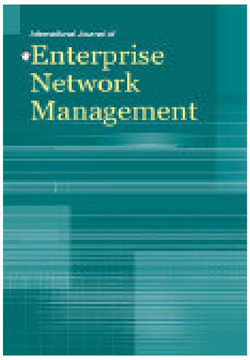

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Promotion of entrepreneurship through accessibility of formal micro credit in emerging countries – a case study of India

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Abstract: Entrepreneurship is an economic phenomenon that makes unemployed people self-employed in society. Microfinance is the practice of providing small amounts of essential financial services to the unbanked or impoverished population in a nation, such as credit, deposits, and insurance, and is a growth-driving factor of entrepreneurship in the economy. The present study is aimed at an analysis of India's largest formal microcredit scheme, which accounts for one fourth of the nation's population, namely the Pradana Mantry Mudra Yojana for the period of 2015–2021. The authors of the report sought to assess how well the program was working toward its goals. However, the study discovered a gradual drop in the beneficiary rate of underprivileged sections, women, and new entrepreneurs in the scheme's total beneficiaries. This is the major concern of the scheme in India.

Keywords: micro credit; entrepreneurship; PMMY; MUDRA; formal micro credit.

JEL codes: L26, E5, H81.

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1 Introduction

Entrepreneurship is an economic phenomenon that makes unemployed person as self-employed and employer in the society. Micro finance refers to the provision of basic financial services such as credit, deposits and insurance in limited quantity to poor people or unbanked population in the country. Micro finance is growth driving factor of entrepreneurship in the economy. The micro credit is also one the components of micro finance deals with provision limited credit to high risk borrowers or weaker section of the society who are unable to provide security or collateral to the loans (Félix and Santos, 2018). In the initial days, micro credit was in the form of ways and means between the people for internal emergency purposes. The interest rate is nominal or zero on these types of credit adjustments (Cooper, 2003). However, later on micro credit emerged as one the key sources of finance to new entrepreneurs at beginning stage due to no security for provision. But, those days banking services are limited and micro finance was not available, money lender took this as an opportunity and started charging high interest rates which caused default or bankruptcy of entrepreneurs (Msomi and Olarewaju, 2021).

The Government of India recognises the role of women entrepreneurs in promotion of national economy, however, steps still poor efforts made towards women entrepreneurship (Kaviarasu, 2020). Entrepreneurship is one of the ways of participating the people in the process of building and economic development of the nation (Ambigaa and Ramasamy, 2013).

To address this issue, the concept of micro finance was emerged with a philosophy of bringing the poor and unbanked population under the financial ambit. The concept of microfinance was born in the 19th century but became popular in the 20th century through the Mahammad Yunus Grameen Model in Bangladesh (Jhamb and Jhamb, 2017). This model brought millions of poor people out of poverty through the accessibility of microcredit, micro deposits and micro insurance. The successful model fetches Nobel Prize to Mohammad yunus. Since its inception, the microfinance model has been used as one of the financial models for poverty alleviation, job creation, and entrepreneurship development around the world. In India, the routes of micro finance found in 1904 with the establishment of cooperative societies, but their services were limited to farmers for the agricultural sector. Later on, it has been popular since the 1980s with the establishment of National Bank for Agricultural and Rural Development (NABARD), which works on the principle of 'development through credit'. However, NABARD direct is not involved in the provision of finance and is confined only to the refinance of rural credit granted by RRBs, MFIs, and cooperative banks. Consequently, the initial goals are still not achieved. However, micro finance concept works on an incremental approach, which shows results in the long run but does not produce immediate results (Msomi and Olarewaju, 2021).

However, the provision of formal credit to the financially excluded population is a difficult task due to the nature of high-risk borrowers as recognised by the banking sector due to no security for the credit. To address this issue, the government of India initiated the Pradan Mantri Jan Dhan Yojana scheme and brought nearly 40 Cr people under the financial inclusion ambit in a very short period through the opening of bank accounts. This promoted micro deposits in the country and provided eligibility for accessing micro credit. Thereafter, the government of India announced PMMY and directed banks to provide collateral-free formal micro credit to the MSMEs sector, which will be refinanced by Micro Units Development and Refinance Agency Ltd (MUDRA).

Therefore, overall, the central government's initiation towards development entrepreneurship through PMMY and MUDRA is a great event in the history of the Indian economy. Thus, the present study focuses on to what extent this micro credit scheme succeeded in the promotion of entrepreneurship in India.

2 Conceptual framework

2.1 Entrepreneurship

Enterprise refers to a platform for the 4M's of business, such as man, material, money, and management. A person who generates maximum returns by effective utilisation of these 4M's is known as an entrepreneur. Entrepreneurship is defined as the process of developing and achieving positive growth in business, entrepreneurs, and, ultimately, society (Thakur and Rahman, 2009). The development of skills and knowledge of entrepreneurs with structural training is called entrepreneurship development. Entrepreneurship development promotes leadership qualities, provides employment opportunities, effective utilisation of resources, self-reliance, improves living standards and leads to overall development of the individual and the nation (Jhamb and Jhamb, 2017). In India, by the end of November 2021, total registered MSMEs were 633 Cr, out of which micro enterprises account for 94% (544 Cr), small firms account for 5% (2.93 Cr) and medium enterprises account for 0.32% (IBEF). The major challenges in development of entrepreneurship in India is poor business knowledge, unskilled labour, financial constraints, lack of encouragement from family and government, limited entrepreneurship education facility and poor time management skills. The MSMEs sector is a significant driver of innovation and competency in the economic sector (Félix and Santos, 2018).

2.2 Micro finance and micro credit

The roots of micro finance were found in the 19th century but became very popular with the Grameen Model of Bangladesh (20th century) introduced by Mahammad Yunus Nobel Prize winner in economics. He introduced this micro finance as a model for poverty eradication and improves standards of living of country man in Bangladesh and succeeded (Jhamb and Jhamb, 2017). Micro finance refers to a set of basic financial services such as micro deposit, micro credit, and micro insurance for entrepreneurs and small businesses that face difficulty in accessing banking services. Micro credit/finance is very significant for the starting and running of micro and small business units in developing areas due to their operating in an unregulated and informal sector (Ansari et al., 2020). Formal microcredit refers to microcredit provided by financial institutions rather than non-institutional. It is found by world banks that microfinance has a positive impact on the economic and social status of the poor, women, and vulnerable sections of society (Lavoori and Paramanik, 2014). Micro finance considered as a powerful financial instrument to bring poor/vulnerable sections/women out of poverty, as they are capable of working but suffer with poor financial support (Arora and Meenu, 2010). Microfinance provides easy accessibility of banking services to the poor, easy survival of new entrepreneurs, promotes employment in the economy, rural development, women's empowerment, and financial independency. (Jhamb and Jhamb, 2017). The accessing of micro credit is very challenging task due to no security for loans, low income, requirements for too many documents, poor knowledge of microcredit products, high interest rates, high service charges, etc. (Kannan and Panneerselvam, 2013).

2.3 PMMY and MUDRA scheme

The government of India noticed the need for reforms and formal microcredit for the development of entrepreneurs in the country. The government of India also noticed certain major challenges in the provision of micro credit to entrepreneurs, such as no security, high interest rates, limited role of commercial banks, and no credit guarantee, too much time-consuming, many documents, bribes and lack of refinance facility. In order to address these issues and promote entrepreneurship in the entire country, the government of India announced a national scheme named Pradan Mantri Mudra Yojana (PMMY) on 8 April 2015 under which all financial partners such as commercial banks, RRBs, NBFCs, and SFBs are directed to provide collateral free micro credit loans to vulnerable sections of the society for entrepreneurial activities. The government provides a refinance facility through its financial partners to loans provided under the PMMY scheme through MUDRA. The major objective behind MUDRA is to provide microcredit for the development of microbusiness units through a refinance facility. This scheme is further divided into three sub-schemes such as Sishu, Kishore, and Tarun. The credit limit under Shishu is up to Rs 50,000, Kishore up to Rs 500,000 and Tarun up to Rs 1,000,000. The loans provided under PMMY scheme are collateral free loans, credit guarantee by central government, refinance facility by MUDRA, interest rate subsidy is available up to 2%, no need of much documents, periodical repayment schedule, no problem of bribe and accessible by wide network of financial institutions and special preference to weaker sections and women of the society. Owing to these characteristics, PMMY has emerged as the largest institutional microcredit scheme for entrepreneurship development in India. As on 31 March 2021 March, PMMY scheme provide RS 15.52 lakh worth of credit to 29.55 Cr borrowers in the country. This accounts for around one fourth of the population in the country. In total loans 51% granted to weaker sections of the society. The MUDRA has financial partnerships with public, private sector banks, regional rural banks, small finance banks, and non-banking financial companies. Therefore, PMMY and MUDRA are used as interchangeable words in the study's previous literature, we could find that many studies have used variables like money supply treasury bill rate, foreign exchange interest rates, exports, foreign direct investment, and foreign reserves, bank credits, oil prices to know how they affect the stock market.

3 Literature review

Ansari et al. (2020) revealed a significant impact of microfinance on the standards of living of women entrepreneurs benefited by microfinance institutions in India. Singh and Wasdani (2016) conducted a survey on the 85 MSMEs in Bangalore regarding the challenges in accessing the formal credit at different stages of their life cycles. The study revealed limited utilisation of formal sources of credit (banks) compared to informal sources (personal and family wealth). This is mainly attributed to the inability to provide security, no credit guarantee, high interest rates, high service changes, and the lengthy process of loan approval (Tangade, 2019). The study also found that, poor financial awareness is also one of the reasons for the underutilisation of formal credit in India. The improvement in economic, political, social, cultural, and technological factors positively contributes to the entrepreneurial development in any country (Davari et al., 2014). In particular, revolutionary developments in technological aspects such as cellular phones, patent applications, computers, and computer devices have shown a positive impact on the entrepreneurial development of OECD countries (Eid and Mansour, 2013). The high growth potential enterprises have significant impact on the economy in term of job creation and economic value addition in advanced countries (Wong et al., 2005). Krasniqi et al. (2008) have done a survey regarding the determinants of growth of firms on 350 new and well established small and medium-sized firms in the Kosovo economy. The study found that ownership separation, age of the entrepreneurship and entrepreneurial team calibre are positive contributors to firms' growth. In contrast, unemployment status is a negative factor for firms' growth. Félix and Santos (2018) analysed the success factors of SMEs through evidence of 200 Portuguese SMEs. The study revealed a positive impact of the cost of human resources, investment on innovation, productivity and venture capital financing for the success of firms, while revealing a negative relationship between firms' age and debt. Entrepreneurship should be used by policymakers as an engine to stimulate economic growth, employment creation, and poverty alleviation in backward regions of the nation (Singh et al., 2021). Poor financial awareness, inefficiency in budget management, poor accounting skills, and inaccessibility of finance are major causes of poor financial sustainability of MSMEs (Msomi and Olarewaju, 2021). The characteristics of entrepreneurs and venture capital have a significant positive impact on the growth and development of MSMEs in the economy (Yulianingsih et al., 2021). SME's failed in mainlining sustainable growth in the long run, Maitreyee Das et al. 2021 conducted an analysis with 200 sample size in Kolkata with least square technique and revealed a significant positive effect of government intervention and network on the growth of SMEs while there was a moderate effect of capital investment size. Governing, diversifying, weaving, sharing, and distributing institutionalised practices have a significant positive effect on the performance of SMEs (Hu and Stanton, 2017). The startup companies which convert intellectual capital into value activities can ensure long-term success (Harry et al., 2007).

The present study focuses on the PMMY scheme and MUDRA, which are playing a significant role in providing institutional microcredit to entrepreneurs at national level with three sub-schemes. All Indians engaged in business activities, irrespective of caste, region, and religion, are eligible for loans under PMMY. The government of India developed a partnership with all types of financial institutions, including banks and NBFCs, for the widest reach of the scheme in the country. The scheme focused on the development of all categories of the nation in general and particularly vulnerable women and new entrepreneurs in the country. In the span of six years, this scheme emerged as the largest micro credit scheme in the world with borrowers of 30 Cr, which is around 0.5% of the world's population (one fourth of the Indian population). Therefore, the present study examines to what extent the PMMY scheme performed during the period of 2015–2021 and reached its goals in the country through selected parameters.

The major stifling factor for growth of entrepreneurship in developing countries is non-availability and accessibility of formal micro credit. This is attributable to the poor financial soundness of borrowers, high interest rates, poor financial infrastructure, lack of awareness of financial products and no credit guarantee. For these reasons, the majority of the population is living outside of the formal financial ambit. This is adversely affecting the economy and employment in the country. The only solution to this issue is to increase the role of the government in the provision of formal microcredit with guarantee backup. Therefore, the present study focuses on the extent to which PMMY and MUDRA loans succeeded in improving accessibility and availability of formal microcredit to entrepreneurs in India. The present study is aimed at an evaluation of the overall performance of the PMMY scheme in India in selected parameters.

The present study is purely based on the secondary published in annual reports and performance reports on the government website of the PMMY scheme. The study covers the six-year period since the inception of the scheme, i.e., 2016–2021. In the study, the performance of the scheme is measured in parameters such as total loans sanctioned, total amount sanctioned and disbursed, disbursement rate, average amount per loan, total benefited persons, institution wise share in PMMY, PMMY bank credit to total MSMEs loans of the banking sector, PMMY bank credit to total bank credit and category wise benefited persons in PMMY scheme. The statistical tools used in the study are percentage, average, growth rate, and compound annual growth rate.

4 Data analysis and interpretation

4.1 Overall performance indicators of PMMY

The overall performance of the PMMY scheme is measured in variables such as total loans sanctioned, total amount sanctioned, amount disbursement rate (%), amount sanctioned per loan, total benefited population under the PMMY and total population for the period of 2016–2021. The analysis is presented in Table 1.

Table 1 exhibit the overall performance of the PMMY scheme in micro credit provision in India during 2016–2021. The performance parameters are loans sanctioned, sanctioned amount, disbursed amount, disbursement rate, amount per loan, benefited persons, and its share in the total population of the nation. The study found that PMMY total micro credit loans have grown with a compound annual growth rate of 26.54% and reported a positive growth rate since inception, but reported negative growth in 2020–2021 due to the world pandemic disease COVID-19 in the world and India. Similarly, the total amount sanctioned has grown at a CAGR of 18.54% during the study period. The disbursement amount also grew with CAGR of 14.60% during the same period. The overall loans disbursement rate is in the range of 96 to 98% during the study period. The average amount per loan rose from Rs 39,405 thousand to Rs 63,419 thousand, more than half the rate of increase. The study found positive growth in the average amount per loan and reported positive growth over the previous year during the entire study period, with a CAGR of 8%. The overall population benefited under the PMMY scheme soared from 2.26% in 2015–2016 to 22.54% in 2021, which is nearly ten times rise in the value. This also indicates that nearly one fourth of the population benefited under the micro credit scheme during the entire study period (PMMY). This is a really great initiative and achievement of the Indian government towards the promotion of entrepreneurship in the country through the accessibility of formal microcredit.

Table 1 Overall performance of PMMY scheme in India during 2016–2021

Indicators	*2015–2016*	*2016–2017*	*2017–2018*	*2018–2019*	*2019–2020*	*2020–2021*	*CAGR*
PMMY loans sanctioned (A)	34,880,924	39,701,047 (13.82)	48,130,593 (21.23)	59,870,318 (24.39)	62,247,606 (3.97)	50,735,046 (–18.49)	26.54
Total amount sanctioned (B) (Rs Cr)	137,449.27	180,528.54 (31.34)	253,677.1 (40.52)	321,722.79 (26.82)	337,495.53 (4.90)	321,759.25 (–4.66)	18.54
Amount disbursed (C) (RsCr)	132,954.73	175,312.13 (31.86)	246,437.4 (40.57)	311,811.38 (26.53)	329,715.03 (5.74)	311,754.47 (–5.45)	14.60
Disbursement rate (%) (C/B)	96.73	97.11	97.15	96.92	97.69	96.89	
Amount per loan (A/B) (Rs thousands)	39,405	45,471 (15.39)	52,705 (15.91)	53,736 (1.96)	54,218 (0.90)	63,419 (16.97)	8.0
Total benefited persons(Cr) (year wise)	3.48	3.97	4.81	5.98	6.22	5.07	
Cumulative value (Cr) (in brackets as % to total population)	3.48 (2.26)	7.45 (5.68)	12.26 (9.36)	18.24 (13.92)	24.46 (18.67)	29.53 (22.54)	

Note: Indicates growth over previous year

4.2 Broad economic indicator of MUDRA loans

Table 2 exhibits broad economic indicators of the MUDRA loans in India. The study found that in 2015–2016 MUDRA sanctioned Rs 132,955 Cr worth of micro credit to entrepreneurs in its first year, thereafter, sanctioned credit has continuously rose every year and reached to Rs 329,715 Cr which is 147% higher to micro credit in beginning years. This indicates 2.5 times the beginning sanctioned credit. However, in 2020–2021, the study observed a slight drop in microcredit due to the COVID-19 situation. In the PMMY scheme, the government allowed both banks and NBFCs to provide credit. The study found the predominant position of the banking sector under the scheme. The study observed that the banking sector's granted proportion of micro credit under the scheme rose from 65% in 2015–2016 to 75% in 2020–2021, with an overall average share of 70%. In contrast, the share of NBFCs' credit under the scheme declined from 35% in 2015–2016 to 25% in 2020–2021. This is mainly attributable to huge competition from the banking sector and attractive interest rates in the banking sector. The positive indicator of the scheme that, share of total micro credit granted by banking sector to total credit to MSMEs reported sharp rise with double rate during the study period i.e., from 6.53% in 2015–2016 to 12.20%. In a similar line, the study also found a nearly two-fold rise in total banking micro credit to total credit granted by the banking sector in India, i.e., 0.40% in 2015–2016 to 0.72% in 2020–2021. The continuous rise in these two parameters indicates significant growth in the contribution of the banking sector to entrepreneurship development through formal microcredit in India.

Table 2 Broad economic indicator of MUDRA loans during 2016–2021

	Total micro credit under PMMY(*)	*Total NBFCs share under PMMY (**)*	*Banking sector credit under PMMY(**)*	*PMMY banking credit as percentage to total MSMEs loans by banking sector (*)*	*PMMY bank credit as percentage to total bank credit (*)*
2020–2021	311754 (134.48)	78243 (25)	233511 (75)	1914790 (12.20)	32520594 (0.72)
2019–2020	329715 (147.98)	97974 (30)	231741 (70)	2018643 (11.48)	30880230 (0.75)
2018–2019	311811 (134.52)	108338 (35)	203472 (65)	1664674 (12.22)	28981174 (0.70)
2017–2018	246437 (85.35)	73582 (30)	172856 (70)	1473044 (11.73)	25553604 (0.68)
2016–2017	175312 (31.85)	46532 (27)	128780 (73)	1376509 (9.36)	23637752 (0.54)
2015–2016	132955 (100)	45904 (35)	87050 (65)	1333875 (6.53)	21791234 (0.40)
AVG (%)		30	70	10.59	0.63

Notes: *Indicates growth over previous year.
**Indicates share in total micro credit under PMMY.

4.3 Institution wise share in total MUDRA/PMMY

Table 3 shows the institution's share of total microcredit granted under MUDRA during 2016–2021. The study observed that both banking and non-banking sector institutions are participating in this largest microcredit scheme. Banking sectors institutions comprises of public sector, private sector, regional rural banks and others (small finance banks, cooperative banks and foreign banks). On the other hand, NBFCs are comprised of microfinancial institutions and other NBFCs. The study witnessed the dominance of the banking sector with an average share of 69.66% of total microcredit granted under MUDRA, which implies that NBFCs account for an average of 30.33%. In the banking sector, the public sector has a large portion with a down trend, i.e., 64% in 2015–2016 to 44%. On the contrary, private sector banks improved their contribution by nearly double the rate, i.e., from 23% in 2015–2016 to 40% in 2020–2021. Public sector banks provided 49.83% of the loans made under the MUDRA. The share of regional rural banks has declined from 12% to 8% during the study period, while the share of other institutions climbed significantly from 0.02% in 2015–2016 to 8.38% owing to a substantial contribution by small finance banks. The contribution of NBFCs in has fallen from 35% in 2015–2016 to 25% in 2020–2021. This is mainly attributable to competition from banks and small finance banks with attractive interest rates. However, on average, both banks and NBFCs have a share in the ratio of 70:30 in total MUDRA micro loans to entrepreneurs in India.

Table 3 Institution wise share in total MUDRA/PMMY loans during 2016–2021

Institution	*2015–2016*	*2016–2017*	*2017–2018*	*2018–2019*	*2019–2020*	*2020–2021*	*AVG*
Public sector banks	56,127 (64)	68,448 (53)	87,630 (51)	93,367 (46)	94,179 (41)	102,950 (44)	49.83
Private sector banks	20,026 (23)	38,773 (30)	49,275 (29)	63,624 (31)	91,362 (39)	93,086 (40)	32.00
RRBs	10,876 (12)	11,239 (9)	14,692 (8)	16,687 (8)	16,753 (7)	17,911 (8)	8.66
Others	21 (0.02)	10,320 (8.01)	21,258 (12.3)	29,795 (14.64)	29,447 (12.71)	19,564 (8.38)	9.34
Total banking sector share (A)	87,050 (65)	128,780 (73)	172856 (70)	203,473 (65)	231,741 (70)	233,511 (75)	69.66
NBFCs (B)	45,904 (35)	46,532 (27)	73,582 (30)	108,338 (35)	97,974 (30)	78,243 (25)	30.33
Total formal credit under PMMY (A+B)	132,955 (100)	175,312 (100)	246,437 (100)	311,811 (100)	329,715 (100)	311,754 (100)	100

Note: Value in brackets is share in total formal credit under PMMY.

4.4 Scheme wise performance evaluation of MUDRA/PMMY schemes

Table 4 shows the sub-scheme wise performance evaluation of MUDRA during 2016–2021.

Table 4 Sub-scheme wise performance evaluation of MUDRA/PMMY schemes during 2016–2021

	2015–2016	*2016–2017*	*2017–2018*	*2018–2019*	*2019–2020*	*2020–2021*	*AVG*
SHISHU sub-scheme							
A. Sanctioned loans (*)	32,401,046 (92.89)	36,497,813 (91.93)	42,669,795 (88.65)	51,507,438 (86.03)	54,490,617 (87.54)	40,180,115 (79.20)	87.70
B. Sanctioned amount (**) (Rs Cr)	62,895 (45.76)	85,101 (47.14)	106,002 (41.79)	142,345 (44.24)	163,528 (48.45)	109,953 (34.17)	43.59
C. Disbursed amount (Rs Cr)	62,028	83,892	104,228	139,651	162,813	108,637	
Disbursement rate (%) (B/C)	98.62	98.58	98.33	98.11	99.56	98.80	98.66
Avg amount per loans (Rs lakh)	0.19	0.23	0.25	0.28	0.30	0.27	0.25

Note: *Value in brackets indicates total share in total loans.
**Indicates share of total amount.

Table 4 Sub-scheme wise performance evaluation of MUDRA/PMMY schemes during 2016–2021 (continued)

	2015–2016	*2016–2017*	*2017–2018*	*2018–2019*	*2019–2020*	*2020–2021*	*AVG*
			KISHORE sub-scheme				
A. Sanctioned loans (*)	2,069,461 (5.93)	2,663,502 (6.71)	4,653,874 (9.67)	6,606,009 (11.03)	6,471,873 (10.40)	40,180,115 (18.70)	10.40
B. Sanctioned amount (**) (Rs Cr)	43,052 (31.32)	53,545 (29.66)	86,732 (34.19)	104,387 (32.45)	95,578 (28.32)	132,516 (41.18)	32.85
C. Disbursed amount (Rs Cr)	41,073	51,063	83,197	99,868	91,427	127,239	
Disbursement rate (%) (B/C)	95.40	95.36	95.92	95.67	95.66	96.02	95.67
Avg amount per loans (Rs lakh)	2.08	2.01	1.86	1.58	1.48	1.40	1.73
			TARUN scheme				
A. Sanctioned loans (*)	410,417 (1.18)	539,732 (1.36)	806,924 (1.68)	1,756,871 (2.93)	1,285,116 (2.06)	1,068,771 (2.11)	1.88
B. Sanctioned amount (Rs Cr) (**)	31,502 (22.92)	41,883 (23.20)	60,943 (24.02)	74,991 (23.32)	78,358 (23.22)	79,290 (24.64)	23.55
C. Disbursed amount (Rs Cr)	29,854	40,357	59,012	72,292	75,475	75,878	
Disbursement rate (%) (B/C)	94.77	96.36	96.83	96.40	96.32	95.70	96.06
Avg amount per loans (Rs lakh)	7.68	7.76	7.55	4.27	6.10	7.42	6.79
Total loans (*)	34,880,924	39,701,047	48,130,593	59,870,318	62,247,606	50,735,046	
Total amount (**)	137,449.2	180,528.54	253,677.1	321,722.79	337,495	321,759	

Note: *Value in brackets indicates total share in total loans.
**Indicates share of total amount.

The MUDRA scheme comprises of three sub-schemes, namely Shishu, Kishore and Tarun, on the basis of credit limit. The maximum micro credit limit under Shishu is Rs 50,000, in case of Kishore is Rs 5 lakh and Tarun scheme is Rs 10 lakh. The study found that, in 2015–2016, 92.89% of total loans and 45.76% of total micro credit were granted under the Shihu scheme, which dropped in subsequent years and reached 79.20% and 34.17%, respectively, in 2020–2021. The average disbursement rate of the scheme is 98.66% which is substantially high rate. The study also observed that, the average amount sanctioned under Shishu scheme gradually improved from RS 0.19 lakh to

Rs 0.27 lakh during the study period, however, still much is remained to be done in his parameter. Similarly, the study found that, the proportion of loans granted under the Kishore scheme was shown to have three-fold rises in total MUDRA scheme, such as 5.93% in 2015–2016 to 18.70% in 2020–2021. Similarly, the proportion of the total amount sanctioned also increased from 31.32% to 41.18% during the same period. The uptrend in both total loans and total amount is a good sign for entrepreneurship development with a high amount. The average disbursement rate under the scheme during the study period is 95.67% which is good. The study found a drop in the average amount per loan from Rs 2.08 lakh to Rs 1.40 lakh during the study period. This is not a good sign for entrepreneurship growth. The third scheme is that of Tarun of MUDRA loans. The Tarun loans accounts to 1.18% (2015–2016) in total MUDRA loans, but, it was increased by two fold in 2020–2021 i.e., 2.11%. Similarly, the sanctioned loan rose from 22% to 24.64% during the same period. The disbursement rate was an average of 96.06% during the study period. The study observed slight fall in average amount per loan during the study period i.e., from Rs 7.68 lakh in 2015–2016 to 7.42% 2020–2021. The average amount per loan is Rs 6.79% during the study period. In overall, the study observed improvement in sanctioned amount and loans in case of Kishore and Tarun scheme and drop in Shishu scheme. This indicates that the PMMY scheme also meets the growing financial requirements of growing enterprises in the country. However, the drop in average amount per loan under Kishore loans is a concern of the PMMY scheme.

4.5 Category wise borrowers benefited under PMMY/MUDRA

Table 5 exhibits the category-wise borrowers benefited under different schemes of MUDRA loans. The borrowers benefiting under the MUDRA scheme are categorised as general, vulnerable people/weaker sections, women entrepreneurs, and new entrepreneurs. In the Shishu scheme, the study found a slight rise in beneficiaries of the general category from 46.22% in 2015–2016 to 47.44% in 2020–2021. In contrast, a slight drop was observed in beneficiaries of vulnerable people from 53.77% in 2015–2016 to 52.55% in 2020–2021. The study observed a substantial drop in women beneficiaries from 96.88% in 2015–2016 to 67.74% in 2020–2021. Similarly, the study found a 34.06% share of new entrepreneurs in the Shishu scheme in 2015–2016, which fell by substantially to 12.22% in 2020–2021. Overall, under the Shishu scheme, on average, 75.63% of the beneficiaries are women entrepreneurs, 52.49% are vulnerable sections of society, 47.50% belong to the general category, and only 21.22% is new entrepreneurs. In the Kishore scheme, the general category beneficiaries fell from 73.79% in 2015–2016 to 71.25% in 2020–2021. In contrast, the beneficiaries of vulnerable and women's categories rose from 26.20% and 21.06%, respectively, to 28.74% and 38.28% during the same period. However, the study observed more than half the falling rate in new entrepreneurs' benefit rate, i.e., from 56.36% in 2015–2016 to 26.08% in 2020–2021. Overall, under the Kishore scheme, on average, 73.99% of beneficiaries are general category, 45.75% are new entrepreneurs, 25.99% are vulnerable sections of society, and only 24.93% are women entrepreneurs. The third sub scheme is Tarun. In this scheme 83.70% of beneficiaries are general categories in 2015–2016 and marginally decreased to 83.67% in 2020–2021. In contrast, the proportion of vulnerable sections declined from 16.29% in 2015–2016 to 12.01% in 2020–2021. Similarly, the number of new entrepreneurs dropped from 50.65% in 2015–2016 to 44.56% in 2020–2021. The study observed substantially fall in women beneficiaries under the scheme during the study period, i.e., from 12.94% in 2015–2016 to 7.67% in 2020–2021. In overall, under the Tarun scheme, on average, 86.77% of beneficiaries are general category, 47.56% are new entrepreneurs, 12.49% are vulnerable sections of society, and only 10.80% are women entrepreneurs. In the total MUDRA scheme during the entire study period, the beneficiary rate between general and vulnerable sections is 66:34. The women beneficiaries are 45%, and new entrepreneurs are 35.32%. The study found beneficiaries ratio by vulnerable, women and new entrepreneurs is relatively lower in Kishore and Tarun scheme under MUDRA loans during the study period. These indicate that, sanctioning of loans is against the primary objective of the scheme.

Table 5 Category wise borrowers benefited under PMMY/MUDRA during 2016–2021 in (%)

	2015–2016	*2016–2017*	*2017–2018*	*2018–2019*	*2019–2020*	*2020–2021*	*AVG*
			Shishu scheme				
General	46.22	41.32	44.50	52.55	52.98	47.44	47.50
ST/SC/OBC (weaker sections)	53.77	58.67	55.50	47.44	47.01	52.55	52.49
Women entrepreneurs	96.88	78.72	75.82	67.61	67.04	67.74	75.63
New entrepreneurs	34.06	21.99	21.34	20.46	17.29	12.22	21.22
Total sanctioned amount (Rs Cr)	62,895	85,101	106,002	142,345	163,559	109,953	
			Kishore scheme				
General	73.79	76.23	76.64	75.63	70.44	71.25	73.99
ST/SC/OBC (weaker sections)	26.20	23.76	23.35	24.37	29.55	28.74	25.99
Women entrepreneurs	21.06	17.82	19.12	25.61	27.70	38.28	24.93
New entrepreneurs	56.36	59.31	50.78	41.51	40.50	26.08	45.75
Total sanctioned amount (Rs Cr)	43,052	53,545	86,732	104,386	95,578	132,516	

Note: Percentages reflects share in total sanctioned amount.

Table 5 Category wise borrowers benefited under PMMY/MUDRA during 2016–2021 in (%) (continued)

	2015–2016	*2016–2017*	*2017–2018*	*2018–2019*	*2019–2020*	*2020–2021*	*AVG*
			Tarun scheme				
General	83.70	87.38	88.59	88.49	88.84	83.67	86.77
ST/SC/OBC (weaker sections)	16.29	12.60	11.43	11.50	11.15	12.01	12.49
Women entrepreneurs	12.94	8.95	10.33	13.38	11.54	7.67	10.80
New entrepreneurs	50.65	53.65	50.51	44.75	41.25	44.56	47.56
Total sanctioned amount (Rs Cr)	31,502	41,883	60,943	74,990	78,358	79,289	
			OVERALL PMMY scheme				
General	63.44	62.36	66.07	68.42	66.25	67.11	65.60
ST/SC/OBC (weaker sections)	36.54	37.63	33.92	31.57	33.74	32.88	34.38
Women entrepreneurs	59.79	44.47	40.70	41.35	43.01	40.80	45.02
New entrepreneurs	44.85	40.41	38.41	32.95	29.41	25.90	35.32
Total sanctioned amount (Rs Cr)	137,449	180,529	253,677	321,723	337,495	321,759	

Note: Percentages reflects share in total sanctioned amount.

5 Findings and suggestions

- The study found year-wise positive growth in PMMY sanctioned loans and amounts during the study period except in the last year due to the COVID-19 effect. The loans have grown by a CAGR of 26.54% and the sanctioned amount by a CAGR of 18.54%. The disbursement rate is in the range between 96–98% which is highly significant ratio. The amount sanctioned per loan is also significantly improved every year with CAGR of 8%. In the span of six years, the PMMY scheme achieved a land mark of micro credit provision to one fourth of the nation, i.e., 29.53 Cr, which indicates the remarkable contribution of the scheme for entrepreneurship in India. This is one of the largest government initiatives in the world towards the promotion of entrepreneurship from ground level with formal and collateral free microcredit in developing countries.
- In this formal micro credit program both banks and NBFCs are actively participating due to available of refinance facility. However, banking sector is playing pre-dominant role with two thirds of the share, which implies that one third

of the share is in the hands of NBFCs. This is attributable to the wide banking network's work and attractive interest rates. However, NBFCs depend on banks and external borrowing for fund raising, which is subject to high costs. However, this indicates good growth in institutional credit available for entrepreneurship development with microcredit.

- The study revealed that, the total banking credit under the PMMY scheme to total banking MSMEs loans was 6.53% in 2015–2016, which had doubled in six years and reached 12.20% in 2020–2021. Similarly, banking loans under the PMMY scheme rose from 0.40% to 0.72% of total bank credit during the study period. The growth in these two parameters indicates an increasing contribution of the banking sector or institutional credit for the development of entrepreneurship through microcredit in India.
- The PMMY scheme comprises of three sub-schemes on the basis of credit limit, such as Shishu up to Rs 50,000, Kishore up to Rs 5 lakh and Tarun up to Rs 10 lakh. The Shishu scheme accounts for 87.70% of total loans and 43.59% of the total sanctioned amount of PMMY loans. The Kishore scheme accounts to 10.40% in total loans and 32.85% in total amount under PMMY loans. Similarly, Tarun scheme accounts for 1.88% of total loans and 23.55% of the total amount of PMMY loans. This indicates that the average disbursement rate is higher in Shishu loans, i.e., 98.66%, while it is 96.06% in Kishore and 95.67% in the Tarun scheme. However, the total disbursement rate under PMMY scheme rate is above 95% during the study period which is substantially good rate. The study observed an improvement in the amount per loan under the Shishu scheme from Rs 0.19 lakh to Rs 0.27 lakh and an insignificant change in the case of the Tarun scheme. In contrast, the average amount per loan deteriorated under the Kishore scheme from Rs 2.08 lakh to Rs 1.40 lakh. This is one of the major concerns of the scheme. Therefore, the study suggests policy makers and financial institutions focus on the issues and design strategies to improve the average amount per loan.
- The study found that, of the total beneficiaries of the scheme, two third of the beneficiaries are general category (66) and one third (33) is vulnerable sections of society. The beneficiaries of vulnerable of sections are much loser in Kishore and Tarun scheme 25.99 and 12.49% respectively. This indicates that, the main objective of the scheme is not reached and diversified. This is also one of the concerns to be focused on by the policy makers in granting loans. Similarly, the study observed a down trend in women beneficiaries during the study period from 59.79% to 40.80%. In overall, the average women beneficiaries is 45.02% which is very lower in Kishore (24.93%) and Tarun schemes (10.80%). This is considered a disincentive for women entrepreneurs from accessing microcredit in India. Similarly, the study also observed a down trend in new entrepreneurs from 44.85% in 2015–2016 to 25.90% in 2020–2021. This indicates that vulnerable sections, women, and new entrepreneurs are still facing problems in accessing microcredit from financial institutions under the Kishore and Tarun schemes. Therefore, it is a great constraint for the growth of entrepreneurs. Thus, the study suggests policymakers and financial institutions have to focus on the policy modifications and allow more entrepreneurs to access credit under these two schemes.

6 Conclusions

The availability and accessibility of institutional microcredit is one of the major constraints for the development of entrepreneurship in developing countries due to reasons such as high risk borrowers, no collateral security, high interest rates, etc. This shows a negative impact on employment, economic activity, and the overall economic development of the nation. India is also not an exemption from this. Therefore, to address this issue, the government of India initiated a national level micro credit scheme by the name of PMMY or MUDRA in 2015, which provides collateral free micro credit to entrepreneurs in the country along with interest rate subsidy and refinance facility. In a span of six years (2015–2021), this scheme emerged as the largest microcredit scheme in the world by providing formal microcredit to one fourth of the nation's (30 Cr) population. This is a really great initiative towards the promotion of entrepreneurship in the country. The main objective of the scheme is to provide institutional credit for entrepreneurship development in the country, particularly focusing on vulnerable groups (SC/ST, BC), women and new entrepreneurs. The present study measured the performance of the scheme since its inception. The study found that, the overall performance of the scheme in broad variables is at good level. But, the sub-scheme wise results show that, the vulnerable sections, women and new entrepreneurs' benefits are majorly confined only to the Shishu scheme and very poor in the case of the Kishore and Tarun schemes. This indicates discrimination in beneficiaries or borrowers. This is one of the major limitations of the scheme, which should be addressed by the government and institutions.

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