. (2005). The Impact of Microfinance on Decision-Making Power of Women in Bangladesh. *Gender and Development*, 13(2), 20-31
- Islam, S., and Narzary, J. (2021). Effects of SHGs on Reducing Domestic Violence: Evidence from India. *Journal of Interpersonal Violence*, 36(15-16), NP8250-NP8273
- Ideas for India. (2024). Post-Covid Informal Manufacturing Growth: How States Fared. November 4. <https://www.ideasforindia.in/topics/productivity-innovation/post-covid-informal-manufacturing-growth-how-states-fared.html>
- Jayaraman, R. (2001). Limitations of SHGs in Poverty Reduction: An Operational Perspective. *Economic and Political Weekly*, 36(12), 987-993
- Kaak, R., Nangare, V. V., Deshpande, A. M., and Sawant, A. P. (2023). Impact of Covid-19 on Pradhan Mantri Mudra Yojana. *Academy of Accounting and Financial Studies Journal*, 27(3), 1–6
- Kabeer, N. (2005). Is Microfinance a “Magic Bullet” for Women's Empowerment? Analysis of Findings from South Asia. *Economic and Political Weekly*, 40(44/45), 4709–4718. <http://eprints.lse.ac.uk/53089/>
- Kabeer, N., and Matin, I. (2004). Patterns of Financial Inclusion and Empowerment in Rural Bangladesh. *IDS Working Paper*, 221
- Karmakar, K.G. (1999). Microfinance in India: Issues and Challenges. *International Journal of Rural Studies*, 6(2), 45-64
- Kumar, S., and Shobana, S. (2024). Structural Challenges in PMMY Implementation: NPAs and Infrastructure Issues. *Indian Economic Review*, 59(1), 120-138
- Mahesh, R., Aithal, H., and Sharma, S. (2021). PMMY and India's \$5 Trillion Economy Vision: MSME Collateral-free Credit Support. *Journal of Entrepreneurship and Development*, 8(1), 10-25
- Ministry of Micro, Small and Medium Enterprises. (2022). Annual Report 2022–23. <https://msme.gov.in/sites/default/files/MSMEANNUALREPORT2022-23ENGLISH.pdf>

- Mishra, S., and Mishra, R. K. (2024). Impact of Self-Help Groups (SHGs) on Encouraging Rural Women to Become Entrepreneurs: An Analysis of Mission Shakti, Khordha, Odisha. *International Journal for Multidisciplinary Research*, 6(4), 76–86. <https://www.ijfmr.com/papers/2024/4/24079.pdf>
- Neelam, and Awasthi, S. (2024). Women Empowerment through Self-help Groups (SHGs) in Mewat District of Haryana State. *ShodhKosh: Journal of Visual and Performing Arts*, 5(6), 1579–1583. <https://doi.org/10.29121/shodhkosh.v5.i6.2024.2470>
- Pandey, V., and Tripathi, A. (2022). Sectoral NPAs and Regulatory Interventions in PMMY: A Banking Perspective. *Finance India*, 36(4), 1523-1544
- Pal, G., and Choudhary, A. (2022). The role of MSMEs in India's Viksit Bharat vision. *International Journal of Advanced Research*, 10(5), 54–63
- Patel, M. R., and Mistry, D. S. (2024). Women Empowerment Through Self Help Groups in India – A Comprehensive Literature Review. *Journal of Informatics Education and Research*, 4(1), Article 1. <https://doi.org/10.52783/jier.v4i1.644>
- Phillips, P., and Sul, D. (2007). Transition Modelling and Econometric Convergence Tests. *Econometrica*, 75(6), 1771–1855. <https://doi.org/10.1111/j.1468-0262.2007.00811.x>
- Pradhan Mantri Mudra Yojana. (2024). Annual Report 2023–24. <https://www.mudra.org.in/Default/DownloadFile/Annual-Report-2023-24.pdf>
- Puhazhendi, V. (2000). SHGs and Poverty Reduction: Early Evidence from India. *Economic and Political Weekly*, 35(24), 2016-2025
- Puhazhendi, V., and Badatya, K. C. (2002). SHG-Bank Linkage Programme for Rural Poor: An Impact Assessment. *NABARD Occasional Paper* No. 20
- Puhazhendi, V., and Satyasai, K. J. S. (2000). Self-Help Groups and Poverty Alleviation. *Rural Finance Broadening Access*, 3(1), 5-12
- Radha, G., et al. (2024). Challenges faced by SHGs in Less Developed Regions: Training, Market Access, And Social Norms. *Economic Review Quarterly*, 40(1), 89-105
- Reserve Bank of India. (2020). Annual Report 2019–20. <https://www.rbi.org.in/Scripts/AnnualReportPublications.aspx?year=2020>

- SBI Research. (2025). Mudra Disbursements are benefiting Financially Weaker States More: SBI Report. April 2, *Economic Times* / ANI. ETCFO.com
- Sichera, R., and Pizzuto, P. (2019). Convergence Clubs: A Package for Performing the Phillips and Sul's Club Convergence Clustering Procedure. *The R Journal*, 11(2), 142–153. <https://doi.org/10.32614/RJ-2019-021>
- Singh, A., and Pande, R. (2022). SHG Participation and Women's Self-Esteem in India: A State-Level Study. *Indian Journal of Social Psychology*, 59(3), 416-430
- Solanki, R., and Chhikara, R. (2022). Administrative Inefficiencies and Technological Challenges in PMMY Delivery. *Management and Labour Studies*, 47(4), 276-293
- Sony, B., and Bhaduri, S. (2021). Information Asymmetry and Financing Choice between Debt, Equity and Dual Issues by Indian Firms. *International Review of Economics and Finance*, 72, 90–101. <https://doi.org/10.1016/j.iref.2020.11.002>
- Thangarajan, R. (2024). Self-Help Groups: Bridging The Gap for Financial Inclusion. *Journal of Informatics Education and Research*, 4(3), Article 3. <https://doi.org/10.52783/jier.v4i3.1824>
- Yunus, M. (1976). Grameen Bank and Microcredit: An Overview. *Development Finance*, 12(3), 5-18
- Yunus, M., and Jolis, A. (2007). Banker to the Poor: Micro-lending and the battle against world poverty. *Public Affairs*
- Yunus, M. (1999). The Grameen Bank. *Scientific American*, 281(5), 114–119. <https://doi.org/10.1038/scientificamerican1199-114>

ANNEXURE – 1

Table 1: Summary of the National Level Analysis

Source	SS	df	MS	Number of obs	=	279
Model	2.11535148	1	2.11535148	F(1, 277)	=	70.32
Residual	8.33249948	277	.030081226	Prob > F	=	0.0000
				R-squared	=	0.2025
				Adj R-squared	=	0.1996
Total	10.447851	278	.037582198	Root MSE	=	.17344

log_Ht	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
log_t	-.090512	.0107935	-8.39	0.000	-.1117597	-.0692642
_cons	-1.273538	.0511955	-24.88	0.000	-1.37432	-1.172756

Table 2: Summary of Regional Analysis for the Southern States

Source	SS	df	MS	Number of obs	=	45
Model	.021303864	1	.021303864	F(1, 43)	=	0.51
Residual	1.79524029	43	.041749774	Prob > F	=	0.4789
				R-squared	=	0.0117
				Adj R-squared	=	-0.0113
Total	1.81654415	44	.041285094	Root MSE	=	.20433

log_Ht	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
log_t	-.0249499	.0349275	-0.71	0.479	-.0953879	.045488
_cons	-2.123458	.104748	-20.27	0.000	-2.334703	-1.912214



COUNCIL FOR SOCIAL DEVELOPMENT

**(An Autonomous Research Institute supported by Indian Council of Social Science Research,
Government of Telangana and Reserve Bank of India)**

Southern Regional Centre

**5-6-151, Rajendranagar, Hyderabad-500030, Telangana, India
+91 40 24016395 | Email: director@csdhyd.org | www.csdhyd.org**