

# Scenario Of Employment Creation Under Prime Minister Employment Generation Programme - A Zonal Study Of India

Kanchan Srivastava, Arvind Mohan, Sachin Singh

Research Scholar, Department Of Economics, University Of Lucknow,  
Lucknow-226007, Uttar Pradesh, India

Professor, Department Of Economics, University Of Lucknow, Lucknow-226007, Uttar Pradesh, India  
Assistant Professor, Department Of Economics, Cane Societies Nehru PG College, Hardoi- 241001, Uttar Pradesh, India

---

## Abstract

Since independence, the Indian economy has dealt with the problem of unemployment, and to curb this situation, the government of India has initiated many employment-generating schemes so that micro, small, and medium enterprises (MSMEs) can flourish without any hurdles. Employment generation and motivating people to create self-employment opportunities are features of inclusive and sustainable growth in an economy. The PMEGP scheme was one of the schemes introduced by the government of India in 2008 for creating jobs by providing margin money (subsidy) to entrepreneurs, helping them to establish their units, and creating self-employment opportunities for many more. This paper aims to examine the impact of the number of units assisted and margin money subsidies utilised on the estimated employment generation under PMEGP during 2009–2021 across six different zones of India. The study is based on panel data models. The results show that the impact of the number of units assisted on job creation was positive and significant from 2009–10 to 2021–22. But margin money shows a negative and highly insignificant impact on employment generation from 2009–2010 to 2014–15 and a positive and significant impact on creating employment opportunities from 2015–2021. The overall impact of the margin money subsidy for 13 years is positive but statistically insignificant.

**Keywords-** PMEGP, Margin money subsidy, number of units assisted, employment opportunities created, entrepreneurs, MSMEs

---

Date of Submission: 16-12-2025

Date of Acceptance: 26-12-2025

---

## I. Introduction

Employment generation and encouraging self-employment are key aspects of inclusive and sustainable economic growth. India's economy is the fastest-growing in the world, and its ranking as the fifth-largest economy globally reflects this. India has surpassed its target to become the world's fastest-growing developing economy. Even in the aftermath of the COVID-19 pandemic, the Indian economy continues to grow robustly, with real GDP growth expected to remain between 6% and 8% from 2021 to 2023. Nonetheless, despite this rapid expansion, India has struggled with unemployment over the years. Promoting first-generation enterprises and fostering entrepreneurship is crucial, as entrepreneurs are vital inputs for economic growth, linking industrial development to overall economic progress.

Entrepreneurship drives economic development, innovation, and job creation. It introduces dynamism into the economic system through globalization (Naik & Patel, 2022). To support growing entrepreneurial activities in India, it is essential to focus on the development of the MSME sector. Medium, small, and micro enterprises (MSMEs) are considered engines of growth and the backbone of economic development. They contribute to local economic development through wealth creation, poverty reduction, and employment generation (Fomum & Opperman, 2023).

MSMEs have the potential to create numerous employment opportunities with relatively low investment, bridging the gap between developed and underdeveloped economies. Establishing industries, particularly in rural areas, helps combat poverty and reduces regional imbalances (Pujar, 2014). In terms of volume, the MSME sector creates employment next to the agriculture sector (Srivastava, 2020). According to (MSME Annual Report 2021-22, 2022) rural MSMEs account for 51% of the sector, while urban MSMEs account for 49%. This indicates a significant impact of MSMEs in rural India. The 73rd National Sample Survey (2015–16) reported that the MSME sector comprises 63 million units and has created 111 million jobs. Promoting new start-ups to encourage entrepreneurship and innovation is crucial for economic growth. The growth of small and medium enterprises is

not only important but also necessary for a developing economy to progress rapidly. Although small and medium enterprises have more potential to create employment and profit compared to large enterprises, uncooperative behaviour from financial institutions can lead to their downfall. The government supports and encourages start-ups and nascent industries to help them flourish and eventually transform into medium and large enterprises.

The government provides subsidies to SMEs to stimulate employment, as they are more labour-intensive than large enterprises (Mazanai & Fatoki, 2012). Further, to deal with the unemployment problem and to create self-employment opportunities for rural and urban youth, the Government of India has implemented numerous measures, programs and schemes. Therefore, the present study focuses on one of the most popular and successful scheme run by the Government of India i.e. Prime Minister Employment Generation Programme (Bansal, Yadav, & Garg, 2019).

### **Prime Minister Employment Generation Programme**

The Prime Minister's Employment Generation Programme (PMEGP), introduced in 2008, is a centrally sponsored scheme administered by the Ministry of Micro, Small, and Medium Enterprises. It is a credit-linked subsidy programme designed to create employment opportunities by setting up microenterprises in the non-farm sector. The scheme is implemented by the Khadi and Village Industries Commission (KVIC) as the nodal agency at the national level and executed by state KVIC directorates, state Khadi and Village Industries Boards (KVIBs), District Industries Centres (DICs), and banks at the state level. The primary objective of this scheme is to create more employment opportunities in rural areas by preventing migration of rural population to urban areas by setting up more industries in rural areas (Pandey, Pandey, & Mishra, 2021). It supports traditional artisans by providing self-employment opportunities to maximize their wage-earning capacities, which directly improves employment levels in both rural and urban areas. These achievements contribute to the nation's goal of Atmanirbhar Bharat (self-reliant India).

To encourage nascent and growing MSMEs, the Government of India has made several enhancements to the PMEGP scheme. Beneficiaries of the PMEGP programme are categorized based on project cost and subsidy rates. In 2022, the project cost limits were increased to Rs. 50 lakh for the manufacturing sector and Rs. 20 lakh for the service sector. The Margin Money subsidy is a one-time assistance from the Government of India and is not applicable for project enhancements or credit limit expansions. Special category beneficiaries must contribute 5% of the total project cost and are eligible for a 25% subsidy in urban areas and a 35% subsidy in rural areas and under the general category, beneficiaries must contribute 10% of the project cost and are eligible for a 15% subsidy in urban areas and a 25% subsidy in rural areas (CH.Subarrayadu & Rao, 2021).

The scheme has been particularly beneficial for women entrepreneurs as the special category beneficiaries. The Indian government is actively working to bridge the gender gap in entrepreneurship (Chatterjee, Choudhary, & Bhattacharjee, 2023). Since its inception, PMEGP has assisted 259,339 women-owned projects as of December 31, 2022 (Ministry of Micro, Small, and Medium Enterprises, GoI, 2023). The women entrepreneurs now represent 12% of the total female population engaged in entrepreneurship in India, compared to 17% of the male population (GEM, 2020). This marks an increase from 4.58% in 2013 to 12.71% in 2020 (Tiwari, Hogan, & O'Horgan, 2021), highlighting the need for better investment and funding opportunities for women entrepreneurs. Since 2008, the PMEGP scheme has generated 6.8 million jobs by establishing 834,000 enterprises, with approximately Rs. 20,643 crore disbursed as margin money subsidy up to December 15, 2022 (PIB, 2022). In FY 2021–22, PMEGP achieved a significant milestone by disbursing Rs. 2,978 crore (36% higher than FY 2021) in margin money subsidies, assisting 103,000 units, and creating employment for 800,000 people—the highest figures since the scheme's inception. From January 2022 to November 2022, 95,271 units were assisted, creating an estimated 762,000 jobs (PIB, 2022).

The present study is divided into six sections. The first section provided an introduction to the study. The second section reviews related literature on the PMEGP scheme. The third section outlines the study's objectives. The fourth section elaborates on the methodology used in the study. The fifth section discusses trends in estimated employment opportunities created (EEOC); a dependent variable in this study, across the six zones of India, and presents the analysis and results. The sixth section covers the conclusion and policy implications.

## **II. Review Of Literature**

Entrepreneurship plays a significant role in sustaining the growth of the economy and to sustain this growth, MSMEs are playing a crucial role. MSMEs are not only employment creators at lower capital cost than large industries but also contribute in the industrialisation of rural and urban areas by reducing regional imbalances, assuring equal distribution of income and wealth (Katyal & Xaviour, 2015). The growth of entrepreneurs in the MSME sector heavily relies on government and policymaker's efforts. Financing schemes enhance entrepreneurial spirit and growth by providing the necessary capital to start or set up businesses. The availability and accessibility of the sources of finance are the major factors of industrial development in an economy (Singh & Wasdani, 2016). Singh(2021) emphasized the importance of infrastructural facilities for

MSMEs, including ICT facilities, research and development labs, transport, testing labs, and interest rebates for entrepreneurs. Dvoulety, Srhoj, & Pantea (2021) found that while grants positively impact employment creation, sales maximization, and firm survival in European SMEs, their effect on productivity and competitiveness is often short-term and limited.

Wadichar, D. Wadate, & Manusmare (2022) analyzed the impact of the PMEGP programme on entrepreneurship development in the Nagpur district. They suggest that the government should enhance funding and financial assistance to increase the number of beneficiaries. Easing loan application procedures and improving the role of banks are crucial, as stringent project and loan approval criteria often discourage beneficiaries. Entrepreneurs face challenges such as high loan interest rates and inadequate collateral, which hinder capital access (Kumar & Shobana, 2023).

Women entrepreneurs, despite facing financial constraints and societal restrictions, contribute significantly to the Indian economy, with their contribution accounting for approximately 30% of total project setups under the PMEGP scheme (Saranya & Chandrasekar, 2023). Notably, 78% of the 21,640 PMEGP units in J&K are in the service sector, including traditional activities such as beauty parlours, embroidery, boutiques, and food outlets, which are preferred by women entrepreneurs (PIB, 2022).

In Slovenia, a study examined the correlation between subsidies for development projects, firm financial performance, innovation, and economic growth within the EU. The results indicated that government subsidies have a more substantial impact on SMEs' business and financial performance than on innovation (Zampa & Bojnee, 2017). In contrast, (Skuras, Dimara, & Stathopoulou, 2003) found that capital subsidies do not necessarily create jobs in rural areas and may lead to labour substitution by capital. Hence the development activities progress, more entrepreneurs find wage employment more attractive, leading to a decline in self-employment and this shift can render self-employment either productive or unproductive (Naude, 2008). Bansal, Yadav, & Garg, (2019) conducted a panel data study examining the relationship between the number of units assisted (NOU), margin money subsidy (MMS), and employment opportunities under PMEGP across six zones in India from 2009 to 2016. Their findings revealed a significant relationship between NOU and employment, but MMS was not a significant determinant in creating employment opportunities. Gupta, (2018) posited that there should be a positive relationship between margin money issued and the number of units set up, as subsidies are provided only once projects are approved.

Khan, Jamal, & Shah, (2018) found that textiles and services performed best under PMEGP, with most projects falling within the financial range of Rs. 1-2 lakhs and Rs. 4-5 lakhs. Altamash & Khandare, (2020) conducted a primary study in Maharashtra's Marathwada region, selecting 300 beneficiaries from Aurangabad, Parbhani, and Nanded. Their study showed that many youths and women benefited socially and economically from PMEGP, with improvements in profit, income, assets, revenue, and employment. Aggarwal, (2013) observed that the major beneficiaries of PMEGP in Haryana's Rewari, Gurugram, and Mahendergarh districts were SCs, STs, and OBCs. However, the number of beneficiaries did not rise as expected, with many failing to start their ventures due to inefficient capital and lack of demand for their products. Choudhary & Ghosh (2015) noted a strong correlation between the number of village industries started and production, product sales, but a weaker correlation between projects started and employment generated. Kumar & Ozukum (2022) found that the PMEGP programme in Kohima, Nagaland, helps reduce unemployment and socio-economic disparities while improving youth involvement in starting their ventures.

On the basis of the numerous studies and literature three variables has been chosen for the study i.e. Margin money subsidy, number of units assisted, and employment generation (Bansal, Yadav, & Garg, 2019; Choudhary & Ghosh, 2015; Kumar & Shobana, 2023)

### **III. Objective Of The Study**

The aim of this paper is to analyse the impact of margin money utilization (subsidy) and the number of units assisted on employment generation under the PMEGP scheme across six zones of India (North, South, Central, North-East, West, and East) during the period from 2009 to 2021.

### **IV. Research Methodology**

This paper aims to analyze the effect of the number of units assisted and the Margin Money subsidy on employment levels. The study uses secondary data from the PMEGP portal dashboard covering the period from 2009 to 2021. The data includes three key variables: employment, margin money (MM) subsidy, and the number of units assisted. The data is segmented into six zones: North, South, West, East, North-East, and Central. Specifically, the Central Zone comprises four states (Chhattisgarh, Madhya Pradesh, Uttar Pradesh, Uttarakhand), the North Zone includes six states (Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan), and the East Zone encompasses four states (Bihar, Jharkhand, Odisha, West Bengal). Notably, Jammu & Kashmir was reorganized into a Union Territory in 2019, with Ladakh becoming a separate Union Territory.

The descriptive statistics have been used to check the normality condition of the data. The Jarque-Bera test has been applied to test the normality of the data. The Jarque-Bera statistics hypothesise that if the probability value of the variables is greater than 0.05 percent, then the data are normally distributed (Thadewald & Buning, 2007). The compound average annual growth rate of the employment created under the PMEGP scheme has also been calculated to evaluate the growth rate of total employment created across six zones of India under the PMEGP scheme. Further, the relationship between the variables is examined for the 13 year period (from 2009–2010 to 2021–2022) and two time periods: 2009–10 to 2014–15 and 2015–16 to 2021–22 across all six zones of India.

To examine the relationship among the number of units assisted, margin money subsidy utilized, and estimated employment opportunities created, a panel data analysis is used. Panel data analysis is advantageous over ordinary least squares (OLS) methods as it provides a richer dataset and reduces the issues of multicollinearity among variables. It involves repeated measurements of the same entities over different time periods, capturing both cross-sectional and time-series variability. It includes the heterogeneity of cross-sectional data, which helps to analyse the dynamic behaviour of parameters (Baltagi & Kao, "Nonstationary Panels, cointegration in Panels and dynamic in Panels: a survey," in Nonstationary Panels, Panel cointegration, and Dynamic Panels., 2000) This approach increases the number of observations and reduces standard errors by incorporating more information over time (Xu, Lee, & Eom, 2007).

Generally, there are three methods for panel data: the pooled ordinary least squares regression model (constant coefficient model), the fixed effect least squares dummy variable model (LSDV), and the random effect model. The pooled OLS model assumed that all coefficients remained the same across cross-section units and over time. But its limitation is that the homogeneity assumption may not hold true in this model. It denies the individuality condition. To deal with this problem, fixed effect models and random effect models for panel data analysis are introduced. The fixed effect model assumes that the intercept for each cross-sectional unit remains constant over time and is invariant to time, allowing for individual-specific effects. In the random effect model, individual-specific effects are random and uncorrelated with the explanatory variables, suitable for short panel data (Bhaumik, 2015). To determine the most appropriate model between FEM and REM, the Hausman test is applied. The Hausman specification test (1978) evaluates whether the random effects assumption—namely, that the explanatory variables are orthogonal to the unit effects—holds true (Baltagi, *Econometric Analysis of Panel Data*, 2005).

Based on the Hausman test, the Random Effect Model (REM) is selected for this study. The relationship between the variables is estimated using linear regression equations:

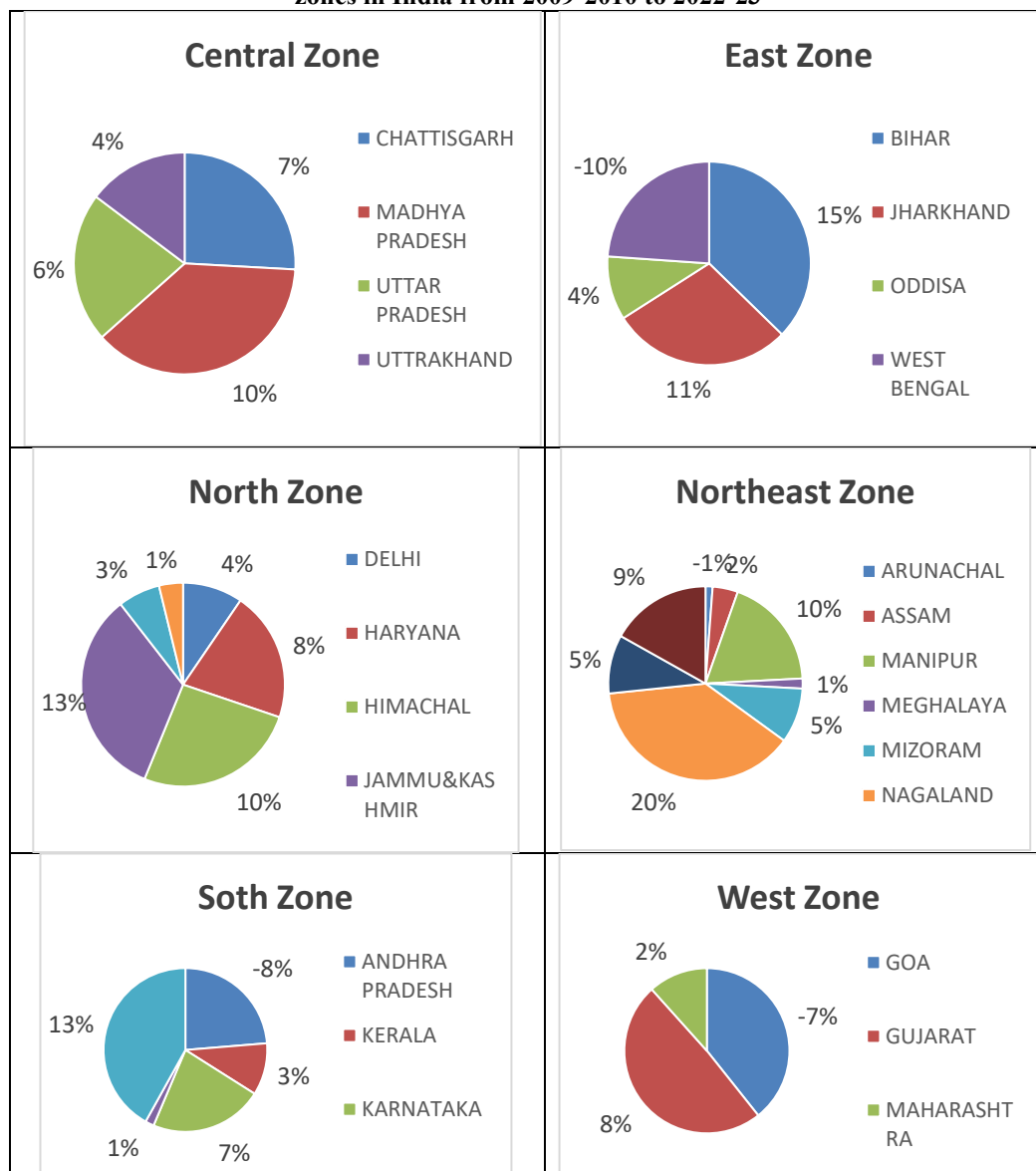
$$\text{LnEEOC}_{it} = \beta_{1i} + \beta_{2i}\text{LnNOU}_{it} + \beta_{3i}\text{LnMMSU}_{it} + u_{it}$$

Where prefix “Ln” is the natural logarithm of the panel data variables and subscript “it” signify (i=1,2,3,.....N, where N is the cross sectional units, and t=1,2,3,.....Where T is the time period) the different cross-section and time period. The parameter  $\beta_1$  is constant,  $\beta_2$ ,  $\beta_3$  are elasticity coefficients of EEOC with respect to NOU and MMSU respectively.  $u_{it}$  represent the error term. EEOC is the estimated employment opportunities created in zone i in t time period, NOU is the number of units assisted in zone i in t time period and MMSU is the margin money subsidy utilized in zone i in t time period.

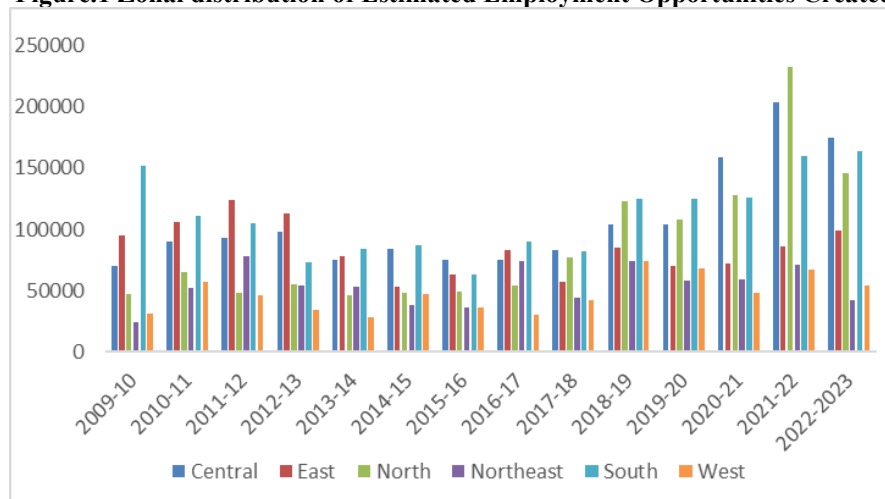
## V. Results And Discussions

This section presents the trend analysis of estimated employment opportunities created (EEOC) across the six zones of India, and discusses the results from the empirical analysis of the study. The trend in EEOC across the six zones of India is illustrated using graphical presentations. Bar graphs and pie charts depict the trend and Compound Annual Growth Rate (CAGR) of EEOC over the study period.

**Table 1 Compound Average Annual Growth Rate of estimated employment opportunities created of six zones in India from 2009-2010 to 2022-23**



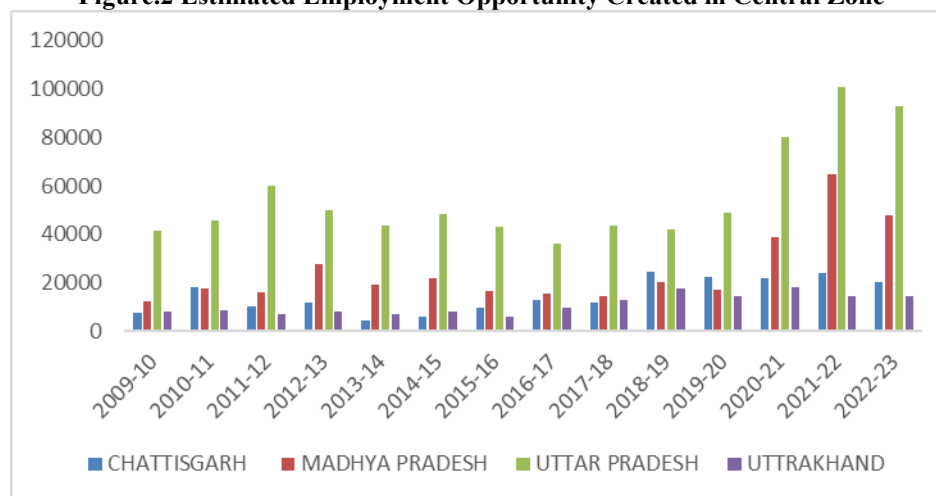
**Figure.1 Zonal distribution of Estimated Employment Opportunities Created**



Source: Lok Sabha Unstarred Questions retrieved from Indiastat

Fig.1 is showing the trend of EEOC across different zones during the study period i.e. 2009-2022. It is observed from the figure that northeast was the worst performer in 2009 followed by west and north by generating least employment opportunities under the PMEGP programme. The major issues faced by entrepreneurs in the northeast are the access of timely credit and the valid documents for loan. The north eastern region has a higher dependence on low-productivity agriculture and provides ample natural resources but the large portion of Indian Himalayan Region (IHR) comes under the North-eastern states of India. Hence, it makes it difficult to set up industries as it faces the transportation and other infrastructural issues which results in low levels of employment generation (Tripathi, 2016). There is also a restriction on business establishment by outside entrepreneurs because they cannot legally buy the land in the north eastern region, due to which they cannot avail any government scheme or bank credit (Sangwan, 2016). The central, northern, and south zone improved over the periods and the north zone generated the highest employment opportunities in 2021-22, as compared to other zones followed by central and south zone. In 2022-23, the employment

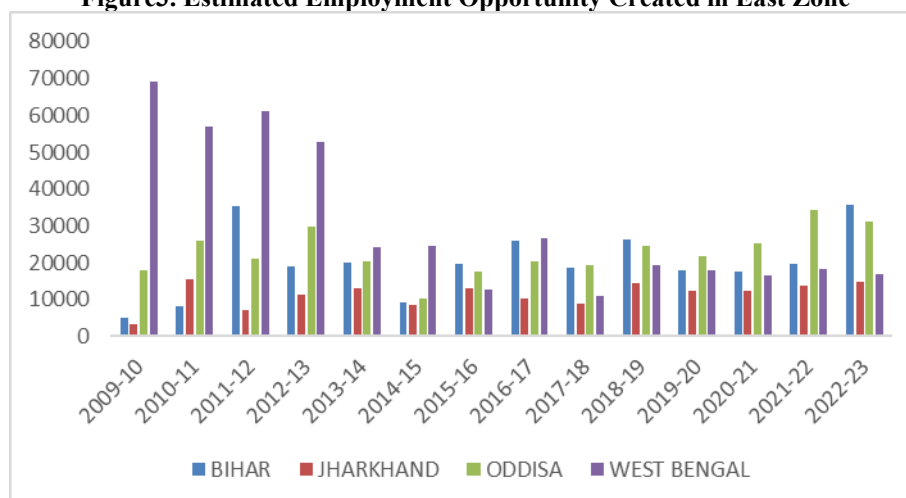
**Figure.2 Estimated Employment Opportunity Created in Central Zone**



Source: Lok Sabha Unstarred Questions retrieved from Indiatat

Fig. 2 demonstrates that Uttar Pradesh has generated more employment opportunities under the PMEGP scheme as compared to other states in the central zone over the years. Although Uttar Pradesh has a higher total employment generation compared to other states in the Central Zone, Table 1 shows that its growth rate (6%) in estimated employment opportunities is relatively lower than that of Madhya Pradesh (10%) and Chhattisgarh (7%). The reason could be the poor level of education, lack of skill training and steady growth in employment opportunities (Mamgain, 2019). This indicates that while Uttar Pradesh leads in absolute numbers, its growth in employment opportunities has been slower compared to Madhya Pradesh and Chhattisgarh.

**Figure3. Estimated Employment Opportunity Created in East Zone**

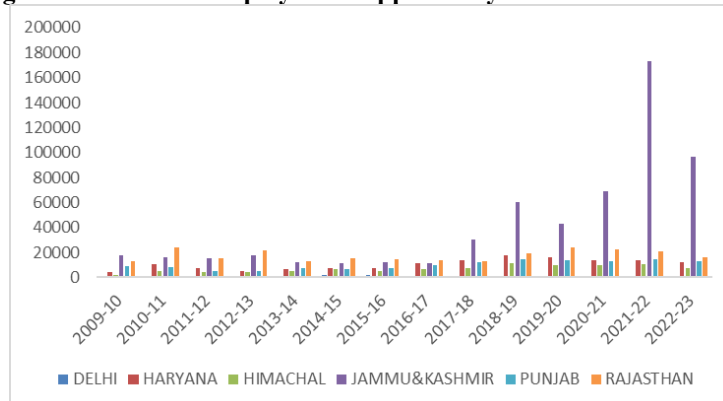


Source: Lok Sabha Unstarred Questions retrieved from Indiatat

Fig. 3 illustrates that West Bengal had the highest number of jobs generated across the East Zone from 2009 to 2022. However, Table 1 reveals a decline in employment opportunities in West Bengal over time, with a negative growth rate of -10% in 2022-23.

One factor contributing to West Bengal's inability to maintain stable employment levels is the increase in contracting industries, as reported by NSSO data (73rd round). Specifically, the share of contracting industries rose from 18.06% to 23.59% between 2010-11 and 2015-16, which has led to a decrease in per enterprise employment despite an increase in the annual growth rate of Gross Value Added (GVA) (Jana, Dandapat, & Das, 2021). In contrast, Orissa showed improvements and performed relatively well in 2021-22. However, Bihar and Jharkhand have experienced a consistent decline in employment opportunities. The reason could be the inaccessibility of finance, poor power supply, inadequate capital, inefficient technology, or naxalism in the area.

**Figure.4 Estimated Employment Opportunity Created in North Zone**

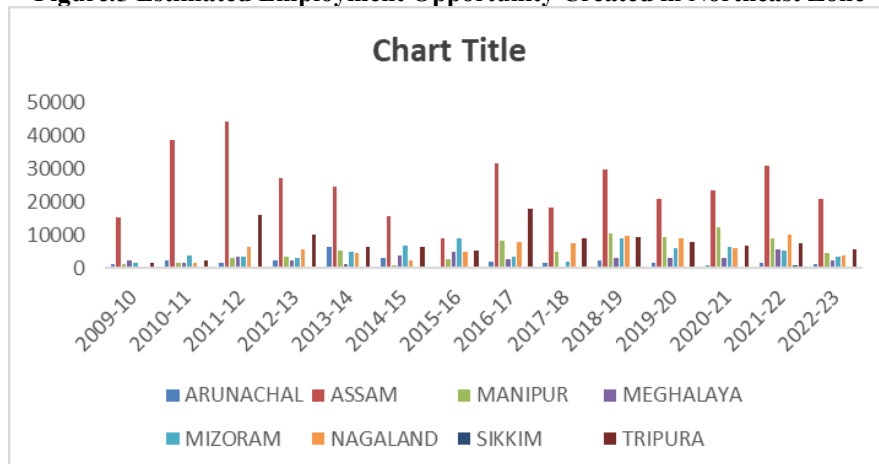


Source: Lok Sabha Unstarred Questions retrieved from Indiatat

Fig. 4 depicts the trend of Estimated Employment Opportunities Created (EEOC) in the North Zone from 2009 to 2022. Among all the states in the North Zone, Jammu and Kashmir (J&K) achieved the highest employment generation in 2021-22. Prior to 2018-19, the compound annual growth rate of sales, production, number of cases sanctioned and money disbursed was positive but the employment generation was negative due to the unexpected political and natural conditions like flood (2014-15) (Hussain, Abdullah, & Ahmad, 2021). Its performance has steadily improved over the years, particularly after 2014-15.

Even after Jammu and Kashmir was designated as a Union Territory in 2019, the performance and achievements of the Khadi and Village Industries Commission (KVIC) have continued to advance. In 2021-22, J&K set a record by creating the highest number of jobs—1.73 lakh—and establishing the largest number of manufacturing and service sector units compared to many states and Union Territories. This improvement could be attributed to the abrogation of Article 370, which facilitated greater access to central government schemes for locals to establish microenterprises and generate self-employment (PIB, 2022). The Gross State Domestic Product (GSDP) of Jammu and Kashmir has also seen notable progress since 2019. Although the GSDP growth rate at constant prices was -1.15% in 2020-21, it rebounded strongly to achieve a growth rate of 7.89% in 2021-22.

**Figure.5 Estimated Employment Opportunity Created in Northeast Zone**

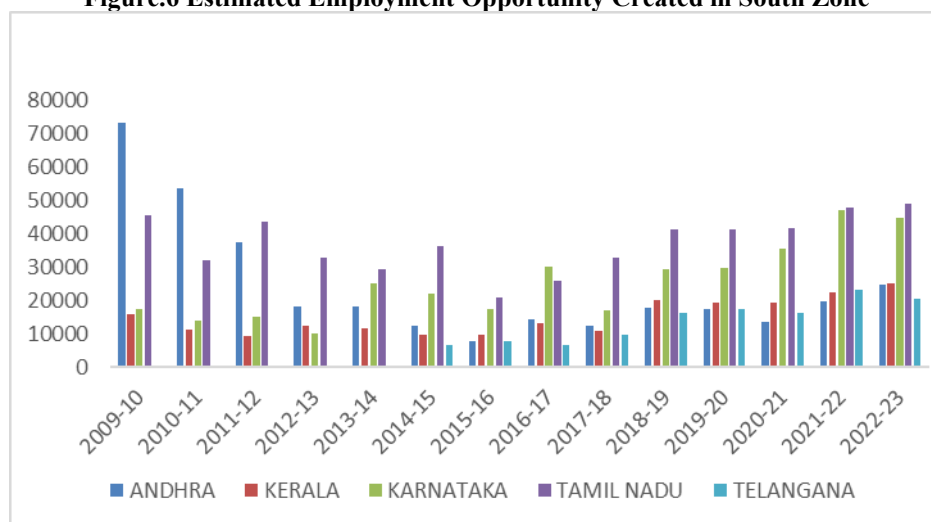


Source: Lok Sabha Unstarred Questions retrieved from Indiatat

Fig. 5 illustrates the estimated employment opportunities in the North-East Zone. According to the data, Assam outperformed other states in this zone. However, as shown in Table 1, Nagaland recorded the highest compound annual growth rate (CAGR) in job creation, at 20%, followed by Manipur and Tripura during the study period of 2009–2022.

Under the PMEGP scheme, special category states, including those in the North-East, are eligible for the highest subsidy rates of 25% in urban areas and 35% in rural areas. Despite this, geographical constraints have impeded the growth of key states in the North-East. While there is a positive relationship between employment generation and production levels, the marginal productivity of employed individuals has not significantly contributed to overall output (Maheshwari & Nado, 2020).

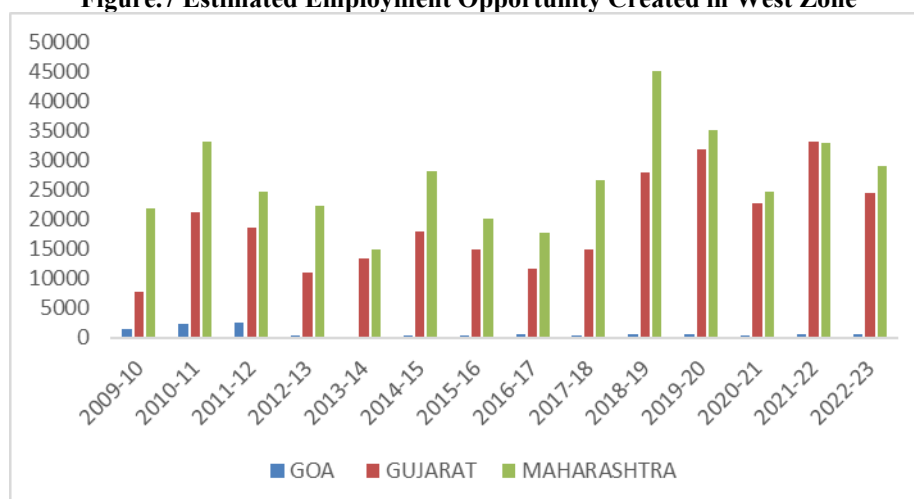
**Figure.6 Estimated Employment Opportunity Created in South Zone**



Sources: Lok Sabha Unstarred Questions retrieved from Indiatat

Fig. 6 shows the absolute number of jobs created under the PMEGP scheme in the South Zone from 2009 to 2022. Andhra Pradesh demonstrated strong performance in job creation in 2009-10. However, over the years, job creation opportunities in Andhra Pradesh declined, with the growth rate reaching -8% by 2022-23. In contrast, Tamil Nadu exhibited a steady increase in the absolute number of jobs over the study period. Despite this, its growth rate remains lower compared to that of Telangana, Kerala, and Karnataka, which have shown more significant improvements in job creation under the PMEGP scheme.

**Figure.7 Estimated Employment Opportunity Created in West Zone**



Source: Lok Sabha Unstarred Questions retrieved from Indiatat

**Fig. 7** illustrates that Maharashtra generated the highest number of estimated employment opportunities under the PMEGP scheme, while Goa had the lowest. A notable increase in employment levels is observed in Maharashtra starting in 2018-19, followed by Gujarat.



Gujarat's rise in employment creation can be attributed to its focused industrial development strategy. The state has actively supported young entrepreneurs through skill upgradation programs, incubation centres, and access to financial and technical support (Srivastava, 2020). These initiatives help in the establishment of numerous microenterprises in Gujarat, thereby significantly boosting employment opportunities.

### Descriptive analysis of the variables

Table 2 provides the descriptive statistics of panel data variables—Estimated Employment Opportunity Created (EEOC), Number of Units Assisted (NOU), and Margin Money Subsidy Utilisation (MMSU)—for the period from 2009–2010 to 2021–2022 across all six zones of India. The skewness and kurtosis values meet the criteria for normal distribution, and the Jarque-Bera test confirms that the data for all three variables are normally distributed, as the probability values exceed 0.05.

**Table 2 Descriptive Statistics**

|                        | EEOC   | NOU    | MMSU   |
|------------------------|--------|--------|--------|
| Mean                   | 11.17  | 9.09   | 9.92   |
| Standard Deviation     | 0.45   | 0.42   | 0.56   |
| Skewness               | 0.03   | 0.13   | -0.08  |
| Kurtosis               | 2.94   | 3.52   | 3.10   |
| Jarque-bera statistics | 0.03   | 1.12   | 0.12   |
| (p value)              | 0.98   | 0.56   | 0.93   |
| Sum                    | 871.88 | 709.47 | 774.15 |
| Sum Sq. Dev.           | 16.00  | 13.72  | 24.67  |
| Observations           | 78     | 78     | 78     |

Source: Author's Own Calculation

### Results of Panel data analysis

Table 3 represents the results of the panel data analysis for the period from 2009 to 2021. The Hausman test (1978) results indicated a p-value of 0.3661, which is greater than p value 0.05. Therefore, the REM was selected for this study, rejecting the FEM model.

**Table 3 Hausman Test Result**

| Independent variables | Fixed effect | Random effect |
|-----------------------|--------------|---------------|
| NOU                   | 0.781        | 0.776         |
| MMSU                  | 0.096        | 0.121         |
| No. of Zones          | 6            | 6             |
| No. of observation    | 78           | 78            |
| Hausman value         | 0.3661       |               |

Sources: Author's Own Calculation

**Table 4 Panel Data Results for 2009-2021**

| Independent Variables | Coefficients     | t-statistics | P value |
|-----------------------|------------------|--------------|---------|
| Ln NOU                | 0.7765           | 8.142        | 0.0000  |
| Ln MMSU               | 0.1213           | 1.594        | 0.1149  |
| Constant              | 2.9016           | 6.207        | 0.0000  |
| R squared             | 0.805            |              |         |
| Adjusted R- square    | 0.800            |              |         |
| D-W statistics        | 0.610            |              |         |
| F statistics          | 155.2097(0.0000) |              |         |

Source: Author's Own Calculation

**Table 5 Panel Data Results for 2009-2014 and 2015-2021**

| Independent Variables | 2009-10 to 2014-15          |         |         | 2015-16 to 2021-22           |         |         |
|-----------------------|-----------------------------|---------|---------|------------------------------|---------|---------|
|                       | Coefficients (fixed effect) | t-value | p-value | Coefficients (random effect) | t-value | p-value |
| LnNOU                 | 1.040                       | 4.412   | 0.0001  | 0.886                        | 14.79   | 0.0000  |
| LnMMSU                | -0.210                      | -0.967  | 0.3415  | 0.113                        | 2.316   | 0.0259  |
| CONSTANT              | 3.777                       | 3.0613  | 0.0048  | 1.950                        | 6.189   | 0.0000  |
| Adjusted r square     | 0.84                        |         |         | 0.95                         |         |         |
| R squared             | 0.87                        |         |         | 0.95                         |         |         |
| Hausman value         | 0.0165                      |         |         | 0.6418                       |         |         |

Source: Author's Own Calculation

Table 4 shows the results of both FEM and REM though only the REM results are taken into consideration for analysis. The impact of MMSU on employment opportunity creation (EEOC) is positive but

statistically insignificant. Specifically, the coefficient for MMSU is 0.121, suggesting that a 1% increase in MMSU results in a 0.121% increase in EEOC. However, this effect is not statistically significant. While the coefficient for NOU is 0.776, indicating a positive and statistically significant impact on EEOC. This implies that a 1% change in NOU leads to a 0.776% change in EEOC. This result highlights the importance of increasing the number of units assisted in generating employment opportunities. The adjusted R-squared value is 0.805, meaning that over 80% of the variation in EEOC is explained by NOU and MMSU. The F-statistics suggest that the model is a good fit for explaining estimated employment opportunities.

Table 5 shows the results of panel data analysis divided into two time periods: 2009–10 to 2014–15 and 2015–16 to 2021–22. For the time period 2009-10 to 2014-15, the Hausman test value of 0.0165 led to the acceptance of the FEM model for this period. The results indicate that the impact of MMSU on EEOC is negative and statistically insignificant, with a coefficient value reflecting a negative impact. Conversely, NOU has a positive and statistically significant effect on EEOC, with an R-squared value of 0.87. This suggests that 87% of the variation in EEOC is explained by NOU and MMSU.

For the time period 2015-16 to 2021-22, the Hausman test result of 0.6418 led to the acceptance of the REM model. Both NOU and MMSU are positive and significant, with an R-squared value of 0.95. This indicates that 95% of the variation in EEOC is explained by NOU and MMSU during this time frame.

In summary, the results emphasised that while the number of units assisted plays a significant role in employment generation, the impact of margin money subsidy utilization is less significant. The model fits well in both time periods, but the effectiveness of subsidies varies over time.

## **VI. Conclusion And Recommendations**

The study examined the impact of margin money utilization and the number of units assisted on employment generation under the PMEGP scheme across six zones in India from 2009 to 2021. The findings show that the number of units assisted has a positive and statistically significant impact on employment creation. This highlights the importance of increasing the number of units assisted under the PMEGP scheme to generate more job opportunities. But the margin money (subsidy) shows a positive but statistically insignificant impact on employment creation during the entire study period. However, the impact of MMSU has been significant in creating employment opportunities between 2015 and 2021, suggesting that improved access to subsidies could encourage more unit establishment in non-farm sectors and it leads to the job creation for the youth of India. The study also reveals that the north zone demonstrated exceptional performance in employment creation, with Jammu & Kashmir being the top performer, particularly notable in 2021-22. According to (Bansal, Yadav, & Garg, 2019) findings, the impact of the number of units assisted on employment creation is positive and significant, but positive and insignificant in the case of margin money (subsidy) between 2009 and 2015 for 29 states and 7 UTs of India, which was divided into six zones of the country.

On the basis of the present study, it can be seen that there is a massive growth that can be witnessed after the COVID-19 wave. There was significant growth in margin money disbursed, units assisted, and employment creation in 2021-22, with increases of 165%, 114%, and 131% respectively, compared to 2014-15. This indicates a recovery and potential for further growth post-pandemic (PIB, 2022). Jammu & Kashmir performed superlatively in 2021–22 by creating 1,73 lakh job opportunities and also becoming the best performer in the North Zone as the growth rate of employment opportunities has reached 19 percent over the years, especially after 2019. The northeast zone also performed well, and out of all the states Nagaland achieved the highest growth rate, but overall performance was hampered by geographical and infrastructural challenges. Although UP is the largest state in India, the growth of job creation under PMEGP fluctuated, and it is even lagging behind MP and Chhattisgarh. The poor performing states like Andhra Pradesh, West Bengal, and Goa showed less progress, and needed targeted support. The government should provide training programs, improving access to banking and credit facilities, and streamlining the application and disbursement processes could help and encourage the entrepreneurs to access subsidies. There is lack of proper and valid documents, poor connectivity and restrictions on purchasing land in the North eastern region (Sangwan, 2016). So for North-East states, addressing geographical constraints such as poor road connectivity and land acquisition issues is crucial. Simplifying laws for land purchases and enhancing market access for women entrepreneurs could boost performance in these regions.

Despite the positive impact of subsidies, its influence on employment creation is insignificant. So there is room for improvements and better support mechanisms. Policymakers should be more focused on evaluation, effectiveness and implementation of the subsidies to better support the establishments of more units and job creation. It is the responsibility of every state to provide all the necessary help to new entrepreneurs, encouraging them to establish their own enterprises that further generate new employment opportunities and foster the growth of the economy by enhancing the competitive spirit of the MSMEs (Ministry of Micro, Small, and Medium Enterprises, GoI, 2022)

## References

- [1]. Agarwal, S., & Lenka, U. (2016). An Exploratory Study On The Development Of Women Entrepreneurs: Indian Cases. Emerald Insight.
- [2]. Aggarwal, A. (2013, Sep). Performance Appraisals Of Rural Development Programmes. International Journal Of Management And Business Studies, 3.
- [3]. Ajuwon, O. S., Ikhide, S., & Akotey, J. O. (2017). Msmes And Employment Generation In Nigeria. The Journal Of Developing Areas, 51.
- [4]. Altamash, M., & Khandare, D. D. (2020, Feb). Study Of Prime Minister's Employment Generation Programme In Selected Districts In Marathawada Districts. IJAR- International Journal Of Research And Analytical Reviews, 7(1), 502-509.
- [5]. Baltagi, B. H. (2005). Econometric Analysis Of Panel Data (3rd Ed.).
- [6]. Baltagi, B. H., & Kao, C. (2000). "Nonstationary Panels, Cointegration In Panels And Dynamic In Panels: A Survey,"In Nonstationary Panels,Panel Cointegration,And Dynamic Panels. Centre For Policy Research, 7-51.
- [7]. Bansal, S., Yadav, A., & Garg, I. (2019, November). Prime Minister Employment Generation Programme:A Tool To Attain Economic Development Through Msmes In India. Gurukul Business Review, 15, 1-11.
- [8]. Bhaumik, S. K. (2015). Principles Of Econometric: A Modern Approach Using EVIEWS. Oxford University Press.
- [9]. CH.Subarrayadu, M., & Rao, P. (2021, February). Policies And Schemes For Women Entrepreneurs In India. International Journals Of Research And Analytical Reviews, 8(1).
- [10]. Chaterjee, R., Choudhary, A. R., & Bhattacharjee, A. (2023). Breaking The Gender Bias In MSME Sector: A Step Towards Social Inclusion Of Women Entrepreneurs In Tripura. Brainwave: A Multidisciplinary Journal, 4(1).
- [11]. Choudhary, S., & Ghosh, D. (2015, May). Economic Development Through Prime Minister Employment Generation Programme In India:An Analysis. Mediterranean Of Journal Of Social Sciences, 6.
- [12]. Dvoulety, O., Srhoj, S., & Pantea, S. (2021, Nov). Public SME Grant And Firm Performance In European Union: A Systematic Review Of Empirical Evidence. Small Business Economics, 57, 243-263.
- [13]. Fomum, T. A., & Opperman, P. (2023). Financial Inclusion And Performance Of Msmes In Eswatini. International Journal Of Social Economics, 50(11), 1551-1567.
- [14]. GEM. (2020). Global Entrepreneurship Monitor India Report 2019/20 . Routledge. Retrieved From [https://Gemindiaconsortium.Org/Reports/GEM\\_INDIA\\_REPORT\\_2019-20.Pdf](https://Gemindiaconsortium.Org/Reports/GEM_INDIA_REPORT_2019-20.Pdf)
- [15]. Gupta, D. (2018, May). Pradhan Mantri Employment Generation Programme In Sikkim: An Analysis. International Journal Of Research In Social Sciences, 8(5).
- [16]. Hussain, S., Abdullah, A., & Ahmad, F. (2021). Performance Of Khadi And Village Industries In Jammu And Kashmir Under Prime Minister Employment Generation Programme. Indian Journal Of Economics And Development, 17(1), 204-209.
- [17]. Jana, D., Dandapat, A., & Das, D. (2021, January). Growth Of Micro Manufacturing Enterprises During 2010-11 To 2015-16: A Special Reference To West Bengal. Scholars Journal Of Economics Business And Management, 8(1).
- [18]. Khan, W. H., Jamal, A., & Shah, H. A. (2018). Achievements Of Khadi And Village Industries Board In J&K: A Study Of Pradhan Mantri Employment Generation Programme(PMEGP). South-Asian Journal Of Multidisciplinary Studies (SAJMS), 4(6).
- [19]. Kumar, D., & Ozukum, I. (2022). Impact Of PMEGP On Tribal Beneficiaries' Entrepreneurial Development: A Study In The Kohima District, Nagaland. International Journal For Research Trends And Innovation, 7(6).
- [20]. Kumar, D., & Shobana , M. (2023, September). A Comprehensive Assessment Of Prime Minister Employment Generation Programme(PMEGP) Performance And Achievements In North East India. International Journal Of Economics , Business And Management Studies, 10( 9).
- [21]. Maheshwari, P., & Nado, L. (2020, January). A Study Of Khadi And Village Industry In Northeastern Region Of India. International Research Journal Of Social Sciences, 9(1).
- [22]. Mangain, R. P. (2019). Employment, Its Quality And Inequality. In Growth, Disparities And Inclusive Development In India: Perspectives From The Indian State Of Uttar Pradesh (Pp. 49-73).
- [23]. Mazanai, M., & Fatoki, O. (2012). Perceptions Of Start-Up Small And Medium- Sized Enterprises (Smes )On The Importance Of Business Development Services Provider(BDS)On Improving Access To Finance In South Africa. Journal Of Social Sciences, 30(1), 31-41.
- [24]. Ministry Of Micro, Small, And Medium Enterprises, Goi. (2023). MSME Annual Report 2022-23. Retrieved From <https://Msme.Gov.In/Msme-Annual-Report-2022-23>
- [25]. (2022). MSME Annual Report 2021-22. Ministry Of Micro , Small , And Medium Enterprises, Goi. Ministry Of Micro , Small , And Medium Enterprises, Goi. Retrieved From <https://Msme.Gov.In/Annual-Report-2021-22>
- [26]. Naik, A., & Patel, P. (2022). Government Schemes For Entrepreneurship Programs. In Agricultural Microbiology Based Entrepreneurship:Making Money From Microbes (Pp. 25-40). Singapore: Springer Nature Singapore.
- [27]. Naude, W. (2008, March). Entrepreneurship In Economic Development. World Institute For Development Economic Research.
- [28]. Orser, B. J., Riding, A. L., & K. M. (2006, September). Women Entrepreneurs And Financial Capital. Entrepreneurship Theory And Practice.
- [29]. PIB. (2022). Amount Disbursed Under PMEGP. Retrieved From Press India Bureau, Government Of India: <https://Pib.Gov.In/Pressreleaseiframepage.Asp?PRID=1884737>
- [30]. Pujar, D. U. (2014, May). MSME And Employment In India: An Analytical Study. Journal Of Business And Management, 16, 13-15.
- [31]. Sangwan, S. (2016, February). Developmental Setbacks In North-East India: The Role Of Bank Credit. Social Change, 46(1).
- [32]. Saranya, M., & Chandrasekar, D. (2023, April). Sustainable Growth Perspective Of Women Entrepreneurs Advantaged From PMEGP Scheme. International Journal Of Scientific Research In Engineering And Management(ISJREM), 7(4).
- [33]. Schumpeter, J. (1912). The Theory Of Economic Development. 10th Edition.
- [34]. Skuras, D., Dimara, E., & Stathopoulou, S. (2003, December). Capital Subsidies And Job Creation In Rural Areas: A Greek Case Study. International Journal Of Manpower, 24(8).
- [35]. Srivastava, D. S. (2020, September). Role Of MSME Sector In Indian Economy: A Special Reference To Gujarat. Pacific Business Review International, 13.
- [36]. Thadewald, T., & Buning, H. (2007). Jarque-Bera Test And Its Competitors For Testing Normality- A Power Comparison. Journal Of Applied Statistics, 34(1), 87-105.
- [37]. Tiwari, A., Hogan, T., & O'Horgan, C. (2021, Dec 11). The Good, The Bad, And The Ugly Of 'Startup India' : A Review Of India's Entrepreneurship Policy. Economic & Political Weekly, VOL.56.
- [38]. Tripathi, S. (2016, May 19). Determinants Of Employment And Unemployment Situation In India With Special Reference To North Eastern States Of India. Retrieved From <https://Mpra.Ub.Uni-Muenchen.De/71469/>

- [39]. Wadichar, R. K., D. Wadate, D., & Manusmare, D. (2022). Does The Prime Minister Employment Generation Programme (PMEGP) Impact On Entrepreneurship Development? Evidence From Nagpur District. *International Journal Of Commerce And Management Studies (IJCAMS)*, 7(3).
- [40]. Xu, D., Lee, S. H., & Eom, T. H. (2007, November). Introduction To Panel Data Analysis. In *Handbook Of Research Methods In Public Administration* (2nd Ed.).
- [41]. Zampa, S., & Bojnee, S. (2017, Dec). The Impact Of Subsidies On Production Innovation And Sustainable Growth. *Management And Production Engineering Review*, 8.