

Impact Of International Trade On Economic Growth And Development In India

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Abstract

This paper reviews the impact of international trade on economic growth and development in India. It synthesizes macroeconomic, firm-level, regional, and policy evidence. Trade is treated as a bundle of channels: export demand and scale, productive imports, competition, technology diffusion, employment reallocation, and external shocks. A structured search yielded 30 references, including 20 India-focused empirical studies and 10 theoretical, policy, or data sources. Because studies estimate unlike quantities over different periods openness, exports, tariff shocks, productivity, poverty, schooling, and labor outcomes standardized effect sizes cannot be defensibly pooled. The paper therefore conducts a qualitative meta-analytic synthesis of findings, mechanisms, designs, and heterogeneity rather than reporting an average causal coefficient. Evidence is most consistent for specific manufacturing mechanisms: lower input barriers expanded access to varieties and were associated with higher productivity and broader product scope. Aggregate openness-growth estimates remain mixed in India, varying with proxies, sample windows, capital formation, and structural breaks. Development outcomes are distributional: exposed rural districts experienced slower poverty reduction and weaker schooling gains, while employment and labor-share effects differed by sector, firm size, and labor-market flexibility. World Bank data show India's trade in goods and services rose from 15.5% of GDP in 1990 to 46.3% in 2025; this is descriptive, not causal. The review concludes that trade contributes most reliably when paired with productive imports, diversified exports, predictable policy, logistics, skills, competitive markets, and adjustment support. It identifies post-2010 research priorities on services, informal firms, women's work, global value chains, environmental effects, and state-level distribution.

Keywords: International trade¹; Economic growth²; India³; Trade liberalization⁴; Productivity⁵; Poverty and distribution⁶; Meta-analysis⁷

1. Introduction

1.1 Trade, Growth, and Development: The Analytical Problem

International trade can support economic expansion by enabling specialization, enlarging markets, raising utilization of fixed costs, intensifying competition, widening the varieties of intermediate inputs, and transmitting knowledge. Endogenous-growth theory links international exposure to technology diffusion, innovation, and accumulation, while gravity-based evidence associates geographical access to trade with income differences [1], [2]. Yet an empirical association is not itself a causal estimate. Income growth raises import demand; exchange-rate and commodity-price shifts alter measured trade values; and institutional capacity, geography, and infrastructure influence both integration and productivity. Cross-country scholarship consequently disagrees about whether openness, trade-policy liberalization, or complementary reforms explain growth [3]–[5]. This distinction matters for India because the conventional openness ratio, $(\text{exports} + \text{imports})/\text{GDP}$, combines transactions with different economic functions. An imported machine or

component may lower production costs and enable exports; an imported final good may intensify competition; a commodity import can expose producers and consumers to world-price volatility. Exports may create scale, learning, and foreign exchange, but gains can be limited when domestic value added is low or market access is unstable. GDP growth, moreover, does not measure poverty, employment quality, wages, regional convergence, or environmental costs. A review of trade and development must therefore trace mechanisms and distribution, rather than infer welfare from rising trade shares alone.

1.2 India's Trade Transition and Development Setting

India provides a useful case because its post-independence development strategy relied for decades on import substitution, industrial licensing, and extensive controls, followed by gradual changes in the 1980s and a sharper stabilization and reform programme after the 1991 balance-of-payments crisis. Trade-policy changes occurred alongside exchange-rate adjustment, industrial delicensing, financial reform, and shifts in public investment; the growth acceleration cannot therefore be attributed to

trade policy in isolation [6]. The later reform period widened integration but retained a substantial role for tariffs, licensing, trade remedies, and sector-specific policy. The WTO's 2021 review recognized India's reforms and services dynamism while noting continuing complexity and reliance on border and regulatory instruments [7].

National accounts illustrate the scale of the transition. The World Bank's trade-in-goods-and-services ratio rose from 15.5% of GDP in 1990, fell to 37.8% in the pandemic year 2020, reached 46.3% in 2023, and stood at 46.3% in 2025 [8]. Such movements document exposure, not a causal growth effect. India's external profile is also dual: merchandise imports include energy and productive inputs, while services exports generate substantial foreign-exchange receipts. The Economic Survey 2024–25 reported that total exports of goods and services grew 6% year over year in April–December 2024 and that services exports were a key source of resilience [9]. These structural differences make India a setting in which the composition, sequencing, and distribution of trade matter as much as aggregate openness.

1.3 Review Questions and Contribution

This review asks four connected questions. First, what do past Indian studies establish about the relationship between trade and aggregate output growth, and why do their estimates differ? Second, through which firm-level channels input access, competition, scale, product variety, and learning has trade affected productivity and diversification? Third, how have trade reforms influenced poverty, schooling, employment, wages, and labor's share, and which groups or places bear adjustment costs? Fourth, what can the methods used in this literature support as causal inference, and where does evidence remain too heterogeneous for a common effect estimate?

The paper contributes a structured synthesis that connects macro time-series work with tariff-based firm and district studies, rather than treating them as interchangeable tests of one hypothesis. It distinguishes trade volumes from policy shocks, exports from imports, and aggregate output from broader development outcomes. It also examines whether the same mechanisms recur across studies and whether institutions skills, infrastructure, finance, labor mobility, and predictable regulation condition the results. Because published studies use unlike exposure measures, samples, outcomes, and econometric designs, this paper does not manufacture a pooled elasticity. Instead, it conducts a qualitative meta-analysis of effect direction, mechanism, research design, and heterogeneity, then uses contemporary Indian data to place the past evidence in context. The intended conclusion is conditional: trade can contribute to growth and development, but neither rising openness nor export

growth alone guarantees productivity-led, inclusive gains.

2. Survey Of Past Work And Meta-Analytic Synthesis

2.1 Firm Productivity, Imported Inputs, and Industrial Upgrading

The strongest convergence in India's trade literature concerns specific manufacturing mechanisms. Early firm-level evidence from the 1991 liberalization finds lower price-cost markups and some productivity acceleration, although results were not uniform across industries [10]. Industry and plant studies likewise associate import liberalization with productivity improvements, while emphasizing that measured performance depends on capacity utilization, imported materials, and the policy regime [11], [12]. These studies improve on aggregate openness regressions by relating differences in tariff exposure to production outcomes, but they do not imply that every firm, industry, or worker benefits equally.

A particularly influential strand separates tariffs on final goods from tariffs on intermediate inputs. Using India's reform episode as a source of variation, Topalova and Khandelwal find that lower output tariffs increased competitive pressure and lower input tariffs improved access to better inputs; the latter channel produced the larger productivity response, with effects varying by domestic regulation, ownership, and firm characteristics [13]. Related work shows that liberalization made previously unavailable imported inputs and varieties accessible to domestic producers [14]. In a detailed product-level analysis, Goldberg and co-authors find that lower input tariffs accounted for about 31% of new products introduced by domestic firms, with access to new imported varieties an important mechanism [15]. The implication is not that imports automatically raise productivity: imported inputs matter when firms can finance, absorb, and combine them with domestic capabilities.

Subsequent research refines the mechanism. De Loecker and co-authors distinguish changes in prices, markups, and productivity, showing why revenue-based productivity estimates can confound technical efficiency with market power and input-cost shifts [16]. Industry evidence for organized Indian manufacturing finds that import-linked scale, reallocation, and spillover effects often emerge with a lag, while the export-productivity association is more sensitive to the period examined [17]. Firm data for the late 1990s and 2000s similarly suggest that productivity gains from sourcing imported inputs can exceed gains from output-tariff competition, and that non-tariff-barrier changes and firm classification matter [18]. Across this body of work, the comparatively robust result is channel-specific: access to productive inputs can improve firm performance, but aggregate productivity,

diffusion to small firms, and domestic value capture are less settled.

Input liberalization changed the variety set, not merely the price of a fixed basket. New varieties could relax bottlenecks and help domestic firms introduce products [14], [15]. But wider product scope does not guarantee higher domestic value added or broad diffusion. Firms still need finance, technical skills, standards compliance, and reliable logistics to turn access into upgrading. The policy question is whether local capabilities allow firms to use imported knowledge and components.

2.2 Poverty, Employment, and Distributional Effects

The distributional literature rejects the idea that aggregate gains automatically reach exposed workers and households. Using differences in pre-reform industrial employment across districts, Topalova finds that rural areas more exposed to tariff reductions experienced slower poverty reduction and weaker consumption growth relative to less-exposed areas; constraints on geographic mobility and rigid labor-market conditions helped explain persistence [19]. Edmonds, Pavcnik, and Topalova connect this adjustment to human-capital investment: schooling rose and child labor declined nationally in the 1990s, but improvements were attenuated in districts more exposed to protection losses, in part because relative poverty made schooling costs harder to meet [20]. These findings concern differential local exposure, not the total national effect of trade reform.

Labor-market studies produce a similarly conditional picture. Trade reform increased the responsiveness of labor demand to output and productivity shocks, and this response was greater in states with more flexible labor regulations, implying that adjustment can appear as both employment opportunity and volatility [21]. A related unemployment study finds no general unemployment-increasing effect; urban unemployment fell in more flexible states and in locations with stronger employment in net-export industries [22]. Firm-level labor-share evidence adds another distributional margin: liberalization raised labor's revenue share in some small, labor-intensive firms but lowered it in larger, less labor-intensive firms, with an average weakening of worker bargaining power [23]. These patterns caution against summarizing development with GDP or productivity alone.

Labor studies also distinguish job sensitivity from job totals. A higher labor-demand elasticity means employment responds more strongly to shocks; it does not prove net job creation. Stable unemployment can coexist with shifts in hours, informality, wages, or labor-force participation. Trade can displace workers in shrinking sectors while expanding demand elsewhere, making mobility and adjustment support central.

Domestic institutions also interact with trade. Evidence from dismantling the License Raj an industrial deregulation rather than a trade treatment shows that output responses differed with state labor-market institutions [24]. It is relevant as complementary evidence: the effect of external competition depends on whether firms can enter, invest, reallocate labor, and adopt new technology. The wider review therefore treats poverty, wages, employment, and schooling as outcomes in their own right, not as automatic by-products of export growth. Local adjustment support, access to credit and education, and worker mobility shape whether gains from trade become durable human-development gains.

2.3 Aggregate Trade–Growth Evidence and the Meta-Analytic Pattern

Macroeconomic time-series studies ask whether exports, imports, or an openness index predict national output, but their estimated signs do not converge. Hye and Lau report a positive short-run association between a composite openness index and growth but a negative long-run coefficient; rolling estimates show that the relationship changes over time [25]. Mallick and Behera find threshold cointegration and asymmetric adjustment between openness and growth over 1960–2018, with causality patterns sensitive to the regime and model [26]. Maitra's post-reform analysis emphasizes import-led growth in the short and long run, while finding a weaker export-led relationship and negative coefficients for a composite openness measure [27]. Dash, in contrast, reports post-reform evidence of a long-run relationship and unidirectional predictive causality from exports to output [28]. Wani finds a negative openness-growth association in both horizons for 1992–2019 while underscoring the roles of physical and human capital [29].

These findings are not simply a count of positive versus negative studies. The papers use different dependent variables GDP levels, per-capita income, or growth rates different trade proxies, samples that begin before or after reforms, and different controls for capital, labor, exchange rates, and breaks. Cointegration and Granger-causality tests establish long-run association or predictive ordering under model assumptions; they do not isolate an exogenous trade-policy shock. The meta-analytic synthesis therefore identifies a robust disagreement at the macro level, not a stable average openness elasticity. Positive results are more common when studies isolate export or import channels; negative results arise more often with broad composite indices or particular long-run specifications. Reverse causality and structural change remain central explanations for divergence.

Proxy choice helps explain why estimates differ. Export-to-GDP and import-to-GDP ratios capture distinct mechanisms, while $(X+M)/GDP$ also

reflects composition and the denominator. Import surges or external shocks may coincide with weak investment even when input-tariff cuts help firms. Current-price ratios mix volumes with prices and exchange rates; legal barrier measures do not show

actual input use. Thus a negative openness coefficient does not mean all trade harms growth, nor does a positive export coefficient guarantee gains in every sector.

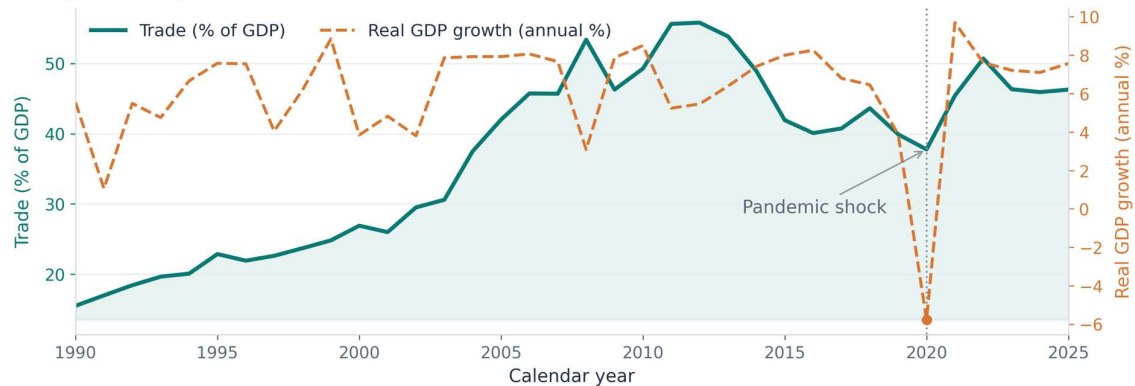
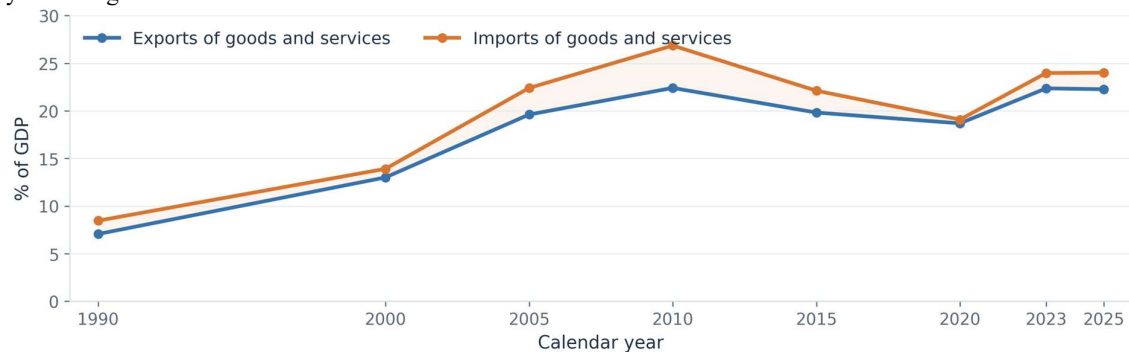


Figure 1: Trade openness and real GDP growth in India, 1990–2025.

Figure 1 plots World Bank national-accounts estimates of total exports plus imports of goods and services as a share of GDP against annual real GDP growth. Trade exposure rose from 15.5% in 1990, fell to 37.8% in 2020, reached 50.7% in 2022, and stood at 46.3% in 2025; growth also fluctuated, including a 2020 contraction. The two lines move together in some intervals but diverge in others, showing why co-movement is not proof of a trade effect. The ratio is denominated by GDP and responds to prices, exchange rates, and domestic cycles and global demand shocks.



Source: World Development Indicators [8]. Gross goods-and-services flows, not the merchandise balance.

Figure 2: Exports and imports of goods and services as shares of GDP, selected years.

Figure 2 separates the WDI trade ratio into exports and imports, both measured as a percentage of GDP in calendar years. Exports rose from 7.1% in 1990 to 22.3% in 2025, while imports rose from 8.5% to 24.0%. Imports exceeded exports for most selected years, though the gaps changed over time; the pandemic temporarily compressed both flows. These gross-flow measures include goods and services and therefore should not be read as merchandise trade balances. Their divergence motivates the review's emphasis on the composition of imports productive inputs, machinery, energy, or consumption and on net services receipts.

2.4 Policy Evolution, Services, and Contemporary Relevance

India's trade regime has continued to evolve rather than move along a single line from closure to openness. The transition includes gradual reforms before 1991, the crisis-era policy shift, subsequent reduction of quantitative controls, WTO commitments, trade facilitation, and more recent agreements and production-linked programmes. The 2021 WTO review describes both substantial integration and continuing reliance on tariffs, licensing, trade remedies, and regulatory measures [7]. The Economic Survey reports strong service-export performance and a resilient external sector,

while also recording rising imports and a wider overall trade deficit in parts of FY2024–25 [9]. The World Bank's 2024 country memorandum argues that deeper participation in global value chains and lower trade costs can support productivity and job creation, but that capability formation and domestic reform are necessary complements [30]. Services exports broaden this opportunity beyond goods manufacturing, especially where digital delivery and business services can reach foreign markets without

large physical shipments. However, faster service-export growth is not itself evidence of economy-wide spillovers: skill access, domestic supplier links, competition, and labor absorption determine whether export earnings raise productivity and job quality beyond leading firms. The historical manufacturing evidence and contemporary services opportunity should therefore be evaluated with distinct outcomes and identification strategies.

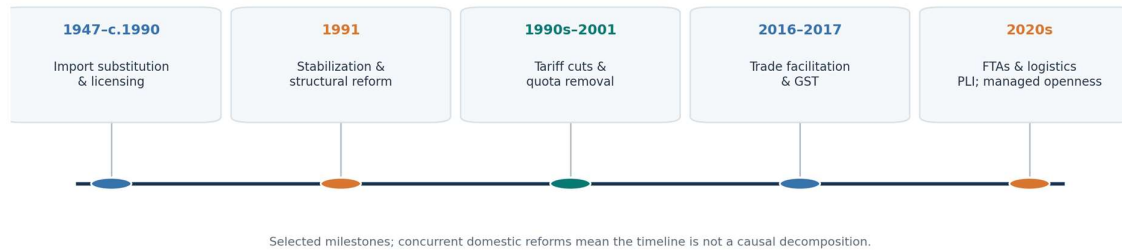


Figure 3: Selected milestones in India's external-sector policy evolution.

Figure 3 is a compact chronology of policy regimes rather than a causal event study. It distinguishes the pre-1991 control-oriented framework, the 1991 stabilization and liberalization episode, later tariff and quantitative-restriction reforms, and the more recent combination of trade facilitation, GST, free-trade agreements, production incentives, and targeted restrictions. The sequence underscores that exposure to trade changed alongside domestic licensing, exchange-rate, fiscal, and industrial policies. Consequently, growth after 1991 cannot be assigned to trade openness alone. The final period also shows policy duality: export promotion and supply-chain integration coexist with selective import management, creating a relevant contemporary test for future research.

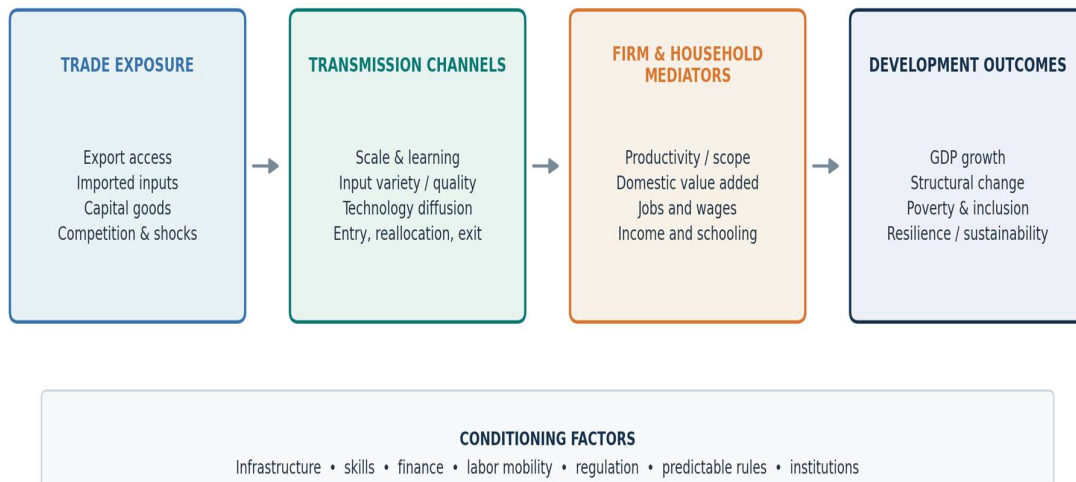


Figure 4: Conceptual pathways linking international trade to growth and development.

Figure 4 consolidates the channels identified across the literature. Export-market access can raise scale, foreign exchange, and learning; imported intermediates and capital goods can improve variety, quality, and production efficiency; competition can trigger lower markups, reallocation, or exit; and each channel depends on capabilities and complementary institutions. The diagram separates mediators productivity, product scope, employment, and household income from final outcomes such as growth, wages, poverty, and resilience. The moderators are not decorative: infrastructure, skills, credit, labor mobility, industrial regulation, and tariff predictability determine whether exposure translates into gains. Arrows indicate theorized pathways, not estimated causal coefficients or effect sizes.

Taken together, the evidence is strongest for identifiable microeconomic pathways, mixed for aggregate trade-led growth, and explicitly heterogeneous for distributional development. Input access and new varieties are associated with higher firm productivity and product scope; the macroeconomic effect of openness is not stable across proxies and specifications; and district-level poverty, schooling, and labor outcomes depend on exposure and adjustment capacity. Services trade is an increasingly important feature of India's external account, but its spillovers to productivity and employment outside exporting services firms require more causal study. Figure 5 condenses this direction-of-evidence synthesis. It is a qualitative map of the studies reviewed, not a pooled effect estimate and not a vote count of independent replications.

CHANNEL	DIRECTIONAL SYNTHESIS	QUALIFICATION / CONDITION
Imported inputs → productivity	More consistent positive	Firm capabilities; input tariffs; adoption costs
Openness ↔ aggregate growth	Mixed / proxy-sensitive	Endogeneity; period; structural breaks
Local poverty & schooling	Adverse relative effects in exposed areas	Mobility; schooling costs; industry mix
Employment & labor share	Heterogeneous	Sector, firm size, labor institutions
Services & spillovers	Opportunity is clear; spillovers unsettled	Skills; supplier links; causal identification

Figure 5: Qualitative evidence map of the reviewed trade-development literature.

Figure 5 reports the review's qualitative direction-of-evidence synthesis, not a pooled estimate or vote-count of independent replications. Firm-level productivity and product-scope findings are comparatively consistent overall for imported-input access, but macro openness-growth estimates vary by proxy, period, and specification. Local poverty, schooling, labor demand, and labor-share outcomes reveal adjustment costs and distributional heterogeneity rather than a single national sign. Services exports are a growing strength, yet evidence on spillovers to non-export sectors remains narrower than the manufacturing literature. The matrix therefore ranks confidence by channel: stronger for specific micro mechanisms, weaker for aggregate causal magnitudes, and conditional for inclusive development.

3. Methodology

A structured literature review with qualitative meta-analytic synthesis was undertaken to assess past empirical work on international trade and Indian growth and development. Publicly indexed scholarly searches and targeted publisher and institutional searches were conducted on 13 October 2026 across journal pages and research repositories associated with the American Economic Association, NBER, IMF, major economics publishers, the World Bank, WTO, and Government of India. Search phrases combined India with trade

openness, trade liberalization, export-led growth, imported intermediate inputs, productivity, poverty, employment, wages, and development. The reference set was purposively limited to 30 sources: 20 India-focused empirical studies, five foundational or cross-country analytical works, and five policy, data, or historical sources. Priority was given to studies that stated their sample period, outcome, trade exposure, and empirical method, alongside official sources needed to interpret policy and recent performance. The inclusion rule required an explicit India setting, a defined trade exposure or policy measure, and an economic or social outcome; descriptive sources were used for context only.

For each empirical study, the review recorded the unit of analysis, study period, trade variable, outcome, design, reported direction, proposed mechanism, and stated or evident limitations. The 20 India-focused studies span aggregate annual or quarterly time series, manufacturing industries and firms, and district-level labor or poverty outcomes. The synthesis separates broad openness ratios from exports, imports, input and output tariffs, and employment-weighted local exposure. It also distinguishes cointegration and Granger-predictability results from estimates that exploit differential tariff exposure or reform timing. Findings were coded at the level of the study's principal question as positive, negative, mixed, or conditional, with heterogeneity retained rather than

averaged away. Where a paper reported several outcomes, the principal result matching its question determined the direction code, while notable heterogeneity was preserved in prose. Coding was conducted at study level rather than coefficient level, reducing over-weighting of papers with many specifications or shared datasets. The figures combine official WDI observations and author-coded conceptual summaries; they do not add new econometric estimates.

A conventional statistical meta-analysis was not attempted. The included papers report non-commensurate coefficients, elasticities, tariff semi-elasticities, treatment effects, and outcomes; many do not provide comparable standard errors or a common exposure unit. Pooling them would create a misleading precision. Accordingly, the paper uses structured effect-direction and mechanism synthesis, and its conclusions concern convergence and disagreement across designs rather than a pooled causal magnitude. Study quality was assessed qualitatively by considering exposure measurement, treatment of reverse causality and structural breaks, counterfactual construction, sample coverage, robustness, and external validity. Developmental outcomes were kept distinct from GDP, and national-accounts time series were not treated as policy treatments. The search was targeted rather than an exhaustive registered systematic review, so it may omit studies and cannot rule out publication bias. For Figures 1 and 2, annual World Bank series are reported in calendar years; trade is exports plus imports of goods and services as a share of GDP, while growth is annual real GDP growth. These descriptive series contextualize, but do not identify, causal effects.

4. Critical Analysis Of Past Work

The first weakness in the macro literature is identification. Trade openness is jointly determined with income, investment, the exchange rate, commodity prices, and policy, so an openness coefficient can reflect growth causing trade as readily as trade causing growth. Ratios such as (exports + imports)/GDP are especially difficult to interpret: a fall in GDP can mechanically raise openness even when trade volumes are unchanged, and nominal trade shares respond to relative prices. Cointegration establishes a long-run statistical relationship under specified assumptions, not an exogenous reform effect. Granger causality denotes incremental predictive content conditional on a model; it does not prove the structural direction of causation. Many annual India series also contain few observations once lags and controls are included, making estimated signs vulnerable to sample endpoints, data revisions, and structural breaks.

Second, the 1991 reform episode is not a single treatment. Tariff reductions coincided with industrial delicensing, exchange-rate changes,

financial liberalization, and wider macroeconomic adjustment. Firm and district studies that use variation in tariff cuts offer a stronger counterfactual than a before-and-after comparison, but tariff exposure can still be correlated with pre-existing industry trends, political influence, productivity, or expected import demand. Estimates often represent local effects for firms, sectors, or places more exposed to a specific reform, not the economy-wide general-equilibrium effect. Where studies investigate delicensing alongside trade, the channels must not be conflated. The quasi-experimental evidence is valuable precisely because it narrows the question; it cannot by itself establish that national openness caused India's aggregate growth acceleration.

Third, the measurement of productivity is not uniform. Revenue-based total factor productivity can rise when output prices or markups change, even without a comparable improvement in physical efficiency. Studies differ in production-function methods, deflators, input-output weights, treatment of entry and exit, and whether they observe plants, registered firms, or whole industries. This matters because formal-sector firm panels may miss informal enterprises, which account for a substantial share of manufacturing employment, while surveys of informal firms can lack longitudinal identifiers. A positive average for surviving formal firms can coexist with exit by less productive producers, uneven input adoption, and weak diffusion to small firms. The literature has improved by separating output tariffs from input tariffs and prices from markups, but comparability across samples remains limited.

Fourth, development effects are local and multidimensional. District exposure designs reveal how trade shocks interact with industrial specialization and immobility, but they do not automatically capture migration, inter-district spillovers, consumer-price gains, fiscal transfers, or long-run occupational change. Poverty and schooling measures expose costs hidden by aggregate GDP, yet many results concern relative outcomes during the 1990s and cannot be mechanically extrapolated to contemporary services trade or current global value chains. Employment, wage, and labor-share studies use different denominators and sometimes observe formal manufacturing rather than total household welfare. The evidence therefore supports a claim of heterogeneous incidence, not a blanket statement that trade either raises or lowers poverty, jobs, or inequality.

An additional limitation is temporal and sectoral coverage. Much identification exploits tariff variation around the 1991 reform, valuable for causal leverage but unlike today's services-heavy exports, digital delivery, free-trade agreements, production incentives, and supply-chain shocks.

Long historical series extend coverage but lack comparable measures of tariff incidence and value-added trade. Estimates from registered manufacturing firms or district exposure should not be transferred mechanically to information technology services, agriculture, or current agreements. Tariff cuts may affect output with lags through investment, supplier learning, and reallocation; short windows can miss gains, while long windows add confounding reforms. Evaluation across periods is needed.

A further gap concerns social and environmental returns. More imports can improve consumer choice and lower production costs, but producer studies rarely measure household price gains alongside job losses, public revenue, and firm exit. Export expansion can raise emissions, water use, or exposure to climate standards, yet most reviewed studies treat output and productivity as final outcomes. Services trade depends on skills, digital infrastructure, data rules, and access to foreign clients; aggregate models seldom isolate these channels. Without linked household, firm, and environmental data, higher productivity cannot establish that net welfare rose or gains were broadly shared.

Finally, the meta-analytic exercise itself has limits. The corpus combines designs that estimate different parameters, and a sign-based synthesis can overstate the importance of a study with many specifications or understate differences in precision. It cannot correct for selective publication, common data sources, overlapping samples, or shared identification assumptions. A conventional pooled estimate would be less informative than a transparent account of what converges: specific imported-input channels show relatively consistent productivity benefits; macro openness coefficients remain specification-sensitive; and local welfare effects depend on mobility and institutions. The field's principal gap is not another undifferentiated openness regression, but stronger linked data and designs that connect trade shocks to firm value added, worker transitions, household welfare, and environmental outcomes over longer horizons.

5. Discussion

The combined evidence suggests that international trade is best understood as an enabling condition rather than an autonomous engine of development. India's rising trade share and strong services exports show deeper integration, but the causal contribution to growth depends on the type of trade and the capacity to respond. The micro evidence points to imported intermediates, machinery, and new varieties as productive assets; the macro evidence does not establish a stable elasticity between aggregate openness and GDP growth. This apparent contrast is not contradictory: firms can become more productive through a particular input channel even

when an aggregate ratio is a poor measure of policy exposure or when domestic investment and global demand dominate national growth fluctuations.

Policy should therefore focus on the quality of integration. Reducing avoidable border delays, improving port and inland logistics, harmonizing standards, and keeping tariff and licensing rules predictable can lower trade costs without treating every import as a threat. Imports of capital and intermediate goods should be evaluated as inputs to domestic production, alongside efforts to develop supplier capability, technology absorption, and domestic value added. Export strategy should widen markets and product composition, deepen participation in global value chains, and build on services capabilities while expanding labor-intensive goods and newer technology sectors. The World Bank's country memorandum similarly emphasizes trade-cost reduction and global integration as complements to productivity growth [30].

Policy coherence matters. Abrupt tariff changes can shield a producer but raise costs for downstream users, while export restrictions may undermine reliability. For intermediate and capital goods, predictable classification, duty drawback or temporary-admission procedures, and standards assistance can preserve access while strengthening local supplier capacity. Evaluation should be chain-based: a sector is both an import-competing industry and an input supplier to exporters. Reporting impacts by firm size, worker skill, region, and gender would make choices transparent and identify who needs support.

Inclusion requires explicit adjustment policy. Skills training, portable social protection, employment services, accessible credit, and place-based support can help workers and small firms move toward expanding activities. Education and nutrition supports matter where household income shocks affect children's schooling; the Indian district evidence shows that adjustment can persist when mobility and credit are limited. Performance evaluation should track wages, job formality, women's employment, firm entry and exit, regional poverty, and local environmental burdens, not only export values or GDP. Resilience also requires diversification across products, destinations, and service modes, with attention to energy-import exposure and external demand shocks.

For research, the next generation of Indian studies should move beyond a binary pre/post-1991 comparison. Linked customs, firm, worker, and household records can test whether input access translates into domestic value added and better jobs; quasi-experiments around tariff, FTA, logistics, and standards changes can separate channels; and state- and district-level panels can capture spatial spillovers. Researchers should report common treatment units, uncertainty estimates, pre-trend

diagnostics, and effects by size, formality, gender, and skill. This would make future evidence more suitable for quantitative pooling and for evaluating whether contemporary trade policy produces inclusive, sustainable development.

6. Conclusion

This review finds that international trade has contributed to India's economic transformation through identifiable channels, especially access to imported inputs, competition, product expansion, and export-market opportunities. Yet the aggregate trade-openness coefficient is not a reliable summary of that contribution: Indian time-series findings differ with proxies, periods, controls, and causal assumptions. Firm-level productivity effects are more consistently positive for input access, while poverty, schooling, employment, and labor-share effects are heterogeneous and shaped by local mobility, firm characteristics, and institutions.

The central implication is conditional rather than ideological. Trade can support growth and development when it complements domestic investment, skills, infrastructure, stable policy, competitive markets, and effective adjustment support. Higher trade volumes alone do not guarantee broad-based gains. The evidence base would benefit most from post-2010 causal studies that integrate formal and informal firms with worker and household outcomes, distinguish goods from services and final goods from productive inputs, and follow effects over time. Such evidence can clarify not only whether trade expands output, but who gains, who bears transition costs, and which policies convert international integration into lasting improvements in productivity and human welfare. At the same time, evidence remains anchored in the 1990s reform episode and manufacturing data, so results should not be treated as forecasts for trade agreements or the digital economy. Monitoring should link customs and production records to worker and household trajectories and evaluate distributional and environmental effects. Until such evidence accumulates, policy should treat openness as a means to capability-building, not as an outcome in itself.

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