

DISTRICT-WISE ANALYSIS OF UDYAM REGISTRATION IN ANDHRA PRADESH: A CATALYST FOR ENHANCING PRODUCTION LINKED INCENTIVES (PLI) FOR MSMEs

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ABSTRACT

The Production Linked Incentive (PLI) scheme is a flagship initiative by the Government of India aimed at fostering domestic manufacturing, reducing import dependency, and boosting the country's competitiveness in global markets. Launched in 2020, the PLI scheme incentivizes manufacturing companies across key sectors such as electronics, pharmaceuticals, automobiles, textiles, and renewable energy by linking financial rewards to incremental production and sales. The scheme's objectives include enhancing India's manufacturing capabilities, attracting foreign direct investment (FDI), creating employment opportunities, and supporting the vision of a self-reliant India (Atmanirbhar Bharat). By offering a financial outlay of ₹1.97 lakh crore (over five years) across 14 sectors, the PLI scheme seeks to address structural challenges, promote innovation, and establish India as a global manufacturing hub. The PLI scheme represents a critical step in reshaping India's industrial landscape, positioning it as a vital player in the global value chain. This study focuses on a district-wise analysis of Udyam Registration in Andhra Pradesh to assess the penetration of MSME registration and its implications for enhancing PLI schemes.

KEYWORDS: flagship initiative, self-reliant, transformative, industrial landscape, Production Linked Incentive, Udyam registration

INTRODUCTION

The Production Linked Incentive (PLI) scheme is a transformative policy initiative introduced by the Government of India to promote domestic manufacturing and bolster the country's economic self-reliance. Announced in March 2020, as part of the broader vision of *Atmanirbhar Bharat* (Self-Reliant India), the scheme is designed to incentivize companies to increase their production capabilities through financial rewards directly linked to incremental production, sales, and exports. Targeting 14 strategically significant sectors, including electronics, pharmaceuticals, automobiles, textiles, and renewable energy, the PLI scheme aims to reduce import dependency, enhance export competitiveness, and attract foreign direct investment (FDI). With a total budget allocation of ₹1.97 lakh crore over five years, this initiative seeks to strengthen India's position in global value chains, foster innovation, and create millions of jobs.

The scheme has already shown promising results in sectors like electronics, where companies such as Apple and Samsung have expanded their production facilities in India. By addressing challenges such as the lack of scale, technology gaps, and global competition, the PLI scheme

aspires to make India a manufacturing powerhouse and a key player in global trade. The Government of India's Production Linked Incentive (PLI) scheme for the automobile and auto components sector plays a pivotal role in accelerating the transition toward sustainable mobility. Launched in 2021 with a budgetary outlay of ₹25,938 crores, the scheme focuses on incentivizing domestic manufacturing of advanced automotive technologies, including electric vehicles (EVs) and their components such as batteries, electric drivetrains, and hydrogen fuel cells. The initiative aims to reduce import dependency on critical components, foster innovation, and establish India as a global hub for EV production. By linking incentives to incremental sales of EVs and advanced technologies, the scheme encourages both established automakers and emerging start-ups to invest in cleaner, greener mobility solutions. Early success is evident as several leading manufacturers, such as Tata Motors, Mahindra, and Ola Electric, have announced large-scale investments in EV production and battery technology. The PLI scheme is expected to attract foreign investment, create thousands of jobs, and position India as a competitive player in the global electric vehicle market, driving the country closer to its carbon neutrality goals and sustainable economic growth.

BACKGROUND OF THE STUDY

India's journey toward becoming a global manufacturing hub has faced challenges, including high import dependency, inadequate infrastructure, low technology adoption, and stiff international competition. Recognizing these hurdles, the Government of India launched the Production Linked Incentive (PLI) scheme in March 2020 as part of the broader vision of *Atmanirbhar Bharat* (Self-Reliant India). The scheme aims to boost domestic manufacturing, attract foreign investments, and strengthen India's position in global supply chains.

The idea of linking financial incentives to incremental production and sales aligns with global best practices to promote industrial growth and technological advancements. Initially focused on mobile phones and electronic components, the PLI scheme has expanded to cover 14 key sectors, including pharmaceuticals, textiles, automobiles, and renewable energy. With a total outlay of ₹1.97 lakh crore over five years, the scheme seeks to address structural weaknesses, encourage innovation, and create large-scale employment opportunities.

The scheme's significance has grown amidst the global push for supply chain diversification, particularly following disruptions caused by the COVID-19 pandemic. By incentivizing high-value manufacturing and fostering a competitive business environment, the PLI scheme aspires to transform India into a leading player in the global manufacturing landscape. This study examines the design, implementation, and outcomes of the PLI scheme, with a focus on its impact on India's economic development.

REVIEW OF LITERATURE

Sharma (2021) states that the scheme is part of India's broader *Atmanirbhar Bharat* (Self-Reliant India) initiative, which aims to strengthen India's manufacturing capabilities and global competitiveness. According to Gupta (2021), the PLI scheme targets high-potential sectors such as electronics, pharmaceuticals, textiles, and automobiles, aiming to reduce India's import reliance and increase exports. By linking incentives to performance, the scheme is designed to attract foreign direct investment (FDI) and encourage technological innovation within the country. Aggarwal and Kumar (2022) highlight the significant increase in production capacity, particularly in mobile phone manufacturing.

The PLI scheme attracted global players like Apple and Samsung, with India becoming a hub for smartphone exports. Singh and Mehta (2021) noted that the scheme led to a sharp rise in exports, with India's mobile exports crossing USD 6 billion in 2021, up from less than USD 1

billion in previous years. Jain et al. (2021) argue that the scheme helped reduce India's dependency on Chinese imports, enhancing the country's self-sufficiency in essential medicines. According to Rajput (2022), India's shift towards electric mobility is bolstered by the scheme, with major players such as Tata Motors and Mahindra increasing their investments in EV production. Singh (2022) estimates that the scheme could generate over 6 million direct and indirect jobs, primarily in high-value sectors like electronics, automobile manufacturing, and textiles. Mohanty and Rao (2022) discuss the difficulties faced by small and medium enterprises (SMEs) in meeting the scheme's eligibility criteria, particularly in terms of the scale of operations and technological advancements. Gupta (2021) also highlights concerns regarding the delayed disbursement of incentives and unclear guidelines, which have hindered smooth implementation in some sectors.

Das (2021) compares India's PLI scheme to China's "Made in China 2025" policy and South Korea's "Green New Deal," which also focus on incentivizing domestic manufacturing and innovation in key sectors. Mehta and Srivastava (2023) argue that while India has a strong labor force, it needs greater investment in infrastructure and skill development to fully realize the potential of the PLI scheme. Mehta and Srivastava (2023) propose that the PLI scheme should focus on futuristic industries that align with global sustainability trends. Singh (2022) calls for integrating green manufacturing practices into the PLI scheme, especially in energy-intensive sectors like automobiles and textiles. He suggests that a focus on clean technologies will help India meet its climate targets while promoting economic growth. Aswathy, P. (2024) and Ahamed, G. T., & Raju reviewed that, registered MSMEs gain eligibility for various government schemes, including subsidies and incentives, which can aid in their growth and development with simplify the registration process under Udyog Aadhaar Memorandum (UAM-2015) system which was launched in 2015 prior to Udyam Registration, MSMEs in India

GAP IDENTIFIED

The gap identified in the implementation of Production Linked Incentives (PLI) across various industries lies in the uneven distribution and sectoral focus of these incentives. While industries like electronics, automobiles, and pharmaceuticals have seen significant benefits, other sectors such as textiles, agriculture, and machinery remain underrepresented. This imbalance has led to disparities in regional development, with more industrially developed areas gaining the most, while less-developed regions miss out on potential growth opportunities. Additionally, small and medium enterprises (SMEs) face challenges in accessing PLI benefits due to stringent eligibility criteria and complex application processes. The focus on scaling up production in mature industries also limits innovation in emerging sectors, further hindering the creation of a diversified and resilient industrial base. Addressing these gaps requires more inclusive, targeted policies that support a broader range of industries and businesses, ensuring balanced economic growth across all regions and sectors.

OBJECTIVES

1. To identify the effectiveness of Production-Linked Incentive (PLI) schemes in registering MSMEs under UDYAM in key sectors such as electronics, pharmaceuticals, and automobiles.
2. To explore the challenges faced by MSMEs in accessing and utilizing the scheme.

METHODOLOGY OF THE STUDY

DATA COLLECTION METHOD

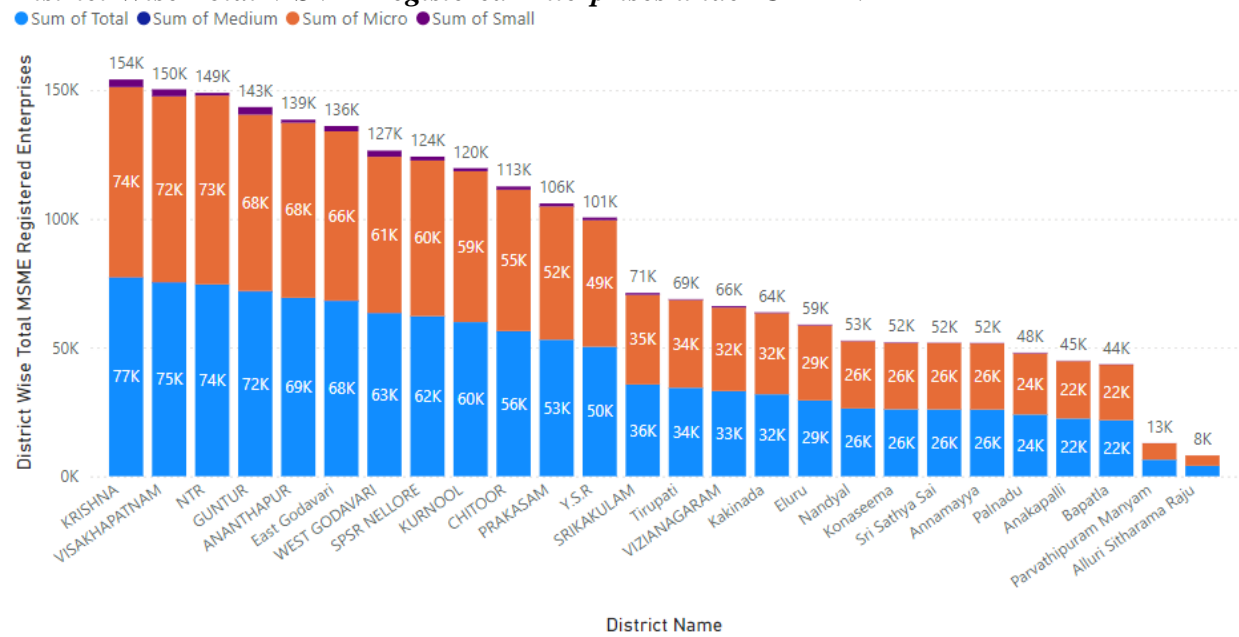
Researcher conducted unstructured interviews with selected stakeholders to gain qualitative insights into challenges and opportunities in Production Linked Incentives (PLI). Moreover,

Government reports, UDYAM-PLI scheme guidelines, and regional MSME performance metrics were studied.

ANALYSIS

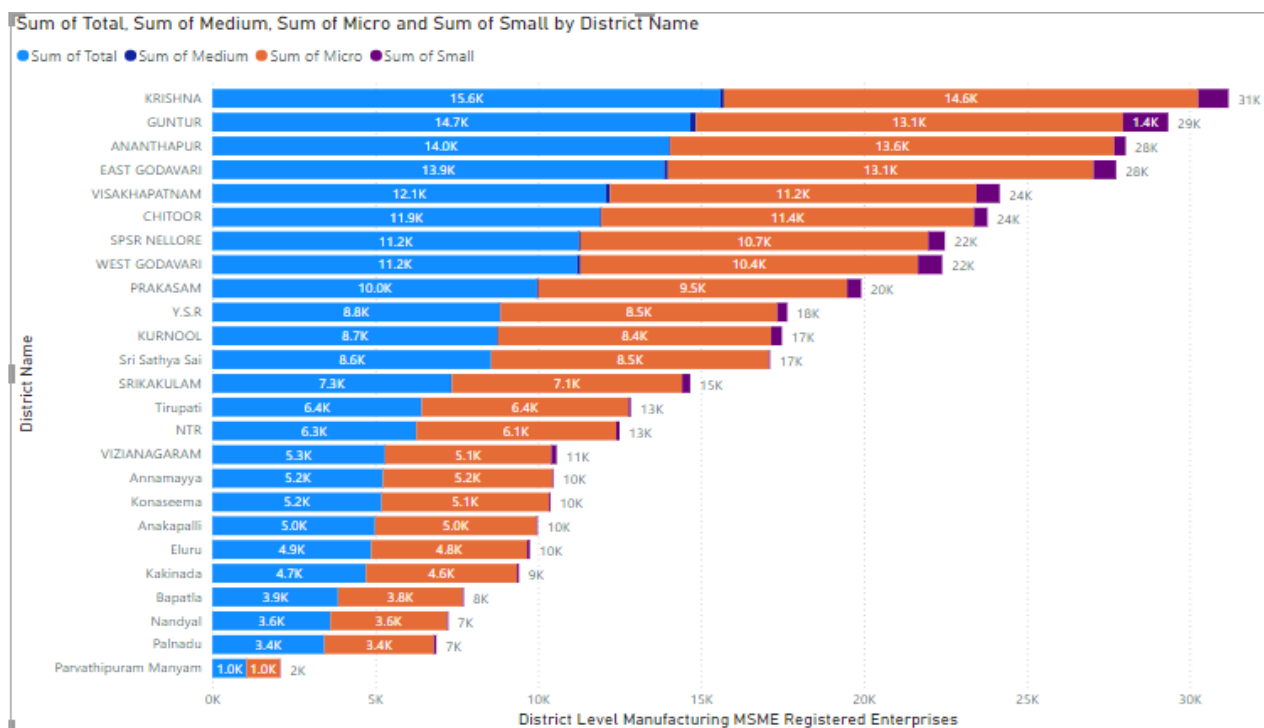
In this research study, researcher gathered data from official website to know about three aspects. Primarily, total MSMEs registered under Udyam Scheme and count of manufactured registered enterprises and services enterprises.

District Wise Total MSME Registered Enterprises under UDYAM



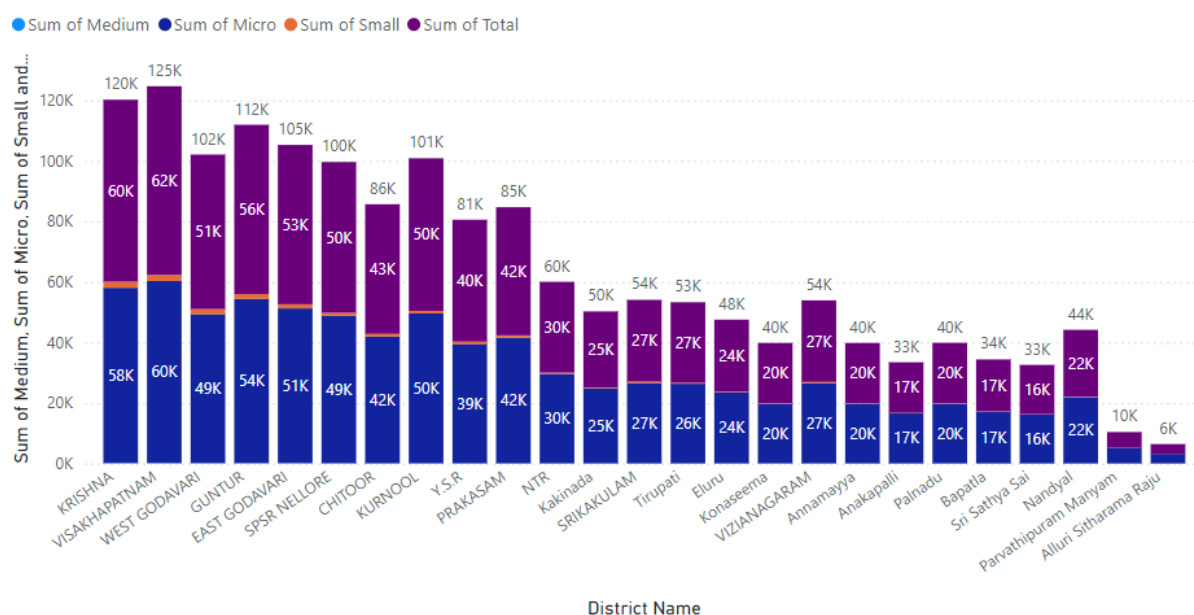
| District Name | Sum of Medium | Sum of Micro | Sum of Small | Sum of Total |
|-----------------------|---------------|--------------|--------------|--------------|
| Alluri Sitharama Raju | 0 | 4029 | 12 | 4041 |
| Anakapalli | 7 | 22257 | 152 | 22416 |
| ANANTHAPUR | 65 | 68032 | 1169 | 69266 |
| Annamayya | 7 | 25693 | 193 | 25893 |
| Bapatla | 5 | 21572 | 182 | 21759 |
| CHITTOOR | 87 | 54930 | 1277 | 56294 |
| East Godavari | 225 | 65744 | 2075 | 68044 |
| Eluru | 14 | 29106 | 311 | 29431 |
| GUNTUR | 289 | 68480 | 2957 | 71726 |
| Kakinada | 17 | 31504 | 314 | 31835 |
| Konaseema | 16 | 25744 | 237 | 25997 |
| KRISHNA | 272 | 73862 | 2947 | 77081 |
| KURNOOL | 68 | 58596 | 1185 | 59849 |
| Nandyal | 5 | 26095 | 213 | 26313 |
| NTR | 54 | 73398 | 1024 | 74476 |
| Palnadu | 4 | 23698 | 273 | 23975 |
| Parvathipuram Manyam | 1 | 6373 | 56 | 6430 |
| PRAKASAM | 77 | 51748 | 1175 | 53000 |
| SPSR NELLORE | 119 | 60447 | 1531 | 62097 |
| Sri Sathya Sai | 3 | 25794 | 146 | 25943 |
| SRIKAKULAM | 29 | 34848 | 730 | 35607 |
| Tirupati | 17 | 34046 | 313 | 34376 |
| VISAKHAPATNAM | 283 | 72158 | 2723 | 75164 |
| VIZIANAGARAM | 32 | 32439 | 571 | 33042 |
| WEST GODAVARI | 247 | 60613 | 2401 | 63261 |
| Y.S.R | 59 | 49138 | 1068 | 50265 |
| Total | 2002 | 1100344 | 25235 | 1127581 |

District Level Manufacturing MSME Registered Enterprises under UDYAM



| District Name | Sum of Medium | Sum of Micro | Sum of Small | Sum of Total |
|----------------------|---------------|---------------|--------------|---------------|
| Anakapalli | 2 | 4960 | 31 | 4993 |
| ANANTHAPUR | 39 | 13627 | 351 | 14017 |
| Annamayya | 1 | 5204 | 31 | 5236 |
| Bapatla | 2 | 3818 | 38 | 3858 |
| CHITTOOR | 42 | 11441 | 412 | 11895 |
| EAST GODAVARI | 117 | 13062 | 690 | 13869 |
| Eluru | 4 | 4785 | 83 | 4872 |
| GUNTUR | 173 | 13108 | 1388 | 14669 |
| Kakinada | 4 | 4643 | 60 | 4707 |
| Konaseema | 6 | 5140 | 45 | 5191 |
| KRISHNA | 105 | 14563 | 926 | 15594 |
| KURNOOL | 33 | 8379 | 329 | 8741 |
| Nandyal | 3 | 3583 | 35 | 3621 |
| NTR | 8 | 6136 | 106 | 6250 |
| Palnadu | 0 | 3365 | 72 | 3437 |
| Parvathipuram Manyam | 0 | 1028 | 17 | 1045 |
| PRAKASAM | 50 | 9477 | 431 | 9958 |
| SPSR NELLORE | 60 | 10673 | 509 | 11242 |
| Sri Sathya Sai | 0 | 8521 | 38 | 8559 |
| SRIKAKULAM | 17 | 7070 | 246 | 7333 |
| Tirupati | 4 | 6352 | 65 | 6421 |
| VISAKHAPATNAM | 122 | 11248 | 713 | 12083 |
| VIZIANAGARAM | 23 | 5097 | 164 | 5284 |
| WEST GODAVARI | 97 | 10362 | 742 | 11201 |
| Y.S.R | 26 | 8494 | 303 | 8823 |
| Total | 938 | 194136 | 7825 | 202899 |

District wise services MSME registered under UDAYAM



| District Name | Sum of Medium | Sum of Micro | Sum of Small | Sum of Total |
|-----------------------|---------------|---------------|--------------|---------------|
| Alluri Sitharama Raju | 0 | 3203 | 8 | 3211 |
| Anakapalli | 5 | 16602 | 120 | 16727 |
| Annamayya | 6 | 19750 | 162 | 19918 |
| Bapatla | 3 | 17047 | 144 | 17194 |
| CHITTOOR | 46 | 41929 | 863 | 42838 |
| EAST GODAVARI | 110 | 51148 | 1377 | 52635 |
| Eluru | 10 | 23529 | 227 | 23766 |
| GUNTUR | 115 | 54284 | 1570 | 55969 |
| Kakinada | 13 | 24874 | 245 | 25132 |
| Konaseema | 10 | 19719 | 190 | 19919 |
| KRISHNA | 168 | 57919 | 2020 | 60107 |
| KURNOOL | 35 | 49550 | 849 | 50434 |
| Nandyal | 2 | 21910 | 177 | 22089 |
| NTR | 18 | 29603 | 403 | 30024 |
| Palnadu | 4 | 19736 | 201 | 19941 |
| Parvathipuram Manyam | 1 | 5162 | 37 | 5200 |
| PRAKASAM | 28 | 41578 | 744 | 42350 |
| SPSR NELLORE | 59 | 48739 | 1018 | 49816 |
| Sri Sathya Sai | 3 | 16186 | 107 | 16296 |
| SRIKAKULAM | 12 | 26553 | 480 | 27045 |
| Tirupati | 11 | 26390 | 249 | 26650 |
| VISAKHAPATNAM | 162 | 60170 | 2008 | 62340 |
| VIZIANAGARAM | 9 | 26546 | 403 | 26958 |
| WEST GODAVARI | 151 | 49226 | 1669 | 51046 |
| Y.S.R | 32 | 39489 | 761 | 40282 |
| Total | 1013 | 790842 | 16032 | 807887 |

FINDINGS

Following are the major findings derived from the above study.

- The study found that, the UDYAM registration platform has streamlined MSME registrations in Andhra Pradesh, leading to a significant increase in formalized enterprises.
- The study reveals that, districts like Visakhapatnam, Krishna, and Guntur have emerged as leaders in MSME registrations, attributed to factors such as industrial hubs, access to ports, and availability of skilled labour.
- The study revealed that, districts such as Chittoor and Ananthapur are showing notable growth in registrations, driven by state initiatives promoting agro-based industries and renewable energy enterprises.

- The researcher identified that, districts like Vijayanagaram and Srikakulam report comparatively lower registrations, largely due to a lack of industrial infrastructure and limited urbanization.
- The researcher identified that, there are challenges such as inadequate access to credit, lack of skilled labour, and infrastructure bottlenecks persist in several districts.
- In this study researcher identified that, Visakhapatnam tops the list due to its industrial zones, IT parks, and proximity to the port.

SUGGESTIONS

Based on the above findings the following suggestions are given to MSMEs.

- Government officials from district industries center and APIIC, Industrial Corridor Authority should create awareness about UDYAM registration, particularly in rural and backward regions, is a key obstacle to achieving uniform growth.
- Similarly, they should conduct outreach programs to promote UDYAM registration in underperforming districts. Proper industrial infrastructure and connectivity road, rail, and internet connectivity in backward regions to facilitate easier access to markets and resources.
- Government should announce and support districts with industrial parks and dedicated MSME clusters have a significantly increase higher number of registrations in UDYAM.
- Focus on promoting women-led start-ups by offering subsidies, mentorship, and dedicated training programs in their field.
- Create a state-level digital platform for MSMEs to connect with suppliers, customers, and service providers.

CONCLUSION & SCOPE FOR FUTURE STUDY

The district-wise analysis of MSME registered enterprises under UDYAM in Andhra Pradesh highlights the state's diverse industrial landscape and the varying levels of entrepreneurial activity across regions. While industrially advanced districts like Visakhapatnam, Guntur, and Krishna lead in MSME registrations, underdeveloped regions such as Vizianagaram and Srikakulam still face challenges in infrastructure, awareness, and financial access. The study underscores the critical role of UDYAM registration in formalizing the MSME sector and enabling access to government schemes. To achieve balanced growth, targeted interventions such as improved infrastructure, skill development, and district-specific policies are essential. With sustained efforts and strategic planning, Andhra Pradesh has the potential to further enhance its MSME ecosystem, fostering economic growth, job creation, and regional development across all districts.

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