



Empowering Employment in Aurangabad District of Bihar (India): A Policy approach through MSMEs

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Abstract

The role of MSMEs is vital when it comes to employment determination and Its impact on overall employment. This research examines the extent of job creation in Aurangabad District through Micro, Small and Medium Enterprises (MSMEs). The primary focus of this work is to determine whether MSMEs genuinely play a critical role in job creation. The district industry centre of Aurangabad's official website served as the study's primary secondary data source. For this study, employment is considered a dependent variable; the explanatory variables are investment and the number of registered units. Time-series data from 1984 to 2018 are used. Cointegration, Error Correction Mechanism (ECM), and the Engel-Granger Cointegration test are utilised as econometric tools. This study provides a trend analysis of MSMEs and elaborates on how small and medium-sized enterprises can continue to create jobs in the Aurangabad district of Bihar. The study also satisfies the need to explore the labour relations of MSME enterprises in developing economies like India. Policy proposals aim to augment the contribution of MSMEs to employment by enhancing access to capital, advancing infrastructure development, and implementing skill training programs. Streamlining corporate procedures and fostering digital adoption are recommended to enhance business convenience and ensure sustainable development.

Keywords: Micro, Small and Medium Enterprises (MSMEs), Employment Generation, Regional Development, Investment, Aurangabad district, Bihar.

Introduction

MSMEs have been the pillars of India's economic development. Even at present, it has emerged as the most vibrant and dynamic sector of the economy. It is the second-largest employment provider after agriculture¹. It reduces economic inequalities, poverty, and regional imbalances². It accounts for 37% of GDP, 40% of the manufacturing sector, and 30% of exports³. According to the MSME Report 2021, India has 633.88 lakh units of MSMEs and employs 11.10 crore people⁴. Amongst them are 630.52 micro-enterprises in India, 3.31 lakh small enterprises, and 0.05 lakh medium enterprises. Rural areas account for 324.88 lakhs (51.25%) of the estimated 633.88 million MSMEs, while urban areas account for 309 lakhs (48.75 percent). Approx 11.10 crore jobs (360.41 lakh in manufacturing, 0.07 lakh in non-captive electricity generation and transmission, 387.18 lakh in trade, and 362.22 lakh in other services) have been created by the MSME sector in rural and urban areas across the country. The 2006 MSME Act divided MSMEs into two broad categories: manufacturing and the service sector. However, on 13th May 2020, a new definition was announced in a package by Atmanirbhar Bharat based on investment and turnover.

MSMEs employ 69% of the Indian workforce and are critical in rural and semi-urban employment. Till the 2017 fiscal year, India had 36.2 million MSMEs, which contributed 45 per cent

of total manufacturing output in India and 40% of exports from the country, which contributed 8% of the GDP, employing 111 million people and producing over 6,000 value-added products⁵. Furthermore, as a new emerging sector in the economy, the sector fosters entrepreneurship. The MSME sector also faces many problems in finance, marketing, technology, and a wide range of consulting services.

Table-1A: Investment and Annual Turnover⁴.

Classification	Micro	Small	Medium
Manufacturing & Service	Investment < Rs 1cr and Turnover < Rs 5cr	Investment < Rs 10cr and Turnover < Rs 50cr	Investment < Rs 50cr and Turnover < Rs 250cr

Bihar is one of the oldest states in India, and its economy is based on agriculture. Bihar's agricultural and allied industries' growth has been consistent. In 2019-20, the gross cropped area was 72.97 lakh hectares, with a cropping intensity of 144 percent. Agriculture and related sectors grew at an annual rate of 2.1 percent over the last five years. Among the sub-sectors, livestock and fisheries have increased 10% and 7%, respectively. Total food grain production is expected to reach a new high of 17.95 lakh tonnes in 2020-21⁶. There are many sugarcane industries in the area and some massive industrial complexes like Barauni refineries and fertiliser factories⁷.

According to the 4th Census of MSMEs, Bihar ranks ninth in terms of the number of MSMEs (after Uttar Pradesh, Andhra Pradesh, Maharashtra, Tamil Nadu, Madhya Pradesh, West Bengal, and Rajasthan) amongst Indian states. It ranks 12th in job creation, with 147,775 working in the MSME sector. Most employees work in micro enterprises (95.30%), with the remainder working in small and medium enterprises⁸.

Amongst all districts of Bihar, Aurangabad is the least developed district. Aurangabad's economy is primarily based on agriculture. It is located in a drought-prone area of south-western Bihar. Major crops of this region are rice, wheat, granulated lentils, and rapeseed. Numerous studies have been conducted on MSMEs in different regions of India and Bihar. Still, Aurangabad district in Bihar was missing out on all these studies. However, Bihar has seen much research that has only focused on the major industrial hubs of the state, such as Patna, Samastipur, Champaran, and Darbhanga. Most of these districts are from North Bihar. Drought-prone South Bihar has few industrial facilities. This contributes to making Bihar a slow-developing state, especially in terms of industry⁹.

Aurangabad has one large-scale industrial complex and several medium and small-scale businesses. This district is rich in raw materials and human capital, but does not contribute adequately to the economy. The present research aims to understand the importance of the MSMEs in job creation using data from Aurangabad, Bihar and examine the level of employment creation in the MSMEs with a special reference to the Aurangabad district of Bihar. The remainder of the paper is structured as follows: Section 1.1 gives an idea about the industrial profile of Aurangabad District. Section 2 presents a brief literature review on MSMEs and Employment. Section 3 deals with Data and Methodology. Section 4 deals with the empirical models and results, and Section 5 concludes. Section 6 tried to present some policy recommendations based on the overall discussion.

Industrial Profile of Aurangabad District: Aurangabad is one of Bihar's 38 districts. It's a lovely city that has its own culture and historical identity. It is part of the Magadh division, and the Magahi-speaking people who primarily live here work in agriculture and related fields. The mineral resources of the Aurangabad district play a vital role in the district's industrial, social, and economic development. In particular, sand mining activities are important in the district's industrial, social, and economic development. The district has two stone mining sites: Rafiganj and Madanpur. Sadhail stone mining in Madanpur block is operational, whereas Pachar stone mining is not operational. It consists of one heavy electricity production industry, Nabinagar Super Thermal Power Plant, which has a capacity of 4380 MW. It is one of India's third-largest power plants. Another major production unit is the cement production unit by Shree Cement. Carpets, blankets, and brassware are all examples of manufactured goods here⁹.

Table-1B shows the overall industrial scenario of the Aurangabad district, which has 3524 registered industrial units as of 2019, of which only 3 are medium and large units. Small-scale industries provide jobs to 17743 daily workers, while large and medium industries have only 1645 workers. There are 3 industrial clusters in the Aurangabad district.

Table-1B: Aurangabad District Industrial Scenario (2019-20)⁹.

Head	Particular
Registered Industrial Unit	3524
Total Industrial Unit	3524
Registered Medium & Large Unit	3
Average No. of Daily Workers Employed in Small-Scale Industries	17743
Employment in Large and Medium Industries	1645
No. of Industrial Area	3

Table-1.1: Existing Micro & Small Enterprises and Artisan Units in Aurangabad (Manufacturing) (2019-20)⁹.

Type of Industry	No. of Units	Investment (Lakh Rs.)	Employment
Agro-based	1053	26616.62	7703
Soda water	--	--	--
Cotton & textile	10	8.50	10
Woollen, silk & artificial thread-based clothes	12	27.40	38
Jute & Jute-based	--	--	--
Ready-made Garments & Embroidery	58	122.03	132
Wood/Wooden-based furniture	162	340.84	350
Paper & paper products	--	--	--
Leather-based	18	28.20	50
Chemical/chemical-based	--	--	--
Rubber, Plastic & Petroleum-based materials	9	11.25	18
Mineral-based	1	58.00	8
Metal-based (Steel Fab.)/Jewellery	74	6183.40	1776
Engineering units	81	218.29	330
Electrical machinery and transport equipment	4	28.19	15
Handloom	81	16.80	243
Food Processing	348	11256.57	2425
Others (Misc.)	206	2406.65	1476
Total	2117	47322.74	14574

Table-1.1 shows that Aurangabad district has an agro-based industry with 1053 agro-based industrial units and 348 food processing industries. These industries generate a large number of jobs: 7703 in agriculture and 2425 in food processing. Wooden/wooden-based furniture, metal-based/jewellery, engineering units, and handloom also play important roles in the development and job creation in the district. Even cotton/textile, silk/ woollen products, readymade garments, and paper products contribute to the district's growth and employment. The aggregate average and CAGR (compound annual growth rate) from 1984 to 2018 were also determined in this study. That is

Table-1.2: Performance of MSME- Investment, Employment 1984 – 2018⁹

Year	No. of Registered Unit	Employment	Investment (lakh Rs.)
1984	85	264	8.35
1985	288	836	23.24
1986	230	711	27.93
1987	247	787	35.24
1988	467	1847	434.74
1989	460	1381	284.34
1990	422	1297	252.77
1991	245	1448	221.43
1992	315	1261	275.22
1993	301	1214	260.12
1994	163	812	127.25
1995	168	817	132.77
1996	98	315	84.15
1997	110	407	91.72
1998	75	257	74.23
1999	81	285	82.11
2000	89	274	87.00
2001	84	301	92.15
2002	151	491	109.25
2003	168	371	124.11
2004	145	295	97.42
2005	178	397	105.00
2006	197	483	132.12
2007	155	512	175.23
2008	175	743	232.15

2009	104	415	241.27
2010	84	312	151.32
2011	103	461	894.70
2012	98	474	541.54
2013	30	191	953.82
2014	15	202	1186.71
2015	21	353	1037.74
2016	602	4005	11597.25
2017	639	4040	11382.98
2018	575	3697	11063.34
Average	210.51	913.03	1217.735
CAGR	0.05783781	0.08072	0.235462

Table-1.2 shows that the average number of MSME units is 210.51 throughout the years, which is very good and has a positive CAGR of 0.05783%. The study also found that the average of investment and employment of MSMEs in Aurangabad district from 1984–2018 is 913.03 and 1217.735, whereas the CAGR of investment is 0.23% and employment is 0.080%.

Literature Review: MSMEs have been a growth engine in the new millennium¹⁰. It has a critical role in employment generation, generating two-thirds of all formal jobs in developing nations and up to 80% in low-income countries. Despite the progress in poverty alleviation in today's emerging world, poverty remains a serious concern in India and other developing countries. MSMEs play a significant part in employment creation in industrialised countries and are essential for eradicating poverty¹¹. Whether or not to correspond is appropriate. The answer to these questions comes from a survey of the literature. On the one hand, the evidence suggests that big groups of MSMEs play a far more essential role than the industry. According to Birch's book, "The Job Creation Process," MSMEs can create jobs and reduce unemployment in the economy¹². Third-world governments have recognised the importance of MSMEs for employment generation and poverty alleviation¹³. Small-sized firms generate large-scale employment¹⁴. The establishment of small-scale industries can help to address the unemployment problems. Since Nigeria's independence, the government has greatly valued SMEs. So, poverty and unemployment in the country have decreased to some extent¹⁵. Many such studies in India show that MSMEs could increase the rate of employment generation and reduce unemployment.

When comparing small and big industries, it was found that small industries generate less employment than large industries¹⁶.

This could be due to many reasons, such as small industries paying lower wages than large industries. Apart from this, the additional benefits from small business employment are almost negligible, which include medical support, health insurance, sports and leisure facilities, pension plans, and vacations. Aside from job security, small industries are also less costly. As job opportunities are fewer for them, and the training system is not very good. Apart from this, workers have restricted informants. Atkinson and Storey's (1993) work, as reported by David Small bone, states that the quality jobs provided by small businesses are fewer in number than those of big businesses in the USA and UK because of the wage gap that persists in small and big businesses¹⁷. They do not get good training. However, flexibility regarding working hours and space is one of the advantages of small industries¹⁷. In the analysis of developing countries for small manufacturing firms, found that a small firm is not more labour-intensive than a large firm¹⁸. Even similar findings in the case of sub-Saharan Africa¹⁹. Even though no evidence was found from the data analysis of 45 countries suggesting that small industries reduce poverty or inequality². But there is not a high trend in all types of small firm employment generation, so it must be brought to the people's attention as the tendency to create small business employment is very high²⁰. However, a study on "MSMEs Employment Generation and Regional Development" found that there is a strong relationship between sales growth and employment growth and even small industries with fewer than 100 employees, and the mature industry has a large share of employment and employment generation capacity^{21, 22}. Using the World Bank Group data of industry survey for 106 countries, it was found that small industries are an engine of employment growth in developing countries²³. ILO (2015) also found that "small firms" are known as the engine of employment generation in developing economies²⁴.

Theoretical Framework: This study on the role of MSMEs in job creation is based on numerous fundamental beliefs. Human Capital Theory, developed by Gary Becker in the 1960s, underscores the need to invest in education and skills to improve productivity and employability, positing that specialised skill development initiatives may increase local worker capabilities. Additionally, the Financial Inclusion Theory, proposed by Muhammad Yunus, emphasises the essential need for accessible financial services to foster entrepreneurship and provide employment in marginalised areas.

Furthermore, as articulated by Douglass North, Institutional Economics underscores the influence of regulatory frameworks on economic performance, asserting that streamlining business registration may promote the development of MSMEs. Finally, Cluster Development Theory, introduced by Michael Porter, posits that the spatial concentration of MSMEs promotes cooperation and innovation, hence augmenting competitiveness. Collectively, these theories provide an extensive framework for comprehending the dynamics of MSMEs in Aurangabad and their role in sustainable job development.

Methodology

The study is analytical and exploratory. Analysing the performance and exploring the problems at the crux of the study. The data for the study was collected from the District Industries Centre, Aurangabad. The data has been analysed using compound annual growth rate, trend analysis, and multiple regression analysis²⁵. A multiple linear regression model is used in the study to check how employment is affected by the increase or decrease in investment and the number of MSME units. The study has also explained the aggregate Compound Annual Growth Rate (CAGR) and the average of all the variables. These data were collected from the financial years 1984 to 2018.

Model Specification: Data set on employment, investment, and the number of registered MSME units in the Aurangabad district from 1984 to 2018 were used in this study. According to the study's objective, employment is a dependent variable, while investment and the number of registered MSMEs are explanatory variables. The study uses a Multiple Linear Regression Model (MLRM) to analyse the data. Regression is one of the tools used for data analysis. It describes and evaluates the functional and causal relationships among variables. A regression model is used to express the relationship among variables. The estimated coefficients show the effect of one unit change in the explanatory variable on the dependent variable²⁵. To fulfill the objective of the study, we have to specify our MLRM as follows:

$$Employment_t = \alpha + \beta_1 Investment_t + \beta_2 No. of reg. MSMEs_t + u_t \quad (1)$$

Here, *Employment* is the dependent variable, and *t* represents the year. *Investment*, and *No. of reg. MSMEs* are the explanatory variables. α is the intercept, and β_1 & β_2 are the coefficient of explanatory variables. u_t is a disturbance term.

The time series variables need to be stationary or satisfy the three conditions that are²⁶:

$$E(Y_t) = \mu = \text{constant mean for all } t \quad (a)$$

$$Var(Y_t) = \sigma^2 = \text{constant variance for all } t \quad (b)$$

$$Cov(Y_t, Y_{t-s}) = \gamma_s = \text{constant autocorrelation for all } t \neq s \quad (c)$$

The time series variable needs to satisfy all these three conditions to become a stationary series because if their means and variances change, the estimated t-value under the Ordinary Least Square (OLS) technique fails to cover their actual value. Although in reality, there might not be such associations between the variables. This is called the problem of spurious regression. So, first of all, we have to check the stationary condition of the variables. If the variables are stationary, then we can apply the OLS technique. Otherwise, we have to follow the alternative cointegration and error correction mechanism techniques²⁷.

Results and Discussion

The result of the Error Correction Mechanism (ECM): We have time series data sets on Employment, Investment, and the No. of registered MSME units in Aurangabad district from 1984 to 2018. To do regression analysis, first of all, we have to check the stationarity of the series. The Augmented Dickey-Fuller (ADF) test will be used on these three series to see if they have a unit root or are not stationary.

The employment series is non-stationary in level because the computed t-value (-1.250849) is greater than the critical t-value. Hence, we accept the null hypothesis and conclude that employment has a unit root. Furthermore, we repeat the test to check the stationarity of the first difference. The computed t-value (-5.843636) in the first difference is less than the critical value at the 1% level (-4.262735). So, we reject the null hypothesis and conclude that the employment series is stationary at the 1 percent level in the first difference form.

The investment series is non-stationary in level and first difference also. To make it stationary, we generate a log invest (log invest = log (investment)) series to make the series comparable with another variable, because investment is in lakh cr. Now, we apply the ADF test on log invest in level form with the trend and intercept. The computed t-value (-0.106581) is greater than the critical t-value. Hence, we accept null hypotheses and conclude that the log invest series has a unit root in level form. Now, we repeat the ADF test in the first difference form. The computed t-value (-3.686704) is lower than the critical t-value (-3.568379) at the 5% significance level. We reject the null hypothesis of unit root and conclude that the log invest series is stationary in the first difference form at a 5 percent level.

The unit root test in the level form of the number of registered units shows that the series is non-stationary. Because the

calculated t-value (-1.697858) is greater than the critical t-value. We repeat the ADF test to check stationarity in the first difference. The calculated t-value (-5.864731) is lower than the critical t-value (-4.262735) at the 1% significance level. Hence, we reject the null hypothesis of unit root and conclude that the number of registered unit series is stationary in the first difference form.

The result of the Cointegration and Error Correction Mechanism: We can apply cointegration and the error correction mechanism (ECM) because all three series are stationary in the first difference form. To test the validity of cointegration among variables, we run a simple OLS regression of employment on loginvest and the number of registered units and generate a series of residuals. Now, we check the stationarity of residuals by applying the ADF test. The residual series (resd01) is stationary in level form because the computed t-value (-3.840776) is lower than the critical t-value (-3.639407) at a 1 percent level of significance. Hence, we reject the null hypothesis of unit root and conclude that the resd01 series is stationary in level form. This implies that cointegration among dependent and explanatory variables is valid.

Now, we apply ECM because cointegration among variables has become valid. Our ECM model is specified as:

$$\Delta_{employment} = \alpha + \beta \Delta_{loginvest} + \gamma \Delta_{no\ of\ registered\ unit} + \lambda(resd01)_{t-1} + \varepsilon_t \quad (2)$$

Here, $\Delta_{employment}$ = employment_{t-1}; similarly, other variables are also used as first difference (t-1), *resd01* series is included in the model as an explanatory variable in one period lag form. If ECM is appropriate, the estimated coefficient of *resd01*_{t-1} is negative because if there is any short-term disturbance from a long-run stable relationship, that will be corrected over time. A long-run stable relationship will be restored. The result is shown in Table-2.

Table-2: Result of estimated ECM.

Variables	Coefficients	t-value	Prob. (p-value)
C	-0.048564	-0.001105	0.9991
D (log invest)	119.0854	1.317392	0.1977
D (No of Registered Unit)	4.892142	9.161501	0.0000
Reside 01 (-1)	-0.569852	-3.593237	0.0012
Dependent variable		D(Employment)	
R-Squared	0.888002	F-Statistic	79.28746
Adjusted R-Squared	0.876802	Prob (F-Statistic)	0.000000
		Durbin-Watson stat	1.844028
Included Observations: 34 after a adjustments			

Table-2 shows the result of ECM. We regress the employment on loginvest and the number of registered units. Both the explanatory variables are expected to be positively related to the dependent variable. loginvest is statistically insignificant, but its estimated coefficient is positive. At the 1% level, the registered unit coefficient (4.892142) is statistically significant. The value of R-squared is 0.888002. The model explains 88 percent of the variability of the dependent variable. The overall model is significant at 1 percent (F-statistic- 79.28746, with p-value- 0.00000). The results are satisfactory, mainly because the resd01 estimated coefficient ($=-0.569852$) is negative and statistically significant at the 1% level, implying that any short-term disturbance over or underestimating the long-term stable relationship (coefficients) would be corrected and the long-term stable relationship would be stored.

Conclusion

The MSME sector is diversified. It has grown into a flourishing and job-creating sector of the Indian economy. It is the most powerful engine of economic expansion and industrial production. The cointegration, ECM, and Engle-Granger Cointegration tests were used in this study to examine how the status of Aurangabad MSMEs and employment changed between 1984 and 2018. As a result, they contribute significantly to employment. There are currently 2117 MSMEs operating in the district, directly employing 14574 people. The total investment in these industries is 47322.74 lakh rupees. Agriculture-based sectors employ the most, 7703 people, followed by food processing industries, which employ 2425 people, the metal industry, the wooden industry, and so on.

All three indicators have a positive CAGR from 1984 to 2018. Investment increased by 23%, employment rose by 8%, and registered units increased by 5%. The ECM findings indicate that the number of registered MSME units is more important for employment than investment. For determining employment, investment is insignificant (p-value - 0.1977), yet its coefficient is positive (119.0854). As a result, investment has a positive association with employment creation. Aurangabad is an industrially underdeveloped district of Bihar, with a high concentration of small businesses. The food sector flourishes in the Aurangabad region. The diminishing growth rate of the MSMEs sector in this area needs suitable government action to support this sector. According to the ECM results, the number of registered units is important in determining employment, although its growth rate is modest. The government should create a better climate for new MSMEs to flourish. It would help reduce unemployment as well as increase the growth and development of the economy.

Policy Suggestions: To enhance the role of Micro, Small, and Medium Enterprises (MSMEs) in job development in Aurangabad District, Bihar, a robust policy framework that incorporates both national and state-level efforts is crucial to address current difficulties. Central government policy should

prioritise expanding financial access, particularly in disadvantaged areas. Despite the Pradhan Mantri Mudra Yojana (PMMY) disbursing about ₹18.4 lakh billion since its establishment in 2015, rural penetration remained constrained and numerous enterprises in regions like Aurangabad face obstacles while obtaining inexpensive loans. Consequently, broadening the PMMY's scope, especially in high-risk industries, and providing interest rate subsidies for first-time borrowers will significantly enhance financial inclusion. Furthermore, broadening the scope of the lending Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) to include other high-risk sectors might enhance lending accessibility for a broader spectrum of MSMEs.

Infrastructure development is essential since Bihar's infrastructure is inferior to other states. According to the 2023 NITI Aayog study, just 56% of rural families have access to energy for over 20 hours daily²⁸. This deficient infrastructure hinders operating efficiency and escalates manufacturing costs for local MSMEs. Resolving this problem requires strategic expenditures to enhance electrical accessibility, transportation infrastructure, and the establishment of industrial parks. Improving digital infrastructure, such as broadband services, may facilitate the integration of local MSMEs into national and international supply chains, creating new markets and development prospects.

A vital aspect is skill development, especially given that Bihar's enrolment rate in skill training is among the lowest in India. According to data from the Ministry of Skill Development and Entrepreneurship, less than 10% of Bihar's youngsters possess formal vocational training. Enhancing the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) to synchronise skill training with the district's principal sectors, including agro-processing and handicrafts, may elevate local employability. Introducing skill vouchers and apprenticeship programs would enhance youth engagement and bridge the division between school and employment, ensuring the local workforce aligns with industrial requirements.

The regulatory landscape of Bihar is a further obstacle since the state received a poor score in the 2023 Ease of Doing Business report. Regulatory impediments, such as intricate registration procedures and rigorous compliance mandates, obstruct MSMEs. Implementing a single-window clearing system and establishing digital registration platforms might optimise company operations, minimising the time and expenses associated with initiating and managing a firm. A specialised grievance redressal mechanism for MSMEs might rapidly resolve compliance and financing difficulties, generating a more supportive business environment.

The adoption of technology is a crucial domain for policy action. Only 30% of MSMEs in India use digital payment methods, with an even lower adoption rate in rural regions such as Bihar. Facilitating digital tools via subsidies and expanding

the Technology Upgradation Fund Scheme (TUFS) to craftsmen in Aurangabad may stimulate creativity. Furthermore, engaging in export promotion initiatives and executing digital marketing tactics will enable MSMEs to broaden their market reach beyond local clientele.

State-level measures must enhance central efforts to mitigate regional differences in credit accessibility. For example, Bihar's credit-to-GDP ratio for MSMEs is below the national average, with formal credit extending to just 45% of qualified enterprises in 2023. Implementing a Bihar State lending Guarantee Scheme will improve lending accessibility, especially for sectors like handloom and agro-processing, which are significant in Aurangabad. Providing interest-free loans for up to three years to entrepreneurs in certain areas may catalyse company expansion and job creation.

Establishing industrial clusters that use the district's assets is crucial, given that Bihar's current clusters are often underexploited. Creating clusters in Aurangabad focused on agro-based businesses, renewable energy, and traditional crafts might optimise resource utilisation and develop common infrastructure, such as Common Facility Centres (CFCs), lowering production costs and improving productivity. Furthermore, establishing skill development centres in the area to provide specialised training tailored to local sectors, such as agriculture management and machinery operation, will contribute to mitigating the region's elevated young unemployment rate, which surpasses the national average of around 17%.

To enhance MSME contributions to exports, now constituting less than 2% of Bihar's GDP, regulations must facilitate firms in navigating the export process and achieving compliance with international standards. Consistent trade exhibitions and training initiatives about certification standards would enhance the district's product exposure in local, national and international markets. Finally, to enhance the business environment at the district level, implementing tax incentives such as five-year tax breaks and decreasing inspection frequency will promote formalisation and expansion among MSMEs. Creating district-level support centres for company registration, compliance, and access to government programs might enhance the business climate for MSMEs.

These policy recommendations seek to provide a conducive environment for MSMEs in Aurangabad, tackling structural impediments to realise the sector's full potential in fostering employment and economic growth.

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