International Journal of Commerce, Management and Social Sciences

Volume 2 | Issue 4, October-December 2026, pp 1-12
ISSN (Online): 3139-1052
Homepage: https://ijcmss.com



Title:	DETERMINANTS OF EXPORT PERFORMANCE AND COMPETITIVENESS OF INDIAN BUSINESSES IN GLOBAL MARKETS
Author(s):	CA. Dr. Shankar Ghanshamdas Andani
Affiliation(s):	Research Scholar, Department of Commerce, Texas Global University
DOI:	https://doi.org/10.65919/ijcmss.2026.v2i4001
History:	Received: 01 September 2026, Accepted: 05 October 2026, Published: 15 October 2026
Citation:	Andani, S. G. (2026). DETERMINANTS OF EXPORT PERFORMANCE AND COMPETITIVENESS OF INDIAN BUSINESSES IN GLOBAL MARKETS. *International Journal of Commerce, Management and Social Sciences*, *2*(4). 1-12, https://doi.org/10.65919/ijcmss.2026.v2i4001
Copyright:	© 2026 The Author(s)
Licensing:	Open access under CC BY-NC 4.0
Conflict of Interest:	The author(s) declare no conflict of interest.
Funding:	This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.
Corresponding Author:	CA. Dr. Shankar Ghanshamdas Andani
Published By:	UnivColl Publications

UnivColl Publications

DETERMINANTS OF EXPORT PERFORMANCE AND COMPETITIVENESS OF INDIAN BUSINESSES IN GLOBAL MARKETS

CA. Dr. Shankar Ghanshamdas Andani
Research Scholar, Department of Commerce, Texas Global University

ABSTRACT

This paper examines how productive capacity, investment, foreign direct investment (FDI), digital access, and innovation relate to India's export performance and competitiveness. Because no comparable firm panel was available, this national secondary-data analysis does not interpret macro aggregates as firm-level observations. World Bank WDI provides export, manufacturing, investment, FDI and internet series for 1991–2024. Competitiveness is measured as India's share of world merchandise exports. R&D, high-tech exports and logistics are descriptive only because their coverage is shorter or intermittent. India's merchandise exports rose from US$17.7 billion in 1991 to US$442.9 billion in 2024, while its world share increased from 0.50% to 1.80%. Current-dollar export CAGR was 10.2%, compared with 6.0% globally. India's share peaked at 1.81% in 2022 and was 1.80% in 2024. High-technology goods rose from 9.6% of manufactured exports in 2009 to 18.6% in 2024, while manufacturing value added fell from 17.1% of GDP in 2008 to 13.1% in 2024. A first-difference OLS model (n=32; 1993–2024) explains 9.0% of annual export-share variation; changes in manufacturing, investment, FDI and internet use are individually nonsignificant using HC3 standard errors. This aggregate null does not imply capability irrelevance: Indian firm-level studies identify innovation, productivity, imported inputs and logistics as relevant. Overall, India's long-run export presence and technology composition improved, but short-run macro correlates are weak. Findings are descriptive, not causal, and motivate firm- and sector-panel research. This provides a useful national benchmark.

Keywords: Export performance; Export competitiveness; India; Manufacturing; Foreign direct investment; Innovation; Trade logistics

1. INTRODUCTION

1.1 Context and measurement

Using comparable annual trade and development series from the World Bank's World Development Indicators (WDI) [1], this study tracks India's export position over 1991–2024. Competitiveness is not synonymous with export growth: it reflects an economy's ability to create productive firms, upgrade goods, meet quality and delivery requirements, and sustain market access. Porter frames national advantage as a system of capabilities and supporting industries [2]. A country's export volume alone can conceal specialization; revealed comparative advantage compares product weights across national and world baskets [3], while evidence on variety and quality shows that diversification and quality upgrading can expand trade independently of sheer scale [4]. These distinctions motivate the use of both market share and complementary indicators.

1.2 India's position and the empirical gap

India's export story contains both gains and constraints. World Bank data show that merchandise exports expanded substantially after the 1991 reforms, yet the measured global share remained below two percent in 2024. For fiscal year 2023–24, the Department of Commerce reports merchandise exports of US$437.10 billion and services exports of US$341.11 billion [5]. This mixed profile matters because goods and services respond to different production, skill, delivery and market-access mechanisms, while the econometric outcome here focuses on goods. The Foreign Trade Policy 2023 emphasizes facilitation, market access, e-commerce and district-level export promotion [6]. Logistics is also material: the World Bank's LPI benchmarks customs, infrastructure, international shipments, service quality, tracking and timeliness [7]. Official Indian trade reporting places the country's 2024 merchandise-export share near 1.8 percent [8].

1.3 Questions and contribution

Many determinants usually studied at business level—management quality, product adaptation, firm size, productivity, trade finance, imported inputs and buyer networks—are not observed in annual national aggregates. This study therefore asks three narrower questions: how did India's share of world merchandise exports change; are annual changes associated with manufacturing value added, capital formation, FDI and digital access; and do the available innovation and logistics indicators point to capability upgrading? The contribution is a transparent, reproducible macro-level analysis that compares a global-share outcome with capability proxies and then interprets the estimates alongside Indian firm-level research. It does not claim to estimate the causal determinants of individual businesses. By making that unit-of-analysis boundary explicit, the paper uses public data to document the national setting while identifying the firm- and sector-level evidence needed for a stronger test. The relative-share outcome is more informative than export dollars alone, but it remains a goods-only measure.

2. LITERATURE SURVEY

Research on export performance lacks a unified outcome or stable determinant set. Early frameworks group influences as firm traits, management, capabilities, strategy and external conditions [9]; subsequent reviews document fragmented indicators, samples and methods [10], [11], [12]. Meta-analysis finds strategy and market adaptation relevant, but estimates depend on performance definitions and context [13]. Thus national gross exports cannot be treated as direct measures of business-level success. Studies also differ in whether they measure propensity, export intensity, sales growth or profitability.

Indian macro work separates export demand from supply. Sharma's 1970–1998 time-series reports adverse exchange-rate appreciation and domestic-demand effects, positive relative export-price effects, and no significant FDI coefficient [14]. Firm-level analysis of Delhi garments links scale, organization and technical efficiency to export participation or intensity [15]. International firm research shows exporters often outperform non-exporters before entry [16], [17]; Melitz's model explains selection through productivity thresholds and sunk export costs [18]. These firm mechanisms cannot be recovered from one national time series. Entry, export scale and productivity are separate outcomes and need not share determinants.

Indian firm evidence is sector- and method-dependent. Goldar links pharmaceutical R&D intensity to export intensity conditional on productivity [19]. Pattnayak and Thangavelu report learning by exporting, while Sharma and Mishra find mixed productivity evidence [20], [21]. Sharma's Enterprise Survey analysis finds exporters more productive and innovative but foreign technology does not uniformly predict entry or intensity [22]. Véganzonès-Varoudakis and Plane identify interactions among innovation, exports, productivity and investment climate [23]. Agro-processing studies connect export entry with R&D, imported inputs and logistics, while intensity relates more selectively to imported inputs [24]. Grazzi et al. and Sahoo et al. report sectoral heterogeneity in capability, productivity and competitiveness [25], [26]. These distinctions caution against assuming a universal productivity premium or uniform return to R&D.

FDI evidence is conditional. Jana et al. identify short-run export effects and stronger long-run causality from trade to FDI [27]; Chakraborty et al. find no causal export effect from aggregate inward FDI [28]. Tripathy et al. show productivity–export–outward-FDI links vary across manufacturing groups [29]. Mangla and Yang find within-industry, but not inter-industry, export spillovers from FDI, mediated by absorptive capability [30]. Together, these studies suggest investment composition and firm absorption matter more than aggregate FDI alone. This paper tests whether broad capability changes track India's global share without conflating macro association with firm-level causality. Hence, investment composition and timing matter.

3. METHODOLOGY

Design and data. The study uses annual World Bank WDI series for India and the world, 1991–2024: merchandise exports, manufacturing value added, gross capital formation, inward FDI and internet use [1]. Export values are calendar-year current U.S. dollars; capability measures are shares of GDP or population. R&D expenditure, high-technology exports and the LPI are descriptive because coverage is incomplete or intermittent. No primary questionnaire was administered; "survey" denotes the literature review. Missing R&D and LPI values

are not interpolated, preserving the annual sample and avoiding invented observations. A public secondary-data design supports reproducible comparisons and auditability.

The dependent variable is India's merchandise-export share, $s_t = 100 \times (X_{IND,t}/X_{WLD,t})$, expressed as a percentage. By benchmarking India against world exports, it adjusts for trade scale but not domestic value added, services or firm profits. The exploratory model uses annual first differences in percentage points: $\Delta s_t = \alpha + \beta_1 \Delta MVA_t + \beta_2 \Delta GCF_t + \beta_3 \Delta FDI_t + \beta_4 \Delta NET_t + \varepsilon_t$.MVA denotes manufacturing value added as a GDP share, GCF gross capital formation as a GDP share, FDI net inflows as a GDP share, and NET internet use as a population share. Internet data begin in 1992, yielding 32 regression observations for 1993–2024. No lag structure is imposed.

OLS uses HC3 heteroskedasticity-consistent standard errors and two-sided t tests. We report trends, period CAGRs, first-difference correlations and a sensitivity model excluding 2020–2021. R&D, high-technology exports and logistics remain descriptive rather than entering an unbalanced regression. The sample is small; national annual changes may be jointly determined, and HC3 does not correct serial dependence or omitted variables. Current-dollar values are sensitive to exchange rates and prices. Coefficients are exploratory, not causal. Data were retrieved October 13, 2026; 2024 is the latest common complete year. Accordingly, this model is a descriptive benchmark, not a causal design.

4. DATA COLLECTION AND ANALYSIS

The dataset combines India and world merchandise-export values with national capability indicators. The core annual macro series cover 1991–2024; shorter innovation and logistics series are reported only for observed years. The calculated global share is checked for consistency against official Indian reporting, while recognising small differences in source vintages, trade definitions and calendar-versus-fiscal-year timing.

4.1 Export performance and capability snapshots

Table 1: Merchandise-export performance and selected capability indicators

Year	India exports (US$ bn)	World share (%)	Manufacturing VA (% GDP)	Capital formation (% GDP)	FDI inflows (% GDP)	Internet users (% population)
2000	42.4	0.653	15.93	25.68	0.77	0.5
2008	194.8	1.197	17.10	38.42	3.62	4.4
2019	324.3	1.698	13.46	30.10	1.78	29.5
2020	276.4	1.559	14.12	28.92	2.41	43.4
2022	453.4	1.811	13.33	34.41	1.54	55.9
2024	442.9	1.799	13.14	34.35	0.72	64.9

Table 1 shows the scale-up and its uneven foundations. India's current-dollar merchandise exports increased more than tenfold between 2000 and 2024, while its world share rose from 0.65% to 1.80%. The share peaked at 1.81% in 2022 and eased slightly thereafter. Manufacturing value added's GDP share was lower in 2024 than in 2008, even as exports expanded. Gross capital formation remained above its 2000 level, whereas FDI inflows as a GDP share were below their 2008 peak. Internet access grew rapidly, but the table alone cannot establish that digital adoption caused export gains. All export figures are calendar-year WDI values in current U.S. dollars [1]; the 2024 share is consistent with the official rounded estimate [8].

4.2 Export growth relative to the world benchmark

Table 2: Period growth and change in India's share of world merchandise exports

Period	India export CAGR (% current US$)	World export CAGR (% current US$)	India share (start, %)	India share (end, %)	Share change (pp)
1991–2000	10.17	6.93	0.500	0.653	+0.154
2000–2008	21.01	12.19	0.653	1.197	+0.544
2008–2019	4.74	1.47	1.197	1.698	+0.501
2019–2020	-14.78	-7.16	1.698	1.559	-0.139
2020–2024	12.51	8.55	1.559	1.799	+0.240
1991–2024	10.24	6.05	0.500	1.799	+1.299

Across the full 1991–2024 interval, the annualized growth of India's merchandise exports exceeded the world rate by about 4.2 percentage points, lifting the global share by 1.30 percentage points. The fastest relative gain occurred in 2000–2008; during 2008–2019, India still outgrew world exports but at a slower nominal rate. In 2019–2020, India's export value fell more sharply than the world total, reducing its share. The 2020–2024 rebound restored most of that loss, but the 2022–2024 endpoint comparison indicates near-stagnation in share. These are current-dollar CAGRs, not inflation-adjusted volume growth; the ratio controls for the global trade denominator but not for relative export prices or composition.

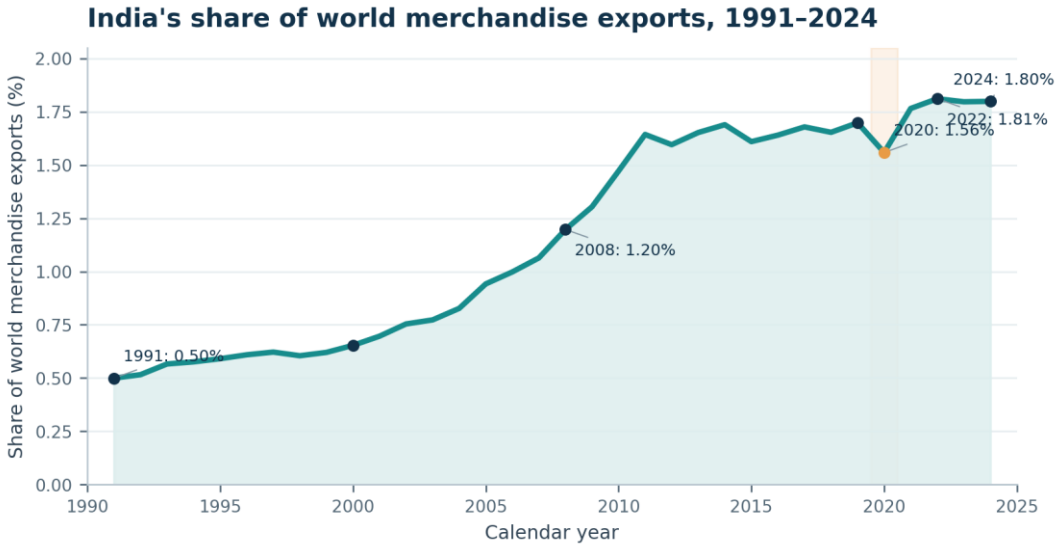


Figure 1: India's share of world merchandise exports, 1991–2024 (%). Source: authors' calculations from WDI [1].

India's merchandise share of world exports rose from about 0.50% in 1991 to 1.80% in 2024, a structural gain rather than a smooth climb. The steepest advance occurred in the 2000s; gains continued more slowly after 2008. The pandemic year shows a decline to 1.56%, followed by recovery and a local high of 1.81% in 2022. The 2023–2024 near-flat reading indicates that the latest export rebound broadly tracked world trade rather than widening India's share. Because the ratio uses current-dollar values, it is a relative nominal market-share indicator, not a pure productivity or volume measure.

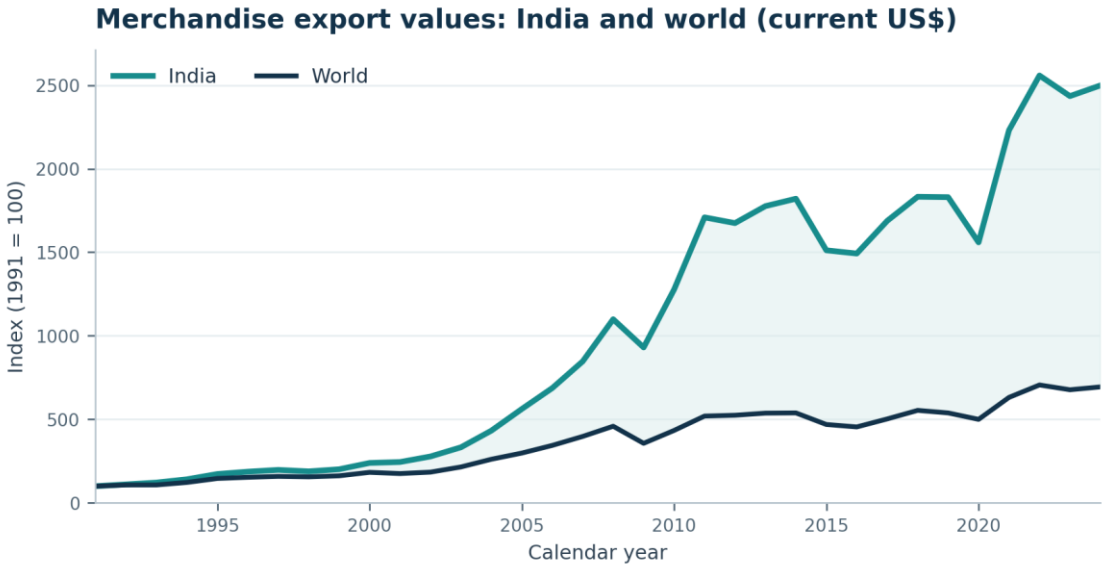


Figure 2: Merchandise export values indexed to 1991=100, India and world, current U.S. dollars. Source: WDI [1].

Indexing both series to 1991=100 makes the relative expansion visible: India's merchandise exports rose much faster than aggregate world exports over the full window. This divergence is consistent with the increase in India's computed global share, while common dips and rebounds reflect external cycles, commodity prices and trade shocks. The vertical gap should not be interpreted as a real-volume productivity premium: both series are valued in current U.S. dollars, and India's export basket differs from the world basket. The figure therefore visualizes nominal market capture and scale change, not inflation-adjusted output or firm-level performance; values are nominal only.

4.3 Correlations among annual changes

Table 3: Pearson correlation matrix of first differences, 1993–2024 (n = 32)

Variable	Δ Share	Δ Mfg. VA	Δ Capital	Δ FDI	Δ Internet
Δ Share	1.00	-0.11	0.13	-0.15	-0.21
Δ Mfg. VA	-0.11	1.00	0.00	0.23	-0.15
Δ Capital	0.13	0.00	1.00	-0.18	-0.07
Δ FDI	-0.15	0.23	-0.18	1.00	-0.01
Δ Internet	-0.21	-0.15	-0.07	-0.01	1.00

The bivariate correlations between annual change in export share and the four capability changes are small: −0.11 for manufacturing value added, +0.13 for capital formation, −0.15 for FDI inflows and −0.21 for internet use. None is statistically distinguishable from zero at conventional levels in this sample. Correlations among the predictors are also modest, reducing but not eliminating concerns about collinearity. The negative internet correlation is not evidence that digital access harms exports; the sharp rise in reported internet penetration overlaps with pandemic-era shocks, while export shares also move with prices, demand and sector mix. First differences reduce shared-trend bias, but they also discard long-run information and can be noisy.

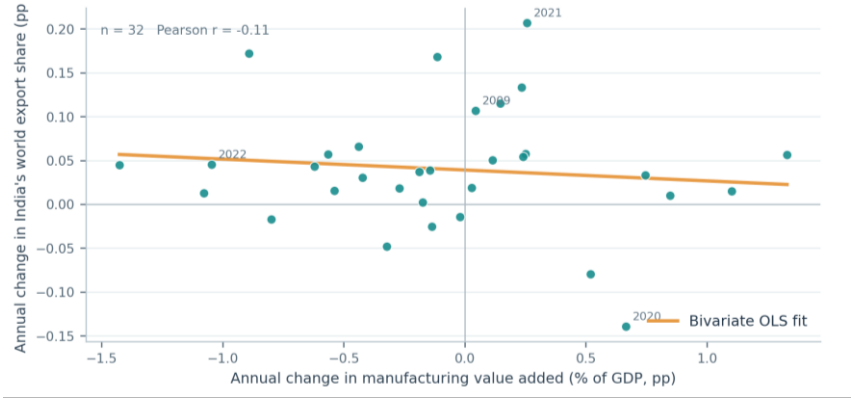


Figure 3: Annual changes in India's world export share and manufacturing value added (% of GDP), 1993–2024. Source: WDI [1].

Each point is one annual change from 1993 through 2024. The fitted bivariate line slopes slightly downward, and Pearson's correlation is approximately −0.11, indicating no meaningful contemporaneous linear association between movements in manufacturing value added's GDP share and India's world export share in this annual-difference sample. This does not show that manufacturing capability reduces exports: the GDP share can fall while manufacturing output and exports rise, and supply chains, prices, productivity and sector mix are omitted. The figure motivates a multivariate, cautious reading of aggregate indicators and highlights why firm- and sector-level productivity measures are preferable for reliable inference.

4.4 Exploratory multivariate estimates

Table 4: OLS model of annual change in India's world merchandise-export share

Term	Main model 1993–2024	Sensitivity excluding 2020–2021
Constant	+0.0490 (0.0186); p=0.014	+0.0395 (0.0131); p=0.006
Δ Manufacturing value added	-0.0133 (0.0307); p=0.668	-0.0104 (0.0209); p=0.622
Δ Gross capital formation	+0.0022 (0.0035); p=0.529	+0.0006 (0.0024); p=0.796
Δ FDI net inflows	-0.0138 (0.0448); p=0.761	+0.0148 (0.0376); p=0.697
Δ Internet use	-0.0050 (0.0115); p=0.664	-0.0005 (0.0041); p=0.897
Observations	32	30
R^2	0.090	0.024
Adjusted R^2	-0.045	-0.132
Durbin–Watson	1.89	1.16

The outcome is the annual percentage-point change in India's world export share; predictors are annual percentage-point changes in their respective WDI ratios. HC3 standard errors appear in parentheses. The main model explains 9.0% of variation (adjusted $R^2 = -0.045$), and none of the four slope estimates is statistically significant. The manufacturing and FDI coefficients are negative, while investment is positive, but all confidence intervals include zero. Excluding the two pandemic/rebound observations leaves every slope nonsignificant and reduces adjusted fit to −0.132. The main Durbin–Watson value is 1.89; the sensitivity value of 1.16 flags possible positive residual dependence after exclusion. With 32 observations, these estimates are low-powered diagnostics, not definitive null effects.

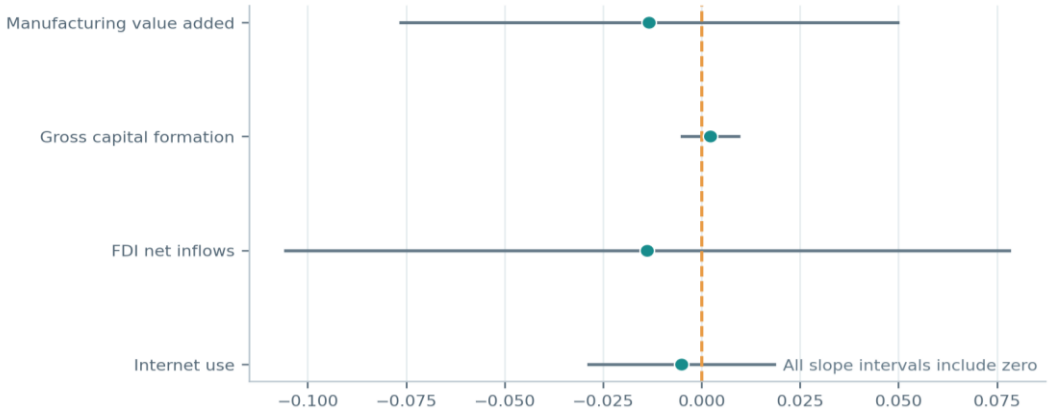


Figure 5: Main-model OLS coefficients with HC3 95% confidence intervals; outcome and regressors are annual percentage-point changes. Source: authors' calculations from WDI [1].

The coefficient plot translates the main regression into comparable percentage-point effects: each coefficient estimates the association between a one-point annual change in a capability proxy and the annual change in India's world export share. All HC3 95% confidence intervals cross zero and are broad relative to their point estimates. This shows that the model cannot distinguish small positive from negative short-run relationships in a 32-observation sample; it does not establish a zero long-run effect. Manufacturing, investment, FDI and internet access are coarse national aggregates, and simultaneous changes can obscure lags, sector differences and exporter-level mechanisms in this short annual sample.

4.5 Innovation and logistics indicators

Table 5: Observed innovation and logistics benchmarks (no interpolation)

Year	R&D expenditure (% GDP)	High-tech exports (% manufactured exports)	LPI overall (score, 1–5)
2000	0.76	—	—
2007	0.81	—	3.07
2008	0.86	—	—
2009	0.83	9.57	—
2010	0.79	7.73	3.12
2012	0.74	7.70	3.08
2014	0.70	9.22	3.08
2016	0.67	7.66	3.42
2018	0.66	9.04	3.18
2020	0.65	11.03	—
2022	—	12.68	3.40
2024	—	18.57	—

The observed series indicate a change in export composition but a less clear change in national innovation inputs. High-technology exports increased from 9.57% of manufactured exports in 2009 to 18.57% in 2024, whereas R&D expenditure declined from 0.86% of GDP in 2008 to 0.65% in 2020, the latest available WDI observation. The LPI is intermittent: its 2022 WDI observation is 3.40, associated with the 2023 edition, and

should not be read as a continuously measured annual improvement. Different reference years, survey coverage and classification mean that these indicators are contextual rather than regression-ready [1], [7].

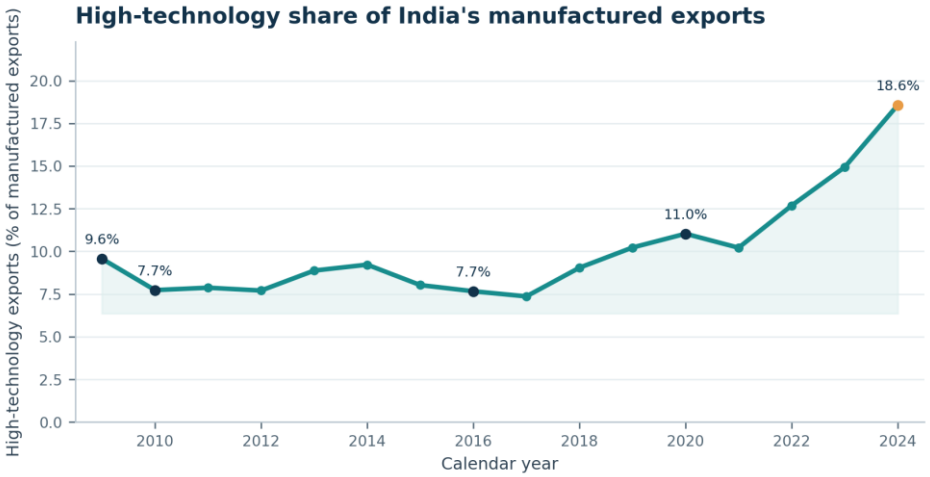


Figure 4: High-technology exports as a share of manufactured exports, 2009–2024. Source: WDI [1].

The share of high-technology goods in manufactured exports increased from 9.6% in 2009 to 18.6% in 2024, despite a volatile path that includes declines and a 2015–2017 dip. This compositional indicator suggests a stronger weight for products classified as high technology, but it is not equivalent to domestic technological value added, patent quality or local content. It may rise through assembly, reclassification or electronics shipments as well as domestic innovation. The upward movement is therefore consistent with upgrading, not proof of its cause. Read alongside low and incomplete national R&D data, it supports targeted firm-level research.

5. DISCUSSION

5.1 Interpretation of findings

The results distinguish long-run expansion from short-run explanation. From 1991 to 2024, India's current-dollar merchandise exports grew faster than world exports and its computed share increased from 0.50% to 1.80%. The trajectory is not monotonic: the share rose sharply in the 2000s, advanced more moderately after 2008, contracted in 2020, then recovered. It was almost unchanged between 2022 and 2024. Thus the headline is a durable gain in global presence, not an uninterrupted acceleration or a large recent market-share jump. The relative-share outcome improves on dollars but excludes services and domestic value capture from the export basket itself.

Capability indicators tell a mixed structural story. Manufacturing value added reached 17.1% of GDP in 2008 but stood at 13.1% in 2024; gross capital formation remained higher than in 2000, while FDI inflows as a GDP share fell from their 2008 peak. Internet use expanded dramatically, and the high-technology share of manufactured exports increased. National R&D intensity, however, eased from 0.86% of GDP in 2008 to 0.65% in 2020, its latest observed year. The export basket may therefore have upgraded faster than domestic research inputs deepened, though these imperfect indicators cannot establish the causal pathway.

5.2 Critical analysis and comparison with past work

The model's weak fit ($R^2 = 0.090$; adjusted R^2 below zero) and nonsignificant HC3 slopes mean that annual changes in four national proxies do not explain contemporaneous changes in global share. Excluding 2020–2021 leaves slopes nonsignificant and lowers adjusted fit further; Durbin–Watson falls to 1.16, warning of residual dependence. This is not proof of no long-run or firm-level effects. Small sample, common shocks, omitted world demand, exchange rates, commodity prices, delayed investment effects and national aggregation limit statistical power. HC3 addresses heteroskedasticity, not endogeneity or serial correlation.

Findings are mixed. Sharma found exchange-rate and relative-price effects but no significant aggregate FDI contribution [14]. Jana et al. report short-run export effects from FDI and long-run direction from trade to FDI [27], whereas Chakraborty et al. find no inward-FDI export causality [28]. Our estimate is similarly weak. Indian

firm studies identify R&D, productivity, imported inputs, innovation and logistics as relevant to export participation or intensity [19]–[26]. Mangla and Yang find within-industry FDI spillovers mediated by absorptive capability [30], while Tripathy et al. show sectoral heterogeneity [29]. National FDI/GDP mixes market-seeking and export-oriented projects and obscures destinations and firm capabilities; micro-level effects need not appear in coefficients.

The series suggests upgrading: high-tech goods rose from 9.6% to 18.6% of manufactured exports. Reviews document electronics, pharmaceuticals and engineering growth [5], [8]. Yet this share cannot measure domestic value added, productivity, quality premiums or profits retained locally; it may rise through assembly or classification as well as innovation. A falling manufacturing share of GDP does not prove falling output, since services growth and relative prices change the denominator. Competitiveness requires product advantage, diversification, domestic value added, export survival and firm productivity alongside market share [3], [4]. Firm-year panels can test which capabilities drive MSME and sector gains.

6. CONCLUSION

This paper examined India's export performance and competitiveness using national-level secondary data for 1991–2024. Merchandise exports rose from US$17.7 billion to US$442.9 billion in current dollars, while India's share of world merchandise exports increased from 0.50% to 1.80%. Gains were concentrated in the 2000s, and the 2024 share remained near its 2022 peak. High-tech exports gained share, but manufacturing's GDP share and latest R&D intensity do not show equally broad capability deepening. The evidence is mixed: India expanded its global goods presence and export composition, yet recent share gains are modest and structural indicators remain uneven. This guides future firm-level work.

The first-difference regression finds no statistically significant short-run association between changes in export share and changes in manufacturing value added, investment, FDI or internet penetration. This result is not a rejection of firm-level mechanisms; the national ratios are coarse, the sample is small, and the model cannot capture lags, export-destination differences or heterogeneity among businesses. For policymakers, the implication is to measure export success beyond aggregate receipts by tracking productivity, domestic value added, product and market diversification, delivery reliability and MSME export participation. For managers, the data underscore the value of technology adoption, imported-input access, quality assurance, logistics and buyer learning, while acknowledging that returns vary by sector. A decisive next step is a firm- and product-destination panel with disaggregated customs and financial data. Such evidence can identify which capabilities convert India's aggregate export expansion into durable competitiveness for Indian businesses.

Author's Declaration & Publication Consent:

The author(s) declare that the manuscript is original, accurate to the best of their knowledge, and does not knowingly infringe any copyright, privacy, or other third-party rights. All necessary permissions, ethical approvals, disclosures, and consents, where applicable, have been obtained. The author(s) accept responsibility for the content, data, interpretations, conclusions, authorship, and compliance with applicable research and publication ethics. Any conflicts of interest and funding sources have been appropriately disclosed. The author(s) authorize the Journal and Publisher to publish and disseminate the article under the Creative Commons AttributionNoncommercial 4.0 International License (CC BY-NC 4.0).

7. REFERENCES

[1] World Bank, "World Development Indicators," Washington, DC, USA, 2026.

[2] M. E. Porter, The Competitive Advantage of Nations. New York, NY, USA: Free Press, 1990.

[3] B. Balassa, "Trade liberalisation and 'revealed' comparative advantage," The Manchester School, vol. 33, no. 2, pp. 99–123, May 1965, doi: 10.1111/j.1467-9957.1965.tb00050.x.

[4] D. Hummels and P. J. Klenow, "The variety and quality of a nation's exports," American Economic Review, vol. 95, no. 3, pp. 704–723, Jun. 2005, doi: 10.1257/0002828054201396.

[5] Government of India, Ministry of Commerce and Industry, Department of Commerce, Annual Report 2023–24. New Delhi, India, 2025. [Online]. Available: https://www.commerce.gov.in/files/2025-04/Annual-Report-English-Lower-Resolution-1.pdf. Accessed: Oct. 13, 2026.

[6] Directorate General of Foreign Trade, Foreign Trade Policy 2023. New Delhi, India: Ministry of Commerce and Industry, Government of India, 2023. [Online]. Available: https://dgft.gov.in/CP/?opt=ft-policy. Accessed: Oct. 13, 2026.

[7] J.-F. Arvis, L. Ojala, B. Shepherd, D. Ulybina, and C. Wiederer, Connecting to Compete 2023: Trade Logistics in an Uncertain Global Economy—The Logistics Performance Index and Its Indicators. Washington, DC, USA: World Bank, 2023, doi: 10.1596/39760.

[8] Directorate General of Commercial Intelligence and Statistics, "A quick view of India's trade scenario: Calendar year 2024," Commercial Intelligence Division, Ministry of Commerce and Industry, Government of India, Kolkata, India, Aug. 2025. [Online]. Available: https://www.dgciskol.gov.in/writereaddata/Downloads/20250819155439A%20Quick%20View%20of%20Indias%20Trade%20Scenario.pdf. Accessed: Oct. 13, 2026.

[9] N.-E. Aaby and S. F. Slater, "Management influences on export performance: A review of the empirical literature 1978–1988," International Marketing Review, vol. 6, no. 4, pp. 7–26, 1989, doi: 10.1108/EUM0000000001516.

[10] S. Zou and S. Stan, "The determinants of export performance: A review of the empirical literature between 1987 and 1997," International Marketing Review, vol. 15, no. 5, pp. 333–356, 1998, doi: 10.1108/02651339810236290.

[11] C. M. P. Sousa, F. J. Martínez-López, and F. Coelho, "The determinants of export performance: A review of the research in the literature between 1998 and 2005," International Journal of Management Reviews, vol. 10, no. 4, pp. 343–374, 2008, doi: 10.1111/j.1468-2370.2008.00232.x.

[12] J. Chen, C. M. P. Sousa, and X. He, "The determinants of export performance: A review of the literature 2006–2014," International Marketing Review, vol. 33, no. 5, pp. 626–670, 2016, doi: 10.1108/IMR-10-2015-0212.

[13] L. C. Leonidou, C. S. Katsikeas, and S. Samiee, "Marketing strategy determinants of export performance: A meta-analysis," Journal of Business Research, vol. 55, no. 1, pp. 51–67, 2002, doi: 10.1016/S0148-2963(00)00133-8.

[14] K. Sharma, "Factors determining India's export performance," Journal of Asian Economics, vol. 14, no. 3, pp. 435–446, 2003, doi: 10.1016/S1049-0078(03)00036-8.

[15] T. A. Bhavani and S. D. Tendulkar, "Determinants of firm-level export performance: A case study of Indian textile garments and apparel industry," The Journal of International Trade & Economic Development, vol. 10, no. 1, pp. 65–92, 2001, doi: 10.1080/09638190122431.

[16] A. B. Bernard and J. B. Jensen, "Exceptional exporter performance: Cause, effect, or both?," Journal of International Economics, vol. 47, no. 1, pp. 1–25, 1999, doi: 10.1016/S0022-1996(98)00027-0.

[17] A. B. Bernard, J. B. Jensen, S. J. Redding, and P. K. Schott, "Firms in international trade," Journal of Economic Perspectives, vol. 21, no. 3, pp. 105–130, 2007, doi: 10.1257/jep.21.3.105.

[18] M. J. Melitz, "The impact of trade on intra-industry reallocations and aggregate industry productivity," Econometrica, vol. 71, no. 6, pp. 1695–1725, Nov. 2003, doi: 10.1111/1468-0262.00467.

[19] B. Goldar, "R&D intensity and exports: A study of Indian pharmaceutical firms," Innovation and Development, vol. 3, no. 2, pp. 151–167, 2013, doi: 10.1080/2157930X.2013.828878.

[20] S. S. Pattnayak and S. M. Thangavelu, "Productivity and learning-by-exporting: A firm-level analysis of Indian manufacturing," The World Economy, vol. 37, no. 7, pp. 1016–1026, 2014, doi: 10.1111/twec.12136.

[21] C. Sharma and R. K. Mishra, "Does export and productivity growth linkage exist? Evidence from the Indian manufacturing industry," International Review of Applied Economics, vol. 25, no. 6, pp. 633–652, 2011, doi: 10.1080/02692171.2011.557046.

[22] C. Sharma, "Exporting, access of foreign technology, and firms' performance: Searching the link in Indian manufacturing," The Quarterly Review of Economics and Finance, vol. 68, pp. 46–62, 2018, doi: 10.1016/j.qref.2017.11.015.

[23] M.-A. Véganzonès-Varoudakis and P. Plane, "Innovation, exports, productivity and investment climate: A study based on Indian manufacturing firm-level data," Applied Economics, vol. 51, no. 41, pp. 4455–4476, 2019, doi: 10.1080/00036846.2019.1591606.

[24] S. Ramaiah and G. K. Roy, "Determinants of exports behaviour of India's agro-processing firms: Role of technology, imported raw materials and logistics infrastructure," Vision: The Journal of Business Perspective, vol. 25, no. 2, pp. 201–208, 2021, doi: 10.1177/0972262920981440.

[25] M. Grazzi, N. Mathew, and D. Moschella, "Making one's own way: Jumping ahead in the capability space and exporting among Indian firms," Journal of Evolutionary Economics, vol. 31, pp. 931–957, 2021, doi: 10.1007/s00191-020-00718-z.

[26] P. K. Sahoo, B. N. Rath, and V. Le, "Nexus between export, productivity, and competitiveness in the Indian manufacturing sector," Journal of Asian Economics, vol. 79, Art. no. 101454, 2022, doi: 10.1016/j.asieco.2022.101454.

[27] S. S. Jana, T. N. Sahu, and K. D. Pandey, "How far is FDI relevant to India's foreign trade growth? An empirical investigation," Journal of Economic Structures, vol. 9, Art. no. 30, 2020, doi: 10.1186/s40008-020-00212-6.

[28] D. Chakraborty, J. Mukherjee, and J. Lee, "FDI inflows influence merchandise exports? Causality analysis for India over 1991–2016," Global Economy Journal, vol. 17, no. 3, Art. no. 20170020, 2017, doi: 10.1515/gej-2017-0020.

[29] P. Tripathy, P. Behera, and B. R. Mishra, "Study of linkages between productivity, export, and outward foreign direct investment: An empirical perspective of Indian manufacturing industries," International Journal of Finance & Economics, vol. 28, no. 2, pp. 1527–1548, 2023, doi: 10.1002/ijfe.2492.

[30] S. K. Mangla and C.-H. Yang, "Spillover effects of foreign direct investment on firms' exports: Evidence from India," The World Economy, vol. 48, no. 7, pp. 1616–1629, 2025, doi: 10.1111/twec.13719.

Publisher's Note: The statements, opinions, findings, interpretations, and conclusions expressed in this article are solely those of the author(s) and do not necessarily reflect the views of the Journal, its Editors, Editorial Board, reviewers, or Publisher. Responsibility for the accuracy, integrity, and scholarly content of the article rests primarily with the author(s). The Journal, Editors, and Publisher exercise reasonable editorial and ethical oversight in accordance with the Journal's established policies. However, to the extent permitted by applicable law, they shall not be responsible for any consequences arising from the use, application, or interpretation of the information contained in the article. The Publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.