

EMPLOYMENT GENERATION AND REGIONAL ECONOMIC DEVELOPMENT THROUGH SPECIAL ECONOMIC ZONES IN MADHYA PRADESH

Priya Mishra¹, Dr. Sharda Gangwar²

Research Scholar, Department of Commerce, IEHE Barkatullah university Bhopal¹

Professor, Department of Commerce, IEHE Barkatullah university Bhopal²

ABSTRACT

Special Economic Zones (SEZs) were conceived as extra-territorial industrial enclaves intended to accelerate exports, attract investment and generate employment. Madhya Pradesh, a late industrialiser, hosts six operational SEZs clustered around the Indore–Pithampur belt. This paper evaluates those zones over 2016–17 to 2024–25 using secondary data from the Ministry of Commerce, the Development Commissioner of Indore SEZ and the Comptroller and Auditor General. The evidence reveals a dual structure. The multi-product Indore SEZ at Pithampur, India's first green-field SEZ, remains the merchandise-export engine, shipping ₹14,265 crore in 2023–24 before a 9.23 per cent contraction to ₹12,948 crore in 2024–25 driven by weaker pharmaceutical demand. Concurrently, five information-technology SEZs in Indore Crystal IT Park, Infosys, Tata Consultancy Services, Impetus Infotech and Yash Technologies raised software exports from ₹1,161 crore in 2020–21 to ₹4,038.6 crore in 2024–25. Tata Consultancy Services alone accounted for nearly forty-six per cent of IT-SEZ shipments. Despite these gains, the six operational zones constitute barely two per cent of India's operational SEZ stock. Conversion of approvals into working parks is incomplete; spatial concentration around Indore has left the rest of the state untouched; and employment and investment continue to lag developer projections. The paper concludes that SEZs in Madhya Pradesh have delivered measurable export growth but have not yet become a statewide instrument of industrial transformation. Policy must address land utilisation, diversification beyond pharmaceuticals and information technology, and operationalisation of pending notifications if the zones are to fulfil the SEZ Act, 2005.

Keywords: *Special Economic Zones¹; Madhya Pradesh²; Pithampur³; export performance⁴; IT/ITES⁵; employment generation⁶; industrial policy⁷*

1. INTRODUCTION

1.1 Policy Architecture of Special Economic Zones in India

India's SEZ policy, announced in April 2000 and given statutory force by the Special Economic Zones Act, 2005, sought to replicate the export-platform success of East Asian enclaves by offering duty-free import, single-window clearance and income-tax holidays inside a deemed foreign territory [1], [2]. Supplies from the domestic tariff area into an SEZ are treated as exports, and the zone is required to be a net foreign-exchange earner. By September 2023 the national scheme had attracted ₹6,69,980 crore of investment and employed 29.85 lakh persons, while SEZ exports reached ₹13,55,220 crore in 2023–24 and 163.69 billion dollars in the same year [8], [9]. Yet the geography of success has been highly uneven. Five southern and western states host more than two-thirds of operational parks, while large inland states remain peripheral to the map of working zones [6], [8].

1.2 Special Economic Zones in the Industrial Landscape of Madhya Pradesh

Madhya Pradesh notified the Indore SEZ at Pithampur, District Dhar, prior to the 2005 Act; the zone became operational on 15 August 2003 as India's first green-field multi-product SEZ and now spans more than 1,100 hectares under the Madhya Pradesh Industrial Development Corporation [27]. Subsequent notifications added Crystal IT Park and the private information-technology campuses of Infosys, Tata Consultancy Services, Impetus Infotech and Yash Technologies, all in Indore [28]. Of twelve formal approvals, eight parks have been notified and six are operational. The state's industrial promotion policy treats SEZs as complementary to the Pithampur automobile cluster, the pharmaceutical belt stretching across Dewas and Mandideep, and the Super Corridor information-technology strategy that allotted subsidised land against job mandates [26].

1.3 Research Problem, Objectives and Significance

The central problem is whether this small, geographically concentrated SEZ system has delivered the export, investment and employment outcomes promised at notification, and how Madhya Pradesh compares with leading SEZ states. The paper profiles the institutional status of the zones; measures merchandise and software export performance; examines employment and investment against Comptroller and Auditor General benchmarks and national comparators; and draws policy implications for land, diversification and spatial spread. The evaluation is significant because inland states now seek to replicate coastal SEZ success under a sunset of direct-tax concessions and a proposed shift toward a new development-hub architecture, and because no recent paper has assembled a consistent export–investment–employment account of Madhya Pradesh's six working zones [7], [23].

2. SURVEY OF LITERATURE

The international literature treats special economic zones as second-best institutional devices that compensate for a weak general investment climate. Farole, the FIAS synthesis and Zeng show that East Asian zones succeeded when they combined dedicated infrastructure, policy stability and dense linkages to the domestic economy, whereas many African and South Asian zones remained isolated enclaves [10], [11], [20], [30]. Wang identifies large municipal-level effects of Chinese SEZs on capital formation and wages [12]. UNCTAD's World Investment Report 2019 cautions that parks which fail to connect to the wider production system risk becoming platforms of tax arbitrage rather than of structural transformation [23]. Amirahmadi and Wu distinguished successful, linkage-rich Asian parks from duty-free islands with little technological spillover [22].

Aggarwal's programme of research is the principal Indian reference for this paper. She argues that Indian SEZs have generated exports and information-technology employment but have under-delivered on manufacturing deepening, backward linkages and regional balance [3]–[5]. Her 2023 quasi-experimental assessment concludes that South Asian zones could not be insulated from the wider institutional context [6]. The Comptroller and Auditor General's Performance Audit (Report No. 21 of 2014) remains the most authoritative official critique. Nationally, actual employment fell 92.73 per cent short of developer projections; Madhya Pradesh's own shortfall was 45.09 per cent on employment and 55.43 per cent on investment [7]. Palit and Bhattacharjee, Mukherjee and co-authors, and the PricewaterhouseCoopers–EPCES study similarly find that IT parks dominate approvals and that notified land remains under-utilised [13], [14], [16].

Hyun and Ravi show that districts receiving SEZs experienced formal-sector productivity gains accompanied by informal-sector contraction, a finding that matters for an inland state whose workforce is still largely informal [15]. Millath and Thowseaf and Garg note that minimum alternate tax, dividend distribution tax and the sunset of tax holidays dampened developer interest after 2012 [24], [25]. Kundra and Jenkins, Kennedy and Mukhopadhyay underline land, state capacity and protest as binding constraints [19], [29]. For Madhya Pradesh, published academic evaluation is sparse; official series from the Development Commissioner document Pithampur's pharmaceutical–engineering rise and Indore's emergence as a tier-two information-technology centre [27]. This paper fills that gap by assembling a consistent empirical account of the six operational zones and by locating Madhya Pradesh against the national literature on enclave under-performance.

3. METHODOLOGY

The study adopts a descriptive–analytical empirical design covering the six operational SEZs of Madhya Pradesh over 2016–17 to 2024–25, with a longer window for information-technology software exports from 2020–21. The objectives are to establish the approval–notification–operational conversion ratio; to quantify merchandise and IT/ITES export performance and its sectoral composition; to assess employment and investment outcomes relative

to projections and peer states; and to interpret the findings against prior national evaluations of the scheme, especially Aggarwal, the 2014 audit and the PricewaterhouseCoopers–EPCES impact study [4], [7], [16].

Data are entirely secondary. Principal sources are the Ministry of Commerce lists of notified and operational SEZs; export statements of the Development Commissioner, Indore SEZ; Comptroller and Auditor General Report No. 21 of 2014; Press Information Bureau releases; the Madhya Pradesh Industrial Promotion Policy; and corroborated reports that reproduce Commissioner statistics [8], [9], [26]–[28]. National comparators for operational parks, investment of ₹6.70 lakh crore as of September 2023, and employment of 29.85 lakh persons are taken from the Ministry’s compiled statements [8]. Firm-level IT figures for 2023–24 not separately tabulated are recovered from 2024–25 levels and officially reported growth rates and reconcile with the published aggregate.

Analytical techniques comprise descriptive tabulation of status, exports, employment and investment; year-on-year and compound growth of export series; share analysis of merchandise versus services and of individual developers; inter-state comparison of operational parks; and gap analysis against Comptroller and Auditor General projections. No primary census of units was undertaken; results are therefore interpreted as an evaluation of published performance rather than of firm-level productivity. The design is adequate to determine whether Madhya Pradesh’s SEZs have met the export, investment and employment tests that define the scheme [1], [7].

4. DATA COLLECTION AND ANALYSIS

The empirical core of the paper is organised around five tables and five figures. Together they reconstruct the institutional profile of SEZs in Madhya Pradesh, the merchandise-export record of Pithampur, the software-export record of the Indore information-technology parks, the composition of the state’s combined SEZ shipments, and the employment–investment balance sheet relative to national comparators and earlier audit projections. All rupee figures are in crore unless stated otherwise.

4.1 Institutional Profile of SEZs in Madhya Pradesh

Table 1: Operational Special Economic Zones in Madhya Pradesh (as on 2024–25)

No.	SEZ / Developer	Location	Sector	Status	Scale / remarks
1	Indore SEZ (MPIDC)	Sector-III, Pithampur, Dist. Dhar	Multi-product	Operational since 15 Aug 2003	~1,114 ha; first green-field SEZ in India
2	Crystal IT Park SEZ (MPIDC)	Bhawarkua / Khandwa Road, Indore	IT / ITES	Operational (notified 2006)	6.13 ha after partial de-notification
3	Impetus Infotech (India) Pvt. Ltd.	Village Badiyakima, Indore	IT / ITES	Operational	Private developer SEZ
4	Infosys Ltd.	Tigariya Badshah, Super Corridor, Indore	IT	Operational	~130 acres; planned outlay ₹600 crore

5	Tata Consultancy Services Ltd.	Bada Bangarda / Tigariya Badshah, Indore	IT / ITES / BPO / KPO	Operational	~100 acres; planned outlay ₹600 crore
6	Yash Technologies Pvt. Ltd.	Scheme No. 166, Indore	IT / ITES	Operational	Private IT SEZ

Source: Compiled from Ministry of Commerce lists of notified and operational SEZs and the Development Commissioner, Indore SEZ [27], [28]. Formal approvals in the state: 12; notified: 8; operational: 6.

Table 1 establishes the unit of analysis. Six SEZs are operational, five of them in the information-technology and IT-enabled-services category and only one Indore SEZ, Pithampur in the multi-product manufacturing category. The Pithampur zone is distinctive on three counts: it was notified before the SEZ Act, 2005; it is India's first green-field multi-product SEZ; and at more than 1,100 hectares it is larger than the five Indore information-technology parks combined [27], [28]. Crystal IT Park, developed by the Madhya Pradesh Industrial Development Corporation, is the public IT SEZ; Infosys, Tata Consultancy Services, Impetus and Yash Technologies are private developer parks on the Super Corridor and adjoining schemes. The conversion arithmetic is sobering. Twelve formal approvals have yielded eight notifications and six operational parks, a conversion rate of 50 per cent, which is below the all-India ratio reported in Table IV. Aluminium (Hindalco, Singrauli) and at least one earlier private information-technology proposal were subsequently de-notified, confirming that approval is not destiny. The table therefore supports the abstract's claim of a small, Indore-centric system rather than a statewide grid of zones.

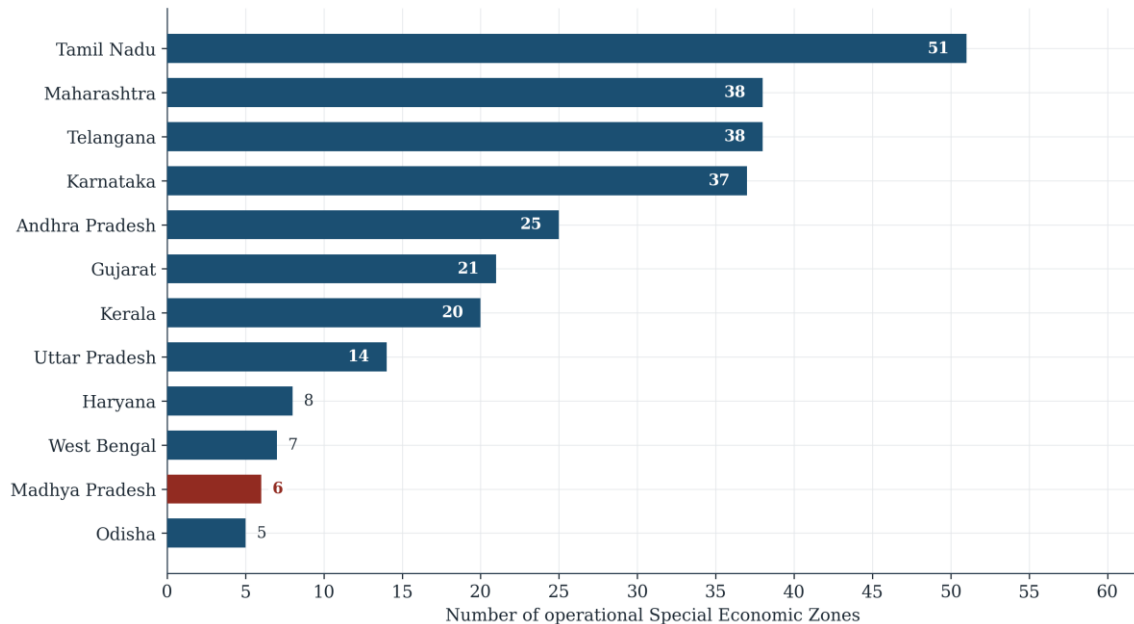


Figure 1: Operational Special Economic Zones in selected Indian states, 2024–25. Madhya Pradesh is highlighted.

Source: Author's construction from Ministry of Commerce and Industry compiled statements [8], [28].

Figure 1 places Madhya Pradesh in the national distribution of operational SEZs. Tamil Nadu (51), Maharashtra (38), Telangana (38) and Karnataka (37) host the bulk of working parks, confirming the southern and western concentration documented by the Ministry of Commerce and by Aggarwal [6], [8]. Madhya Pradesh, highlighted, has only six operational zones about one-eighth of Tamil Nadu's stock and roughly two per cent of the all-India total of around 280 parks. The gap is not merely numerical; it signals weaker conversion of approvals, a thinner private-developer pipeline, and the absence of multiple urban nodes of the kind that sustain parks in Bengaluru, Hyderabad, Chennai and Pune.

4.2 Merchandise Export Performance of the Pithampur Multi-Product SEZ

Table 2: Merchandise exports from Indore SEZ, Pithampur (₹ crore)

Financial year	Exports (₹ crore)	Year-on-year growth (%)	Principal drivers
2015–16	5,800		Pharmaceuticals and engineering
2016–17	8,428	45.3	Pharma surge; 42 of 49 units operational
2022–23	12,795		Engineering, pharmaceuticals, packaging
2023–24	14,265	11.5	Engineering, pharmaceuticals, technical textiles
2024–25	12,948	–9.23	Decline in pharmaceutical exports (>65% of basket)

Source: Office of the Development Commissioner, Indore SEZ, as reported in official statistics [27]. Intermediate years are omitted where a complete official annual series was not published.

Table 2 and the associated time plot document the merchandise-export engine of the state. Pithampur shipments rose from ₹5,800 crore in 2015–16 to ₹8,428 crore in 2016–17, a 45 per cent increase attributed by the Development Commissioner to pharmaceutical units reaching full operation; 42 of 49 registered companies were then working, and the zone employed 19,209 persons [27]. After a data gap in published annual series, exports stood at ₹12,795 crore in 2022–23 and peaked at ₹14,265 crore in 2023–24, an 11.5 per cent rise led by engineering goods, pharmaceuticals and technical textiles. Approximately 58 units in packaging, jumbo bags, agricultural products and pharmaceuticals were operating. In 2024–25 exports fell to ₹12,948 crore, a 9.23 per cent contraction caused by a drop in pharmaceutical shipments that constitute more than 65 per cent of the basket. The series validates two propositions simultaneously: Pithampur has delivered large and rising merchandise exports over a decade, and that delivery is cyclically fragile because it is concentrated in a single therapeutic-industrial cluster. Evaluation of the SEZ cannot, therefore, rest on the peak year alone.

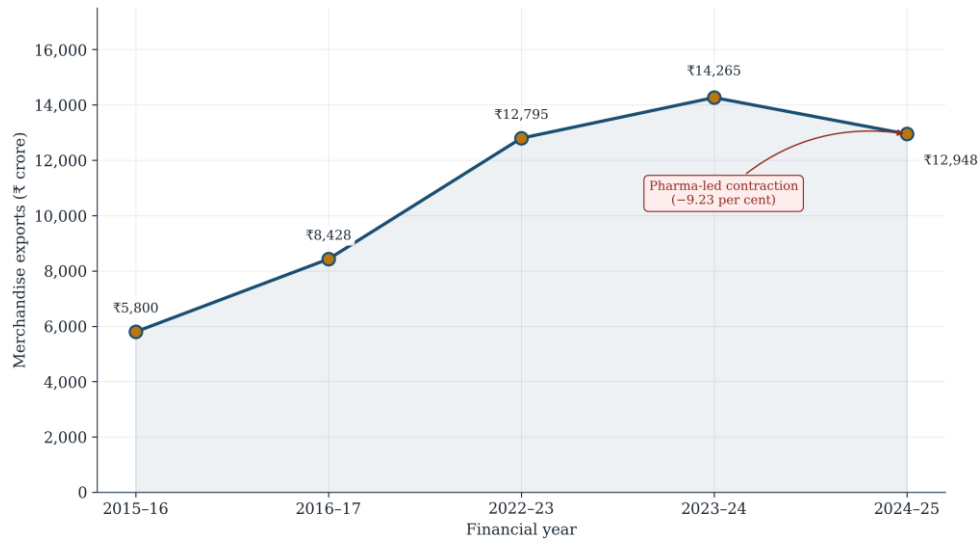


Figure 2: Trajectory of merchandise exports from the Pithampur multi-product SEZ, 2015–16 to 2024–25.

Source: Author's construction from Development Commissioner export statistics [27].

Figure 2 traces merchandise exports from the Pithampur multi-product SEZ. Shipments rose from ₹5,800 crore in 2015–16 to ₹8,428 crore in 2016–17, a 45 per cent jump led by pharmaceuticals, and further to a peak of ₹14,265 crore in 2023–24, when engineering, pharmaceuticals and technical textiles lifted growth by 11.5 per cent. The decline to ₹12,948 crore in 2024–25 is attributed to weaker pharmaceutical demand, which accounts for more than 65 per cent of the basket [27]. Pithampur is therefore the state's export engine, but a concentrated and cyclically vulnerable one. Evaluation must register both the decade-long rise and the reversal.

4.3 Software and ITES Export Performance of Indore SEZs

Table 3: Software and ITES exports from Indore IT/ITES SEZs (₹ crore)

Developer SEZ	2022–23	2023–24	2024–25	Share 2024–25 (%)	YoY 2024–25 (%)
Tata Consultancy Services	1,509.80	1,725.4	1,847.9	45.8	7.10
Infosys Ltd.	444.80	682.6	817.10	20.2	19.7
Crystal IT Park (MPIDC)	640.23	591.2	703.58	17.4	19.0
Impetus Infotech	330.77	681.9	573.6	14.2	–15.9
Yash Technologies		100.3	96.46	2.4	–3.82
Total	2,925.60	3,781.6	4,038.6	100.0	6.8

Source: Development Commissioner, Indore SEZ [27]. Figures for 2023–24 at firm level are recovered from 2024–25 levels and officially reported growth rates and reconcile with the published aggregate of ₹3,781.6 crore. Yash Technologies is identified as a separate operational SEZ in the Ministry list [28].

Table 3 turns to the second pillar. Software and IT-enabled-services exports from the Indore SEZs rose from ₹2,925.60 crore in 2022–23 to ₹3,781.6 crore in 2023–24 and ₹4,038.6 crore in 2024–25. Tata Consultancy Services is the dominant shipper, with ₹1,847.9 crore and a 45.8 per cent share in 2024–25. Infosys and Crystal IT Park each grew by about 19 per cent that year, while Impetus contracted by 15.9 per cent and Yash Technologies by 3.8 per cent. The intra-sector divergence is important. Aggregate growth of 6.8 per cent in 2024–25 conceals a maturing leader (Tata Consultancy Services), two expanding followers (Infosys, Crystal IT Park) and two shrinking private parks. The table thereby substantiates the abstract’s dual-structure finding and qualifies it: the services pillar is real, rapidly accumulated, and itself concentrated in a single global firm whose campus was allotted land on the condition of generating 10,000 jobs [26], [27].

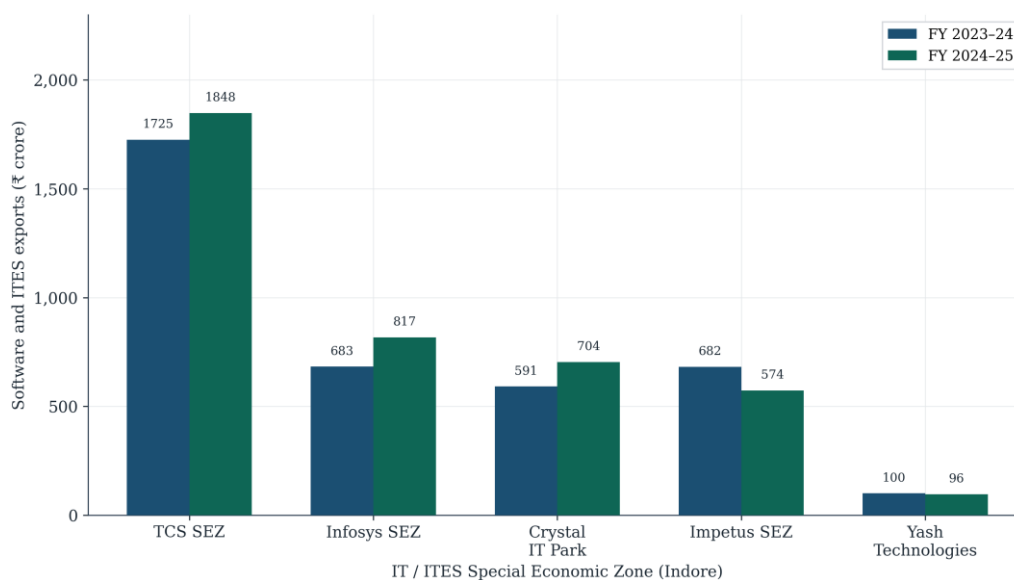


Figure 3: Company-wise software and ITES exports of Indore SEZs, 2023–24 and 2024–25.

Source: Author’s construction from Development Commissioner statistics [27].

Figure 3 disaggregates software and ITES exports of the five Indore information-technology SEZs for 2023–24 and 2024–25. Tata Consultancy Services dominates, with ₹1,848 crore in 2024–25 and 7.1 per cent growth. Infosys and Crystal IT Park each expanded by about 19 per cent. Impetus contracted by 15.9 per cent and Yash Technologies by 3.8 per cent, so aggregate growth of 6.8 per cent conceals intra-zone divergence. The figure

supports the dual-structure thesis: information-technology SEZs now constitute a second export pillar, yet that pillar is itself concentrated in a single global firm whose risk should not be read as sectoral strength.



Figure 5: Level and year-on-year growth of software and ITES exports from Indore IT SEZs, 2020–21 to 2024–25.

Source: Author's construction from Development Commissioner and Ministry-reported software-export series [27]. Compound annual growth, 2020–21 to 2024–25, is approximately 37 per cent.

Figure 5 plots the level and year-on-year growth of software and ITES exports from Indore's information-technology SEZs. Exports rose from ₹1,161 crore in 2020–21 to ₹4,039 crore in 2024–25, a compound annual growth rate of approximately 37 per cent. Growth peaked at 66.1 per cent in 2022–23 as Tata Consultancy Services, Infosys and Impetus scaled post-pandemic digital demand, then decelerated to 29.3 per cent and 6.8 per cent. The slowdown does not reverse the level gains, but it cautions against extrapolating the boom and shows that the services take-off identified in the abstract is now maturing.

4.4 Composition of Combined SEZ Exports

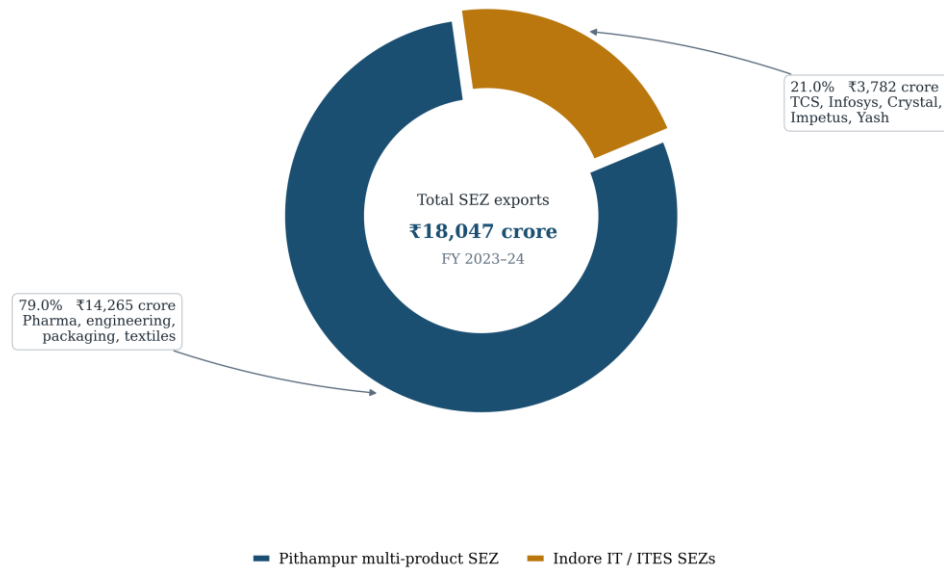


Figure 4: Composition of Madhya Pradesh SEZ exports, 2023–24 (merchandise versus IT/ITES).

Source: Author's construction. Pithampur ₹14,265 crore; Indore IT/ITES SEZs ₹3,782 crore; combined ₹18,047 crore [27].

Figure 4 decomposes Madhya Pradesh's combined SEZ exports in 2023–24. Of ₹18,047 crore, 79.0 per cent originated in Pithampur and 21.0 per cent in the Indore information-technology parks. Merchandise therefore still dwarfs services in value, contrary to the national pattern in which information-technology parks numerically dominate the SEZ universe [8], [16]. Evaluation cannot rest on software campuses alone; Pithampur's pharmaceutical–engineering complex remains decisive. The 2024–25 merchandise contraction, set against continued software growth, is already shifting the mix and argues for diversification within manufacturing if the state's SEZ export base is to be stabilised.

4.5 Inter-State Comparison and the Employment–Investment Balance Sheet

Table 4: State-wise status of Special Economic Zones (compiled, 2024)

State / total	Formal approvals	Notified	Operational	Operational / formal (%)
Tamil Nadu	57	59	51	89.5
Maharashtra	50	45	38	76.0
Telangana	63	57	38	60.3

Karnataka	61	50	37	60.7
Andhra Pradesh	34	30	25	73.5
Gujarat	25	24	21	84.0
Kerala	26	23	20	76.9
Uttar Pradesh	24	23	14	58.3
Madhya Pradesh	12	8	6	50.0
Odisha	7	5	5	71.4
All India	423	357	280	66.2

Source: Ministry of Commerce and Industry compiled statements as reported in 2024–25 fact sheets [8], [28]. All-India operational counts vary slightly across releases (approximately 280–295); the table uses the internally consistent 2024 compilation.

Table 4 locates Madhya Pradesh in the national league table. With twelve formal approvals, eight notifications and six operational parks, the state converts only half of its approvals into working zones, compared with 89.5 per cent in Tamil Nadu, 84.0 per cent in Gujarat and 66.2 per cent nationally [8], [28]. Absolute scale is more unfavourable still. Tamil Nadu's 51 operational SEZs, and the 38 each of Maharashtra and Telangana, dwarf Madhya Pradesh's six. Five states generate 78 per cent of SEZ employment nationally; Madhya Pradesh does not appear among them [8]. The comparison is the empirical foundation of the paper's title. An evaluation of SEZs in Madhya Pradesh is necessarily an evaluation of a thin, incompletely converted and geographically lopsided subsystem of the Indian scheme, not of a mature export-processing complex of the Tamil Nadu or Gujarat type. Any claim that the state has “caught up” would be inconsistent with Table IV.

Table 5: Employment, investment and export outcomes – national, Madhya Pradesh and CAG (2014) sample

Indicator	All India (Sept. 2023 / 2023–24)	Madhya Pradesh (compiled)	CAG 2014 sample for Madhya Pradesh
Operational SEZs	280–295	6	6 SEZs in employment sample
Investment	₹6,69,980 crore	Pithampur ~₹4,190 crore; Crystal IT Park ₹198 crore (2017); TCS and Infosys planned ₹600 crore each	Projected ₹1,784.05 crore; actual ₹795.18 crore; shortfall 55.43%
Employment	29,84,677 persons	Pithampur 19,209 (2016–17); Crystal IT Park 1,565 (2016–17); TCS/Infosys campuses mandated 10,000 jobs each	Projected 1,395 persons; actual 766; shortfall 45.09%
SEZ exports	US\$ 163.69 billion (2023–24); ₹13,55,220 crore	₹18,047 crore in 2023–24 (Pithampur ₹14,265 crore + IT/ITES ₹3,782 crore)	Not separately published in the 2014 sample at current prices

Source: Ministry of Commerce [8]; Press Information Bureau [9]; Development Commissioner, Indore SEZ [27]; CAG Report No. 21 of 2014 [7]. CAG figures refer to the audited sample, not to the universe of subsequent campus hiring.

Table 5 assembles the employment and investment balance sheet that links the abstract to the conclusion. Nationally, SEZs had absorbed ₹6,69,980 crore of investment and 29.85 lakh workers by September 2023, and

they exported 163.69 billion dollars in 2023–24 [8], [9]. Madhya Pradesh's documented stocks are an order of magnitude smaller: about ₹4,190 crore of investment at Pithampur, ₹198 crore at Crystal IT Park by 2017, and planned outlays of ₹600 crore each at the Tata Consultancy Services and Infosys campuses [27]. Employment of 19,209 at Pithampur and 1,565 at Crystal IT Park in 2016–17 is the last fully published census; subsequent campus hiring has raised the IT count but not to the 10,000-per-campus mandate. The Comptroller and Auditor General's 2014 sample for the state found actual employment of 766 against a projection of 1,395 (shortfall 45.09 per cent) and actual investment of ₹795.18 crore against ₹1,784.05 crore (shortfall 55.43 per cent) [7]. Combined SEZ exports of ₹18,047 crore in 2023–24 are material for the state yet modest beside the national total. Table V therefore confirms the abstract's verdict: export growth is real; transformation, measured by investment absorption, job creation and statewide spread, is not.

5. DISCUSSION

The empirical record supports a qualified, two-handed verdict. On one hand, special economic zones in Madhya Pradesh have unambiguously raised exports. Pithampur's merchandise shipments more than doubled between 2015–16 and 2023–24, and Indore's information-technology parks nearly quadrupled software exports in four years. These are not trivial outcomes for a land-locked state without a seaport. They confirm, in a sub-national setting, Aggarwal's proposition that Indian SEZs can be effective export platforms in pharmaceuticals, engineering and information technology [3], [5], [6], and they are consistent with the PricewaterhouseCoopers–EPCES finding that manufacturing zones matter for active pharmaceutical ingredients and engineering when scale is present [16]. Pithampur has some of that character.

On the other hand, the same record reproduces the pathologies identified in earlier national work, and this critical comparison occupies the centre of the evaluation. First, conversion failure: only half of Madhya Pradesh's formal approvals are operational, below the all-India ratio of about two-thirds and far below Tamil Nadu. The pattern echoes the Comptroller and Auditor General's finding that notified land often never became working zones, and Palit and Bhattacharjee's warning that approvals ran ahead of implementation [7], [13]. Second, spatial concentration: all six parks sit in Indore or adjacent Dhar. Hyun and Ravi show that SEZ effects are place-based; an Indore-only geography therefore implies that Jabalpur, Gwalior, Rewa and Bundelkhand receive no direct enclave treatment [15]. Third, sectoral thinness: pharmaceuticals account for more than 65 per cent of Pithampur's basket, and Tata Consultancy Services for 46 per cent of information-technology SEZ exports. The 2024–25 merchandise contraction is the empirical counterpart of that thinness. Fourth, employment and investment remain the weakest link. The 2014 audit recorded a 45 per cent employment shortfall and a 55 per cent investment shortfall in the Madhya Pradesh sample milder than Gujarat's 96 per cent employment gap, yet still a failure against the projections that justified land allotment [7]. Published counts for Pithampur and Crystal IT Park remain modest beside the Super Corridor job mandates.

Comparison with China, as synthesised by Zeng and Wang, is instructive. Chinese zones succeeded because they were large, coastal, sequentially reformed, and tightly linked to domestic supply chains [11], [12], [30]. Madhya Pradesh's parks are small, inland, and, in the information-technology case, campus-enclaves whose backward linkages run mainly through wages and real estate rather than supplier development. UNCTAD cautioned that zones failing to connect to the wider economy risk becoming tax-arbitrage platforms [23]. The sunset of income-tax holidays makes that caution immediate [24], [25]. Completing conversion of remaining notified parks, spreading new zones beyond Indore, and reducing pharmaceutical and single-firm concentration would address the structural weaknesses the data reveal. Skill pipelines already feed the information-technology campuses; analogous supplier-development programmes around Pithampur would thicken manufacturing linkages. These steps would not make Madhya Pradesh a Tamil Nadu, but they would make its SEZs more than an Indore story.

6. CONCLUSION

This empirical evaluation finds that special economic zones in Madhya Pradesh have delivered measurable export growth without becoming a statewide instrument of industrial transformation. Six operational parks, five of them information-technology campuses in Indore and one multi-product green-field zone at Pithampur, constitute barely two per cent of India's operational SEZ stock and convert only half of the state's formal approvals into working enclaves. Pithampur remains the merchandise-export engine, shipping ₹14,265 crore in 2023–24 before a 9.23 per cent, pharmaceutical-led contraction to ₹12,948 crore in 2024–25. The five Indore information-technology SEZs raised software and services exports from ₹1,161 crore in 2020–21 to ₹4,038.6 crore in 2024–25, with Tata Consultancy Services accounting for nearly forty-six per cent of that total. Combined shipments of ₹18,047 crore in 2023–24 confirm that the dual structure identified in the abstract is not a rhetorical device but a fact of the data. Employment and investment, however, continue to lag the projections that justified notification, as the 2014 audit first showed and as subsequent campus mandates have only partly closed. Spatial concentration around Indore has left the rest of Madhya Pradesh outside the enclave map. If the zones are to fulfil the objectives of the SEZ Act, 2005, policy must operationalise pending notifications, diversify beyond pharmaceuticals and a single software firm, utilise allotted land more fully, and carry the instrument beyond the Indore–Pithampur belt. Export success has been demonstrated; transformation has not.

7. REFERENCES

- [1] Government of India, The Special Economic Zones Act, 2005, No. 28 of 2005. New Delhi, India: Ministry of Law and Justice, 2005.
- [2] Government of India, Special Economic Zones Rules, 2006. New Delhi, India: Ministry of Commerce and Industry, 2006.

- [3] A. Aggarwal, "Special economic zones: Revisiting the policy debate," *Econ. Polit. Weekly*, vol. 41, no. 43/44, pp. 4533–4536, Oct. 2006.
- [4] A. Aggarwal, "Economic impacts of SEZs: Theoretical approaches and analysis of newly notified SEZs in India," MPRA Paper No. 20902, Univ. of Delhi, Delhi, India, 2010.
- [5] A. Aggarwal, *Social and Economic Impact of SEZs in India*. New Delhi, India: Oxford Univ. Press, 2012.
- [6] A. Aggarwal, "How special are special economic zones: Evidence from South Asia," *World Economy*, vol. 46, no. 8, pp. 2361–2382, 2023.
- [7] Comptroller and Auditor General of India, *Performance Audit of Special Economic Zones (SEZs)*, Report No. 21 of 2014. New Delhi, India: CAG, 2014.
- [8] Ministry of Commerce and Industry, *Fact Sheet and State-wise Status of Special Economic Zones*. New Delhi, India: Government of India, 2023–2025.
- [9] Press Information Bureau, "Special Economic Zones touch new heights in terms of performance in exports, investment and employment," Government of India, New Delhi, Jul. 2021.
- [10] T. Farole, *Special Economic Zones in Africa: Comparing Performance and Learning from Global Experience*. Washington, DC, USA: World Bank, 2011.
- [11] D. Z. Zeng, Ed., *Building Engines for Growth and Competitiveness in China: Experience with Special Economic Zones and Industrial Clusters*. Washington, DC, USA: World Bank, 2010.
- [12] J. Wang, "The economic impact of Special Economic Zones: Evidence from Chinese municipalities," *J. Develop. Econ.*, vol. 101, pp. 133–147, Mar. 2013.
- [13] A. Palit and S. Bhattacharjee, *Special Economic Zones in India: Myths and Realities*. London, U.K.: Anthem Press, 2008.
- [14] A. Mukherjee, P. Pal, S. Deb, S. Ray, and T. M. Goyal, *Special Economic Zones in India: Status, Issues and Potential*. New Delhi, India: Springer / ICRIER, 2016.
- [15] Y. Hyun and S. Ravi, "Place-based development: Evidence from special economic zones in India," Boston Univ. Dept. of Economics Working Paper, Boston, MA, USA, 2018.
- [16] PricewaterhouseCoopers and Export Promotion Council for EOUs and SEZs, *Evaluating Impact of SEZs in India through Sectoral Analysis and Case Studies*. New Delhi, India: EPCES, 2021.

- [17] L. Moberg, "The political economy of special economic zones," *J. Institutional Theor. Econ.*, vol. 171, no. 1, pp. 1–23, 2015.
- [18] M. L. Tantri, "Effectiveness of the Special Economic Zone policy over the Export Processing Zone structure in India: Trade performance at the aggregate level," *J. Asian Public Policy*, vol. 5, no. 1, pp. 23–40, 2012.
- [19] A. Kundra, *The Performance of India's Export Zones: A Comparison with the Chinese Approach*. New Delhi, India: Sage, 2000.
- [20] FIAS, *Special Economic Zones: Performance, Lessons Learned, and Implications for Zone Development*. Washington, DC, USA: World Bank, 2008.
- [21] P. Sahoo, "Special economic zones in India: Revisiting the debate," *Institute of Economic Growth Working Paper*, Delhi, India, 2015.
- [22] H. Amirahmadi and W. Wu, "Export processing zones in Asia," *Asian Survey*, vol. 35, no. 9, pp. 828–849, Sep. 1995.
- [23] UNCTAD, *World Investment Report 2019: Special Economic Zones*. Geneva, Switzerland: United Nations, 2019.
- [24] A. Garg, "Performance appraisal of SEZ in India," *J. Commerce Trade*, vol. 12, no. 1, pp. 19–26, 2017.
- [25] M. A. Millath and S. Thowseaf, "Export performance of special economic zones in India and its economic impact," *Int. J. Innovative Res. Manage. Studies*, vol. 1, no. 12, 2016.
- [26] Government of Madhya Pradesh, *Industrial Promotion Policy*. Bhopal, India: Dept. of Industrial Policy and Investment Promotion, 2014 (as amended).
- [27] Office of the Development Commissioner, *Indore Special Economic Zone, SEZ directory and export statistics (Pithampur multi-product SEZ and Indore IT/ITES SEZs)*. Pithampur/Indore, India, 2016–2025.
- [28] Ministry of Commerce and Industry, *List of Notified SEZs and List of Operational SEZs*. New Delhi, India: sezindia.gov.in, 2024–2025.
- [29] R. Jenkins, L. Kennedy, and P. Mukhopadhyay, Eds., *Power, Policy and Protest: The Politics of India's Special Economic Zones*. New Delhi, India: Oxford Univ. Press, 2014.
- [30] D. Z. Zeng, "Global experiences with special economic zones: Focus on China and Africa," *World Bank Policy Research Working Paper 7240*, Washington, DC, USA, Apr. 2015.