India and China: Manufacturing Systems, Scale and the Productivity Gap

Why supplier depth, infrastructure, technology and firm capability matter more than wages alone

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Direct answer. China's manufacturing advantage over India cannot be explained by wages alone. It combines a much larger accumulated production base, dense supplier networks, deeper machinery and intermediate-goods capability, high investment, reliable infrastructure, export logistics, technical learning and rapid coordination. India has scale, engineering talent, a large market and improving infrastructure, but its progress will depend on firm productivity, small-supplier upgrading, workforce participation and skills, dependable power and logistics, competitive inputs and sustained integration into global and domestic value chains. Factory announcements are inputs; value added, productivity, exports, jobs and local supplier capability are outcomes.

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1 Comparative framework and metrics

The analysis separates manufacturing scale, structural composition, productivity, employment, trade and domestic value added. Current-dollar output, gross exports and announced investment are insufficient measures of capability.

2 Agglomeration and supplier ecosystems

Clusters lower search, transport and coordination costs and support specialised labour and services. China's dense networks are accumulated assets; India's sectoral clusters show that depth can emerge, though it remains geographically uneven.

3 Infrastructure, logistics and reliability

Ports, roads, rail, power, customs and digital systems operate as complements. Variability in delivery is itself a cost through inventory and missed schedules, so corridor-level reliability matters alongside national indices.

4 Productivity, technology and inputs

Competitiveness depends on unit costs, process capability, capital goods and intermediate-input quality. Access to imported technology and inputs can enable domestic value creation; productivity growth ultimately determines whether wage gains are sustainable.

5 Trade and value-chain integration

Gross trade statistics obscure foreign inputs and domestic services embodied in goods. Value-added measures reveal interdependence and caution against equating import reduction with industrial deepening.

6 Firms, labour and spatial variation

Aggregate comparisons conceal dispersion by firm size, state, ownership and sector. Employment outcomes depend on labour intensity, participation, skills, safety, housing and transport as well as output growth.

7 Industrial policy evaluation

Support should be judged against credible counterfactuals, domestic capability, productivity, employment, spillovers and fiscal cost. Competition, transparency, review and time limits help distinguish learning support from permanent rent transfer.

8 Strategic implications

India need not reproduce China's path exactly. It can combine manufacturing clusters, service strengths, domestic demand and export integration, but system reliability and continuous supplier upgrading require stable policy over many years.

9 Evidence assessment

Strong	China's manufacturing scale and export breadth substantially exceed India's, and the difference extends beyond nominal wages.
Strong	Infrastructure, supplier networks, productivity, inputs, finance, standards and skills interact as complements in manufacturing competitiveness.
Probable	Supply-chain diversification offers India significant opportunities, but gains will be selective and conditional on execution.
Contested	The net additional value, employment and spillovers created by particular subsidy and protection programmes.
Unsupported	The claim that low wages or one incentive scheme alone can recreate a mature manufacturing ecosystem.

10 Conclusion

The India-China manufacturing comparison is a comparison of accumulated systems. China's lead rests on scale, networks and repeated production learning; India's opportunity rests on improving the reliability and depth that allow its firms and workers to convert market size into productive capability. Success should be measured through value added, productivity, resilient jobs, domestic supplier upgrading and competitive exports after public support is counted.

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This paper is an evidence review for public scholarship.

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