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Article

Transforming Rural Women Entrepreneurs: The Role of MUDRA Yojana in Promoting Financial Inclusion and Digital Finance in Uttar Pradesh

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Abstract:

This study examines the impact of the Pradhan Mantri MUDRA Yojana (PMMY) on financial inclusion and the empowerment of rural women in Uttar Pradesh, with a specific focus on Aligarh district. The scheme, launched in 2015, aims to provide collateral- free micro-credit to small and micro-enterprises, including women entrepreneurs traditionally excluded from formal financial systems. Using a mixed-methods approach, the research compares 312 women beneficiaries of MUDRA loans with 125 non-beneficiaries to assess differences in access to finance, digital banking adoption, and empowerment outcomes. Primary data were collected through structured questionnaires, interviews, and focus group discussions, while secondary data were sourced from government and institutional reports. The findings indicate that MUDRA loans have significantly improved women's access to banking services, enhanced their use of digital finance platforms, and contributed to increased income and financial independence. However, challenges such as digital literacy gaps, lack of follow-up support, and limited awareness of loan benefits remain. The study concludes that MUDRA Yojana plays a crucial role in promoting inclusive finance and enabling women's economic participation. It recommends strengthening financial literacy, digital training, and business support services to maximize the long-term impact of the scheme on women's empowerment in rural India.

Keywords: Digital Finance, Women Empowerment, Micro Enterprises, Financial Literacy

1. INTRODUCTION

Financial inclusion has emerged as a cornerstone of inclusive economic development, particularly in developing countries like India, where a large segment of the population remains excluded from formal financial systems. For rural women, this exclusion is compounded by socio-cultural barriers, lack of access to education, and limited financial awareness, which significantly constrain their economic participation and entrepreneurial potential. Recognising these challenges, the Government of India launched the Pradhan Mantri MUDRA Yojana (PMMY) in 2015, with the aim of extending collateral- free micro-credit to non-corporate, small, and micro enterprises—including a significant focus on women entrepreneurs in rural areas.

The MUDRA Yojana plays a transformative role in bridging the gender and finance gap by facilitating access to formal credit for women who have traditionally depended on informal or exploitative sources.

Through its categorisation of loans such as Shishu, Kishor, and Tarun the scheme addresses the diverse capital needs of women at various stages of their entrepreneurial journey. Additionally, the rise of digital financial services such as UPI, mobile banking, and Aadhaar-enabled platforms has further enhanced the scope of the scheme by enabling easier, faster, and more transparent transactions, particularly for women in remote areas.

In rural Uttar Pradesh, where patriarchal norms and economic vulnerabilities often hinder women's autonomy, the MUDRA Yojana has acted as both a financial and social

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intervention. By providing access to institutional credit, encouraging digital banking usage, and fostering self-employment, the scheme has empowered women not only to become income earners but also to assume leadership within their households and communities. However, despite its promise, the extent and sustainability of this empowerment remain areas requiring deeper exploration, particularly in terms of financial literacy, business viability, and digital adoption.

This study, therefore, seeks to critically examine the role of the MUDRA Yojana in transforming rural women into entrepreneurs, with a focus on how it promotes financial inclusion and accelerates the adoption of digital finance in Uttar Pradesh. Through primary and secondary data analysis, the study aims to assess whether the scheme has truly succeeded in integrating rural women into the formal financial system, improving their economic well-being, and fostering long-term empowerment. The findings are expected to offer valuable insights for policymakers, financial institutions, and development practitioners seeking to enhance the inclusivity and effectiveness of government-led credit initiatives.

2. OBJECTIVES OF THE STUDY

The primary objective of this study is to examine how the Pradhan Mantri MUDRA Yojana (PMMY) has contributed to the financial inclusion and empowerment of rural women through access to microfinance and digital financial services in Uttar Pradesh. The study specifically aims to:

1. Evaluate the extent to which MUDRA Yojana has enhanced access to formal credit for rural women entrepreneurs in the selected region.
2. Assess the impact of MUDRA loans on the usage of financial and digital banking services, including mobile banking, UPI transactions, and online repayments.
3. Analyse the influence of MUDRA Yojana on the economic empowerment of rural women, such as income generation, business expansion, and control over financial decisions.
4. Identify the challenges faced by women in accessing, utilizing, and repaying MUDRA loans, particularly in relation to financial literacy, digital adoption, and institutional barriers.
5. Examine whether the scheme has reduced women's dependence on informal sources of finance, such as local moneylenders, and encouraged long-term financial stability.
6. Recommend policy-level interventions to strengthen the outreach, accessibility, and impact of MUDRA Yojana for rural women, especially in the context of digital financial inclusion.

3. REVIEW OF LITERATURE

A number of national and international studies have explored the intersections of financial inclusion, women's empowerment, and access to microfinance. These works provide a foundation for understanding the broader impact of schemes like the Pradhan Mantri MUDRA Yojana (PMMY) and the growing importance of digital finance. Mayoux (2001) emphasised that financial inclusion for women goes beyond access to credit—it must include control over resources, participation in decision-making, and access to markets. Similarly, Kabeer (2005) highlighted that economic empowerment of women is closely tied to access to institutional finance, but true empowerment is achieved only when women are able to exercise autonomy in using these resources. Swain and Wallentin (2009) studied microfinance programs in South Asia and found that women's participation led to improved household welfare, mobility, and confidence, though benefits varied by education level and regional factors. Duflo (2012) further argued that financial programmes aimed at women must be accompanied by social interventions to ensure sustainable empowerment outcomes.

NABARD (2016) emphasised the role of microfinance in rural development, stating that access to small loans can significantly improve income levels and reduce dependency on informal credit sources. In the Indian context, microfinance has played a pivotal role in integrating rural women into the formal financial system, especially through Self-Help Groups (SHGs) and micro-enterprise support. Ramakrishnan (2018) examined the credit needs of rural women in Tamil Nadu and found that while microfinance improved access to capital, challenges related to digital literacy, market linkage, and repayment pressures persisted.

The World Bank (2017), in its Global Findex Report, noted a significant gender gap in financial access, particularly in rural South Asia, but also found that the rise of digital finance (especially mobile money) was beginning to narrow this gap. The report suggested that targeted digital financial services could help women overcome traditional barriers such as mobility and documentation. CGAP (2019) highlighted that digital financial inclusion has the potential to empower women by offering privacy, speed, and ease of use—but emphasised that barriers such as lack of smartphones, digital skills, and trust in technology remain major issues in rural areas. Ghosh and Vinod (2020) analysed the uptake of digital transactions among rural women post-MUDRA and Jan Dhan Yojana and found that though account ownership increased, active digital usage remained low without consistent training and handholding support.

RBI (2017) reported that over 70% of MUDRA loan accounts belonged to women, indicating a strong gender focus in the scheme's implementation. However, it noted that most of these loans were from the Shishu category (up to ₹50,000), suggesting limited capital for business expansion. Bansal and Singh (2019) found that the MUDRA scheme has led to the growth of micro-businesses in North India, particularly among women. The scheme improved credit accessibility but faced implementation issues such as low awareness and inadequate digital outreach. Sinha and Sarkar (2021) evaluated the impact of PMMY in rural Uttar Pradesh and concluded that while financial inclusion improved significantly, the empowerment impact varied across caste, education, and digital access levels.

4. RESEARCH GAP

While existing literature acknowledges the role of MUDRA Yojana in expanding credit access and promoting financial inclusion, there is limited research focusing specifically on:

1. The integration of digital financial services with

MUDRA usage among rural women.

2. The sustainability of empowerment outcomes post-loan disbursal in Uttar Pradesh.
3. The comparative analysis between beneficiaries and non-beneficiaries in rural areas with regard to digital banking and financial behaviour.

This study addresses these gaps by evaluating both the quantitative reach and qualitative impact of the MUDRA Yojana, with an emphasis on digital financial inclusion and rural women entrepreneurs in Uttar Pradesh.

5. HYPOTHESES OF THE STUDY

Based on the objectives and literature review, the following hypotheses are proposed:

H_1: Financial Inclusion: There is a significant difference in the frequency of financial service usage (e.g., banking transactions, savings, credit) between MUDRA beneficiaries and non-beneficiaries.

H_2: Digital Finance: MUDRA beneficiaries are more likely to adopt digital financial services (e.g., UPI, mobile banking) than non-beneficiaries. Digital literacy positively influences the likelihood of digital finance adoption among rural women.

H_3: Women Empowerment: MUDRA loan recipients show a statistically significant improvement in income generation and business activity. MUDRA loans lead to increased economic decision- making and mobility among rural women. The level of empowerment varies by education level, income group, and digital access.

6. METHODOLOGY

This study adopts a mixed-method approach to examine the impact of the Pradhan Mantri MUDRA Yojana (PMMY) on financial inclusion and women's empowerment in rural Uttar Pradesh, with a focus on Aligarh district. The research compares two groups such as women beneficiaries of MUDRA loans and non-beneficiaries to assess differences in access to finance, digital banking usage, and empowerment outcomes.

Primary data were collected through structured questionnaires, semi-structured interviews, and focus group discussions. Key variables include bank account ownership, frequency of financial transactions, use of digital platforms (like UPI), income generation, repayment behaviour, and decision-making autonomy. Secondary data were sourced from government reports, RBI publications, and research studies.

A stratified random sampling method was used to select 437 respondents (312 beneficiaries and 125 non-beneficiaries), ensuring representation across loan types, income groups, and rural–urban settings. Data analysis involved descriptive statistics, Z-tests for two population proportions, and binary logistic regression to identify key predictors of financial inclusion and empowerment. Thematic analysis was used for qualitative responses.

While the study provides valuable insights, limitations include self-reporting bias, regional focus, and short-term impact assessment. Overall, this methodology offers a comprehensive framework to evaluate how MUDRA Yojana supports rural women's financial and digital inclusion.

7. DATA ANALYSIS AND INTERPRETATION

7.1. Access to formal finance

The following table presents a comparative analysis of women's access to formal financial services based on primary data collected from 437 respondents—comprising 312 MUDRA beneficiaries and 125 non-beneficiaries. This section evaluates four key parameters: pre-2015 bank account ownership, first interaction with formal finance, assistance during loan application, and access to financial advice. These indicators were selected to assess the role of MUDRA Yojana in strengthening financial inclusion among rural women. Using the case-control method, responses were analysed through a Z-test for two population proportions to determine statistically significant differences between the two groups. The results highlight the extent to which MUDRA beneficiaries have better access to formal financial institutions and support systems compared to their non-beneficiary counterparts, thereby reflecting the scheme's effectiveness in promoting financial empowerment and institutional engagement among rural women in Uttar Pradesh.

Table 1: *Access to formal finance*

Category	% of Beneficiaries	% of non-beneficiaries	Difference in Proportions	Standard Error	Z-Value
Formal Bank Account Ownership (Pre-2015)	0.801	0.672	0.1293	0.0477	2.7
First Interaction with Formal Finance	0.609	0.496	0.113	0.0526	2.1
Access to Financial Advice	0.561	0.416	0.1449	0.0523	2.8

Sources – Primary Survey

The analysis of access to formal finance reveals a statistically significant difference between MUDRA beneficiaries and non-beneficiaries across all major indicators. Among the surveyed respondents, 80.1% of MUDRA beneficiaries had formal bank accounts prior to 2015, compared to 67.2% of non- beneficiaries. This difference of 12.93% (Z = 2.7) is statistically significant and indicates that while beneficiaries were somewhat financially included before the scheme, MUDRA likely built upon this foundation to deepen financial engagement. Furthermore, 60.9% of beneficiaries reported that their first interaction with formal financial institutions was through MUDRA or related services, compared to 49.6% of non-beneficiaries (Z = 2.1), suggesting the scheme played a critical role in

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formalising financial access for rural women.

Assistance during the loan application process was also a key differentiator, 76.9% of beneficiaries received help from banks or SHGs, as opposed to 64.8% of non-beneficiaries (Z = 2.5). Similarly, 56.1% of beneficiaries received financial guidance from institutional actors, compared to only 41.6% of non- beneficiaries (Z = 2.8). These findings reinforce the idea that MUDRA promotes not just credit access but also strengthens financial literacy and institutional trust among rural women.

These results are strongly supported by national and state-level evidence. Reports from NITI Aayog and KPMG (2023) and the Ministry of Finance (2022) confirm an increase in first-time bank users post- MUDRA, especially in rural districts. Scholars such as Bhavani (2019) and Ghosh (2017) emphasise MUDRA's role in connecting women to formal finance and improving their saving and borrowing behaviour. Additional studies by Roy & Sharma (2021), Sharma (2022), Intermedia (2016), and Jadhav (2024) affirm that MUDRA loan recipients engage more with digital banking platforms, receive institutional guidance, and are more likely to avoid informal moneylenders.

7.2. Use of Banking and Financial Services

This section compares the use of banking and financial services between MUDRA beneficiaries and non-beneficiaries, focusing on transaction frequency, digital banking adoption, and access to financial platforms. The findings reveal that MUDRA beneficiaries exhibit higher usage of mobile banking apps, make more frequent transactions, and have better access to both digital and traditional banking channels. These differences are statistically significant, underscoring the role of MUDRA in enhancing financial behaviour and digital engagement among rural women. The results suggest that access to formal credit through PMMY not only supports entrepreneurship but also promotes broader financial inclusion and digital empowerment in rural areas. The analysis of banking and financial service usage reveals notable behavioural differences between MUDRA beneficiaries and non-beneficiaries. A higher proportion of beneficiaries transact weekly (31.4%) or monthly (31.1%), compared to 20.8% and 19.2% among non-beneficiaries. Conversely, "rarely" and "never" using bank services is more common among non-beneficiaries, highlighting their lower engagement with formal finance. Mobile app usage is also higher among beneficiaries (62.5%) versus non-beneficiaries (49.6%), indicating better digital adoption. Access to specific banking services like deposits (64.4% vs. 51.2%), withdrawals (74.4% vs. 60.8%), and UPI payments (59.9% vs. 48%) is significantly greater among beneficiaries.

Table 2: *Use of Banking and Financial Services*

Category	% of Beneficiaries	% of non-Beneficiaries	Difference in Proportions	Standard Error	Z-Value
Bank Use Frequency					
Every day	0.080	0.096	-0.016	0.031	-0.520
Once a week	0.314	0.208	0.106	0.045	2.368
Once a month	0.311	0.192	0.119	0.044	2.708
Rarely	0.285	0.416	-0.131	0.051	-2.566
Never	0.010	0.088	-0.078	0.026	-3.022
Mobile App Usage for payment					
Yes	0.625	0.496	0.129	0.052	2.459
Deposit money	0.644	0.512	0.132	0.052	2.529
Withdraw money	0.744	0.608	0.136	0.050	2.702
UPI or mobile payments	0.599	0.480	0.119	0.053	2.269
Use the account for business	0.561	0.529	0.032	0.053	0.609
Insurance or pension	0.429	0.288	0.141	0.049	2.862
DBT Receipt in the bank account	0.564	0.448	0.116	0.044	2.611

Sources – Primary Survey

Use of insurance or pension products and DBT receipt is also higher among the MUDRA group, showing broader financial inclusion. However, using accounts for business purposes remains similar across groups. These findings confirm that MUDRA participation strengthens both traditional and digital financial service usage among rural women, advancing inclusive financial development.

National and state-level studies affirm that the Pradhan Mantri MUDRA Yojana (PMMY) has positively influenced the financial behaviour of rural women, especially in terms of increased use of banking services and digital platforms. The NITI Aayog & KPMG Report (2023) observed higher transaction frequency and digital adoption among MUDRA beneficiaries. Bhavani (2019) and Ghosh (2017) found that MUDRA access significantly enhanced women's financial

engagement and reduced dependency on informal finance. According to the Ministry of Finance Dashboard (2022), there was a notable rise in UPI and mobile transactions in PMMY-linked accounts. Inter Media (2016) and the World Bank's Global Findex (2017) reported similar trends in digital finance use. Studies by Roy & Sharma (2021), Jadhav (2024), Sharma (2022), and the UPSRLM Report (2020) further confirm improved savings, withdrawals, and insurance uptake among women MUDRA users, supporting your primary findings.

7.3. Financial Stability & Credit Behaviour

This section explores the financial stability and credit behaviour of MUDRA loan beneficiaries using primary survey data. It assesses changes in dependence on informal credit sources, repayment discipline, and beneficiaries' perceptions of their own creditworthiness. The analysis reveals that a significant number of women have shifted from informal to formal credit channels after receiving MUDRA loans. Improved repayment patterns and confidence in dealing with banks suggest enhanced financial literacy and responsible borrowing. These findings indicate that the MUDRA scheme has positively influenced credit discipline, reduced financial vulnerability, and promoted long-term engagement with formal financial institutions among rural women borrowers.

Table 3: *Financial Stability & Credit Behaviour of Mudra Beneficiary*

Category	% of Beneficiaries
Relied on informal credit before MUDRA (Yes)	0.6474
Reduced informal credit dependence after MUDRA	0.5513
Repay your Mudra loan instalments on time	0.4647
Improved creditworthiness	0.6795

Sources - Primary Survey

The data on financial stability and credit behaviour among MUDRA beneficiaries reveals key insights into the scheme's role in reshaping credit patterns and financial discipline. Before accessing MUDRA loans, 64.7% of respondents relied on informal credit sources such as moneylenders or family, indicating high financial vulnerability. Post-loan, 55.1% of these women reported a reduction in informal credit dependence, highlighting the scheme's success in shifting borrowing behaviour towards formal channels. Loan repayment behaviour also offers valuable insights: only 46.5% of beneficiaries reported timely repayment ("Always"), while 26.9% repaid "Sometimes", and 20.2% "Rarely". This reflects both progress and challenges in maintaining credit discipline. A concerning 6.4% reported never repaying on time, indicating a need for improved financial literacy and support. Importantly, 67.9% of women felt that MUDRA loans improved their creditworthiness, suggesting enhanced confidence in engaging with formal financial institutions and potential eligibility for future credit. Overall, the data reflect moderate yet meaningful financial stabilisation among rural women post-MUDRA.

Evidence from national and institutional sources strongly supports the view that the Pradhan Mantri MUDRA Yojana (PMMY) has contributed to improved financial discipline and enhanced credit behaviour among its beneficiaries. According to the Ministry of Finance (2022), loan recovery rates have shown notable improvement, especially within the Shishu and Kishor loan categories, suggesting timely repayment and better credit management among small borrowers. Bhavani (2019) and Roy & Sharma (2021) found that access to formal credit under PMMY not only improved the perceived creditworthiness of beneficiaries but also made them more likely to qualify for repeat or larger loans. Ghosh (2017) and Jadhav (2024) reported that beneficiaries under PMMY developed greater trust in formal banking institutions and displayed more responsible borrowing patterns, indicating a positive shift in credit culture. Furthermore, SIDBI (2021) observed that repayment performance was significantly stronger among women-led enterprises, reinforcing the argument that financial inclusion efforts directed at women can yield more stable outcomes.

InterMedia (2016) and the World Bank's Global Findex Report (2017) also emphasised that greater access to institutional credit reduces reliance on informal sources, such as moneylenders, which often trap borrowers in high-interest debt cycles. These findings are corroborated by Sharma (2022), who linked MUDRA participation with improved financial discipline, better budgeting habits, and the initiation of long-term financial planning, particularly among rural women. The combined evidence from these studies underlines that the PMMY has not only facilitated access to credit but has also fostered a culture of responsible borrowing, timely repayment, and formal financial engagement, contributing meaningfully to the financial empowerment of rural and semi-urban women entrepreneurs across India.

7.4. Impact Assessment of Mudra Yojana

This section presents the impact assessment of the Pradhan Mantri MUDRA Yojana (PMMY) on rural women beneficiaries, focusing on financial improvements, business development, employment generation, and overall well-being. Based on responses from MUDRA-supported entrepreneurs, the findings reveal how the scheme has contributed to positive socio-economic changes and enhanced the quality of life among women in Uttar Pradesh.

Table 4: *Impact Assessment of Mudra Yojana*

Statements	Category	% of Beneficiaries
Financial situation improved	Significantly	0.19872
	Moderately	0.33333
	Slightly	0.25321
	No change	0.21474
Started/ Expanded business	Yes	0.83333
	No	0.16667

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Statements	Category	% of Beneficiaries
Generated employment for others	Yes	0.51282
	No	0.48718
Improved living conditions	Yes	0.64423
	No	0.35577
Improved living conditions	Yes	0.65064
	No	0.26282
	Can't say	0.08654
Would recommend to others	Yes	0.83333
	No	0.16667

Sources - Primary Survey

The impact assessment data clearly shows that the MUDRA Yojana has generated notable economic and social benefits for rural women entrepreneurs. A significant 83.33% of beneficiaries reported starting or expanding their business after receiving the loan, indicating that the scheme is meeting its core objective of entrepreneurship development. Additionally, 51.28% of women stated they had generated employment for others, showcasing the ripple effect of micro-enterprise growth on local job creation.

When assessing improvement in financial situations, nearly 33.33% of respondents reported a moderate improvement, 19.87% significant, and 25.32% slight improvement—totalling over 78% experiencing positive financial changes. Similarly, 64.42% reported better living conditions, and a large majority (83.33%) said they would recommend the scheme to others, reflecting high satisfaction levels.

While 21.47% noted no financial change, and 16.67% did not expand a business, these numbers highlight that while the scheme is largely effective, there remain barriers such as market access, digital literacy, or household constraints. Nonetheless, the overall outcomes underline the role of MUDRA in transforming economic roles, strengthening household incomes, and encouraging financial independence among rural women, thereby contributing to broader goals of inclusive development and women's empowerment.

Several national and regional studies validate the positive impact observed in this assessment. The NITI Aayog & KPMG (2023) report confirms that over 70% of women beneficiaries nationally have started or scaled micro-enterprises post-MUDRA. Bhavani (2019) found that MUDRA loans significantly boosted self-employment, particularly among semi-literate rural women. Roy & Sharma (2021) documented enhanced income stability, asset creation, and livelihood diversification among women entrepreneurs.

A study by SIDBI (2021) also reported that over 60% of MUDRA-supported businesses showed consistent turnover improvements. In Uttar Pradesh, the UPSRLM Report (2020) identified PMMY as a major catalyst for self-help group members to transition into independent entrepreneurs. According to InterMedia (2016) and the World Bank Findex (2017), women with institutional credit access were more likely to report improved economic status and household well-being.

Jadhav (2024) observed that women beneficiaries of PMMY developed greater confidence and mobility, while Ghosh (2017) emphasised the scheme's role in reducing informal borrowing and enhancing decision-making. Sharma (2022) highlighted that MUDRA contributes to long-term improvements in financial resilience and intergenerational benefits. These studies collectively support the conclusion that MUDRA plays a critical role in empowering rural women economically and socially.

8. FINDINGS, CONCLUSIONS, AND POLICY IMPLICATIONS

8.1. Findings and Conclusions

The study reveals that the Pradhan Mantri MUDRA Yojana has significantly contributed to improving financial access for rural women entrepreneurs in Uttar Pradesh. A large proportion of women beneficiaries now possess active bank accounts and regularly engage with formal financial institutions. Many of these women, particularly first-time borrowers, were previously excluded from the banking system and had no prior experience with formal credit. The availability of collateral-free loans under the MUDRA scheme has encouraged them to approach banks and microfinance institutions, thereby strengthening their financial identity and enabling access to essential services such as savings, insurance, and credit.

A notable outcome of the scheme has been the increasing adoption of digital financial services among women borrowers. Beneficiaries have started using digital platforms like Unified Payments Interface (UPI), mobile banking apps, and Aadhaar-enabled payment systems to conduct business transactions and manage their finances. This marks a shift from traditional cash-based methods to more transparent and traceable financial behaviour. However, the adoption of digital finance remains uneven—while younger and relatively more educated women adapted quickly, older and less-educated beneficiaries struggled due to limited digital literacy, lack of smartphone access, and fear of using digital technology without adequate training or support.

In terms of economic empowerment, many women reported substantial improvements in their income levels and control over financial resources after receiving MUDRA loans. These loans enabled them to start or expand micro-enterprises such as tailoring units, grocery shops, food stalls, and beauty parlours. Increased earnings allowed them to contribute more significantly to household expenses, children's education, and savings. More importantly, their enhanced financial role within the family translated into greater participation in household decision-making, increased self-confidence, and a stronger sense of independence and social recognition.

Another significant finding is the reduction in dependency on informal credit sources such as moneylenders, neighbours, or relatives. Prior to the MUDRA loan, many

women relied on high-interest informal loans to meet business or personal needs, often resulting in debt cycles. The availability of formal, low-interest credit through the MUDRA scheme has helped them break free from exploitative financial arrangements, especially in rural areas where formal banking infrastructure is limited.

Despite these positive outcomes, several challenges persist in the implementation and impact of the scheme. A large number of women lacked clear awareness about the different categories of MUDRA loans—Shishu, Kishor, and Tarun—and their eligibility criteria. Difficulties in loan renewal, delays in disbursal, and procedural hurdles at the bank level were commonly reported. Moreover, the lack of post-loan support services such as business mentoring, market linkage, or financial management training limited the long-term success of women-led enterprises. Many women also reported the absence of digital literacy training, which hindered their full participation in the digital financial ecosystem.

8.2. Policy Recommendations

To enhance the effectiveness and long-term impact of the Pradhan Mantri MUDRA Yojana on financial inclusion and women's empowerment, several policy measures need to be considered. First and foremost, there is a critical need to strengthen financial literacy programmes, particularly for rural women. Many beneficiaries, though enthusiastic about starting businesses, lack the knowledge to manage digital payments, track loan repayments, and understand financial products. Tailored workshops and training sessions in local languages can help bridge this gap, enabling women to adopt digital finance tools with confidence and efficiency.

Secondly, the success of micro-enterprises does not end with credit disbursement. It is essential to provide business mentorship and follow-up support to guide women through business planning, cost management, marketing, and scaling operations. Local entrepreneurship development cells, self-help group networks, and NGOs can play a significant role in offering such ongoing support, thereby reducing the risk of business failure and increasing loan repayment rates.

Another recommendation is to simplify the loan application process and improve accessibility for women in remote rural areas. Many potential beneficiaries are discouraged by bureaucratic procedures, lack of documentation, or lack of information about the scheme. Banks and microfinance institutions must adopt a proactive outreach strategy, using mobile camps, community-based agents, and simplified documentation to reach underserved women.

Furthermore, the government must promote digital infrastructure and targeted digital training, especially in low-literacy regions where women may lack smartphones or basic internet access. Establishing rural digital hubs or mobile banking kiosks with female facilitators can encourage hesitant users and build trust in digital systems, which are increasingly vital for modern business transactions and financial inclusion.

Finally, it is essential to monitor loan utilisation and impact through regular assessments and field visits. Many women may use funds for non-business purposes due to immediate household needs, which can affect both business growth and repayment capacity. Monitoring mechanisms will help ensure that loans are productively used and provide valuable feedback for refining the scheme. Regular impact evaluations can also highlight best practices and inform future policy decisions aimed at sustaining women's economic empowerment.(Tucker, 2012).

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Author(s) Contribution

All the Author(s) work equally to prepare the manuscript.

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Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Clinical Trial Registration (if applicable)

Not Applicable

Human Ethics and Consent to Participate

The study did not involve any clinical interventions or experiments requiring formal ethical approval.

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