

Industrial Development in Uttarakhand State since 2000: An Analytical Study of Challenges, Prospects and Policy Imperatives

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Abstract

This study presents a quantitative empirical analysis of industrial development in the state of Uttarakhand from 2000-01 to 2022-23, focusing on policy-driven structural transformation, industrial growth, employment generation, and capital investment. Data are compiled from the Directorate of Industries and the Directorate of Economics and Statistics, Government of Uttarakhand. The analysis applies descriptive statistics, the compound annual growth rate (CAGR), Pearson correlation, and ordinary least squares (OLS) regression in JASP. The secondary sector's share in gross state domestic product rose from 18.55 per cent at formation to a peak of 52.12 per cent in 2011-12, indicating a structural transformation consistent with the classical development sequence. Industrial units expanded from 17,725 to 79,774 (CAGR 7.08 per cent), employment from 110,457 to 516,479 persons (CAGR 7.26 per cent), and capital investment from Rs. 2,843.37 crores to Rs. 53,938.63 crores (CAGR 14.31 per cent). The micro, small, and medium enterprise (MSME) sector was the primary driver of employment, recording a 9.10 per cent employment CAGR, compared with 3.64 per cent for the large industry. Units and employment follow approximately normal distributions, whereas capital investment is highly non-normal ($W = 0.479$, $p < .001$; $CV = 1.789$), reflecting the discontinuity of incentive-driven capital flows. Pearson correlation shows a near-perfect association between enterprise formation and employment ($r = 0.977$, $p < .001$), and OLS regression indicates that each additional industrial unit generates about eight jobs ($b = 7.888$, $R \text{ squared} = 0.955$, $F = 443.425$, $p < .001$), with enterprise count alone accounting for 95.5 per cent of the variation in employment. These results establish MSME-led enterprise expansion as the principal and structurally reliable driver of industrial employment in the state, underscoring the importance of policies that sustain inclusive industrial growth in the post-incentive phase.

Keywords: Industrialisation, MSMEs, Employment Generation, Structural Transformation

1. Introduction

Industrialisation occupies a central place in economic development theory as a principal driver of structural transformation, employment creation, and sustained long-term growth (Kaldor, 1967; Szirmai, 2012). The manufacturing sector is especially influential, since productivity

growth in manufacturing raises overall output through increasing returns to scale and strong inter-sectoral linkages. Using a panel of 67 developing and 21 advanced economies over 1950 to 2005, Szirmai and Verspagen (2015) find that manufacturing has been important for growth in developing countries, with its effect conditioned by human capital and the stage

of development, while Szirmai (2012) cautions that not all expectations of the engine-of-growth hypothesis are borne out by the data. In developing economies, industrialisation represents a structural shift from low-productivity traditional activity toward higher-productivity manufacturing, which UNIDO (2020) identifies as the principal learning engine through which countries build technological capabilities. Industrialisation does not, however, guarantee inclusive outcomes, for where growth is capital-intensive and skill-biased, aggregate output can rise even as employment generation and equality lag, a concern with jobless growth widely noted in Indian manufacturing. A distinct but related risk is premature deindustrialisation (Rodrik, 2016), whereby manufacturing's share of employment and output peaks at income levels far below those at which today's advanced economies began to deindustrialise, foreclosing the conventional manufacturing-led route to income convergence. India's post-independence trajectory illustrates how these forces operate within a specific political economy. The liberalisation of 1991 increased import competition, whose effect on productivity in Indian manufacturing was favourable in part, even as measured aggregate productivity growth slowed under investment gestation lags and capacity underutilisation (Goldar & Kumari, 2003), while the MSME sector emerged as a vital source of employment and inclusive growth (Papola, 2006). The reforms also widened inter-state and inter-regional industrial disparities, as manufacturing activity became increasingly concentrated in locationally advantaged states (Ahluwalia, 2000), a pattern that placed greater responsibility for industrial promotion on the states themselves. It was in this setting that Uttarakhand, carved out of the hill districts of Uttar Pradesh on 9 November 2000 as India's twenty-seventh state, entered the industrial arena, carrying

both the opportunity to design its framework afresh and the challenge of building productive capacity from a narrow base. The state's geography defined its constraints and its advantages alike. Spanning 53,483 square kilometres; industrial employment was 67,706 persons; and per capita income was Rs. 15,285. Of which 86.08 per cent is hill terrain, and only 7,448 square kilometres is plains across 13 districts, its industrial potential was concentrated in a narrow corridor. At the same time, a forest cover of 45.44 % rendered it ecologically sensitive and necessitated environment-compatible models. At formation, the secondary sector contributed only 18.55 per cent of GSDP; MSME units numbered 14,163; large industries numbered 39; industrial employment stood at 67,706 persons; and per capita income was Rs. 15,285. The Special Industrial Promotional Package of January 2003, offering income-tax exemption under Section 80-IC, full central excise exemption until 2010, and capital subsidies, altered this calculus and triggered one of the most dramatic sub-national industrial transformations in post-reform India. The establishment of SIIDCUL in 2002 gave policy its physical form through integrated industrial estates at Haridwar, Pantnagar, Sitarganj, Selaqui, and Kashipur. These interventions catalysed diversified clusters that now form the backbone of the state economy: the automobile and engineering cluster at Pantnagar, anchored by Tata Motors, Bajaj Auto, and Ashok Leyland, with Mahindra and Mahindra at Haridwar; the pharmaceutical clusters at Selaqui and Haridwar, hosting many units certified to international manufacturing standards; and the fast-moving consumer goods and food-processing sector spanning Haridwar, home to ITC, Hindustan Unilever, Dabur, and Patanjali, and Pantnagar, home to Nestle and Britannia. Alongside these large-industry anchors, the agro-processing of the

state's GI-tagged products, renewable energy drawing on its hydro potential, and the handloom and handicraft industries sustaining hill households represent the ecologically compatible dimensions of the industrial portfolio. Successive state policies deepened this momentum. The Industrial Policy of 2008 and its revisions prioritised investment facilitation, single-window clearance, and MSME credit, while reforms in the ease of doing business and the Investors' Summit of 2018 mobilised large-scale investment intentions. The aggregate outcome of two decades of policy-driven industrialisation is striking. GSDP at current prices expanded many times over to reach Rs. 3,81,889 crores in 2024-25; the secondary sector peaked at 52.12 per cent of GSDP in 2011-12; MSME employment grew several-fold; and per capita income reached Rs. 2,73,921 in 2024-25, exceeding the national average. However, the transformation has not been immune to the structural vulnerabilities anticipated by theory. Industrial growth remains spatially concentrated in the two plains districts, and the withdrawal of central excise exemptions under the goods and services tax from July 2017 triggered a deceleration in industrial value added across the later phase (NITI Aayog, 2025). Value-addition ratios have stagnated despite deepening capital intensity, and manufacturing employs a modest share of the workforce. This pattern mirrors premature deindustrialisation, in which the employment-generating capacity of manufacturing weakens before prosperity is secured (Rodrik, 2016). The World Bank (2012) cautioned early about this spatial fragility, and Singh and Agrawal (2021) subsequently documented the post-incentive deceleration. These tensions between aggregate achievement and unresolved spatial and distributional challenges render Uttarakhand at once one of India's most instructive industrial success stories and one of its most

significant unfinished transformations. The present study provides a comprehensive empirical assessment of the state's industrialisation since 2000 and identifies the policy imperatives essential to sustaining its momentum.

2. Review of Literature

The relationship between manufacturing-led industrialisation and structural transformation has generated a substantial body of scholarship directly relevant to the present study. Szirmai (2012), using a panel analysis of 67 developing countries from 1950 to 2005, found that growth in manufacturing value added has a statistically significant positive effect on GDP growth. However, the magnitude depends on institutional quality, human capital, and the stage of structural transformation. A persistent theme in this literature is the spatial concentration of industrial activity, whereby geographically advantaged locations attract disproportionate investment. At the same time, peripheral and ecologically constrained regions are systematically excluded, a pattern directly relevant to the plains and hills of Uttarakhand. Several studies have examined the structural dimensions of Indian manufacturing after 1991. Goldar and Kumari (2003) found that the reduction of effective protection had a favourable effect on productivity in Indian manufacturing, though measured aggregate productivity growth nonetheless slowed during the 1990s under investment gestation lags and capacity underutilisation, while Papola (2006) argued that MSMEs constitute the structural backbone of employment generation and that large-industry-focused frameworks tend to understate their contribution to inclusive growth. Nagaraj (2003) showed that manufacturing output grew at a broadly similar rate across the 1980s and 1990s with no significant break attributable to the reforms. It argued that supply-side

liberalisation had neglected the demand constraint arising from the contraction of public infrastructure investment. The widening of inter-state and inter-regional industrial disparities in the post-reform period is documented separately by Ahluwalia (2000) and by Lall and Chakravorty (2005), who show that manufacturing activity became increasingly spatially concentrated, a pattern that motivates the state-level frameworks examined in the present study. Studies focused specifically on Uttarakhand have grown since 2000 but remain limited in longitudinal depth. The World Bank (2012) conducted the first comprehensive economic assessment of the state, reporting rapid per capita income growth in the first decade alongside concerns about incentive dependence and spatial concentration. Naithani (2014), drawing on data from the Annual Survey of Industries for the first decade of statehood, reported a substantial expansion in registered factories, invested capital, and employment, while identifying wage stagnation as an early concern. Singh and Agrawal (2021) reviewed the major policy instruments through 2018. They concluded that aggregate investment and employment objectives were met even as spatial disparities between the plains and the hills persisted and deepened. The existing research does not extend beyond 2018 and lacks a unified phase-wise framework covering the full post-formation trajectory, a gap the present study addresses.

3. Objectives of the Study

The study pursues two objectives. The first is to examine the trends, structural composition, and phase-wise dynamics of industrial development in Uttarakhand from 2000-01 to 2022-23, across industrial units, employment generation, and capital investment in the MSME and large-

industry segments. The second is to assess the relationship between industrial expansion and employment generation statistically through Pearson correlation and OLS regression, and to identify the structural challenges and policy imperatives required to sustain inclusive industrial growth in the post-incentive phase.

4. Research Methodology

The study is based on quantitative empirical analysis for the period 2000-01 to 2022-23 ($n = 23$). Data are compiled from the Annual Survey of Industries (MoSPI), the Directorate of Industries, and the Directorate of Economics and Statistics, Government of Uttarakhand, as well as NITI Aayog, the RBI Handbook of Statistics on Indian States, and the Census of India. The analytical framework operates at four levels: descriptive statistics (mean, standard deviation, coefficient of variation, skewness, and kurtosis) computed in MS Excel; CAGR, index numbers, and a three-phase decomposition into Phase I, policy take-off (2000-01 to 2007-08), Phase II, consolidation (2008-09 to 2015-16), and Phase III, post-incentive maturity (2016-17 to 2022-23); labour-productivity and capital-efficiency ratios; and Pearson correlation and OLS regression in JASP. Statistical significance is assessed at the 0.05 level throughout.

4. Results and Discussion

4.1 Socio-Economic Profile of Uttarakhand

Uttarakhand's socio-economic profile is marked by abundant natural resources, a predominantly rural, mountainous landscape, and notable developmental progress over the past 25 years. Table 1 provides a consolidated overview of the state's geographic, demographic, and economic indicators.

Table 1: Socio-Economic and Structural Profile of Uttarakhand

Category	Indicator	Uttarakhand Value	Brief Context
Geography Environment	Total geographical area	53,483 sq km	accounts for 1.63 percent of the country's area
	Hill vs plain area	46,035 sq km hill (86.08%); 7,448 sq km plain (13.92%)	a hill-dominated state in which the narrow plains form the main industrial belt
	Forest cover	24,303.04 sq km (45.44% of geographical area)	one of the most forested and ecologically sensitive states in the country
Administrative Structure	Divisions and districts	2 divisions; 13 districts (11 hill + 2 plain)	Spans the Garhwal and Kumaon divisions and is predominantly hilly
Administrative Structure	Development blocks	95	reflects a dense rural administrative network
	Gram Panchayats	7,795	provides a wide base of village-level governance
	Inhabited villages (2011)	15,745	indicates a highly dispersed pattern of settlement
Demography (Census, 2011)	Total population	1,00,86,292	makes up 0.83 per cent of the country's population
Demography (Census, 2011)	Population density	189 persons per sq km	well below the national average of 382 persons per sq km
	Sex ratio	963 females per 1,000 males	more favourable than the national average of about 940
	Literacy rate (total)	78.82%	higher than the national average of 74.04 per cent
	Urban population share	30.23%	close to the national level of 31.16 per cent
	Rural population share	69.77%	The state remains predominantly rural, with a rate near the national average of 68.84 per cent.
	Decadal population growth (2001-11)	18.81%	slightly above the national growth of 17.64 per cent
Vital & Health (2020)	Crude birth rate	16.6 per 1,000	lower than the national rate of 19.5 per 1,000
	Crude death rate	6.3 per 1,000	broadly in line with the national rate of 6.0 per 1,000
	Infant mortality rate	24 per 1,000 live births	below the national level of about 28 per 1,000
Economic Indicators	GSDP at current prices	Rs. 14,501 crores (2000-01); Rs. 3,81,889 crores (2024-25)	shows strong nominal expansion over the study period
	Per capita income	Rs. 2,73,921 (2024-25)	stands about 36.9 per cent above the national average of Rs. 2,00,162
	SDG India Index (2023-24)	79	ranks first in the country, jointly with Kerala
	Multi-Dimensional Poverty (%)	40.38 (2005-06) → 6.92 (2025)	a steep decline that places the state well below the national 14.9 per cent
	Labour Force Participation Rate (%)	45.0 (2000-01) → 64.4 (2024-25)	marks a sharp rise to around the national level of 64.3 per cent

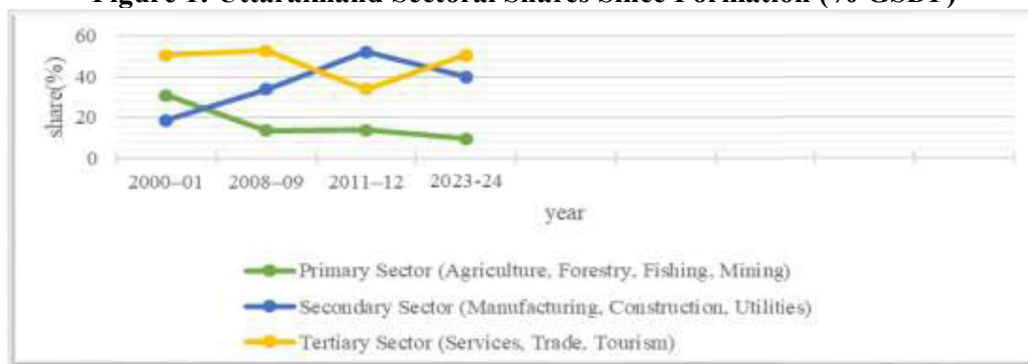
Source: Data compiled and analysed by the author from Statistical Diary 2023-24, Uttarakhand at a Glance 2023-24, Directorate of Economics and Statistics, Government of Uttarakhand; Census of India 2011; and NITI Aayog publications.

Table 2: Changes in Sectoral Composition of Uttarakhand's Economy since State Formation (% of GSDP)

Sector	2000–01	2008–09	2011–12	2023-24
Primary Sector (Agriculture, Forestry, Fishing, Mining)	30.99	13.57	14.00	9.59
Secondary Sector (Manufacturing, Construction, Utilities)	18.55	33.88	52.12	39.95
Tertiary Sector (Services, Trade, Tourism)	50.46	52.55	33.88	50.46

Source: Uttarakhand Budget Documents 2025–26, Budget Directorate, Government of Uttarakhand.

Figure 1: Uttarakhand Sectoral Shares Since Formation (% GSDP)



Source: Uttarakhand Budget Documents 2025–26, Budget Directorate, Government of Uttarakhand.

The structural transformation depicted in Table 2 and Figure 1 exemplifies one of the most significant shifts recorded for any Indian state within a comparable period. The primary sector declined from 30.99% in 2000–01 to 9.59% in 2023–24, indicating both the relative expansion of the industrial and service sectors and the persistent stagnation of hill agriculture. The secondary sector more than doubled its share, rising from 18.55% to a peak of 52.12% in 2011–12, primarily due to the central fiscal incentive package introduced in 2003. The subsequent decline to 39.95% in 2023–24 reflects the ongoing growth of the service sector and the stabilization of industrial output following the conclusion of the incentive period. By 2023–24, the service sector had reestablished its predominant position, accounting for 50.46%. This progression—from agrarian dominance, through manufacturing-led transformation, to a diversified economy—aligns with the classical models of structural transformation articulated by Lewis (1954) and Kuznets (1966). Within

this framework, industrialisation functions as the intermediary linking an agrarian past to a modern, services-oriented economy.

4.2 Industrial Scenario since 2000: From Zero to Emerging Hub

Uttarakhand entered statehood with a weak industrial base comprising 14,163 MSME units, 39 large industries, and 67,706 persons employed in industry. However, its subsequent development was shaped by successive policy interventions rather than market forces alone. The Industrial Policy of 2001, the creation of SIIDCUL in 2002, the Special Industrial Package of 2003, the Special Integrated Industrial Promotion Policy of 2008 and its 2011 amendment, and the Mega Industrial and Investment Policy of 2025 together established a dynamic institutional framework for industrial expansion. These policies, combined with the state's locational advantages and estate-based infrastructure, facilitated the emergence of major hubs at Pantnagar, Haridwar, Selaqui, Dehradun, and Rudrapur.

Table 3: Trends in Industrial Units, Employment, and Capital Investment in Uttarakhand (2000-01 To 2022-23)

Year	No. of industries		Total units	Employment generation		Total Employment	Capital investment (crore₹)		Total capital investment
	Msmes unit	Large unit		Msme	Large		Small	Large	
2000-01	17534	191	17725	59655	50802	110457	148.7	2694.7	2843.4
2001-02	34333	187	34520	119947	46850	166797	288.1	5075.6	5363.7
2002-03	36526	187	36713	124511	46850	171361	310.3	5075.6	5385.9
2003-04	38976	183	39159	129782	43858	173640	342.0	5175.9	5518.0
2004-05	25294	133	25427	63599	34853	98452	860.5	17014.7	17875.3
2005-06	28249	160	28409	72621	37138	109759	951.8	2715.2	3667.0
2006-07	32116	154	32270	87279	44541	131820	1226.3	4270.1	5496.4
2007-08	32835	143	32978	106843	52552	159395	1942.1	8105.6	10047.7
2008-09	34084	147	34231	118915	58762	177677	3298.8	11667.0	14965.8
2009-10	35955	203	36158	142780	79697	222477	4855.7	23747.0	28602.7
2010-11	37928	211	38139	162453	81633	244086	6280.5	27962.6	34243.0
2011-12	40049	218	40267	177615	83302	260917	7212.3	27074.2	34286.4
2012-13	42340	230	42570	196004	85333	281337	8380.0	27450.8	35830.8
2013-14	44809	230	45039	208846	85334	294180	9002.8	27450.8	36453.6
2014-15	47478	272	47750	220880	100752	321632	9536.3	34925.6	44461.9
2015-16	50407	272	50679	238351	100752	339103	10271.2	34925.6	45196.8
2016-17	53487	273	53760	260416	101273	361689	11221.1	35225.8	46447.0
2017-18	56826	293	57119	279963	105827	385790	11950.1	36388.4	48338.4
2018-19	60466	299	60765	298774	107972	406746	12743.6	377894.7	390638.3
2019-20	64597	327	64924	324225	111221	435446	13615.7	379557.8	393173.5
2020-21	68888	329	69217	346441	111451	457892	14463.1	37957.9	52421.0
2021-22	73961	329	74290	382431	111451	493882	15334.6	37957.9	53292.5
2022-23	79445	329	79774	405028	111451	516479	15980.7	37957.9	53938.6
CAGR (%)	7.11	2.5	7.08	9.1	3.64	7.26	23.69	12.78	14.3

Source: Author's own calculations (MS Excel) based on Directorate of Industries, Government of Uttarakhand (Compiled in Statistical Diaries).

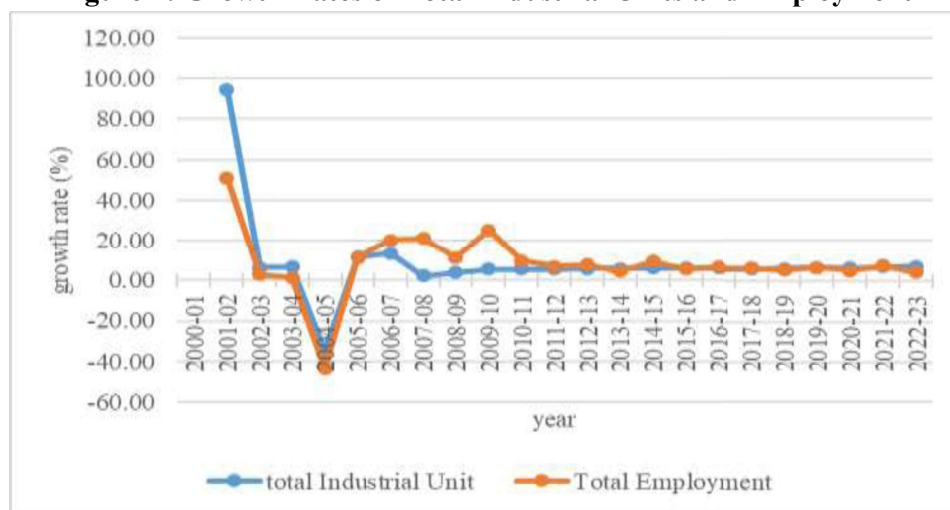
Tables 3 and 4 demonstrate that total units increased by a factor of 4.5 Compound Annual Growth Rate (CAGR): 7.08%) and employment nearly quintupled (CAGR: 7.26%) between 2000–01 and 2022–23. Notably, MSME employment (9.10%) consistently surpassed that of large industry (3.64%). The 94.75% increase in units in 2001-02 reflects a policy response to the establishment of SIIDCUL, whereas the 35.07% decrease in 2004-05 represents a

base-year correction rather than a structural reversal. Capital investment experienced an overall CAGR of 14.31%, yet it remained structurally discontinuous. MSME investment grew organically by 23.69%, whereas investment in large industries peaked in 2018-19 and then collapsed, indicating a reliance on incentives rather than organic competitiveness.

Table 4: Growth Rates of Total Industrial Units and Employment

Year	Total industrial unit Growth (%)	Total employment Growth (%)
2000-01	-	-
2001-02	94.75	51.01
2002-03	6.35	2.74
2003-04	6.66	1.33
2004-05	-35.07	-43.30
2005-06	11.73	11.48
2006-07	13.59	20.10
2007-08	2.19	20.92
2008-09	3.80	11.47
2009-10	5.63	25.21
2010-11	5.48	9.71
2011-12	5.58	6.90
2012-13	5.72	7.83
2013-14	5.80	4.56
2014-15	6.02	9.33
2015-16	6.13	5.43
2016-17	6.08	6.66
2017-18	6.25	6.66
2018-19	6.38	5.43
2019-20	6.84	7.06
2020-21	6.61	5.15
2021-22	7.33	7.86
2022-23	7.38	4.58
Average Annual Growth Rate	8.69	8.55
CAGR	7.08	7.26

Source: Author's calculations.

Figure 2: Growth Rates of Total Industrial Units and Employment

Source: Author's calculations.

Table 5 confirms that units and employment are approximately normally distributed (Shapiro-Wilk $p > 0.05$; CV = 0.357 and 0.475), thereby validating the appropriateness of parametric inference. In contrast, capital investment deviates

significantly from normality ($W = 0.479$, $p < .001$; CV = 1.789; skewness = 2.975), primarily due to outlier surges in investment during 2018–19 and 2019–20, reflecting its incentive-responsive rather than trend-driven nature.

Table 5: Descriptive Statistics of Aggregate Industrial Development Indicators

<i>Descriptive statistics</i>			
variable	Total industrial units	Total employment	Total capital investment (₹ Cr)
Mean (arithmetic)	45299.261	274826.696	59499.463
Std. Error of A. Mean	3371.435	27214.990	22198.072
Std. Deviation	16168.835	130518.505	106458.215
Coefficient of variation	0.357	0.475	1.789
Variance	2.614e+8	1.704e+10	1.133e+10
Skewness	0.592	0.363	2.975
Std. Error of Skewness	0.481	0.481	0.481
Kurtosis	-0.319	-1.085	7.933
Std. Error of Kurtosis	0.935	0.935	0.935
Shapiro-Wilk	0.955	0.939	0.479
P-value of Shapiro-Wilk	3.627e-1	1.678e-1	5.488e-8
Minimum	17725.000	98452.000	2843.370
Maximum	79774.000	516479.000	393173.460

Note: N = 23 annual observations for the period 2000–01 to 2022–23.

Source: Author's calculations using JASP software.

4.3 Pearson Correlation and OLS Regression Analysis

Table 6: Pearson Correlation between Total Industrial Units and Total Employment

		n	Pearson's r	p	Lower 95% CI	Upper 95% CI	Effect size (Fisher's z)	SE Effect size	Covariance
total industrial units	total employment	23	0.977	1.335e-15	0.946	0.990	2.230	0.224	2.062e+9
* $p < .05$, ** $p < .01$, *** $p < .001$									

Source: Author's calculations using JASP software.

Table 7. Linear Regression of Total Employment on Total Industrial Units

Panel A. Model Summary												
										Durbin-Watson		
Model	R	R ²	Adjusted R ²	RMSE	R ² Change	F Change	df 1	df 2	p	Autocorrelation	Statistic	p

M ₀	0.000	0.000	0.000	130518.505	0.000		0	22		0.860	0.052	4.996e-18
M ₁	0.977	0.955	0.953	28407.028	0.955	443.425	1	21	1.335e-15	0.600	0.579	1.183e-5

Note. M₁ includes total industrial units.

Source: Author's calculations using JASP

Panel B. Regression Coefficients								
							95% CI	
Model		Unstandardized	Standard Error	Standardized	t	p	Lower	Upper
M ₀	(Intercept)	274826.696	27214.990		10.098	1.010e-9	218386.262	331267.130
M ₁	(Intercept)	-82476.392	17972.011		-4.589	1.589e-4	-119851.234	-45101.550
	total industrial units	7.888	0.375	0.977	21.058	1.335e-15	7.109	8.667

Source: Author's calculations using JASP

Table 6 confirms a near-perfect association between enterprise formation and employment ($r = 0.977$, $p < .001$), stable across all 23 observations. Table 7 quantifies this as a multiplier of approximately 8 jobs per unit ($\beta = 7.888$, $R^2 = 0.955$, $p < .001$). Enterprise count alone explains 95.5% of the variation in employment, far exceeding capital investment as an explanatory variable. These results formally establish MSME-led enterprise creation as the primary, statistically verified engine of industrial employment in Uttarakhand.

5. Conclusion

This study examined Uttarakhand's industrial development since 2000 and statistically established the relationship between enterprise formation and employment generation. The sectoral decomposition confirms a structural transformation within a compressed quarter-century: the secondary sector's share in GSDP rose from 18.55 per cent at

statehood to a peak of 52.12 per cent in 2011-12 before settling at 39.95 per cent in 2023-24, while the primary sector declined from 30.99 per cent to 9.59 per cent. This progression aligns with the classical sequence in which industrialisation bridges an agrarian and a modern diversified economy. The enterprise and employment record corroborates this at the micro level, with units growing at a CAGR of 7.08 per cent and employment at 7.26 per cent over twenty-three years, and with MSME employment growth of 9.10 per cent consistently outpacing the 3.64 per cent of large industry, confirming that policy-induced industrialisation produced durable structural change rather than a transient incentive-period spike. Capital investment, however, tells a different story, its extreme coefficient of variation and non-normal distribution reflecting the incentive-driven discontinuity of large-capital flows that policy design alone cannot replicate. The inferential findings are the study's principal contribution. The Pearson correlation of 0.977 establishes that enterprise formation

and employment have co-evolved as structurally inseparable dimensions of the state's industrial economy, and the OLS regression quantifies the relationship precisely, with each additional industrial unit generating about eight direct jobs and enterprise count accounting for 95.5 per cent of the variation in employment. These results carry three policy imperatives. First, MSME facilitation through access to credit, land availability, and registration support must remain the cornerstone of the state's employment strategy, as it is the variable that explains employment generation with near-perfect precision. Second, capital-investment policy must be redesigned for organic sustainability rather than dependence on incentives, given the structural fragility that the post-incentive deceleration has already exposed. Third, policy must address the spatial concentration of growth by extending the reliable MSME multiplier to the hill districts through targeted infrastructure and connectivity, so that the benefits of the state's industrial transformation reach its ecologically and geographically constrained majority. The Mega Industrial and Investment Policy of 2025 provides the institutional foundation for this next phase, and its success will depend on whether enterprise breadth, rather than capital volume, remains the organising principle of the state's industrial strategy in the decades ahead.

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