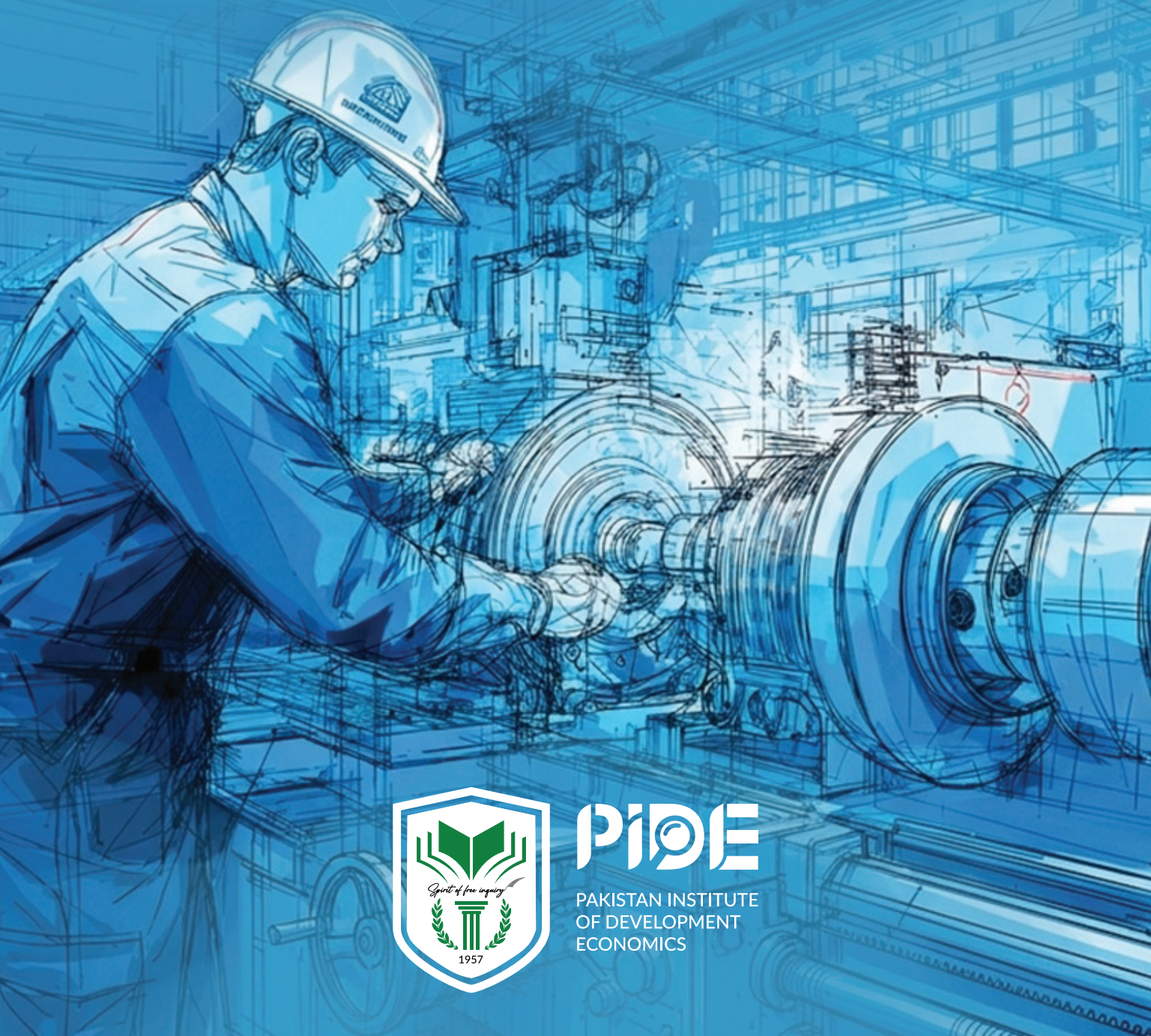
ISSUE 1, 2026

DISCOURSE

WHY DOESN'T INDUSTRY GROW?
Structural Barriers and Policy Failures



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Discourse Magazine exists to bring rigorous, evidence-based analysis to Pakistan's most consequential policy questions. For this issue, we chose a question that sits at the intersection of nearly every structural challenge the country faces: Why doesn't industry grow?

The issue drew contributions from economists, lawyers, sector specialists, and policy researchers, a breadth that reflects how multidimensional the answer turns out to be. No single barrier explains Pakistan's industrial and export underperformance. What emerges from reading this issue is a picture of interlocking constraints: a tax architecture that extracts from exporters before income is realised; an energy system that is simultaneously expensive, unreliable, and strategically exposed; a regulatory environment that imposes compliance costs far above regional peers; and industrial policies that have consistently rewarded incumbency over capability.

Behind these proximate causes lies a deeper finding, one that several contributors arrive at from different directions: state capacity and institutional quality are the binding constraints. Macroeconomic stabilisation, tariff reform, and sector-specific incentives can help at the margin, but sustained industrial upgrading requires institutions that deliver predictable rules, enforce contracts, and allocate resources on the basis of productivity rather than political access. On that dimension, Pakistan's record is poor, and the distance between where the country is and where its peers have reached

continues to widen.

The comparison with Vietnam, which appears in several articles, is sobering precisely because it was not inevitable. Two decades ago, Pakistan and Vietnam were not dissimilar in their export profiles. Today, Vietnam's exports are more than twelve times larger. The divergence is not explained by geography, natural resources, or initial endowments. It is explained by choices, about openness, about global value chain integration, about the quality of industrial policy and the institutions that deliver it.

We present this issue not as a counsel of despair but as a rigorous account of what would need to change. The contributions here identify not only the failures but also the opportunities: in export sectors that remain underdeveloped.

Pakistan possesses the human capital, the market scale, and the geographic position to compete. What has been missing, as this issue documents in some detail, is the policy environment and institutional quality that would allow those endowments to translate into growth.

We thank our contributors for the seriousness and care they brought to this issue, and we commend their work to readers across government, business, academia, and civil society. It is our hope that the debates and reflections presented here will inform policymakers and inspire broader engagement with one of the most critical challenges facing Pakistan today.

We hope you enjoy reading this issue of Discourse!

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PROTECTION WITHOUT COMPETITION:

Rethinking Industrial Strategy in Pakistan

Nadeem Javaid (SI)

Pakistan has spent decades trying to build industry through tariffs, subsidies, selective incentives, and periodic policy packages. Yet despite phases of respectable economic growth, its industrial base remains narrow, exports underperform, productivity growth is weak, and competitiveness remains elusive. The puzzle is not that Pakistan lacked industrial ambition. It is that it attempted to build industry without sufficient competition.

This distinction is central to understanding Pakistan's economic trajectory. For years, industrial policy has often been framed as a choice between protection and openness, between shielding domestic firms and exposing them to global markets. In reality, the more important question is whether protection creates capability—or merely preserves inefficiency. Protection can support industrial development when it is temporary, disciplined, and linked to performance. But when protection becomes permanent insulation, it weakens incentives to innovate, reduce costs, improve quality, or compete internationally.

Pakistan's broader growth experience reflects this contradiction. The economy has averaged moderate

growth over long periods, but much of that expansion has been consumption-led rather than productivity-led. Domestic demand, often supported by remittances, credit cycles, and episodic macroeconomic stimulus, has created the appearance of momentum without generating deep structural transformation. Imports rise quickly during expansions, while exports remain sluggish. The result has been repeated balance-of-payments crises, stop-go cycles, and an industrial structure that survives but does not evolve.

At the firm level, the consequences are visible. In competitive economies, firms are pushed to scale, adopt technology, improve management practices, and search for export markets. In Pakistan, many firms rationally behave differently. Where profitability depends more on tariff protection, regulatory discretion, or limited market rivalry, the incentive to invest in productivity weakens. Effort shifts from competing in markets to securing advantages within the system, particularly from the Government.

This helps explain why Pakistan's productivity record has remained disappointing. Total Factor Productivity—the measure of how efficiently labour and capital are combined—has been volatile and largely stagnant over time. That stagnation is not simply a technical statistic. It is the economic signature of a system where innovation is sporadic, technological upgradation is slow, and inefficient resource allocation persists.

Several sectors illustrate the pattern. Industries such as automobiles, sugar, fertilizer, cement, and steel have often operated within varying degrees of protection or concentrated market structures. While each sector has its own complexities, the broader outcome is familiar: higher domestic prices, uneven quality improvements, limited export competitiveness, and periodic demands for further Government support. Consumers pay more, downstream industries face higher input costs, and the economy gains less than it should from industrial policy.

The automobile sector offers a particularly clear example. After decades of policy support, domestic assembly exists, yet prices remain high relative to incomes, localization remains incomplete in many segments, and exports are negligible. Protection helped create an industry, but not necessarily a globally competitive one. Similarly, recurrent sugar, cement and automobiles shortages and policy reversals highlight how state support without market discipline can create instability rather than resilience.

This is not merely an economic issue; it is also a political economy problem. Once protection generates rents, beneficiaries gain incentives to preserve it. Over time, temporary support can become structurally embedded. Policy then shifts from promoting productivity to managing claims for privilege. Regulatory discretion expands, transparency weakens, and reform becomes harder because the status quo develops organized defenders.

The international record offers a different lesson. Successful industrializers did not simply protect firms—they disciplined them. South Korea tied state support to export performance. Vietnam accelerated industrial upgrading through openness, foreign investment, and integration into global value chains. Turkey pursued rules-based reforms and external competitiveness. Across these diverse experiences, the common principle was instilling a sense of competition with purpose.

The global context has now become even more demanding. According to the McKinsey Global Institute, growth is increasingly concentrated in a new generation of high-value arenas—including semiconductors, AI software, batteries, robotics, cybersecurity, advanced biotech, and next-generation mobility. These sectors added trillions of dollars in market value within a few years, while firms headquartered in the United States and China account for the overwhelming share of value creation. Industrial competition today is no longer factory versus factory. It is ecosystem versus ecosystem—where scale, talent, technology, capital, and execution speed reinforce each other.

This should serve as a warning for Pakistan. While the world competes in future industries, Pakistan remains preoccupied with protecting legacy sectors through tariff walls and discretionary incentives. An industrial strategy anchored solely in defending yesterday's markets cannot secure tomorrow's prosperity.

Pakistan's challenge, therefore, is not to tweak industrial policy but to redesign it. The country still needs strategic support in areas such as technology adoption, export diversification, SME upgrading, skills development, logistics, and innovation. But support must reward performance rather than survival.

A modern industrial strategy for Pakistan should rest on five principles.

First, protection should be time-bound and transparent. Tariffs and incentives should contain sunset clauses rather than becoming permanent entitlements.

Second, support should be conditional on measurable outcomes—exports, productivity gains, technology transfer, localization targets, or quality employment generation.

Third, domestic competition must be strengthened. The Competition Commission of Pakistan should be empowered to address collusion, abuse of dominance, and barriers to entry. Dynamic economies need contestable markets.

Fourth, trade policy should be simplified and made predictable. Complex tariff structures create distortions, rent-seeking, and anti-export bias. Firms invest when rules are clear and sufficiently durable.

Fifth, industrial policy must be explicitly export-oriented. Pakistan's domestic market matters, but it is not large enough to sustain high-productivity industrialization on its own. Global markets provide scale, discipline, and learning opportunities that inward-looking strategies cannot replicate.

This transition will not be effortless. Some firms accustomed to protection will resist change. Certain sectors may require phased adjustment. Government capacity to monitor performance must improve. Yet the cost of inaction is far greater: continued low productivity, shallow industrialization, expensive imports, weak exports, and recurring external crises.

Pakistan does not suffer from a shortage of entrepreneurs, workers, or ideas. It suffers from a shortage of incentives that consistently reward efficiency, innovation, and scale. Where the system rewards access more than performance, rational firms adapt accordingly.

The real lesson of Pakistan's industrial history is not that protection never works. It is that protection without competition does not.

If Pakistan wants an industrial sector that competes globally, creates quality jobs, and sustains growth, it must move beyond the old debate of protection versus openness. The real choice is between policies that preserve firms as they are—and policies that push them to become what they could be.

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TRADE, EXPORTS, AND INTEGRATION:

Pathways to Sustainable Economic Growth

Manzoor Ahmad

Trade has long been one of the most powerful engines of economic growth. A review of global economic history reveals a clear pattern: countries that have achieved sustained prosperity have done so by actively engaging with the international trading system. In our own lifetime, economies as diverse as China, Chile, Ireland, and Turkey have advanced rapidly by opening up and integrating with global markets.

At its core, trade is the sum of exports and imports. Yet public discourse often places disproportionate emphasis on exports while viewing imports with suspicion. This reflects the mercantilist mindset that dominated the 17th and 18th centuries and was decisively discredited over 250 years ago by Adam Smith in his seminal work, The Wealth of Nations.

In reality, exports and imports are complementary. No country can expand exports without also expanding imports. Imports provide the raw materials, intermediate goods, capital equipment, and technology necessary to produce competitive exports. Rather than being a leakage, they are an investment in productive capacity.

This relationship was rigorously formalized by Abba Lerner in what is often referred to as the Lerner Symmetry Theorem: tariffs on imports act, in effect, as taxes on exports. By raising the cost of imported inputs and appreciating the real exchange rate, protection reduces export competitiveness. Countries that maintain high tariff walls, therefore, implicitly penalize their own exporters.

Countries pursuing trade-led growth typically experience an initial surge in imports. This is both natural and necessary as industries modernize and integrate into global markets. While this phase may widen the trade deficit, such imbalances are often part of a broader process of economic restructuring. Cross-country evidence shows that successful exporters, from East Asia to Eastern Europe, passed through similar phases before achieving sustained export growth.

A comparison of Turkey and Pakistan illustrates this dynamic clearly. Turkey's trade (exports plus imports) now amounts to roughly 60–65 percent of GDP, broadly in line with the global average for middle-income countries. Its exports alone are about 30–35 percent of GDP, reflecting deep

integration into global markets and supply chains. By contrast, Pakistan's trade-to-GDP ratio remains around 25–30 percent, with exports at only 10–12 percent of GDP, one of the lowest among comparable economies. This gap in openness is not merely statistical; it reflects a fundamental difference in economic structure and strategy.

Turkey's transformation was rooted in a decisive policy change. Following a severe crisis in the late 1970s, it undertook comprehensive reforms under Turgut Özal, shifting from import substitution to outward orientation. By aligning its trade regime with the European Union and entering the EU–Turkey Customs Union, Turkey embedded itself in global and regional markets. Today, it is deeply integrated into global value chains, particularly in manufacturing sectors such as automobiles, machinery, and consumer durables.

In contrast, Pakistan remained largely inward-looking over the same period. High and cascading tariffs, combined with regulatory barriers, limited its integration into global markets. Participation in global value chains remains modest, estimated at less than 20 percent of exports, compared to over 40 percent in more integrated emerging economies. The result has been a narrow export base, concentrated in low-value textiles, and a persistent reliance on external financing, including repeated engagement with the International Monetary Fund.

Greater openness also shapes the composition and quality of capital inflows. Economies that are integrated into global trade networks tend to attract export-oriented foreign direct investment, which brings not only capital but also technology and managerial know-how. These inflows support productivity growth and help finance external imbalances sustainably.

A defining feature of modern trade is the rise of global value chains, which now account for a large share of world trade. Production is increasingly fragmented across borders, with countries specializing in specific stages of the production process. Integration into these networks requires low trade barriers, efficient logistics, and predictable policy regimes. High tariffs and cumbersome regulations act as barriers to entry, effectively excluding firms from participating in these networks.

This is where domestic reform becomes critical. While deep trade agreements can facilitate access, they cannot substitute for unilateral liberalization. Countries that have successfully integrated into the global economy have done so by reducing tariffs, streamlining procedures, and creating an enabling environment for trade and investment.

Encouragingly, Pakistan is now moving in this direction. Its National Tariff Policy 2025–30 represents a significant shift in policy orientation. By reducing tariff dispersion and moving away from cascading protection, the policy aims to lower the anti-export bias embedded in the tariff structure. In effect, it seeks to remove the implicit taxation of exports highlighted by Lerner, thereby improving competitiveness.

Early signals are positive. Large-scale manufacturing has begun to recover, and ICT exports are growing at a robust pace. Lower tariffs are also enabling a transition from a control-based trade regime to one focused on facilitation, reducing transaction costs and improving reliability, both essential for participation in global value chains.

The broader lesson is clear. Countries that have prospered are those that have integrated regionally and globally, embedded themselves in global value chains, and adopted outward-oriented strategies. Those that remained inward-looking, relying on protection and import substitution, have struggled to sustain growth.

Pakistan's new tariff policy marks an important break from the past. By shifting toward export-led growth, reducing reliance on tariff protection, and aligning domestic incentives with global competitiveness, it represents a meaningful step toward integration with the world economy. Sustaining this trajectory will be critical, as long-term success depends not only on the direction of reform but on its consistency over time.

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HOW DOES STATE CAPACITY AFFECT INDUSTRIAL PERFORMANCE IN PAKISTAN?

Vaqar Ahmed

INTRODUCTION

The persistent decline in Pakistan's industrial competitiveness vis-à-vis peers cannot be explained solely by conventional macroeconomic variables. Energy prices and shortages, tax policy uncertainty, exchange rate volatility[1], and monetary tightness are proximate symptoms, not root causes. The binding constraints reside deeper, within the state's institutional architecture and the political economy incentives that shape market actors' behavior.

This article advances the argument that industrial competitiveness is fundamentally a function of governance quality and state capability. Where institutions are fragmented, rents are allocated discretionarily, and policy credibility is absent, no amount of trade preference or capital subsidy can catalyze sustained industrial upgrading. Drawing on recent diagnostics[2], this analysis systematically unpacks why Pakistan remains trapped in a low-productivity equilibrium. The focus is exclusively institutional and political: competition frameworks, bankruptcy regimes, land markets, regulatory sludge[3], multi-tier governance, elite capture, coordination failures, and the chronic absence of time-consistent policy[4].

1.Javed, S. A., Ali, W., & Ahmed, V. (2016). Exchange rate and external competitiveness: a case of Pakistan. Sustainable Development Policy Institute.
2. Chatha, I.A., Ahmed, V. and Zahid, J., 2026. Is there a case for industrial policy in Pakistan? Working Paper Series - WP 213. Sustainable Development Policy Institute (SDPI), Islamabad.
3. Haque, N. U., Qasim, A. W., & Khawaja, I. (2022). PIDE Sludge Audit (No. 2022: 1). Pakistan Institute of Development Economics.
4. Ahmed, S. S., & Ahmed, V. (2022). Supporting Export Competitiveness in Pakistan's Industrial Sector Amid Covid-19. Global Pakistan: Pakistan's Role in the International System, 245.

THE CONCEPTUAL FRAMEWORK

Industrial competitiveness emerges from the interaction of three institutional domains: market structure, firm dynamics, and state capability.[5] For large-scale manufacturing, the relevant metric is not simply output volume but the intensity of competitive pressure and the ease of firm entry and exit. For micro, small, and medium enterprises (MSMEs), the critical issue is the cost of formality and the predictability of administrative enforcement. Pakistan remains weak on both counts. The conceptual lens adopted here treats the state not as a neutral planner but as a strategic actor whose credibility determines investment horizons. When industrial policy is subject to arbitrary reversal, when regulatory permits are allocated through personal connections, and when incumbent creditors capture bankruptcy procedures, the rational firm responds by remaining small, informal, and liquid. This is not a cultural pathology; it is a rational adaptation to an unpredictable institutional environment. The political economy of industrial policy literature, as applied to South Asia, demonstrates that the divergence between Pakistan and structurally similar economies can be traced to differences in bureaucratic autonomy and judicial enforcement of contracts.[6]

LARGE SCALE MANUFACTURING: MARKET STRUCTURE AND EXIT DYNAMICS

The Quantum Index of Manufacturing published by the Pakistan Bureau of Statistics provides a partial but indicative picture of formal industrial activity. The underlying reality, however, is one of concentrated market power and weak competitive rivalry. Sectoral analysis reveals that a small number of business houses control disproportionate shares of production capacity, often protected by tariff walls, discretionary import licenses, or exclusive access to foreign exchange.[7] This market structure discourages innovation and depresses total factor productivity.[8] The absence of an effective competition framework allows tacit collusion to persist, with the Competition Commission of Pakistan lacking both the investigative capacity and the political insulation to challenge entrenched interests.[9]

More fundamentally, the bankruptcy regime in Pakistan remains dysfunctional. The existing legal framework for corporate insolvency and restructuring is characterized by protracted litigation, low recovery rates for creditors, and the absence of a time-bound resolution mechanism. Inefficient firms are neither restructured nor liquidated; they continue operating with negative value added, sustained by bank forbearance and political patronage. This distortion in firm exit dynamics prevents the reallocation of capital and labour to more productive uses, constituting a silent tax on aggregate industrial efficiency. Public investment is much needed to push for ecosystem improvement in economically backward provinces, but it is weak and sporadic.[10]

MICRO, SMALL, AND MEDIUM ENTERPRISES: THE BURDEN OF SLUDGE

If large-scale manufacturing suffers from concentrated market power, the MSME sector suffers from regulatory suffocation. Sludge - defined as administrative friction that imposes compliance costs without corresponding public benefits stifles the long-run competitiveness of formal MSMEs. For a small enterprise, the cumulative burden of registering, obtaining tax status, securing provincial clearances, and registering with the local municipal authority for trade licenses can exceed several months of operating capital. This sludge does not fall evenly; it falls hardest on firms without access to legal or accounting professionals.

5. Ahmed, V. (2023). Evidence and Lessons from BRI The Case of China-Pakistan Economic Corridor. In Belt and Road Initiative and South Asia (pp. 114-129). Routledge.
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7. Vaqar, A., & Cathal, O. D. (2010). Tariff reduction in a small open economy. Seoul Journal of Economics, 23(4), 461-489.
8. Naqvi, W., Hayat, D., Javed, M., & Ahmed, V. (2019). A review of export promotion and exemption schemes. Sustainable Development Policy Institute (SDPI).
9. Ahmed, V., & Batool, S. (2016). India–Pakistan trade: perspectives from the automobile sector in Pakistan. In India-Pakistan trade normalisation: The unfinished economic agenda (pp. 129-161). Singapore: Springer Singapore. See also, Ahmed, V., & Batool, S. (2016). India–Pakistan trade: a case study of the pharmaceutical sector. In India-Pakistan Trade Normalisation: The Unfinished Economic Agenda (pp. 219-244). Singapore: Springer Singapore.
10. Shabbir, S., & Ahmed, V. (2015). Welfare impacts of Afghan trade on the Pakistani provinces of Balochistan and Khyber Pakhtunkhwa. Stability: International Journal of Security and Development, 4(1), 6-6.

The predictable response is informality. Women-led firms are at a greater disadvantage. [11] However, informal enterprises face their own constraints: they cannot access formal credit from commercial banks, bid for government procurement contracts, or participate in export supply chains that require documented invoices. The informal sector thus becomes a reservoir of unproductive entrepreneurship, locked out of scaling opportunities.[12]Critically, the sludge burden is not merely a federal problem. Provincial and local governments impose overlapping inspection regimes for labour, fire safety, sanitation, and zoning, each with its own schedule of unofficial payments.[13] The resulting regulatory fragmentation converts the act of operating a legitimate business into a continuous negotiation with multiple tiers of the state.

GOVERNANCE ACROSS FEDERAL, PROVINCIAL, AND LOCAL TIERS

The constitutional division of responsibilities after the Eighteenth Amendment created opportunities for devolution but also produced coordination failures. While trade policy, trade taxes, and most overarching regulatory frameworks remain federal, there is a lack of consensus on where the industrial policy should sit. Land, labour, and environmental standards are provincial. Municipal licensing and infrastructure are local. No structured mechanism exists to harmonize these tiers. An investor seeking to establish a manufacturing unit must navigate federal approval for the import of machinery, provincial approval for land use conversion, and local approval for building permits[14].

The absence of a binding dispute resolution mechanism between tiers means that a conflict at one level can halt the entire venture. The Special Investment Facilitation Council (SIFC) has, to some extent, been trying to address this issue.

Furthermore, the quality of governance varies dramatically across provinces, with some demonstrating higher bureaucratic capacity than others.[15] This unevenness creates an internal arbitrage opportunity for firms to locate in provinces with weaker enforcement, triggering a race to the bottom on labour and environmental standards. The interprovincial mobility of industrial capital remains low, precisely because land markets are provincial and land transfer procedures are opaque, litigious, and vulnerable to capture.[16]

RENT ALLOCATION, WEAK COMPETITION, AND POLICY CREDIBILITY

The political economy literature on Pakistan consistently identifies rent allocation as the central mechanism linking state and business.[17] Rather than competing on price or quality, firms compete for preferential access to foreign exchange, local licenses, tariff exemptions, subsidized credit, and government procurement contracts. This system of patronage has produced an industrial structure oriented toward domestic rents rather than export competitiveness.

Even the trade associations are often dominated by a few large members who shape tariff and regulatory policy to their advantage, raising barriers for smaller competitors. Elite capture extends to the bureaucracy as well, where post-retirement placements of senior officials on corporate boards create revolving-door incentives that soften regulatory enforcement. The cumulative effect is a crisis of policy credibility. Investors, both domestic and foreign, cannot distinguish between policy announcements and binding commitments.

Time inconsistency is endemic: an export subsidy announced in one fiscal year is withdrawn the next; a special economic zone granted tariff exemptions is later subjected to retrospective taxation. This unpredictability raises the required rate of return on industrial investment, discouraging long-term capital formation.

11. Ahmed, V., Suleri, A. Q., & Javed, A. (2015). Strengthening South Asia value chain: Prospects and challenges. South Asia Economic Journal, 16(2_suppl), 55S-74S.
12. Shahzad, M. A., Ahmed, V., & Fischer, C. (2021). Status and determinants of other gainful activities by farmers in mountainous rural regions of Gilgit-Baltistan, Pakistan. Journal of Mountain Science, 18(10), 2520-2539. See also: Ahmed, V., Suleri, A. Q., Wahab, M. A., & Javed, A. (2014). Informal flow of merchandise from India: The case of Pakistan. In India-Pakistan trade: Strengthening economic relations (pp. 47-70). New Delhi: Springer India.
13. Government of Khyber Pakhtunkhwa. (2023). Khyber Pakhtunkhwa urban policy 2023. Planning & Development Department. https://pnd-kp.gov.pk/2023/03/09/kp-urban-policy-2023/
14. Nazir, A., Afridi, A., Ahmed, V., Gregory, D., Arif, M., & Kazmi, S. M. (2021). Developing inclusive and creative economies: creative and social enterprise in Pakistan. SDPI.
15. Nazir, A., Maken, A. M., & Ahmed, V. (2018). Streamlining tax harmonisation in Pakistan. Sustainable Development Policy Institute.
16. Khan, S. A., & Ahmed, V. (2014). Peaceful economies: Assessing the role of the private sector in conflict prevention in Pakistan. Stability: International Journal of Security and Development, 3(1), 24-24.
17. Ahmed, V. (2018) Pakistan's Agenda for Economic Reforms. Oxford University Press.

Most recent diagnostics have repeatedly highlighted that Pakistan's policy uncertainty indicators rank significantly worse than comparator economies at similar income levels, even after controlling for political instability[18].

WEAKNESSES IN PUBLIC-PRIVATE COORDINATION

Public-private coordination in Pakistan operates through formal councils and informal networks. The former are largely ineffective, characterized by infrequent meetings and non-binding recommendations. The latter, while efficient for individual rent seeking, cannot substitute for collective action on industrial upgrading. The result is a persistent mismatch between the skills produced by the education system and the demands of manufacturing firms, as well as between the infrastructure provided by the state and the logistics needs of exporters.

This coordination failure has direct consequences for trade. Pakistan enjoys preferential market access under the Generalized Scheme of Preferences Plus regime granted by the European Union, as well as free trade agreements with China and other partners. Yet the utilization rate of these preferences remains suboptimal. The reason is internal, not external. Domestic compliance costs, regulatory sludge, and unreliable infrastructure erode the competitive advantage that tariff preferences confer. A firm cannot benefit from duty-free access if it cannot meet the Rules of Origin requirements or if its consignments are delayed at ports due to fragmented documentation. Similarly, the China-Pakistan Free Trade Agreement has delivered limited industrial upgrading because the domestic governance environment does not allow Pakistani firms to integrate into Chinese value chains beyond the most basic assembly operations.[19]

A THEORY OF CHANGE FOR INDUSTRIAL RENEWAL

The binding constraint is institutional. The theory of change, therefore, must prioritize governance reform over capital provision. The causal pathway proceeds as follows: reducing regulatory sludge and enforcing time-consistent policies lowers the cost of formality; lower formality costs induce firms to register and comply; registered firms gain access to credit, contracts, and trade preferences; and this virtuous cycle raises productivity and employment.

To activate this pathway, A focused but necessarily partial set of governance reforms can help address critical institutional bottlenecks. At the federal level, reforms include legislating a mandatory periodic Regulatory Impact Assessment for all new business regulations to enhance regulatory quality and predictability, strengthening competition policy enforcement, improving judicial efficiency and contract enforcement, and consolidating a unified bankruptcy and insolvency framework independent of political influence to facilitate efficient firm exit and capital reallocation.

At the provincial level, reforms may focus on digitizing and centralizing land (and other immovable property) records and property transfer procedures to secure property rights, enhancing tax administration and compliance systems, improving bureaucratic capability, and institutionalizing mechanisms to resolve jurisdictional disputes within a statutory timeline.

Across both levels, broader measures such as reducing corruption, investing in administrative simplification, and integrating strategic management practices are essential to improve public sector effectiveness. While these governance and institutional reforms are central to shaping the business environment and enhancing industrial competitiveness, they operate alongside other critical drivers, including macroeconomic stability, energy reliability, infrastructure, access to finance, and firm-level productivity. Public investment reform is much needed to promote ecosystem changes and improve infrastructure including energy. Governance improvements should therefore be understood as necessary but not sufficient, forming a foundational component of a comprehensive industrial development strategy.

18. Ahmed, V. (2023). Evidence and Lessons from BRI The Case of China-Pakistan Economic Corridor. In Belt and Road Initiative and South Asia (pp. 114-129). Routledge.
19. Manzoor, R., Ahmed, V., & Javed, A. (2020). Addressing non-tariff measures to promote Pakistan's textile sector (No. 189). ARTNeT Working Paper Series.

CONCLUSION

Pakistan's industrial constraints are not merely resource constraints. It is a governance constraint. The institutional architecture of the state produces uncertainty, rent seeking, and fragmentation. No trade agreement, subsidy, or monetary easing can compensate for a business environment in which the rules change unpredictably and enforcement is selective. The path forward requires political will to confront entrenched interests and administrative capacity to implement digital governance.

The evidence from comparator economies is unambiguous: those that reformed their institutional frameworks saw sustained industrial growth; those that did not remain trapped. The choice for Pakistan is between continuing the cycle of low productivity and undertaking the difficult work of institutional renewal.

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DOES PAKISTAN's ECONOMY OFFER A LEVEL PLAYING FIELD[20]?

Ali Salman

The idea of a level playing field has become a familiar refrain in Pakistan's economic and policy discourse. Regulators invoke it, governments promise it, and businesses demand it—often with very different meanings in mind. Yet despite its frequent use, the concept remains poorly understood and, more importantly, inconsistently applied. This confusion has serious implications for how we design economic policy, regulate markets, and interpret competition.

At its simplest, a level playing field refers to a situation in which firms can compete without facing discrimination imposed by the state. Dictionaries describe it as a condition in which no participant enjoys special advantages. While intuitively appealing, this definition conceals a deeper conceptual problem: equal chances and fair competition are not the same thing. In real economies, firms differ in size, resources, skills, risk appetite, and history. Expecting equal outcomes—or even equal opportunities—is neither realistic nor desirable.

The policy challenge, therefore, is not to equalize opportunities, but to ensure equality before the law.

20. This article is based on a public lecture delivered by the author at the invitation of Competition Commission of Pakistan Center of Excellence on 16th October 2025.

EQUAL OPPORTUNITY IS A MYTH—EQUAL RULES ARE NOT

Economic discourse often conflates a level playing field with equal opportunity. This is a fundamental mistake. Opportunities are inherently unequal. Entrepreneurs differ in education, wealth, networks, and risk tolerance. Firms enter markets at different times, innovate at different speeds, and face different cost structures. These differences are natural and form the very essence of competition. From a policy perspective, attempting to equalize such opportunities through subsidies, quotas, or preferential treatment can do more harm than good. It distorts incentives, entrenches inefficiencies, and often rewards lobbying over innovation.

A level playing field, properly understood, does not mean that every firm has the same chance of success. It means that the state does not legally discriminate among firms operating in the same market. In this narrow but crucial sense, a level playing field exists when laws, regulations, taxes, and enforcement mechanisms apply uniformly—regardless of ownership, size, or origin.[21]

THE FIRM AND THE STATE: WHERE DISTORTIONS BEGIN

Markets rest on two key pillars: firms and the state. Firms compete, innovate, and respond to consumer demand. The state sets the rules of the game. A level playing field exists only when the state refrains from tilting those rules in favor of some firms over others.

Yet the state itself is not a neutral actor. Legislators respond to political incentives; bureaucracies seek to preserve authority and relevance. As public choice theory reminds us, rules are shaped by interests and power dynamics. Even laws that appear neutral on paper can produce unequal outcomes in practice.

Large firms, for example, can absorb compliance costs more easily than small ones. They hire lawyers, consultants, and lobbyists to navigate complex regulatory regimes. A procurement tender with high financial thresholds may be formally open to all, yet effectively excludes smaller firms. The law may be equal, but its impact is not.

This reality, however, does not invalidate the concept of a level playing field. It merely underscores the importance of simplicity, clarity, and restraint in regulation.

PAKISTAN'S ECONOMY: FIVE SOURCES OF AN UNLEVEL PLAYING FIELD

When we examine Pakistan's economic structure through this lens, it becomes evident that the country faces multiple, persistent distortions. These distortions do not arise from markets themselves, but from policy choices. Five manifestations stand out.

First, discriminatory laws and exemptions.
Special economic zones, tax holidays, and sector specific incentives create uneven cost structures across firms. While often justified in the name of industrial policy or foreign investment, such exemptions penalize firms outside the favored categories. In an economy already burdened by complex taxation and weak enforcement, selective exemptions amplify distortions rather than correcting them.

Second, public procurement practices.
Government procurement frequently embeds conditions that exclude entire classes of potential bidders. Financial capacity requirements, prior experience clauses, or abrupt tender cancellations can legally—but unfairly—discriminate against local or smaller firms. These practices undermine competition and inflate costs for taxpayers.

Third, illicit trade and informal competition.
Smuggling, counterfeiting, and tax evasion create a deeply unlevel playing field. Firms that evade taxes or regulatory standards operate with artificially low costs, capturing market share from compliant businesses. The result is not healthy competition, but a race to the bottom—one that rewards illegality over efficiency.

21. Appelman, Marja & Gorter, Joeri & Lijesen, Mark & Onderstal, Sander & Venniker, Richard. (2003). Equal rules or equal opportunities? Demystifying level playing field. https://www.researchgate.net/publication/4833784_Equal_rules_or_equal_opportunities_Demystifying_level_playing_field

Fourth, state owned enterprises in commercial markets.
When the government itself competes with private firms, neutrality becomes impossible. State owned enterprises enjoy implicit guarantees, preferential access to finance, and regulatory influence. Private firms cannot compete with entities that can absorb losses indefinitely through public bailouts. Even profitable SOEs distort markets simply by virtue of their ownership.

Fifth, trade and tariff policy.
Decades of protectionism have insulated domestic firms from competition, limiting consumer choice and discouraging innovation. High tariffs and non tariff barriers create artificial monopolies and deny efficient firms the discipline of global markets. Recent steps toward tariff rationalization are encouraging, but the legacy of import substitution remains deeply entrenched.

Any market in which one or more of these conditions exists cannot be said to offer a level playing field.

RETHINKING THE ROLE OF THE COMPETITION COMMISSION

The Competition Commission of Pakistan (Competition Commission of Pakistan)[22] declares its mission as "Creating a Level Playing Field." This is an admirable objective—but one that requires conceptual clarity.

Competition law should focus on removing legal and institutional distortions created by the state, not on policing every successful business strategy. Provisions related to abuse of dominance, price discrimination, or tie in arrangements risk overreach when applied without a dynamic understanding of markets. Many practices deemed anti competitive may, in fact, reflect innovation, risk taking, or legitimate responses to market conditions.

The danger lies in treating market outcomes as evidence of wrongdoing, rather than asking whether the rules themselves have biased those outcomes. A private monopoly created through innovation is fundamentally different from a monopoly sustained by regulation or state patronage. The former is typically temporary; the latter is persistent and harmful.

A competition authority that ignores this distinction risks suppressing entrepreneurship while leaving the real sources of distortion untouched.

TOWARD EQUAL RULES, NOT ENGINEERED OUTCOMES

The policy implications of this perspective are clear.

Pakistan does not need more discretionary interventions, exemptions, or selective enforcement. It needs fewer rules, applied uniformly. It needs a state that fosters commercial activity, simplifies taxation, liberalizes trade, and enforces laws predictably. It needs regulators who understand markets as evolving processes rather than static structures.

Most importantly, it needs to abandon the illusion that policy can or should equalize opportunity. What policy can do is ensure that success or failure is determined by consumer choice and entrepreneurial judgment—not by political access or regulatory privilege.

A truly level playing field is not one where everyone wins. It is one where everyone plays by the same rules.

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22. Competition Act 2010
https://cc.gov.pk/assets/images/Downloads/competitionn_act_2010.pdf

PAKISTAN's REGULATORY QUAGMIRE:
An Analysis of the World Bank's B-READY Assessment

Mukarram Jah Ansari

INTRODUCTION

Global investors, multinational corporations, and Development Finance Institutions rely heavily on standardized indices to evaluate a country's investment climate. These benchmarks distill complex regulatory environments into comparable metrics on time, cost, procedural complexity, and quality of public services. The World Bank's former Doing Business report (discontinued in 2021 due to data irregularities) was long considered the gold standard, influencing billions of dollars in annual foreign direct investment (FDI) decisions. Firms used it to rank jurisdictions on ease of starting operations, paying taxes, enforcing contracts, and trading across borders. A higher rank signaled lower compliance friction, stronger rule of law, and predictability—key determinants of capital allocation alongside market size and labor costs.

Pakistan's last Doing Business 2020 ranking captured both progress and persistent challenges. The country climbed 28 places to 108th out of 190 economies (score 61.0), placing it among the top 10 improvers globally. Reforms included streamlined company registration through the Securities and Exchange Commission of Pakistan (SECP), improved cross-border trade, online tax filing, and simplification of construction permits. Yet weaknesses lingered: paying taxes ranked 161st (34 payments/year, 283 hours, 33.9% total tax rate), enforcing contracts 156th (1,071 days on average), and registering property 151st. These gaps highlighted multi-layered bureaucracy at the federal, provincial, and municipal levels.

The World Bank's successor Index for Investment Climate, Business Ready (B-READY), was launched in 2024 (the inaugural edition covered 50 economies), and the second report was published a few weeks later (expanding the number of covered economies to 101). This new index offers a more nuanced, three-pillar lens: Regulatory Framework (de jure rules), Public Services (infrastructure and digital tools), and Operational Efficiency (de facto experience via firm surveys). Unlike Doing Business' single ranking, B-READY uses quintiles

and topic scores (0–100) across 10 firm lifecycle areas, balancing firm burden with social benefits like worker protections and environmental standards. Pakistan appears in both reports and shows that it has remained mired in the lower tiers—fourth quintile overall in 2024 (weak regulatory framework and public services) and in a similar position in 2025. This persistence signals "regulatory sludge": excessive, overlapping, paper-heavy compliance demands that waste time, money, and resources. The result is deterred investment, informality, and stunted growth. This article analyzes Pakistan's B-READY performance relative to its Doing Business legacy, dissects the sludge at the federal-provincial-municipal interfaces, draws conclusions, and offers a forward path.

ANALYSIS: B-READY PERFORMANCE AND THE ANATOMY OF REGULATORY SLUDGE

B-READY's methodology marks a shift from Doing Business's SME-focused case studies to broader, balanced assessment incorporating ~1,200 indicators per economy. Pakistan's 2024 placement in the fourth quintile reflected Regulatory Framework at ~59.1/100 and Public Services at ~44.97/100 (bottom 40%), with Operational Efficiency at 65.90/100 (third quintile). By 2025, scores edged up modestly: Regulatory Framework 62/100 (still bottom 40%), Public Services 55/100, Operational Efficiency 60/100. No single composite rank exists, but topic scores reveal an uneven reform story.

Strengths cluster in early lifecycle stages. Business Entry scored 91.50/100 in 2024 and ~87/100 overall in 2025 (top 20% of measured economies, i.e., the first quintile). Domestic firm registration takes just 5–7 days, costing 3-5% OF GNI per capita, and foreign firms fare similarly (7 days, costing 3% of GNI per capita). Pillar 1 (Regulatory Framework) hits 90–91.67/100 thanks to mandatory name verification, shareholder filings, annual returns, and electronic systems at SECP. No minimum capital or sociodemographic restrictions apply. Operational Efficiency (Pillar 3) reaches 94–97.5/100, reflecting real-world speed from online portals. These gains echo the SECP's Doing Business 2020 reforms and explain Pakistan's earlier jump.

Utility Services and Financial Services also perform respectably (59–78/100 range), with regulations on tariff monitoring and secured transactions scoring well.

Weaknesses, however, dominate operational and market-participation stages, exposing sludge. International Trade languishes at 45.71/100 (2024) with Operational Efficiency Pillar 3 at just 25.50/100 in 2025. Export clearance takes 15 days; import clearance takes 38 days; compliance costs 17% of the shipment value. Limited Trusted Trader programs, poor digital infrastructure at borders, and overlapping federal-provincial export requirements (Pakistan Customs, provincial trade bodies) create redundancy. Taxation scores 57.48/100 (2024) and remains weak in 2025 (Regulatory Framework 35.47/100): clarity/transparency only 7/40, digital services fragmented. Firms file with the federal revenue agency FBR (income tax, sales tax) plus provincial revenue authorities (SRB in Sindh, PRA in Punjab, KPRA in Khyber Pakhtunkhwa, & BRA in Balochistan) and municipal levies. PIDE estimates that compliance alone consumes hundreds of hours yearly.

Dispute Resolution is among the weakest at 41.99/100 (2024) and 40/100 (2025). Court litigation drags (historical Doing Business 1,071 days); transparency is low; alternative dispute resolution (ADR) is underdeveloped (Pillar 2 Public Services 29.82/100). Market Competition (46.24/100) and Business Insolvency (48.79/100) suffer similarly: liquidation takes 24–48 months (cost 5–9% of firm value); reorganization takes 12–17 months. No specialized Micro & Small Enterprises insolvency regime or cross-border framework exists.

The deepest sludge arises from multi-tiered governance. The 18th Constitutional Amendment (2010) devolved labor, environment, and many taxes to the provinces, while most Federal Ministries & Divisions continued to exist, creating 118+ federal regulatory bodies, plus provincial equivalents, and 800+ municipal agencies. PIDE's "Sludge Audits" (Vols 1–3) quantify the burden: unnecessary frictions—repetitive No Objection Certificates (NOCs), inspections, renewals, and reporting—cost Pakistan ~39% of GDP ($132 billion in 2023 terms). Examples abound:

- Labor compliance: Federal EOBI and provincial Social Security Institutions (e.g., Punjab / Sindh Employees Social Security Institutions) plus Workers' Welfare Fund (WWF/WPPF) at both levels require dual registrations, dual filings, dual contributions and dual inspections.

- Permits and location: Business Location scores remain in the moderate range ~54/100 (2024), but are not conducive to attracting investors. Construction permits can take 45–60 days, but costs can hit 425% GNI per capita in some scenarios. Environmental permits (EPA federal/provincial) require 120+ days and multiple NOCs; building approvals involve municipal town administrations, cantonment boards, and development authorities with manual or non-interoperable digital systems.
- Taxes and operations: FBR's IRIS portal coexists with provincial revenue authorities. Municipal "visibility tax" or advertisement levies (often outsourced) add disputes. The Federal PSQCA's quality marks and provincial food authorities' licenses impose overlapping certifications with high costs.
- Inspections and renewals: Non-risk-based, frequent visits across labor, environment, fire, and health departments consume managerial time. The Pakistan Regulatory Modernization Initiative (PRMI) and "Asaan Karobar" efforts aim to address these pain points, but progress is gradual & incremental.

Firm surveys in B-READY's Operational Efficiency pillar capture de facto pain: SMEs report the highest friction, pushing 40%+ of activity into the informal sector. Larger firms navigate compliance through compliance officers, but FDI inflows remain subdued (World Bank data shows Pakistan lags regional peers like Bangladesh and Vietnam).

CONCLUSIONS

Pakistan's B-READY results confirm that Doing Business gains in entry were real but insufficient for the overall regulatory environment. The country has not "slid" dramatically—modest 2024–2025 improvements reflect ongoing digitization—but remains stuck in lower quintiles because sludge is systemic, not episodic. Fragmented & overlapping three-tier regulation has become more cumbersome post-devolution, with paper-heavy processes and low digital interoperability, multiplying compliance costs without proportional social gains. Investors interpret low scores as signals of unpredictability: delayed dispute resolution erodes contract enforcement; trade barriers raise export costs; tax complexity & opacity invite burdensome compliance requirements and burdensome audits. Consequences include lower FDI (Pakistan attracts ~1% of South Asian inflows despite a population of 250 million), SME informality, reduced innovation (Market Competition Pillar 3 ~32/100), and forgone growth. PIDE's sludge estimate (at 39% of GDP in 2022) underscores macroeconomic drag—equivalent to erasing entire sectors. These need to be cross-checked against recent data to measure progress or otherwise over the past 4 years. One thing is certain: without deeper reform, Pakistan risks a perpetual middle-income trap, unable to leverage demographics or CPEC 2.0.

RECOMMENDATIONS: THE WAY FORWARD

Pakistan can exit the regulatory quagmire through targeted, sequenced actions aligned with B-READY's pillars and PRMI framework:
Capacity and Transparency: Train regulators at every level in SMART regulations, focusing on the toolkit used for this purpose; publish annual compliance cost reports (building on PIDE audits) for both the Federal Government and all provincial governments/regions through hand-holding initiatives; incentivize provinces via performance-linked federal grants tied to B-READY topic improvements.

Regulatory Impact Analysis (RIA) and Sunset Clauses: Institutionalize RIA for all new/existing RLCOs across federal/provincial/municipal levels; carry out large-scale review of sub-national RLCOs in PRMI Phase 2; convert low-risk licenses to declarations; eliminate unjustified renewals; introduce automatic sunset after 5 years unless re-justified.

Risk-Based and Reduced Inspections: Shift all departments to risk-based (data-driven/AI-enabled) regimes. Strictly limit routine visits; publish inspection calendars and outcomes. Leverage B-READY firm survey data for prioritization.

Judicial and Insolvency Reforms: Roll out a sufficient number of commercial/ insolvency

courts with digitalization (e-case management, virtual hearings) with MSME convenience & fast-track decisions; review existing ADR mechanisms in line with global best practices for simpler, quicker proceedings with enforceable awards;

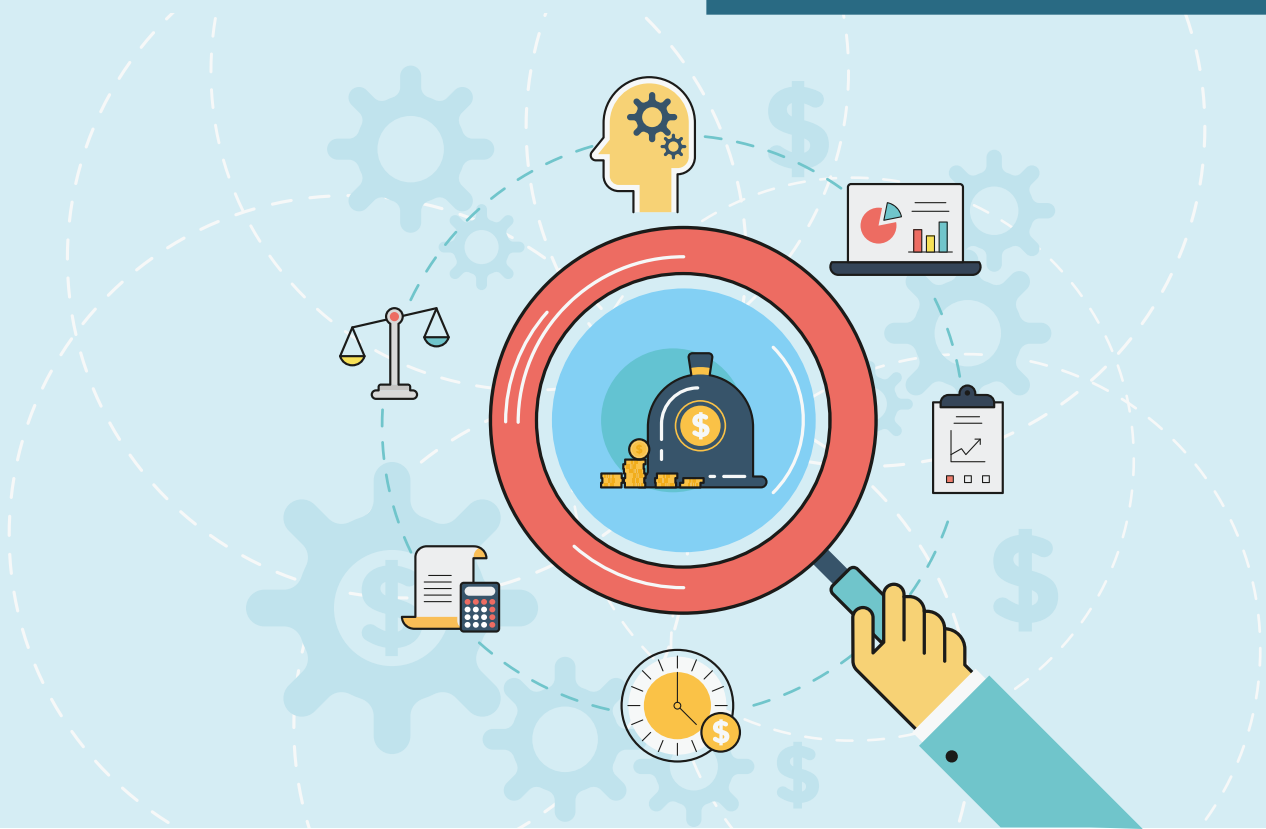
Harmonization Across Tiers: Establish a National Regulatory Coordination Council (federal, provinces, and local reps, with equal representation from the private sector & academia with expertise in regulatory affairs) to standardize labor, environmental, and tax rules, declarations & compliance regimes. Harmonize WWF/WPPF and social security; create uniform NOC templates with fixed timelines and deemed approval regulations.

Full Digitization and Single Window: Fast-track the development of the Pakistan Business Portal into a true one-stop platform integrating Federal, Provincial, and municipal authorities; mandate electronic filing, interoperability, and unique business IDs. Specify quantifiable Targets for reducing time, cost and complexity of compliance by 30-50% within two years.

Monitoring and Private Sector Input: Track progress via annual B-READY updates and domestic "Sludge Index." Engage the private sector, including sectoral associations, chambers, and business councils, in regulatory review panels.

Implementation requires political will and an expert team with institutional memory & experience in regulatory reforms, along with the required support, including resources. While the former seems abundantly available, the latter suffers from gaps, routine changes within the team, and insufficient resources. The lessons learned during the implementation of reforms under the Doing Business program (which was recognized globally as a success story) seem to have been lost over the past few years. Success stories from other countries (e.g., Rwanda's top-Africa B-READY ranking via digitization) also prove that rapid gains are possible. Pakistan's unsatisfactory 2025 B-READY scores underscore the challenges facing the country, which could further deteriorate amid global economic pressures, particularly in the energy sector. However, getting the reform strategy right could lift Pakistan to the third quintile or better by 2027, helping unlock domestic investment and FDI, creating formal jobs, boosting exports, and achieving sustained 5–6% growth.

Mukarram Jah Ansari is a public sector reform specialist with experience of leading Pakistan's national Ease of Doing Business program at the Board of Investment.



INDUSTRIAL POLICY AT A CROSSROADS

Why Pakistan Must Shift from Protection to Comparative Advantage

Ehsan Malik

INDUSTRIAL POLICY AT A CROSSROADS

Pakistan's industrial growth has consistently lagged behind that of other Asian economies, such as Vietnam, Bangladesh, and India. While these countries have expanded their manufacturing sectors, diversified their exports, and integrated into global value chains, Pakistan remains reliant on a narrow range of exports—primarily textiles—and imports most of its industrial inputs.

This situation is the result of several factors: economic policy decisions, underlying structural weaknesses, and investor behavior. The high cost of doing business, policy uncertainty, inefficient logistics, skill shortages, and a persistent preference for protection over competitiveness have collectively hindered industrial development.

POLICY INSTABILITY AND MACROECONOMIC VOLATILITY

For industrial investment to flourish, stable and predictable policies are essential. However, Pakistan's economic landscape is characterized by recurring balance-of-payments crises, frequent IMF stabilization programs, and abrupt policy shifts. Changes in tariffs, tax rates, and regulatory regimes create uncertainty, discouraging long-term capital investment. Manufacturing projects often require planning horizons of 10–20 years, but policy continuity rarely lasts more than a few years.

Macroeconomic volatility further complicates investment decisions. High inflation, sharp interest rate swings, and volatile exchange rates increase financial risk and make long-term industrial planning difficult.

SECURITY PERCEPTIONS AND INVESTMENT RISK

Although security conditions have improved compared to a decade ago, international investors still view Pakistan as a higher-risk destination than many competing economies. Political instability, geopolitical tensions, and regional security concerns affect investment decisions. Global manufacturers looking to diversify their supply chains often prefer countries like Vietnam, Indonesia, or India, where perceived risks are lower and policy continuity is stronger.

Much of FDI in Pakistan is market-seeking, reliant on reaping demographic dividend from the country's large, rapidly urbanizing and young population. While this brings some technological advances, improves managerial skills, and raises governance standards, it adds very little to exports or the external account.

HIGH COST OF DOING BUSINESS

Pakistan's manufacturing sector faces structural cost disadvantages that undermine its competitiveness. Energy tariffs for industry are among the highest in the region, driven by capacity payments and inefficiencies in the power sector. Complex taxation—such as super tax, turnover taxes, and advance withholding taxes—increases costs and imposes a high tax burden on documented firms.

This results in a paradox where the most compliant businesses face the highest taxes, while informal operators remain outside the system.

Regulatory complexity also raises barriers to entry. Navigating permits, interacting with multiple agencies, and managing bureaucratic processes can delay investment and further increase costs.

SKILLS DEFICIT

The competitiveness of industry increasingly depends on skilled labour capable of operating modern technology and participating in global value chains. Pakistan's education system produces few technically trained workers compared to Asian manufacturing leaders. Technical and vocational training is limited, resulting in shortages of skilled technicians, machinists, and engineers.

Countries that have successfully industrialized have invested heavily in skills development aligned with industry needs. Pakistan's human-capital strategy has yet to make this transition, so the country remains focused on basic, low-value-added goods or relatively simple assembly sectors such as automobiles and cell phones.

LOGISTICS AND INFRASTRUCTURE CONSTRAINTS

Export competitiveness relies heavily on logistics efficiency. Pakistan's logistics system remains underdeveloped in comparison to regional competitors. Rail freight has declined, making the country heavily dependent on road transport. Ports, railways, and inland transport networks lack integration, resulting in costly and slow movement of goods from production centers to ports. These inefficiencies raise export costs and reduce reliability for international buyers.

PROTECTION AND THE BEHAVIOR OF DOMESTIC INDUSTRY

An often-overlooked constraint is the incentives facing the domestic industry. Many sectors have operated for decades behind high tariff walls and regulatory protection. Instead of promoting technological upgrading and global competitiveness, prolonged protection has led to industries dependent on state support.
The automobile sector illustrates this problem. Despite decades of tariff protection, Pakistan's auto industry remains small and inward-looking, with insufficient production volumes and negligible exports. If tariffs were removed, domestic producers would struggle against imports produced on a larger scale elsewhere. Consequently, Pakistani consumers pay high prices for vehicles that lag behind international standards in technology and value.

A similar situation exists in parts of the polyester-based textile sector. Outdated technology and limited scale have reduced productivity, and

tariff protection on inputs has increased production costs. Rather than encouraging modernization, protection has slowed technological upgrading.

The broader consequence is that consumers receive poorer value, industries remain insulated from the pressures that drive innovation, and exporters are denied competitive inputs.

NEGLECTED SECTORS WITH COMPARATIVE ADVANTAGE

While protection has sustained certain manufacturing sectors with limited global prospects, investment in areas where Pakistan possesses a genuine comparative advantage has been modest.

Agriculture is one of Pakistan's strongest natural advantages, but investment in productivity, processing, and value addition is limited. Modern food processing, seed development, and agricultural technology could significantly expand export potential.

Mining is another underdeveloped sector. Pakistan has significant mineral resources, but limited investment in exploration, refining, and logistics has constrained its export contribution.

Tourism remains untapped despite Pakistan's natural landscapes, historical heritage, and cultural diversity.

Similarly, services such as information technology, digital services, and business outsourcing are emerging sectors of comparative advantage. Pakistan's young population and growing digital talent base offer significant potential, but these sectors still receive less policy attention than traditional manufacturing.

TRADE AGREEMENTS AND EXPORT CAPABILITY

Pakistan's trade agreements have generally benefited partner countries more than Pakistan itself. Bilateral agreements facilitate imports without generating equivalent export growth. Without improvements in competitiveness, trade liberalization can widen trade deficits rather than strengthen the domestic industry.

DUMPING AND DOMESTIC MANUFACTURING

Dumping—imports sold below production cost or below domestic prices in the exporting country—can harm domestic manufacturers. Anti-dumping duties are important to ensure fair competition. However, not all low-priced imports constitute dumping; often, foreign producers are simply more efficient due to scale, technology, or supply-chain advantages. While protection against genuine dumping is justified, indefinitely shielding inefficient industries is not a substitute for productivity improvements.

A STRATEGIC SHIFT TOWARD COMPARATIVE ADVANTAGE

Pakistan's industrial policy must move beyond the debate between protection and liberalization. The central question should be whether state support is helping industries achieve global competitiveness. Protection may be justified temporarily to allow sectors to build scale, upgrade technology, and integrate into global markets, but this is unlikely in sectors like automobiles and chemicals that lack upstream capability and scale.

When decades of protection fail to produce competitiveness, policy must change. Pakistan should focus resources on sectors with clear or emerging comparative advantages—agriculture and food processing, mining and minerals, tourism, IT and digital services, pharmaceuticals, and selected manufacturing niches.

CONCLUSION

Pakistan's industrial challenge is not simply about tariffs or trade agreements; it stems from deeper structural issues—policy instability, high costs, weak logistics, limited skills, and an entrenched preference for protection.

A shift toward competitiveness and comparative advantage is essential. By directing investment toward sectors with genuine potential and reducing reliance on long-term protection, Pakistan can build a more dynamic, diversified, and export-oriented economy.

The choice is not between industry and markets, but between sustaining protected industries with limited prospects or building globally competitive sectors that can drive sustainable growth.

Ehsan Malik is a former Chief Executive Officer of Unilever Pakistan and of the Pakistan Business Council.

THE INDUSTRIAL IMPERATIVE IN PAKISTAN

Choosing Between a 'Trading Shop' and a 'Global Factory'

Shujaat Farooq

Today the industrial policy is experiencing a significant change as global structural shifts increasingly necessitate state intervention. Intensifying great-power competition, supply chain vulnerabilities, national security priorities, and the green transition have collectively exposed the limitations of free market concepts. Consequently, the erosion of the rules-based international order is compelling governments to take a more assertive role in steering industrial development and ensuring economic resilience.

FREE MARKET ORTHODOXY

For decades, the World Bank and western economies maintained that the state's role should be limited to facilitation—upholding basic institutions while promoting free trade, privatization, and minimal intervention.

The developing world was counselled toward liberalisation policies. This paradigm aligned with Western interests, as open markets in developing economies ensured access to cheap labor and raw materials.

Recently, the World Bank has acknowledged in its report that its earlier stance underestimated the value of industrial policy, implicitly recognizing that economic doctrine is shaped by geopolitical considerations. Its latest position affirms that industrial policy should form part of every nation's policy toolkit, reflecting a shift that also enables advanced economies to adopt more interventionist strategies in response to rising competition from East Asia. The critics consider that this U-turn is more like an institutional adjustment to new political realities due to geopolitical context as Western economies now need an industrial policy

PAKISTAN'S INDUSTRIAL POLICY

Over the last past four decades, Pakistan has gone through deindustrialisation with a rising a share of services sector at the cost of production activities both in agriculture and industry. Manufacturing's share in GDP has declined from 17.5% in 2005 to around 12% in 2024, contributing to a persistent fall in the export-to-GDP ratio. Had the country maintained its 1999 export-to-GDP level of 16%, current exports would likely be nearly double the present range of USD 30–32 billion.

Over the last two decades, Pakistan's global export market share has significantly eroded, while Bangladesh has doubled its share and Vietnam's has expanded sevenfold. This stagnation is largely attributable to a revenue-centric tariff policy that fails to differentiate between raw materials, intermediate goods, and finished products. This lack of distinction has fueled import growth and neutralized the potential benefits of trade agreements, which have generally been underutilized as strategic tools for export expansion.

Table: Sectoral share of various sectors in GDP (in %)

Year	Agriculture	Mining & Manufacturing	Construction	Electricity and Gas Distribution	Services
1950-60	48.5	10.7	2.1	0.3	38.4
1961-70	40.4	15.4	4.0	0.8	39.4
1971-80	33.7	17.0	4.5	2.6	42.2
1981-90	27.6	17.1	4.3	2.6	48.4
1991-00	25.5	17.8	3.8	3.9	49.1
2000-10	23.0	19.4	2.2	2.5	53.0
2011-20	20.3	16.2	1.9	2.5	59.2
2021-24	23.2	13.8	2.4	2.4	58.2

Source: Author's Compilation

Furthermore, high input costs continue to undermine the price competitiveness of Pakistan's predominantly low-value-added exports. This weak export foundation is reflected in the country's investment-to-GDP ratio, which remains a modest 16%, compared to 31% in Bangladesh and 37% in Sri Lanka. Addressing these structural imbalances—particularly in tariff and trade policy—is essential to restoring industrial competitiveness and attracting higher levels of investment.

The tax systems are complex and high and disproportionate to the manufacturing sector that contributes just 12% in GDP but pay near to 60% of the tax burden. The corporate tax is almost double to regional competitors and number of taxes are almost 15-folds high to Hong Kong.

The country will continue to be plagued by high unemployment and challenges of trade deficit if we continue to import consumer products for which a manufacturing base no longer exists, nor there appears to be a plan to create, to leverage on a large domestic market of 250 million consumers. In a nutshell, the industrial policy by and large has failed to make the country competitive internationally despite concessions and subsidies. A number of industries have enjoyed concessions at the cost of market distortions and imperfections. The regulators could not act as a facilitator by improving human capital, infrastructure and removing market barriers to make the businesses ease.

Policy formulation in Pakistan has largely been reactive, often driven by crises rather than long-term efficiency considerations, resulting in structural distortions. For instance, the Independent Power Producers (IPP) policy of 1994, while addressing immediate energy shortages, contributed to persistently high energy costs and the buildup of circular debt. More broadly, many policies have taken the form of aspirational wish lists, lacking clear targets, effective monitoring mechanisms, and accountability frameworks. Over the past decade, several initiatives—including the Auto Industry Development and Export Policy 2021–26, SME Policy 2021, and the New Energy Vehicles Policy 2025–30—have been introduced, yet their economic outcomes remain largely unassessed and unclear.

The recently introduced National Tariff Policy (NTP) 2025–30 represents a shift toward a more competitive, export-oriented framework by rationalizing tariff structures, reducing duties on raw materials, and phasing out Additional Customs Duties (ACD) and Regulatory Duties (RD). However, its effectiveness will depend on complementary reforms, particularly in lowering energy costs, reducing regulatory burdens, and simplifying the tax regime to create a genuinely enabling business environment.

LEARNING FROM EAST ASIA

Pakistan's policy makers must learn from various East Asian economies, particularly South Korea, Hong Kong, Vietnam, Cambodia and others. As like other developing countries, these economies almost opted same policy instruments with a greater success. Their policies largely focused on macroeconomic stability, low price distortions, trade openness, and letting comparative advantage guide which industries developed. In most of these economies, the government intervened systematically to foster industrial development. With a clear vision the government however targeted and subsidised credit to selected sectors by mobilizing investment resources into those sectors that state had decided to develop.

Various economists considered the East Asian miracle was due to an authoritarian approach but supported with high quality institutional governance, powerful technocratic bureaucracy and shielded from political pressure. The principle of shared growth and a business friendly environment was opted. Besides human capital formation, the policies tended to focus on rapid productivity growth through openness, innovation and technology.

TOWARDS A RAPID INDUSTRIAL REVOLUTION

It is imperative for the country to decide whether to remain trapped in a low-value manufacturing structure where exports are narrowly concentrated in a limited range of products and markets or to transition toward higher participation in global value chains, as demonstrated by countries like Vietnam.

A coherent industrial policy must clearly define and align the roles of federal and provincial governments to effectively support industrial development. Equally important is the provision of long-term policy consistency to build investor confidence. Among the various areas requiring alignment, the integration of trade and taxation policies is particularly critical to fostering industrialization and enabling sustainable economic transformation. Few recommendations may be noted;

The Fiscal Policy should follow the equitable distribution of the taxation burden through a broader tax base. The policy should also promote capital formation and consolidation to facilitate scale, competitiveness and investment. Tax rates need to be brought down to be regionally competitive as income tax rate on business above 50% along with super tax would erode the investment.

Reduce Tax tax collection agencies: there are multiple tax agencies at federal and provincial level and most of the tax collection reforms are limited to tax digitization rather than focusing to improve digital economic infrastructure, i.e., POS deployment, digital payments restaurants. Taxes should be on profits as opposed to any other proxies of profit, further the number of taxes need to be reduced and multiplicity of tax authorities be rationalized through the creation of a National Tax Authority.

Cascading import duty on raw material: the country must implement the National Tariff Policy 2025-30 by allowing the industry to import raw material and export the finished goods by maximizing its positon in the global value chain.

Human capital formation: despite claims of a vast talent pool, Pakistan significantly trails its peers on the human capital. High learning poverty, rising graduate unemployment, low female labor participation, and chronic malnutrition have created a skilled labor shortage that stifles industrial productivity. To reverse this, science and mathematics must be mandatory from early education, and technical vocational training should be expanded through private-sector management. Universities must prioritize employable STEM graduates to meet the needs of modern manufacturing which now centers on research, design, and engineering and to supply the ICT professionals required for a robust digital economy.

Institutional Framework: the institutional focus should be on simplification, unification and digitization of business through one-window facilities. Policies need to encourage value addition, quality and branding. Strengthening economic governance requires devolving authority, decentralizing fiscal resources, and empowering local governments with autonomy while ensuring accountability for results. The state should withdraw from commercial activities and enable the private sector to operate on a level playing field. Its primary role should be to deliver essential public goods and services efficiently and cost-effectively.

In conclusion, a predictable policy environment and a business-friendly climate are essential for industrial growth in Pakistan. By ensuring long-term stability and reducing bureaucratic friction, a leaner government can build investor confidence, attract both local and foreign capital, and foster a competitive industrial sector capable of driving sustained economic expansion.

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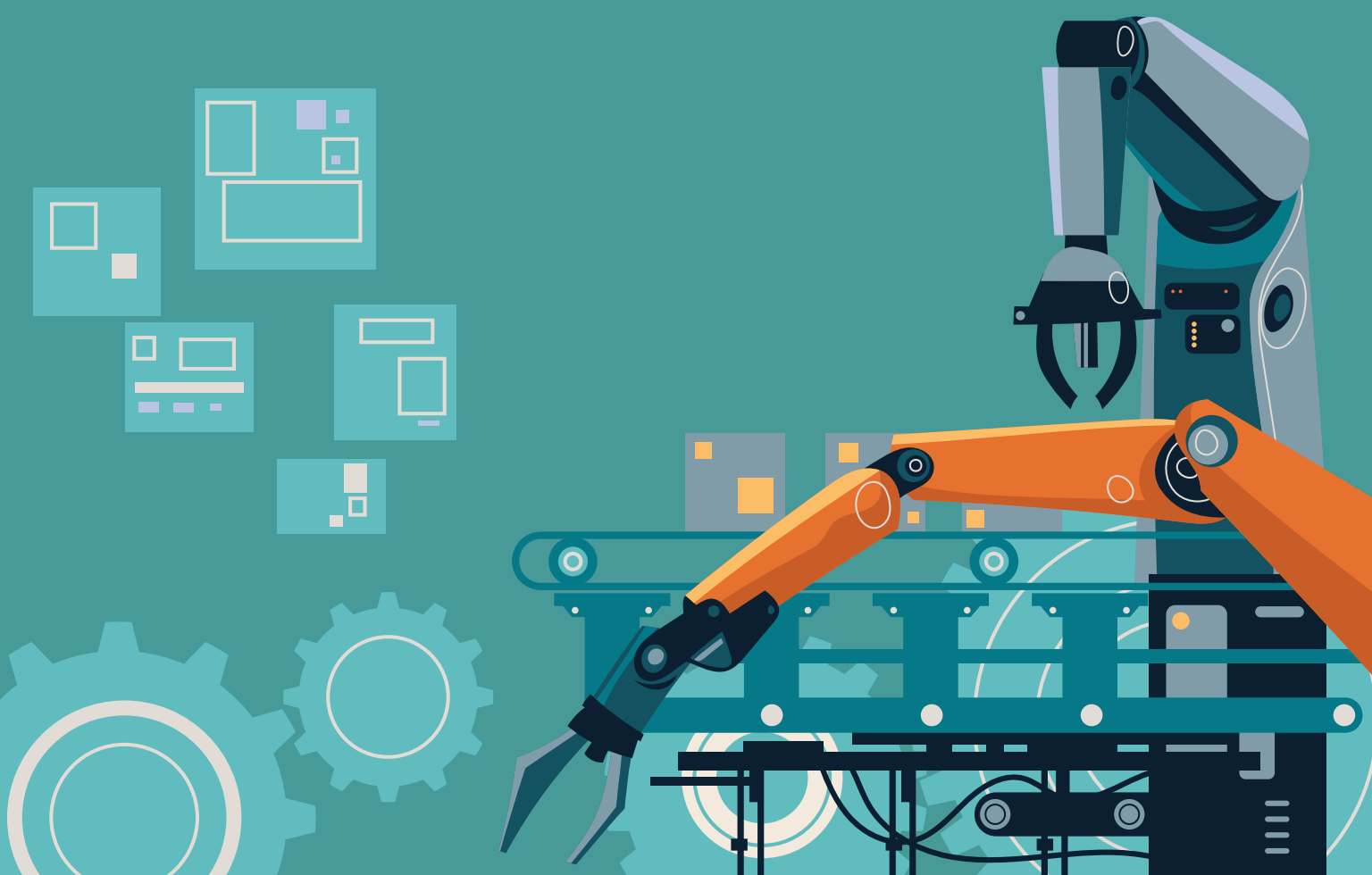

WHY PAKISTANI INDUSTRY DOES NOT UPGRADE:

Lessons from the Firm-Level Evidence

Waqar Wadho

Pakistan's industrial problem is often described in terms of exports, energy, or macroeconomic instability. All of that matters. But none of it gets to the heart of the matter. The deeper problem is that the Pakistani industry has failed to upgrade. Too many firms remain stuck in low-value products, weak production systems, and business models built around survival in protected domestic markets rather than movement into more demanding and more rewarding segments. The puzzle is not that Pakistani firms do nothing. Many of them invest, adapt, and respond. The puzzle is that these efforts so rarely cumulate into sustained gains in productivity, quality, and export sophistication.

This is why the usual diagnosis is too shallow. Pakistan's industrial weakness is not simply a shortage of capital or an absence of entrepreneurship. It is, above all, a problem of capabilities and incentives. Firms do not upgrade when they lack the internal capacity to absorb better technologies, but they also do not upgrade when the policy environment does not reward that effort. Pakistan suffers from both. The result is a low-upgrading equilibrium: firms do just enough to remain in business, but too little to change what they produce, how efficiently they produce it, or where they can sell it. This basic argument is consistent with the wider literature on innovation in developing countries, which emphasizes that the central challenge is often not invention at the frontier but the accumulation of organizational, managerial, and technological capabilities needed for catch-up.

Firm-level evidence from Pakistan's textile and apparel sector points clearly in this direction. Our 2019 Innovation Survey shows that Pakistan's industrial base remains both vulnerable and narrow. More revealingly, innovation was not broad-based: it was significantly more likely among larger, exporting, better-managed firms and those under stronger competitive pressure. Investment in innovation was also closely tied to knowledge and supplier relationships, whereas family ownership

was negatively associated with it. Management quality itself was low, with an average score of just 0.38, and was worse in family-controlled firms but better in exporting and more competitive ones (Wadho, Chaudhry, and McCartney, 2019)[27].

What this suggests is that Pakistan's industrial problem is not a simple lack of "innovation" in the abstract. The real problem is that innovation is too often narrow, underpowered, and disconnected from broader organizational change. This is where policy thinking in Pakistan often goes wrong. The word innovation still tends to evoke images of startups, apps, and frontier R&D. Still, in a country like Pakistan, industrial upgrading usually begins somewhere much more basic: with better workflow, tighter quality control, lower defect rates, stronger supplier relationships, more disciplined management, and the ability to meet consistent standards. Those are not glamorous changes, but they are the ones that move firms from low-value production to more competitive segments.

The evidence strongly supports that diagnosis. Wadho and Chaudhry (2018)[28] show that product innovation is associated with higher labor productivity and productivity growth in Pakistani textile and apparel firms, but they also show that innovation is shaped by vertical knowledge flows from buyers and suppliers, exporting, and competition. By contrast, badly designed subsidies can crowd out rather than stimulate private effort. In other words, firms innovate not because they are handed protection, but because they face pressure to improve and have channels through which they can learn. Similarly, Wadho and Chaudhry (2022)[29] find that organizational innovation yields a larger productivity payoff than product innovation and that process innovation also matters greatly. That is an important result. It tells us that Pakistan's industrial bottleneck lies less in the absence of new product ideas and more in the weakness of management systems, production routines, and firm organization.

International evidence points in the same direction. Bloom et al. (2013)[30], in their well-known experiment with Indian textile firms, showed that relatively basic improvements in management practices raised productivity by 17 percent within a year, largely through better quality control, lower inventories, and improved efficiency. That is striking because the gains did not come from frontier technology. They came from running factories better. The lesson for Pakistan is obvious. Many firms do not need an innovation grant first; they need the ability to monitor production, identify defects, manage inventory, delegate authority, and standardize operations. Until those basics are in place, the returns to more sophisticated technology will remain limited.

The process-upgrading evidence from Pakistan reinforces the point. Wadho and Chaudhry (2024)[31] show that process innovation should not be treated as a vague label. It has concrete manifestations: lower costs, fewer defects, shorter cycle times, more capacity, and better quality. Those outcomes are associated with higher labor productivity and higher sales. Just as importantly, the study does not find that process innovation reduces employment. That is especially relevant in Pakistan, where technological upgrading is often treated politically as a threat to jobs. The evidence suggests something more nuanced and more encouraging: better processes raise efficiency and sales without necessarily shrinking the workforce, though they may increase the demand for more capable workers. The real threat to jobs is not upgrading. It is stagnation. Firms that do not improve eventually lose markets, and economies that do not improve eventually lose industries.

There is another reason Pakistani industry struggles to upgrade: many barriers lie inside firms, not just outside them. Experimental evidence from Sialkot's soccer-ball producers is especially instructive. Atkin et al. (2017)[32] studied a new cutting technology that clearly reduced material waste and should, in principle, have been profitable for firms to adopt. Yet adoption remained low.

27. Wadho, W., Chaudhry, A., & McCartney, M. (2019, October). Innovation in the Pakistani textiles sector: Preliminary findings of the second round [Conference presentation]. Oxford, United Kingdom.

28. Wadho, W., & Chaudhry, A. (2018). Innovation and firm performance in developing countries: The case of Pakistani textile and apparel manufacturers. Research Policy, 47(7), 1283–1294. https://doi.org/10.1016/j.respol.2018.04.007

29. Wadho, W., & Chaudhry, A. (2022). Innovation strategies and productivity growth in developing countries: Firm-level evidence from Pakistani manufacturers. Journal of Asian Economics, 81, 101484. https://doi.org/10.1016/j.asieco.2022.101484

30. Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., & Roberts, J. (2013). Does management matter? Evidence from India. The Quarterly Journal of Economics, 128(1), 1–51. https://doi.org/10.1093/qje/qjs044

31. Wadho, W., & Chaudhry, A. (2024). Measuring process innovation outputs and understanding their implications for firms and workers: Evidence from Pakistan. Technovation, 136, 103085. https://doi.org/10.1016/j.technovation.2024.103085

32. Atkin, D., Chaudhry, A., Chaudry, S., Khandelwal, A. K., & Verhoogen, E. (2017). Organizational barriers to technology adoption: Evidence from soccer-ball producers in Pakistan. The Quarterly Journal of Economics, 132(3), 1101–1164.

The reason was not that firms failed to understand the technology. It was that workers, paid on piece rates, had little reason to embrace a method that initially slowed them down, while owners found it difficult to change shop-floor incentives. In other words, even good technologies can fail to diffuse when firms are organized in ways that block adaptation. This is a powerful lesson for Pakistan. Industrial upgrading is not only about access to technology. It is also about authority, incentives, and organizational control.

Trade policy exacerbates these internal weaknesses. Pakistan has long operated with a policy structure that protects selected domestic producers while taxing the very inputs that would help firms improve. Recent World Bank[33] analysis argues that tariff reforms can boost exports, imports, investment, GDP, and employment, but also stresses that tariff reform alone is not enough; broader reforms in energy, trade finance, regulation, and competition must accompany it. That is precisely the point. A firm that wants to upgrade needs affordable machinery, reliable energy, access to imported intermediate goods, working capital for export orders, and a regulatory environment that does not waste managerial time. When these conditions are absent, firms retreat into defensive strategies. They serve the domestic market, avoid experimentation, and treat upgrading as a luxury rather than a necessity.

The structure of ownership and finance further reinforces this trap. The IFC-World Bank[34] private sector diagnostic describes Pakistan's private sector as dominated by SMEs that are often informal, mostly family-run, and constrained by distortive policies maintained by special-interest groups. This matters because family ownership is not merely a legal form; in Pakistan, it often entails centralized decision-making, limited delegation, and a preference for caution over long-term capability-building. When firms are also short of finance, the bias toward caution becomes even stronger. Investment then tilts toward what is immediately visible and recoverable, not toward the slower work of improving systems, training managers, or entering new markets.

This is why Pakistan's failure to upgrade should not be read as a mystery. It is the predictable outcome of a policy regime that has too often rewarded protection without performance and a firm structure that has too often tolerated weak management without consequence.

Firms are not upgrading because too many lack the capabilities to do so, and because the surrounding incentive system does not force the issue. Exporters tend to perform better not because exporting is magical, but because export markets demand discipline. Better-managed firms innovate more, not because management is fashionable, but because upgrading is an organizational act before it is a technological one. Supplier-buyer linkages matter because firms learn through production relationships, not through slogans about innovation ecosystems.

The policy implication is therefore straightforward, though not easy. Pakistan does not need another industrial package built around exemptions, ad hoc incentives, and protection for incumbents. It needs a capability-centered industrial strategy. That means designing industrial policy around the actual bottlenecks to upgrading: management-extension programs for SMEs, support for process reorganization and quality control inside factories, supplier-development schemes that deepen learning from production networks, export-linked support that pushes firms into more demanding markets, and targeted incentives for family firms to professionalize management and delegate operational authority. Public support should reward firms that build capabilities, strengthen buyer-supplier linkages, improve processes, and enter export markets, rather than simply subsidizing firms for continuing as they are.

Pakistan's industrial future will not be determined by whether a few firms become world-class exceptions. It will be determined by whether a much larger set of ordinary firms can make the difficult transition from low-capability production to disciplined, competitive, and export-oriented production. That transition is not blocked by one single constraint. It is blocked by weak management, thin learning networks, internal organizational rigidities, costly inputs, limited finance, and public policy that has too often confused shelter with strategy. Until those conditions change, Pakistan's industry may continue to produce and, at times, even expand, but it will not truly upgrade. And without upgrading, growth will remain shallow, exports will remain fragile, and industrial ambition will continue to outrun industrial reality.

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33. World Bank. (2025). From inward to outward: Pakistan's shift towards export-led growth.
34. International Finance Corporation, & World Bank. (2021). Creating markets in Pakistan: Country private sector diagnostic.

GRESHAM's LAW OF SCHOLARSHIP AND THE POLITICAL ECONOMY OF R&D IN PAKISTAN

Ikram Ullah & Iftikhar Ahmad

A NATION'S FUTURE IS FORGED IN THE HERIS

Human societies have long sought sustained prosperity in the accumulation of labor and capital. Robert Solow's seminal work, however, revealed that these traditional inputs could not explain a significant portion of cross-country income differences. The black box, termed the Solow Residual, was subsequently interpreted as reflecting total factor productivity, technological progress, research and development, innovation, or the efficient use of intangible capital. Ultimately, the Solow residual proved not to be a mystery, but a mirror reflecting how much of economic growth can be traced to knowledge creation and innovation, mostly emerging from Higher Education and Research Institutions (HERIs)[35].

R&D, even in its most basic academic form, contributes to increased scientific output[36]. The scientific output, in turn, enhances firms' technological capabilities and supports acceleratedeconomic growth[37]. Although globalization allows countries to import advanced technologies, evidence shows that indigenous R&D and domestic innovations often generate stronger and more sustained economic benefits than technology imports alone[38]. While R&D and innovation frequently depend on substantial funding[39], the significant differences in scientific output among otherwise similar countries[40] suggest that developing and emerging economies can also achieve significant gains through effective local research and home-grown innovation.

35. See Pastor, J. M., & Serrano, L. (2016). The Determinants of the Research Output of Universities: Specialization, Quality, and Inefficiencies. Scientometrics, 109(2), 1255-1281, who reported that HEIs in the European Union generate 64.3% of all scientific publications and 2.9% of all patents.
36. Jonkers, K., & Sachwald, F. (2018). The dual impact of 'excellent'research on science and innovation: the case of Europe. Science and Public Policy, 45(2), 159-174.
37. Arana-Barbier, P. J. (2023). The relationship between scientific production and economic growth through R&D investment: A bibliometric approach. Journal of Scientometric Research, 12(3), 596-602; Gonzales, J. T. (2023). Implications of AI innovation on economic growth: a panel data study. Journal of Economic Structures, 12(1), 13.
38. Yu, L., Li, H., Wang, Z., & Duan, Y. (2019). Technology imports and self-innovation in the context of innovation quality. International Journal of Production Economics, 214, 44-52.
39. Alvarado-Vargas, M. J., Callaway, S. K., & Ariss, S. (2017). Explaining innovation outputs by different types of R&D inputs: evidence from US universities. Journal of Strategy and Management, 10(3), 326-341.
40. Rodríguez-Navarro, A., & Brito, R. (2022). The link between countries' economic and scientific wealth has a complex dependence on technological activity and research policy. Scientometrics, 127(5), 2871-2896.

REWARDING THE WRONG SCIENCE: THE INCENTIVE CRISIS IN ACADEMIA

Publications, citations, and patents are frequently used as measures of the scientific output of scholars and HERIs[41]. However, it is equally important to understand why scholars invest time and effort in conducting scientific research and publishing their work. The motivations, shaped by institutional and national frameworks[42], include the desire to disseminate knowledge, build prestige and reputation[43], and obtain rewards through monetary and career advancement incentives[44]. Public policy frameworks, institutional mechanisms, and peer dynamics collectively reinforce these incentive structures, encouraging scholars and HERIs to enhance their research productivity. Ideally, such a drive to excel translates into greater relevance, where research evolves into patents, innovations, and stronger industry-academia linkages that explore and stimulate emerging fields.

However, this risk-reward mechanism often breaks down in developing and emerging economies, where systems tend to reward quantity over quality. Evidence clearly suggests that an excessive focus on quantity may even correlate negatively with innovation[45], as it is the higher quality of scientific research that leads to meaningful and superior innovations[46].

In Pakistan, the evidence is no different. The incentive structure governing scientific work is largely counterproductive. Promotion to associate and full professor ranks, as well as eligibility for a PhD degree, depends mainly on meeting quantitative publication requirements in Higher Education Commission (HEC)-recognized journals, often with limited regard for research quality, relevance, or its potential to generate innovation. So much so, publication counts and citation metrics frequently determine who is entrusted with leadership positions in HERIs, irrespective of administrative competence or broader social contributions.

This dynamic mirrors the logic of Gresham's law[47], which states that when two forms of currency are treated as equivalent despite differences in intrinsic value, rational agents will spend the inferior currency and hoard the superior one. Adam Smith extended a similar insight to academic labor[48], arguing that when scholars receive comparable rewards regardless of effort, they tend to perform in "as careless and slovenly a manner as that authority will permit". The implication for academia is clear: when research output and academic degrees, requiring different levels of rigor and intellectual effort, are rewarded equally, both students and faculty choose the lower-effort options. The predictable outcome is that poor-quality scholarship drives out high-quality scholarship[49].

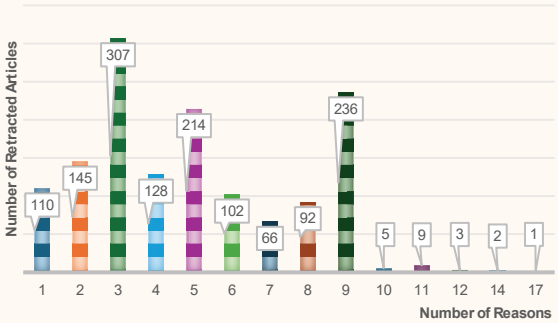
THE PUBLICATION RAT RACE: EVIDENCE OF COMPROMISED QUALITY

When research evaluation becomes detached from quality and publications are reduced to a numerical target, academic norms and ethics are inevitably strained. In such an environment, the emphasis shifts toward publication speed rather than the relevance or impact of research on society and the economy, creating conditions that may enable questionable research practices. To assess the extent of these concerns in Pakistan, this study uses databases such as the Retraction Watch (RW)[50] and the HEC of Pakistan[51].

41. Ibid., p. 1.
42. Mills, D., & Inouye, K. (2021). Problematizing 'predatory publishing': A systematic review of factors shaping publishing motives, decisions, and experiences. Learned Publishing, 34(2), 89-104.
43. Eve, M., & Priego, E. (2017). Who is actually harmed by predatory publishers?. tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society, 15(2), 755-770.
44. Hedding, D. W. (2019). Payouts push professors towards predatory journals. Nature, 565(7737), 267-268.
45. Azmeh, C. (2022). Quantity and quality of research output and economic growth: Empirical investigation for all research areas in the MENA countries. Scientometrics, 127(11), 6147-6163.
46. Zahringer, K., Kolympiris, C., & Kalaitzandonakes, N. (2017). Academic knowledge quality differentials and the quality of firm innovation. Industrial and Corporate Change, 26(5), 821-844.
47. This exposition follows Mundell's clarification that Gresham's law operates under fixed exchange conditions: when monies of unequal value are forced to circulate at parity. See Mundell, R. (1998). Uses and Abuses of Gresham's Law in the History of Money. Zagreb Journal of Economics, 2(2), 3-38.
48. Smith, A. (1776/1981,Book V, Chapter I, Part III, Article II). An inquiry into the nature and causes of the wealth of nations (R. H. Campbell & A. S. Skinner, Eds.). Liberty Fund. (Original work published 1776).
49. For empirical evidence, see Alt, A. (2026). The evolution of predatory Journals-New strategies and threats. A letter to the editor. European Journal of Physiotherapy, 28(1), 88-90; Balehegn, M. (2017). Increased publication in predatory journals by developing countries' institutions: What it entails? And what can be done?. International Information & Library Review, 49(2), 97-100.
50. Data for Figures 1 & 2 were obtained from the RW database on March 14, 2026. Source: https://gitlab.com/crossref/retraction-watch-data/-/blob/-main/retraction_watch.csv?ref_type=heads.
51. HEC's recognized journals list was obtained from: https://www.hec.gov-.pk/english/services/faculty/journals/Documents/List%20of%20national%20journals%202024-25.pdf

The RW dataset documents 1,420 retractions involving Pakistani authors between 2005 and 2025, recording a steady increase over time, with annual retractions peaking in the most recent year (n = 587 in 2025). In total, RW identifies 111 distinct reasons for retraction[52], with many articles withdrawn for multiple reasons simultaneously. As shown in Figure 1, most retracted articles authored by Pakistani researchers are associated with multiple retraction causes, pointing to systematic concerns about research integrity rather than isolated instances of error.

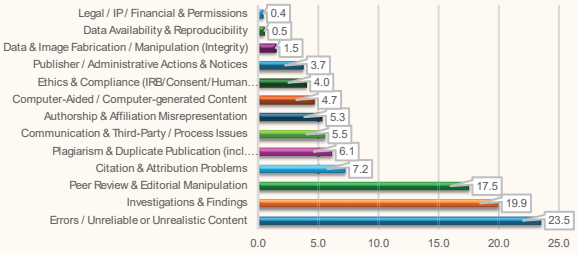
Figure 1: Distribution of Retracted Articles by Total Number of Stated Retraction Reasons



Source: Author's Compilation

To better understand the underlying causes of these retractions, the 111 categories in the RW database were consolidated into 13 broader groups, and the frequency of articles in each group was calculated. The results, presented in Figure 2, reveal a distinct pattern. The largest share of retractions (23.5%) falls under the Error/Unreliable or Unrealistic category, encompassing analytical, methodological, textual, and results-related issues. This is followed by retractions arising from investigations conducted by journals, institutions, or third parties (19.9%). The third most common category involves peer review and editorial irregularities, including manipulated review processes and articles linked to paper mills (17.5%).

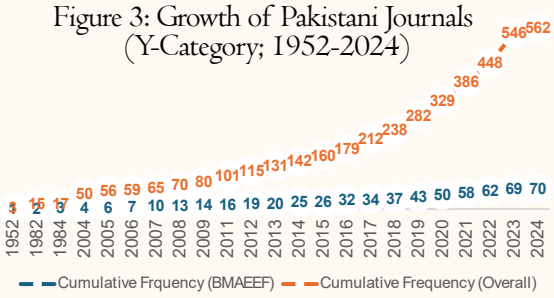
Figure 2: Breakdown of Retracted Articles by Consolidated Retraction Categories



Source: Author's Compilation

The results presented in Figures 1 & 2 indicate substantive quality- and integrity-related concerns among some Pakistani authors publishing internationally. To provide a more comprehensive view of the research landscape, the analysis now turns to locally published work and the characteristics of Pakistani journals themselves. Specifically, this section examines HEC-recognized journals in the Y category[53].

Figure 3: Growth of Pakistani Journals (Y-Category; 1952-2024)



Source: Author's Compilation

Figure 3 illustrates the growth in the number of Pakistani journals since 1952 that are currently classified in the HEC Y category. Journals with inaccessible websites at the time of data collection are excluded from both the figure and subsequent analysis[54]. The data indicate substantial expansion in the total number of journals, including those in Business, Management, Accounting, Economics, Econometrics, and Finance (BMAEEF) disciplines. The analysis that follows focuses specifically on BMAEEF journals.

Before proceeding, it is important to clarify the criteria used in the subsequent analysis. Journals that prioritize self-interest over scholarly standards often employ several strategies to attract authors. Given space limitations, and since many of such practices are readily verifiable[55], the analysis focuses on four observable indicators: (a) whether the journal is affiliated with a recognized HERI or located in a shopping plaza or residential space; (b) transparency in the disclosure of Article Processing Charges (APCs); (c) use of consumer (e.g., Gmail, Yahoo) versus institutional email domains; and (d) completeness of editorial members information, including academic affiliations.

52. Details can be found at: Link: https://retractionwatch.com/retraction-watch-database-user-guide/retraction-watch-database-user-guide-appendix-b-reasons/.
53. One might reason that selecting the lowest category of HEC-recognized journals inherently means focusing on the lowest-quality outlets. However, the Y category comprises 649 journals, approximately 87% of all journals published in Pakistan. With only 9% indexed in Scopus and 4% in the Web of Science, the Y category represents the main body of Pakistan's scholarly publishing landscape.

Table 1: Annual Publications and APC Revenue by Journal Category

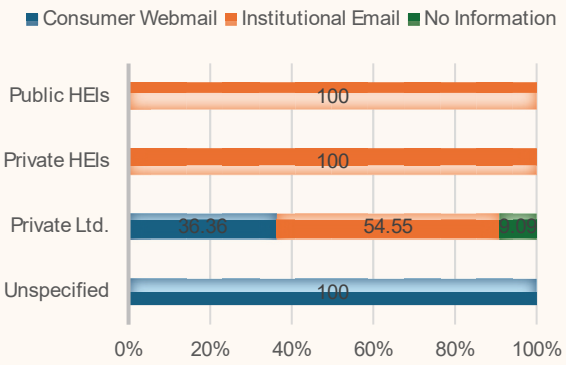
Journal's Affiliation	Average Annual Publications			Average Annual Revenue (Rs. 000)			
	Min	Max	Mean	No Info. (n)	Min	Max	Mean
Unspecified (n =1)	156	156	156	0	3900	3900	3900
Private Ltd. (n =22)	5	120	33	3	0	3000	1078
Private HEIs (n =27)	8	42	14	6	0	350	78
Public HEIs (n =20)	6	20	12	5	0	250	46
Overall (n = 70)	5	156	21	14	0	3900	477

Source: Author's Compilation

Note. Values are rounded to the nearest unit. APCs are reported in Rupees (USD 1 = Rs. 278.73)

Applying these indicators to the sample of 70 journals, it is found that 20 are linked to public-sector HEIs, 27 to private-sector HEIs, 22 list addresses in residential or commercial locations (classified as Private Ltd.), and 1 provides no address (classified as Unspecified). Regarding APC transparency, 5 journals in public HEIs, 6 in private HEIs, and 3 operated as Private Ltd. do not disclose APCs. Moreover, as shown in Table 1, the annual average publication output per journal and estimated APC revenue both increase progressively from public HEIs to private HEIs, Private Ltd. entities, and the unspecified category. This suggests that journals outside the public HEIs tend to have higher publication volumes and APC revenues.

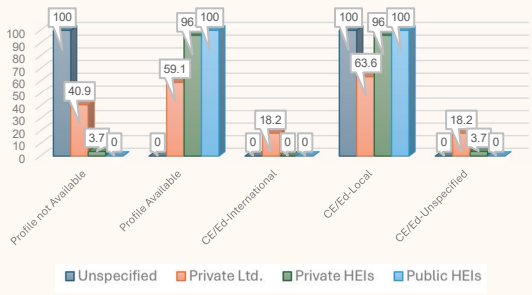
Figure 4: Email Domain Preference by Journal Affiliation Status



Source: Author's Compilation

Figure 4 indicates that the single unspecified journal, along with 36% of those operated by Private Ltd. companies, use consumer webmail services. For approximately 9% of journals in the Private Ltd. category, no information on email type was available on their websites. In contrast, journals associated with public and private HEIs consistently use institutional email domains.

Figure 5: Editorial Transparency: Profile Availability by Journal Ownership Type



Source: Author's Compilation

Figure 5 contains two related indicators: Chief Editor/Editor (CE/Ed) profile availability (first half), and CE/Ed affiliation (local versus international; second half). Regarding CE/Ed profile availability, all journals affiliated with public and private HEIs provide at least some information on their websites. In contrast, no profiles are listed for the unspecified category (100%), and 41% of journals in the Private Ltd. category also lack CE/Ed profiles or biographical information.

Regarding composition, the affiliation of CE/Ed reported on journal websites shows that 100% of CE/Ed in public HEIs and 96% in private HEIs are locally affiliated. This proportion declines to 63% in the Private Ltd. category, where over 18% of journals report internationally affiliated CE/Ed. Affiliation details were unavailable for 3.7% of the journals in private HEIs and 18% of those operated by Private Ltd. companies.

54. Since the HEC list does not provide several details needed for this analysis, we relied to the websites of the listed journals. The websites of 87 journals were inaccessible for various reasons (e.g., suspended, inactive, or relocated). Although website inaccessibility may itself reveal operational or quality-related issues, we do not draw any definitive conclusions about these journals beyond noting their exclusion.

55. Other examples include the use of grand titles (e.g., international, global, British, European, American), unusually broad or multidisciplinary scopes, diverse and unrelated topics within a single issue, very short review cycles, and unsolicited email invitations for submissions or editorial roles.

THE WAY FORWARD: A COURSE CORRECTION OR TOTAL DISARRAY

The findings of this study, while revealing, likely represent only the visible portion of a much larger problem, particularly as the disciplines examined here account for a relatively small share of publications in problematic journals[56]. Taken together, these indicators point to systemic vulnerabilities that hinder the quality of R&D and the development of homegrown innovations in the country. To sum up, the evidence suggests that an overemphasis on publication counts continues to drive researchers towards both domestic and international outlets that prioritize quantity over quality.

Addressing this challenge requires coordinated interventions by the HEC and HERIs to establish mechanisms with in-built corrective and refinement processes that strengthen the institutional reward system. Such a system should incentivize research that fosters academia-industry linkages, generates measurable social impact, and contributes to patentable innovations. Once aligned with these objectives, peer dynamics within the academic community can serve as a powerful force in promoting higher standards and nurturing a culture of meaningful innovation. Ultimately, **"the only place to find the Golden Age of Science is in the future – by making it ourselves."**[57]

56. Frandsen, T. F. (2022). Authors publishing repeatedly in predatory journals: An analysis of Scopus articles. Learned Publishing, 35(4), 598-604; Marina, T., & Sterligov, I. (2021). Prevalence of potentially predatory publishing in Scopus on the country level. Scientometrics, 126(6), 5019-5077.
57. https://theconversation.com/science-isnt-broken-but-we-can-do-better-heres-how-95139

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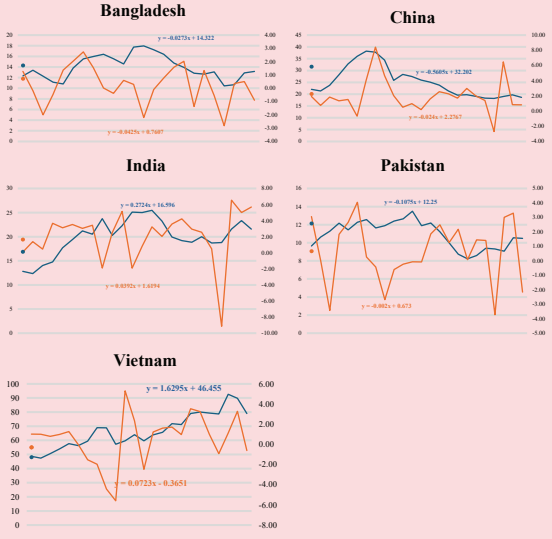
PRODUCTIVITY: THE MISSING LINK IN PAKISTAN'S EXPORT AMBITIONS

Omer Siddique

BACKGROUND

Most of the economies that have managed to increase their exports have done so on the back of productivity improvements. The following figure shows the TFP growth and export-to-GDP ratios for five countries: Bangladesh, China, India, Pakistan, and Viet Nam. Take the example of Viet Nam. Since 2000, Viet Nam's total factor productivity (TFP) growth and export-GDP ratio have been on an upward trajectory. The same is the case with India. In short, Figure 1 shows that countries with positive TFP growth also have positive export-GDP ratios, and vice versa.[58] The figure clearly shows a negative correlation between TFP growth and the export-GDP ratio for Pakistan as well.[59] Thus, it can be argued that there is a relationship between an economy's productivity and export performance.

Figure 1. TFP growth and exports: comparative picture



Source: Calculations are based on the Asian Productivity Organization (APO) productivity database.

Note: The blue lines, solid and dotted, denote the export-GDP ratio and trends, respectively, while the orange lines, solid and dotted, denote TFP growth and trends, respectively. The data is for 2000–2023.

58. Interestingly, China's TFP growth and export-GDP ratio trends are both negative during the period (2000–2023). However, if both these variables are plotted for a longer time series, starting from 1971, both show a positive trend. It may imply that China, as it is progressing, is depending less on exports in relative terms. It can also be inferred that due to the productivity slowdown, China's exports-GDP ratio has also taken a hit. A detailed discussion on this matter, nevertheless, is tangential to this article.

59. It is important to note that a correlation, positive or negative, does not imply causality.

A PERSISTENT PUZZLE

Pakistan's export performance has been a subject of active discussion ever since its creation. Despite various plans and policies, its export performance has been lackluster, to put it mildly. In other words, it can be termed as an ambition unfulfilled. It is a puzzle of sorts: although the country has a large and young labor force, a sizable manufacturing base, and a strategic geographic location with access to major markets, its export performance has been stagnant, unlike that of a few other comparable-sized economies. As the figure above shows and is documented elsewhere, Pakistan's export-GDP ratio has declined from an average of 16% in the 1990s to just 10.5% in 2023. These numbers are not only considerably below the averages for low- and middle-income countries, but also trailing behind every major regional peer (World Bank, 2025; PIDE, 2025)[60].

During the same period, Bangladesh's export performance has been remarkable: it has transformed a narrow garment industry into a USD 33 billion export industry. Similarly, Viet Nam has also evolved from an exporter of textiles and minerals/mineral products into a global hub for electronics, semiconductors, and computers. India has also emerged as a leading exporter of IT services and pharmaceuticals. On the other hand, Pakistan's exports have remained largely concentrated in a primary and low-value-added basket, such as textiles, apparel, leather, and rice (Mustafa & Hussain, 2023).

Given that Pakistan has all the necessary ingredients to compete with its competitors and peers in the global market, what explains this puzzle? One may be tempted to point out exchange rate, energy costs, or access to finance as fundamental problems. However, although these are genuine constraints, they are not the root of the problem. Productivity is the missing link.

IMPORTANCE OF PRODUCTIVITY FOR EXPORT COMPETITIVENESS

TFP measures how efficiently an economy uses its inputs, i.e., labor, capital, and materials, to produce output. Technically, TFP is that part of economic growth which cannot be explained by the use of inputs. A country with higher TFP growth can produce more with the same inputs, which is precisely what export competitiveness requires: delivering high-quality goods at competitive prices, reliably and at scale.

The global evidence in this regard is very strong. Research shows that countries with TFP growth above 3% tend to have GDP growth of 8% or higher. On the other hand, countries with TFP growth below 3% typically grow at between 3 and 7% (Citi GPS, 2018)[61]. Exporters are typically more productive than domestically-oriented firms because exposure to international competition forces them to improve. The causality between exports and productivity operates in both directions: more productive firms enter export markets, which, in turn, further improves productivity growth through learning, technology adoption, and improvements in management practices (Lovo & Varela, 2020).

Pakistan's economy, on the whole, however, has not shown signs of this virtuous cycle. Pakistan's average TFP growth has been somewhere between 1.5% and 2% since the 1970s, though it has been erratic and declining in trend (Siddique, 2023; Siddique, 2022[62]; Faraz, Siddique, & Saeed, 2023)[63]. Clearly, this is not the productivity profile of an economy with ambitions to double exports by the end of the decade.

SECTORAL TFP

While macroeconomic numbers paint a somber picture, the sectoral picture is even graver. Faraz, Siddique, and Saeed (2023) estimated TFP growth for 61 sectors in Pakistan using firm-level data from 1,321 companies over the period 2010 to 2020. The findings are discouraging. The average TFP growth across all 61 sectors was just 1.5% during the period. The study divided the sectors into three groups: high TFP growth (above 3%), medium/low TFP growth (0 to 2.9%), and negative TFP growth (below 0%).

60. World Bank (2025). Pakistan Export Competitiveness Review. Cited in: Pakistan's exports underperform by $60 billion, Profit by Pakistan Today, October 2025; and PIDE (2025), Pakistan's Dismal Export Performance: A Survey of Empirical Literature

61. Citi GPS: Global Perspectives and Solutions (2018). Securing India's Growth Over the Next Decade: Twin Pillars of Investment & Productivity.

62. Siddique, O. (2022). The Determinants of Total Factor Productivity Growth in Pakistan: An Exploration. PIDE Working Papers No. 2022:4. Pakistan Institute of Development Economics, Islamabad.

63. Faraz, N., Siddique, O. and Saeed, A. (2023). Sectoral Total Factor Productivity in Pakistan. Research Report No. RR-057. Pakistan Institute of Development Economics / Ministry of Planning, Development and Special Initiatives, Islamabad.

The implications for exports are not very encouraging, as Pakistan's export-designated sectors, namely, textile spinning, textile weaving, leather and tanneries, are in the negative TFP growth category. Other export-designated sectors, such as sports goods and textile composites, also exhibit a lackluster TFP growth rate, as they are in the medium/low TFP growth category. In other words, the sectors that Pakistan has been counting on to earn foreign exchange for a long time are precisely those that are lagging in productivity improvements.

This trend is reflected in Pakistan's marginal and declining presence in global export markets. Its share of high-skill and technology-intensive exports increased marginally from 3.6% in 2021 to 6.4% in 2024. Over the same period, Viet Nam reached 33.9% and China reached 41.1% (Mustafa & Hussain, 2023). Viet Nam's exports of broadcasting equipment exceed the combined merchandise exports of Pakistan and Bangladesh (Pakistan Business Council, 2024)[64].

PROTECTIONISM AND SUBSIDIZATION

A critical and consequential finding of the sectoral TFP analysis by Faraz, Siddique, and Saeed (2023) is the relationship between subsidies and productivity. The analysis shows that sectors that receive government subsidies exhibit either medium/low or negative TFP growth. Therefore, rather than enhancing competitiveness, subsidies appear to be associated with productivity stagnation.

This should not come as a surprise, though. These findings reflect a deeper structural problem, viz. Pakistan's industrial policy has long operated on the principle of insulating domestic producers from competition through tariff protection, sector-specific exemptions, and subsidized inputs. The manufacturing sector, in particular, has been heavily protected in Pakistan. The problem with this strategy is that protectionism, which has been the hallmark of Pakistan's industrial policy since the 1960s (Haque, 2006)[65], by design removes the competitive pressure that drives firms to innovate, adopt new technology, modernize management, and improve efficiency.

According to an APO study on Pakistan (APO, 2023), Pakistan's manufacturing sector is dominated by family-owned firms. Such firms resist modern management practices and are slow to adopt new technology. Moreover, Statutory Regulatory Orders (SROs), uncertain and frequently changing tariffs and tax policy, and a highly complex regulatory environment,[66] add to the cost and uncertainty of doing business. Estimates show that the cost of regulations, NOCs, and permissions equal 39% of GDP across just three sectors (PIDE, 2022)[67].

This protection acts as an implicit export tax. Moreover, Pakistan's cascading tariff structure, which imposes high duties on imported intermediate inputs, makes it more expensive for Pakistani exporters to use imported raw materials and components needed to compete globally (Mustafa & Hussain, 2023)[68]. The result is a counterproductive arrangement in which industrial policy not only protects domestic producers from competition, but also penalizes the export-oriented firms it is supposed to support.

Similarly, according to the IMF's 2024 Article IV assessment of Pakistan, Pakistan's export underperformance reflects low productivity of the tradable sectors, limited high-tech and technological sophistication of exports, and the shifting of resources from the tradable sectors to non-tradable sectors due to tariff and non-tariff barriers (IMF, 2024)[69]

THE R&D, SKILL, AND TECHNOLOGY GAP

Apart from a misaligned policy environment, Pakistan's economy is also beset with several structural constraints that exacerbate its productivity problem.

64. Pakistan Business Council (2024). Lessons from the East: Decoding Vietnam's Growth. Islamabad: PBC.
65. Haque, N.U. (2006). Beyond Planning and Mercantilism: An Evaluation of Pakistan's Growth Strategy. Pakistan Development Review 45(1): 3–48.
66. There are more than 100 federal regulatory authorities in Pakistan.
67. PIDE (2022). PIDE Sludge Audit Report, Vol I. Pakistan Institute of Development Economics, Islamabad, Pakistan.
68. Mustafa, G. and Hussain, S. (2023). What Are the Factors Making Pakistan's Exports Stagnant? Insight from Literature Review. PIDE Knowledge Brief 2023:99. Pakistan Institute of Development Economics, Islamabad.
69. International Monetary Fund (2024). Pakistan: Article IV Consultation and Request for an Extended Arrangement Under the Extended Fund Facility. IMF Country Report No. 24/311. Washington, D.C.: IMF.

For instance, research and development (R&D) investment is negligible in Pakistan compared to high-productivity economies, such as China. Pakistan spends approximately 0.2% of its GDP on R&D, while China spends 2.4%. Unsurprisingly, therefore, Pakistan ranks 87th out of 132 countries in the Global Innovation Index (APO, 2023). Low R&D expenditure hampers Pakistan's capacity to develop or adopt new technologies, which are critical for productivity growth.

Furthermore, low skills among the labor force reinforce this problem. In Pakistan, technical and vocational education institutions suffer from outdated curricula, insufficient capacity, and a persistent mismatch between the skills they impart and the labor market's requirements. Firms that invest in training workers frequently lose them to competitors who offer higher wages after the completion of apprenticeships (APO, 2023)[70].

Pakistan has also failed to attract the kind of foreign direct investment that is typically associated with technology and managerial knowledge transfer. In this regard, Viet Nam's experience with Samsung is instructive. In 2008, when the electronics giant set up in Vietnam, nearly all its suppliers were foreign. However, by 2020, 50 Vietnamese firms had become first-tier suppliers to Samsung, leading to improvements in productivity and increased sales across the domestic supply chain (Lovo & Varela, 2020). On the contrary, firm-level research in Pakistan finds no evidence of similar 'horizontal spillovers' from foreign competitors to domestic firms, which is a reflection of low FDI inflows and weak integration into global value chains (Lovo & Varela, 2020)[71]

EXCHANGE RATE AND PRODUCTIVITY

Amidst this discussion on the state of productivity in Pakistan and its link to export growth, it is important to dwell, albeit briefly, on what productivity is not. A common refrain in Pakistani policy discussions is that export competitiveness can be recovered through exchange rate depreciation. The argument is that a weaker currency would make Pakistani goods cheaper abroad. However, the evidence suggests that this is a misdiagnosis.

For example, Bangladesh did not overtake Pakistan in garment exports by depreciating its currency. In fact, it achieved it in a relatively short period by improving firm-level productivity, investing in its workforce, and persisting with consistent export-oriented policies for several years (Minute Mirrow, 2026)[72]. Similarly, Vietnam's fabled export diversification was achieved on the back of productivity-enhancing polices and integrating into the global value chain. In neither of the two countries was exchange rate management the main policy tool.

Currency depreciation is beneficial for exports in the short term. However, even for that to have a positive effect, productivity at the firm level is required so that the firms can expand output, maintain quality, and absorb the cost increases that depreciation brings through imported inputs and inflation. Frequent devaluation of the Pakistani rupee has shown that in the absence of underlying productivity, a weaker currency mainly results in inflation and profit squeeze rather than long-term growth in exports.

THE WAY FORWARD

Experience across many countries, including Bangladesh and Viet Nam, shows that low productivity cannot be tackled. However, raising productivity requires perseverance and a fundamental shift in industrial policy, which incentivizes upgrading and discourages rent-seeking through protectionism. The following are some of the suggested measures.

Incentives are required when an economy is caught in a low-productivity trap. However, incentives must be conditional on performance. The evidence from Pakistan that subsidized sectors exhibit low or negative TFP growth shows that subsidies without performance are a drag on the government's finances and disincentivize improving competitiveness. Industrial support, in any form, should be strictly linked to measurable outcomes, such as export growth, technology adoption, and productivity improvement (Faraz, Siddique, & Saeed, 2023; APO, 2023).

70. Asian Productivity Organization (2023). Productivity in Pakistan: Estimates, Bottlenecks and the Way Forward. Tokyo: Asian Productivity Organization (APO).
71. Lovo, S. and Varela, G.J. (2020). Internationally Linked Firms, Integration Reforms and Productivity: Evidence from Pakistan. World Bank Policy Research Working Paper No. 9349. Washington, D.C.: World Bank. [See also: World Bank Blog, March 2024, 'Global integration can spur productivity growth in Pakistan'.]
72. Minute Mirror (2026, January). Why Pakistan's Export Problem Is About Productivity, Not the Dollar.

The inherent anti-export bias in trade policy must be eliminated. High tariffs on imported intermediate inputs are essentially a tax on exporters. Pakistan's National Tariff Plan, which aims to reduce the simple average tariff from 20.2% to 9.7% by 2030, is a step in the right direction (World Bank, 2025). However, tariff rationalization has to be comprehensive, with a clear commitment to policy stability so that firms can plan long-term investments.

The regulatory burden must be reduced. The 'regulatory guillotine' approach, i.e., reviewing and eliminating redundant and cumbersome regulations, has been successfully used by several countries and offers a model for Pakistan (APO, 2023). The current proposals by the Board of Investment for the ease of doing business are another step in the right direction. The objective is not unbridled deregulation but a move toward a predictable, easy, transparent, and business-friendly regulatory environment.

Investment in R&D, skills, and technology adoption must be treated as a pillar of growth policy and not an afterthought. This requires strengthening linkages between academia and industry, adapting technical and vocational education curricula in consultation with industry to meet the industry's requirements, and creating incentives for firms to adopt new technologies and upgrade management practices.

Pakistan must actively pursue global value chain integration as a strategy to improve its productivity. According to the World Bank estimates, Pakistan's untapped export potential is approximately USD 60 billion. However, closing this gap requires attracting export-oriented FDI and enabling domestic firms to integrate into international supply chains (World Bank, 2025). This requires, along with the right incentives, competitive energy pricing, reliable infrastructure, trade facilitation, and a stable macroeconomic environment.

CONCLUSION: RECALIBRATING THE GROWTH NARRATIVE

To sum it all up, it could be reasonably argued that Pakistan's perpetual export problem is a symptom of the deeper structural productivity problem. However, unfortunately, for decades, the policy debate has centered on symptoms, such as the exchange rate, the trade deficit, the current account, and the recurring IMF programs. This is not to say that these are not legitimate and pressing concerns, but they cannot be resolved by addressing them in isolation. The root cause is the below-par productivity, especially in export-oriented sectors. However, the industrial policy continues to incentivize low-productivity sectors, which insulates them from competition. Competition, among other things, is the driving force behind productivity improvement.

Vietnam's economy, before it took off in the early 2000s, was quite similar to Pakistan's economy in terms of export composition. However, the productive transformation through trade openness, technology, skills, and a policy environment that rewarded performance over the status quo proved to be the game-changer. All this has yet to happen in Pakistan. Anyone can commit to this change, including Pakistan, but the first step is to stop treating productivity as a passing note in the growth debate and bring it to the front and center of the growth and policy debate.

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WHEN REVENUECRACY OUT-TAXES EXPORT GROWTH

Ikramul Haq

ABSTRACT

Pakistan's recent export taxation reforms represent a fundamental shift from facilitating industrial growth to maximizing advanced revenue collection. The Finance Act 2024[73] dismantled the Final Tax Regime for exporters of goods. It introduced layered advance taxation through minimum tax, corporate taxation, and additional advance recovery under section 147(6C) of the Income Tax Ordinance, 2001[74]. This article examines the economic and constitutional implications of the new framework, arguing that the cumulative burden—combined with refund accumulation—discourages investment in value-added textile exports, Pakistan's most important manufacturing export sector. A recalibration of export taxation policy is necessary to restore growth incentives and long-term fiscal sustainability.

73. https://download1.fbr.gov.pk/Docs/2024630146346801Finance-Act-2024.pdf
74. https://download1.fbr.gov.pk/Docs/20262261622113641ncomeTaxOrdinance2001-Amended-20.02.2026.pdf

POLICY TAKEAWAYS

- Export taxation should prioritize growth and competitiveness rather than short-term revenue extraction.
- Refund mechanisms must be automated and time-bound to prevent liquidity blockage for exporters.
- Parity between the taxation of goods exports and services exports should be ensured to avoid sectoral distortions.
- Value-added textile manufacturing should be recognized as a strategic export sector requiring predictable tax policy.

Illustrative Snapshot: Exporters' Tax Contribution (FY2025-26, First Seven Months)
Total tax contribution from exporters (July–January): ≈ Rs. 101 billion
Advance income tax paid under section 147(6C): ≈ Rs51 billion
Nature of taxation: Advance collection before final income determination
Economic implication: Liquidity withdrawal from the export sector

Periods of fiscal stress often force states to confront a difficult choice: reform the structure of revenue generation or intensify extraction from the most organized segments of the economy. Pakistan's recent export taxation policies suggest that the latter path has increasingly been preferred. Over the past two years, the architecture of export taxation has shifted away from facilitating industrial expansion toward maximizing upfront revenue collection. The result is an inversion of priorities—revenue machinery expanding even as export momentum weakens.

Value-added textile exporters, which constitute the backbone of Pakistan's foreign exchange earnings, now operate under a tax framework that increasingly collects income before it is realized and retains liquidity long after it becomes refundable.

Until tax year 2024, exporters of goods largely operated under the Final Tax Regime (FTR), where tax withheld at source constituted the final discharge of income tax liability under section 169 of the Income Tax Ordinance, 2001. Although imperfect, the regime offered certainty and administrative simplicity—two attributes essential for export-oriented industries exposed to intense global competition.

The Finance Act 2024 fundamentally altered this framework. Exports of goods were removed from the FTR and brought within the normal tax regime (NTR), while withholding under section 154 was converted into minimum tax. Export income is now subject to corporate taxation at 29 percent, together with a super tax that may rise to 10 percent depending on income thresholds. In addition, exporters must pay an additional one per cent advance tax under subsection (6C) of section 147 at the time foreign exchange proceeds are realized. This section reads as follows:

"Notwithstanding anything contained in this Ordinance, the persons specified in sub-sections (1), (3), (3A), (3B) and (3C) of section 154 shall, at the time of realization of foreign exchange proceeds, or realization of the proceeds on account of sale of goods, or export of goods, or at the time of making payment to an indirect exporter, or clearing of goods exported, respectively, deduct or collect, as the case may be, advance income tax under this section at the rate of one percent of such foreign exchange proceeds, or export proceeds, or exports, or payment, in addition to tax collectable or deductible under section 154 of this Ordinance".

The statutory language itself illustrates the layered structure of advance taxation now imposed on exporters.

Section 147(6C) provides that exporters must pay advance income tax at the rate of one per cent of export proceeds "notwithstanding anything contained in this Ordinance" and "in addition to tax collectible or deductible under section 154". The legislative language, therefore, leaves little ambiguity: export proceeds are subject to layered advance tax collection before final taxable income is determined.

Recent fiscal data illustrate the consequences of this approach. During the first seven months of FY2025-26, exporters reportedly contributed approximately Rs 101 billion in taxes, including around Rs 51 billion as advance income tax payments under the revised framework. These collections broadly match those recorded during the same period in the previous fiscal year, despite the absence of comparable export growth. The rise in early-year collections, therefore, appears to reflect intensified pre-collection rather than expansion in taxable profitability.

In sectors such as value-added textiles—where operating margins typically range between five and eight per cent—multiple advance collections frequently exceed final tax liability. Excess payments consequently convert into refund claims. Industry estimates suggest that combined income tax and sales tax refunds owed to exporters now run into the hundreds of billions of rupees, effectively locking up substantial working capital within the tax administration.

From a constitutional perspective, the present structure also raises questions about the nature of the levy being imposed. Entry 47 of the Federal Legislative List authorizes the taxation of income, meaning profits determined after the deduction of legitimate expenses. Entry 52 permits taxation based on production capacity, but only in place of income taxation. The Supreme Court in Elahi Cotton Mills Ltd. v. Federation of Pakistan[75] emphasized that these constitutional entries operate as alternative legislative choices rather than cumulative ones.

75. PLD 1997 SC 582

The Supreme Court, in the Elahi Cotton Mills case, enunciated that these constitutional entries operate as alternative legislative choices, not cumulative instruments. Yet the present framework compels exporters to pay tax on turnover regardless of profitability, while simultaneously subjecting the same income to corporate taxation and super tax. In substance, exporters are exposed to concurrent income taxation and capacity-based extraction—a hybrid levy that violates constitutional boundaries.

Under the current framework, exporters are required to pay taxes based on turnover or cash flow, while the same income remains subject to corporate taxation and super tax. Such hybrid taxation blurs the boundary between income taxation and capacity-based levies.

Policy asymmetry further complicates the picture. Exports of services continue to operate under final taxation arrangements that provide predictability and minimal refund exposure. Manufacturing exporters generating extensive employment and domestic value addition face layered advance taxation, refund dependence, and broader audit jurisdiction.

The cumulative burden confronting value-added textile exporters is substantial. Corporate income tax, super tax, Workers' Profit Participation Fund contributions, Workers' Welfare Fund obligations, provincial levies, and employer contributions to social security schemes collectively reduce retained earnings available for reinvestment. When liquidity costs arising from refund delays are included, the effective fiscal burden on export manufacturing becomes significantly higher than headline statutory rates suggest.

This outcome is particularly concerning because value-added textiles remain Pakistan's most viable engine of export growth. The textile value chain accounts for nearly sixty per cent of national exports and supports millions of livelihoods across upstream and downstream supply networks.

International competitors recognize the strategic importance of export manufacturing. Bangladesh maintains reduced tax rates and a rapid VAT refund system for exporters. Vietnam integrates tax incentives with industrial zone development. India operates an automated GST refund architecture designed to preserve liquidity for export-oriented firms.

Pakistan's policy trajectory has moved in the opposite direction—collecting revenue upfront while refund liabilities accumulate over time. The resulting fiscal illusion is subtle but significant. Advance collections inflate reported revenue during the fiscal year, while refund liabilities remain pending within the system. Fiscal consolidation must remain a national priority. Yet sustainable revenue mobilization ultimately depends on expanding productive sectors rather than compressing them. Export growth historically has generated greater tax capacity through employment income, consumption demand, and industrial linkages.

A recalibration of export taxation policy is therefore necessary. Restoring predictability, ensuring parity between goods and services exports, automating refund mechanisms, and recognizing value-added textiles as a strategic growth sector would strengthen both exports and long-term fiscal sustainability.

Taxation is a sovereign power. Used judiciously, it finances development. Used without regard for economic structure, it can unintentionally undermine the very sectors that sustain national growth. When the state begins treating exporters as instruments of advance financing rather than engines of growth, the cost is not merely economic—it is structural, which once weakened cannot be easily rebuilt.

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THE ENERGY TRAP

How Pricing, Reliability, and Volatility Are Stalling Industrial Expansion

Namra Saleem

Pakistan's industrial sector has long been positioned as the backbone of exports, employment, and structural transformation. Yet, despite its centrality, the sector has experienced persistent stagnation, declining competitiveness, and a shrinking share in GDP. This slowdown is not only cyclical but reflects deeper structural constraints, among which the energy sector stands out as a critical bottleneck.

Energy in Pakistan is not just costly; it is unreliable and highly volatile. These three significant extents: pricing, reliability, and volatility, interact to create a difficult operating environment for the industrial sector. Instead of supporting production and expansion, the energy system has increasingly become a constraint on growth, particularly for energy-intensive sectors.

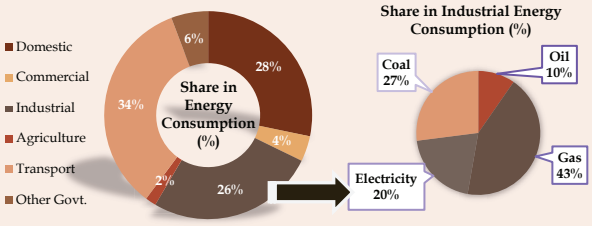
Pakistan's export base remains highly concentrated, with textiles accounting for over 53% of total exports in FY25. Other sectors, such as cement, steel, and engineering goods, also depend heavily on continuous energy supply. This makes industrial performance highly sensitive to changes in electricity and gas prices, supply disruptions, and fluctuations in fuel costs.

Figure 1: Textiles' Concentration in Pakistan's Export Base

Data Source: State Bank of Pakistan

At the same time, the industrial sector consumes around 26% of total energy, with gas forming the largest share, followed by coal and electricity. This structure reflects a deep dependence on fuels that are both supply-constrained and price-volatile.

Figure 2: Sectoral Energy Consumption in Pakistan (FY24)

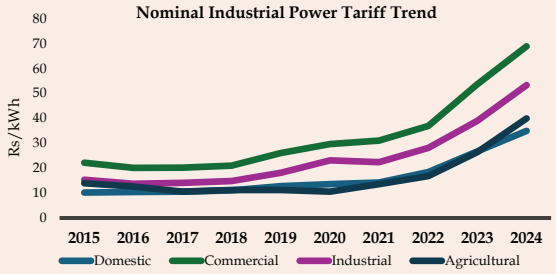


Data Source: Pakistan's Energy Year Book 2023-24

ENERGY PRICING: A STRUCTURAL COST BURDEN

The most immediate constraint on industrial expansion in Pakistan is the high cost of energy. Industrial electricity tariffs have risen sharply over the past decade, increasing from Rs 15.39 per kWh in 2015 to over Rs 53.44 per kWh in 2024. This steep increase has significantly raised the cost of doing business and reduced industrial competitiveness. The tariff trajectory also shows that the sharpest increases occurred after 2019, when industrial power tariffs more than doubled within a few years. This reflects rising capacity payments, fuel cost adjustments, and fiscal pressures.

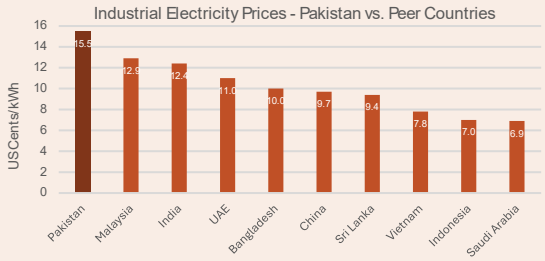
Figure 3: Electricity Tariff Trends Across Sectors



Data Source: IGCEP 2025-35

When compared to peer countries, Pakistan's disadvantage becomes even more pronounced. Industrial electricity prices average around 15.5 US cents per kWh, placing Pakistan above key competitors such as India, Bangladesh, Indonesia and Vietnam, as shown in Figure 4. This gap directly affects export competitiveness and pricing power.

Figure 4: Industrial Electricity Tariffs: Country Comparison (2023-25 Avg.)



Data Source: Global Petrol Prices (https://www.globalpetrolprices.com/electricity_prices/)

The primary reason for high tariffs is cross-subsidization. Industrial consumers pay higher rates to offset subsidies for residential users, widening the cost burden on productive sectors. Recent tariff adjustments reflect a mixed but overall cost-escalating structure. The average variable tariff has increased from PKR 33.35/kWh in FY25 to 37.63/kWh in FY26 (irrespective of the PM Industrial Relief Package), marking a 13% rise across most industrial categories as shown in the table below. Since variable charges directly determine per-unit production costs, these increases have significantly raised manufacturing costs, particularly for export-oriented industries operating continuous production cycles. In contrast, fixed charges have declined sharply from PKR 1,250/kW/month to PKR 471/kW/month, a 62% reduction, offering some relief for SMEs with lower capacity utilization. However, fixed charges do not directly affect production costs, but high variable tariffs offset these gains and reinforce cost pressures on industrial output.

Table 1: Increase in Variable Charges (FY25 vs. FY26)

Industrial Category	Variable Uniform Tariff (Rs/kWh)		Fixed Uniform Tariff (Rs/kW/M)	
	FY 25	FY 26*	FY 25	FY 26
B1 less 5KW/25KW	31.95	36.24	-	-
B1 Peak	37.89	42.18	-	-
B1 Off Peak	31.20	35.49	-	-
B2 5-500KW	31.88	36.17	1250	500
B2-ToU Peak	37.83	42.12	-	500
B2 ToU Off Peak	28.56	32.85	1250	500
B3 ToU Peak up to 500KW	37.83	42.12	1250	460
B3 ToU Off Peak	29.39	33.68	1250	460
B4 ToU Peak all loads	37.83	42.12	-	440
B4 ToU Off Peak	29.11	33.40	1250	440
Average	33.35	37.63	1250	471

Data Source: NEPRA Tariff Notification 2024-25[76] and 2025-26[77]
*Excluding B5 For All Loads (at 220 kV & above) – Peak & Off-Peak

RELIABILITY: THE PARADOX OF EXCESS CAPACITY

Pakistan's power sector presents a paradox of excess capacity alongside unreliable supply. Despite installed capacity exceeding 40,000 MW, industries continue to face outages, voltage fluctuations, and transmission constraints. This reflects systemic inefficiencies rather than a shortage of generation. Demand trends further highlight this imbalance. While capacity has expanded, demand has stagnated and even declined in recent years due to high tariffs and weak industrial activity.

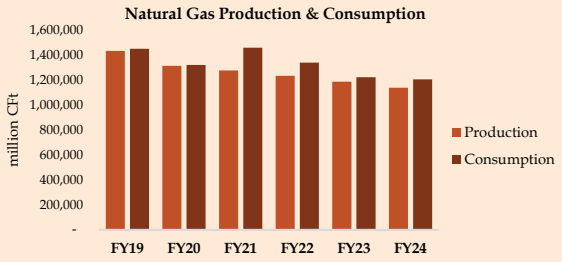
Power Generation trends reinforce this issue. After a period of growth until FY22, electricity generation has declined continuously, indicating weakening demand and reduced industrial consumption.

Unreliable supply imposes high costs on the industry. Production disruptions, machinery damage, and export delays reduce efficiency and increase operational risk. As a result, firms increasingly rely on captive power generation, which raises costs and reduces overall productivity.

GAS SECTOR: DECLINING SUPPLY AND RISING COSTS

The gas sector presents another major constraint. Pakistan's indigenous gas production has declined by around 21% between FY19 and FY24, while demand continues to exceed supply. This has widened the production-consumption gap and raised reliance on imported RLNG.

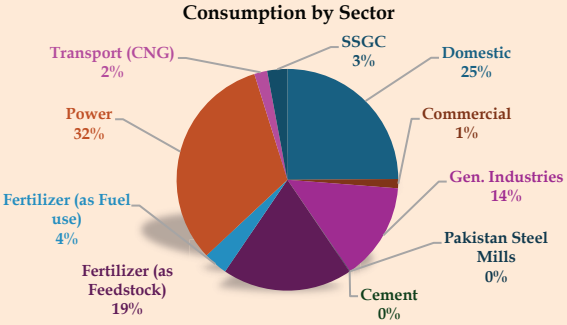
Figure 5: Natural Gas Production vs. Consumption Trend



Data Source: Pakistan's Energy Year Book 2023-24

The sectoral distribution of gas consumption also reflects policy distortions. A large share is allocated to households and power generation, while industry receives a relatively smaller portion despite its economic importance.

Figure 6: Gas Consumption by Sector (FY24)



Data Source: Pakistan's Energy Year Book 2023-24

Gas pricing further compounds the problem. Industrial users pay significantly higher tariffs than domestic consumers, reflecting a cross-subsidy structure that increases production costs.

Table 2: Gas Tariff Structure – Domestic vs. Industrial (2025)

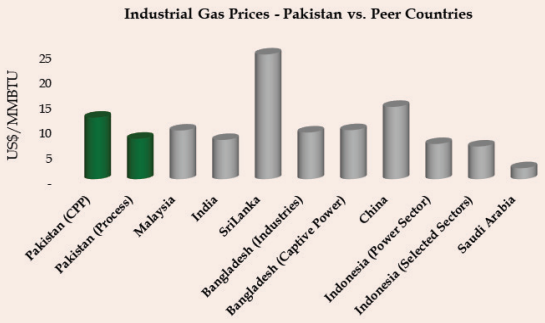
Consumer Category	Tariff (PKR/MMBTU)	Minimum Monthly Charge (PKR/month)
Domestic (Protected Category)		
• Up to 0.25 hm³/month	200	Fixed: 600 + Meter rent: 40
• Up to 0.5 hm³/month	250	Fixed: 600 + Meter rent: 40
• Up to 0.6 hm³/month	300	Fixed: 600 + Meter rent: 40
• Up to 0.9 hm³/month	350	Fixed: 600 + Meter rent: 40
Domestic (Non-Protected Category)		
• Up to 0.25 hm³/month	500	Fixed: 1,500 + Meter rent: 40
• Up to 0.6 hm³/month	850	Fixed: 1,500 + Meter rent: 40
• Up to 1.0 hm³/month	1,250	Fixed: 1,500 + Meter rent: 40
• Up to 1.5 hm³/month	1,450	Fixed: 1,500 + Meter rent: 40
• Up to 2.0 hm³/month	1,900	Fixed: 1,500 + Meter rent: 40
• Up to 3.0 hm³/month	3,300	Fixed: 1,500 + Meter rent: 40
• Up to 4.0 hm³/month	3,800	Fixed: 1,500 + Meter rent: 40
• Above 4.0 hm³/month	4,200	Fixed: 1,500 + Meter rent: 40
Industrial/ Captive Power (Bulk Meters)	3,175	3,900
General Industry (Process)	2,300	35,540
Captive Industry (Power Generation)	3,500	36,653
Cement Industry	4,400	45,588.90

Data Source: SSGC[78]

76. NEPRA Notification. Available Link: https://nepra.org.pk/tariff/Tariff/Ex-WAPDA%20DISCOS/2024/TRF-100%20XWDISCOS%20and%20KE%20REVIEW%20MOTION%20CONSUMER%20END%20TARIFF%2011-07-2024%2010607-26.PDF
77. NEPRA Notification. Available Link: https://www.nepra.org.pk/tariff/Tariff/Notifications/2025/07%20Jul/SRO%201287%20(I)%202025%2018-07-2025.pdf
78. https://www.ssgc.com.pk/web/?page_id=106

Regional comparisons further show Pakistan's disadvantage, particularly for captive power, where tariffs are significantly higher than those of competing economies.

Figure 7: Industrial Gas Tariffs - Pakistan vs. Regional Peers



Data Source: OGRA, ProPakistani, Gas Malaysia.com, ArgusMedia.com, Vivalanka.com, Gasoutlook.com, CEICD ata.com, Tradingview.com, Tanahair.net, and CDN.Intratec.us (2025)

VOLATILITY: THE UNSEEN BARRIER TO INVESTMENT

Energy price volatility represents a critical but often overlooked constraint. Electricity tariffs in Pakistan are subject to frequent adjustments, including fuel cost adjustments and quarterly revisions. These changes create uncertainty for businesses and complicate financial planning. Gas prices, mainly RLNG, are linked to global markets, making them highly volatile. Sudden increases in global fuel prices translate directly into higher domestic costs.

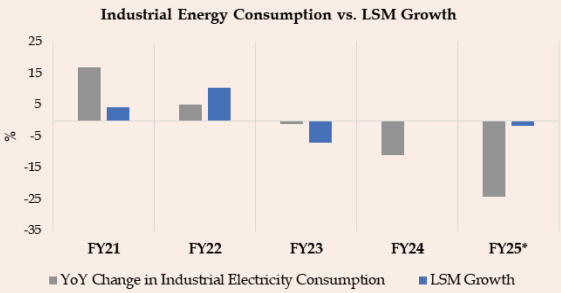
This volatility discourages long-term investment. Industrial expansion requires predictable input costs, but in Pakistan, energy prices are uncertain and frequently change. As a result, firms are reluctant to invest in new capacity or upgrade existing operations.

INDUSTRIAL IMPACT: EVIDENCE FROM CONSUMPTION AND GROWTH TRENDS

Pakistan's industrial electricity consumption and large-scale manufacturing (LSM) growth exhibit a closely aligned pattern, underscoring the strong linkage between energy availability and industrial output. During the post-COVID recovery phase, industrial electricity demand expanded by 17% in FY21 and 4% in FY22, reaching 28,115 GWh in FY22. This period coincided with robust LSM growth of 4.4% in FY21 and a notable 10.6% in FY22, reflecting strong production activity across energy-intensive sectors such as textiles, cement and steel.

From FY23 onwards, both indicators reversed sharply. Industrial electricity consumption contracted by 8% in FY23, followed by a steeper decline of 12% in FY24 and a further 6% in FY25 (see figure below). This downward trend closely mirrors LSM's performance, which declined by 7.0% in FY23, 0.2% in FY24, and 1.5% in FY25. The parallel movement of these indicators highlights how rising energy costs and supply constraints have directly translated into reduced industrial activity.

Figure 8: Industrial Electricity Consumption vs. LSM Growth



Data Source: Pakistan Economic Survey 2024-25
*FY25 values are for Jul-Mar

Key Finding: This correlation reinforces a critical insight: energy is not merely an input but a binding constraint on industrial performance. As electricity becomes more expensive and less reliable, production contracts, capacity utilization declines and overall industrial growth slows, with broader implications for exports, employment, and economic stability.

POLICY FAILURES AND STRUCTURAL CONSTRAINTS

The persistence of these challenges reflects deeper structural issues in Pakistan's energy policy framework. Capacity payments continue to inflate tariffs, while inefficiencies in DISCOs are passed on to consumers. Subsidy structures also prioritize consumption over production, and reforms have progressed slowly.

Cross-Subsidization, circular debt, and weak governance have created a system that is both financially unsustainable and economically inefficient. Instead of supporting industrial growth, the energy sector has become a major constraint on it.

THE WAY FORWARD

Addressing these challenges requires a fundamental shift in energy policy toward industrial competitiveness.

Electricity tariffs, which have risen sharply over the past decade, must be aligned with regional benchmarks to restore cost efficiency, while untargeted cross-subsidies should be replaced with direct support for vulnerable households.

Expanding off-peak and seasonal tariff incentives can further reduce the cost burden on industry and encourage greater reliance on the grid over captive generation.

At the same time, structural inefficiencies in the power and gas sectors must be resolved. The burden of capacity payments, driven by excess installed capacity, continues to inflate tariffs and requires renegotiating contracts and improving demand management.

In the gas sector, declining domestic supply and reliance on costly RLNG have raised prices, while distorted allocation practices disadvantage the industry.

Scaling up renewable energy, improving system efficiency, and ensuring more predictable pricing will be essential to reducing volatility, restoring confidence, and supporting sustained industrial growth.

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ENERGY ECONOMY NEXUS FOR INDUSTRIALIZATION IN THE AGE OF GEOPOLITICAL CRISIS

Khalid Waleed

Pakistan's current energy-industrial dilemma is best understood not as a conventional supply shortage, but as a temporal and structural mismatch embedded within its generation mix. The RLNG-dependent segment of the power system, though accounting for approximately 13.7 percent of total generation, carries a disproportionate fiscal and operational weight. In CY2026, RLNG-based generation of 17,675 million units translates into a power purchase burden of Rs 511 billion, nearly 17.4 percent of the total system cost, with fuel costs alone exceeding Rs 20 per kWh. This asymmetry is critical. RLNG is not merely another fuel; it is the marginal price setter, and therefore, the anchor of industrial electricity tariffs.

The geopolitical disruption of supply routes through the Strait of Hormuz converts this structural dependence into an immediate systemic risk. A full-quarter disruption eliminates nearly 8,800 GWh of dispatchable generation while continuing to impose take-or-pay capacity charges of roughly Rs 140 billion. The fallback options within the merit order, primarily imported coal and furnace oil, are both costlier and equally exposed to global price volatility. Substitution, therefore, is not a neutral adjustment. It simultaneously contracts supply and increases the marginal cost of electricity by approximately Rs 17 per kWh. The result is a dual shock transmitted through tariffs and load shedding, particularly during evening peak hours.

This is where Pakistan's power system's technical architecture becomes decisive. Over the past two to three years, an estimated 10 to 18 GW of distributed rooftop solar has emerged, effectively creating a parallel generation system. During daylight hours, this fleet offsets 3,500-4,000 GWh of grid demand in a summer quarter, absorbing a substantial share of the RLNG shortfall. However, solar generation is inherently intermittent and ceases entirely at sunset. The critical vulnerability lies in the 7 PM to 6 AM window, where demand remains high due to residential cooling, industrial operations, and agricultural loads, but supply reverts entirely to thermal generation. In the absence of RLNG, this window becomes the locus of system stress, leading to load shedding and an emergency reliance on expensive fuels.

The absence of battery energy storage systems in Pakistan's grid architecture transforms this

temporal mismatch into a structural constraint. At present, Pakistan has effectively zero operational grid-scale or distributed battery storage capacity. This means that surplus solar generation during the day cannot be shifted to meet evening demand. From a systems engineering perspective, this is equivalent to operating a two-period electricity market without intertemporal arbitrage. The system is forced to overproduce in one period and underdeliver in another, with no mechanism to smooth the imbalance.

The industrial implications of this are profound. Industries require not only affordable electricity but also predictability and continuity of supply. RLNG-based generation historically provided this flexibility due to its relatively fast ramping characteristics. In its absence, and without storage, the system loses its ability to provide firm power. This introduces what can be termed "temporal unreliability," where electricity is available but not when needed. For industrial processes, particularly in textiles, chemicals, and light manufacturing, such interruptions translate into higher operating costs, reduced capacity utilization, and lower export competitiveness.

The case for battery energy storage, therefore, is not ancillary; it is foundational. From a technical standpoint, deploying 2 to 3 GW of grid-scale battery storage at key transmission nodes such as Lahore, Faisalabad, Multan, and Karachi can fundamentally alter the system's dynamics. Assuming a four-hour storage duration, this translates into 8 to 12 GWh of dispatchable capacity, sufficient to cover a significant portion of the evening peak deficit. More importantly, storage enables the conversion of non-dispatchable solar energy into firm capacity. This effectively replaces the role previously played by RLNG, but without the associated fuel price volatility and foreign exchange exposure.

The economics of such deployment are equally compelling. The Rs 35 billion quarterly burden of idle RLNG capacity charges alone is sufficient to service the debt of a $1.5 billion battery storage program within two years. This reframes storage not as an additional cost but as a reallocation of existing inefficiencies. Moreover, the levelized cost of storage, when integrated with solar, is increasingly competitive with imported fuel-based generation, particularly under conditions of elevated global energy prices.

At a technological level, the choice of battery chemistry becomes critical. Lithium-ion batteries, while currently dominant, present supply chain risks due to the concentration of lithium, cobalt, and nickel resources. Sodium-ion batteries offer a viable alternative, particularly for stationary storage applications. Their lower energy density is less relevant in grid-scale deployments, where space constraints are minimal. More importantly, sodium-ion technologies rely on more abundant, geographically dispersed raw materials, thereby reducing exposure to global supply bottlenecks. From an industrial policy perspective, this creates an opportunity for localized manufacturing. The production process, involving cathode and anode fabrication, electrolyte formulation, and cell assembly, can be integrated with existing chemical and manufacturing industries in Pakistan.

The strategic relevance of sodium-ion batteries extends beyond energy storage. It enables the development of a domestic industrial ecosystem around energy technologies. This includes upstream industries such as chemical processing and materials engineering, as well as downstream applications in electric mobility and distributed energy systems. By anchoring storage manufacturing domestically, Pakistan can reduce its import dependency not only on fuels but also on critical technologies.

Firstly, Pakistan must initiate a fast-track deployment of grid-scale battery energy storage systems, prioritizing nodes with high load density and solar penetration. This requires regulatory recognition of storage as a distinct asset class, with appropriate tariff mechanisms that allow cost recovery through capacity payments and ancillary service markets. Without such regulatory clarity, private sector participation will remain limited.

Secondly, the policy framework should incentivize the integration of distributed storage with rooftop solar. Introducing time-of-use export tariffs of Rs 25-30 per kWh for evening discharge can transform existing solar installations into dispatchable assets. This effectively crowds in private investment into storage, reducing the burden on public finances while enhancing grid stability.

Thirdly, Pakistan should develop a targeted industrial policy for sodium-ion battery manufacturing, focusing on technology partnerships, local value addition, and export potential. This includes establishing pilot manufacturing facilities, investing in research and

development, and aligning standards with international benchmarks. The objective should be to position Pakistan not merely as a consumer of storage technologies but as a producer within the emerging global value chain.

The RLNG crisis has exposed a deeper structural issue within Pakistan's energy system. The problem is not the absence of capacity but the absence of flexibility. Battery energy storage provides that flexibility, enabling the system to bridge the temporal gap between generation and demand. More importantly, it offers a pathway to align energy security with industrial development. The choice before Pakistan is not whether to adopt storage technologies, but rather how to do so in a way that reinforces its industrial base.

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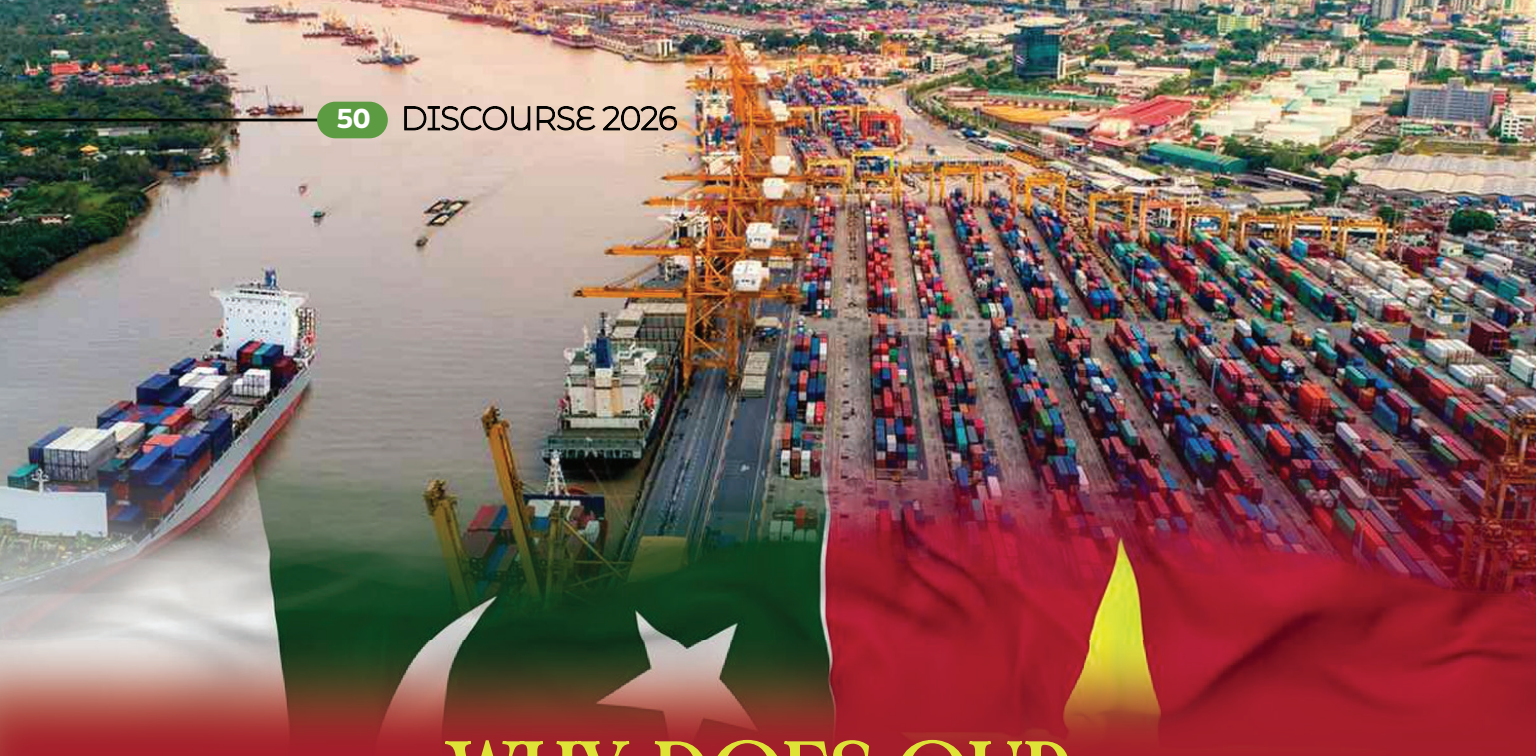


WHY DOES OUR TRADE NOT GROW?

How Pakistan and Vietnam Diverged in Participation in Global Value Chains

Aadil Nakhoda

Export growth in Pakistan has always been a contentious topic among policymakers and economic experts, given the stagnant trend in the country's exports of goods and services. Uraan Pakistan, officially known as the National Economic Transformation Plan (2024-2029), provides a roadmap for achieving higher, sustainable economic growth, aiming to ensure Pakistan escapes the constant grip of a balance of payments crisis and the recurring debt trap. It views export-led growth as the ultimate savior of the economy, predicting that exports will double to $60 billion and that the economy will grow to $1 trillion within the next decade. It aims to achieve the target by not only identifying key sectors but also introducing greater competitiveness into the economy and recommending the monitoring and evaluation of the reforms proposed under the agenda.

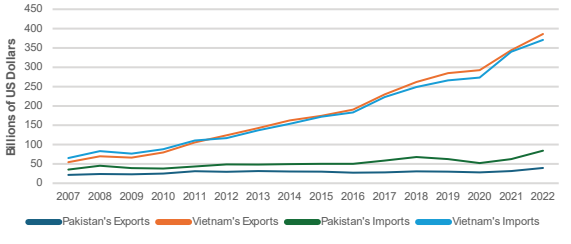
Although several Asian countries have reported phenomenal levels of export and economic growth in the last fifty years, Vietnam stands out as it not only has achieved high export growth rates in the last two decades but has developed itself into an alternative manufacturing hub despite significant competition from more established manufacturers in the region, such as China, Thailand, and South Korea. Exports of goods and services from Vietnam have increased from $55 billion in 2007 to $386 billion in 2022. It was able to double its exports between 2007 and 2012, doubling them again in 2017. Pakistan, on the other hand, reported exports of $21 billion in 2007, which increased to $31 billion in 2011. It remained stagnant at this level until 2021, as exports showed no significant growth. One key point is that imports into Vietnam kept pace with exports, as both increased simultaneously. Imports into

Pakistan have typically outpaced exports, rising from $35 billion in 2007 to $84 billion in 2022. This divergence between the two has often led to a balance-of-payments crisis fueled by Pakistan's trade deficit. Vietnam, without much of its own indigenous resources to produce exportable output, has relied on imports of key capital goods and unfinished goods to boost domestic production and, in turn, increase exports. This linkage has made it an important participant in regional and global value chains (GVCs).

Contrary to Pakistan, Vietnam has pursued trade policies that have allowed its businesses to import unfinished and capital goods, while ensuring they remain competitive in the global market by avoiding trade restrictions on consumer goods. Their policymakers have reduced import tariffs from 9 percent in 2007, which was much closer to the value of 12 percent reported by Pakistan in 2007, to almost 1 percent in 2022. This dynamism in their trade policy has been a major factor in increasing their participation in global value chains. Further, the share in value addition from the manufacturing sector in Vietnam was 25 percent in 2022, compared to 14 percent in Pakistan, indicating higher manufacturing capabilities in Vietnam. The following discussion will shed further light on the tariff policies adopted by Pakistan and Vietnam, whose trade patterns diverged over the last 20 years.

The data on trade values is extracted from the World Bank's World Development Indicators; the data on GVC participation is extracted from the Asian Development Bank's multiregional input-output database; and the data on tariffs is extracted from the World Bank's World Integrated Trade Solution (WITS). The products are classified into different stages of production using the reference list provided by WITS.

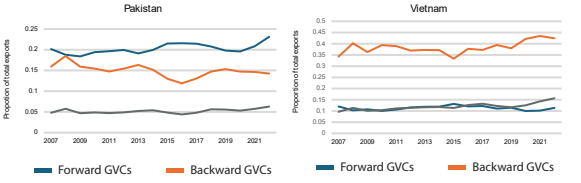
Figure 1: Exports and Imports of Pakistan and Vietnam



Source: Author's Compilation

The exports and imports of goods and services of Pakistan and Vietnam between 2007 and 2022 are reported in Figure 1. There is a clear divergence in trade volumes between Pakistan and Vietnam: Vietnam increased its exports and imports by more than six times, while Pakistan doubled its imports; its exports remained stagnant throughout the period. While Vietnam achieved its desired export-led growth, outpacing several regional competitors that also reported stellar performances, Pakistan remained a laggard, with its share of global trade shrinking over time.

Figure 2: Participation of Pakistan and Vietnam in global value chains



Source: Author's Compilation

The participation of Pakistan and Vietnam in GVCs is reported in Figure 2. There are two primary ways to measure participation in GVCs, where goods cross an international border more than once in their production process. Forward GVC participation is measured as the share of total gross exports incorporated into the exports of the importing partner to trading partners, while backward GVC participation is measured as the share of total gross exports to a trading partner produced with imported inputs from other source countries. Two-sided GVCs involve a combination of backward and forward linkages in international activities[79]. While total participation in GVCs has typically been less than 40 percent in Pakistan, it has exceeded 50 percent in Vietnam. Pakistan's participation in GVCs is dominated by forward linkages, while Vietnam's is dominated by backward linkages. The forward GVCs constitute more than 20 percent of gross exports from Pakistan, while backward GVCs constitute more than 40 percent in recent years.

79. Examples of forward linkages are exports of yarn from Pakistan to China, which is then further processed into t-shirts and exported to the US. Examples of backward linkages are imports of integrated circuits into Vietnam from China that are further used in the production of mobile phones exported to the EU from Vietnam. Two-sided linkages are exports of cotton from US to Pakistan, which is exported to China as yarn and further transformed into a t-shirt in China for export to the EU.

This suggests that exports from Pakistan are more likely to be in the form of unfinished products and further processed into exportable output in the trading partners. In contrast, imports into Vietnam are further processed into exportable output domestically and exported as final goods to its trading partners. The manufacturing sector in Vietnam is likely to play a crucial role in developing backward linkages, whereas Pakistan's lack of manufacturing capabilities has led to the prominence of forward linkages in GVCs.

Figure 3: Participation in global value chains by Pakistan and Vietnam by the importance of exporting and importing sectors

Source: Author's Compilation

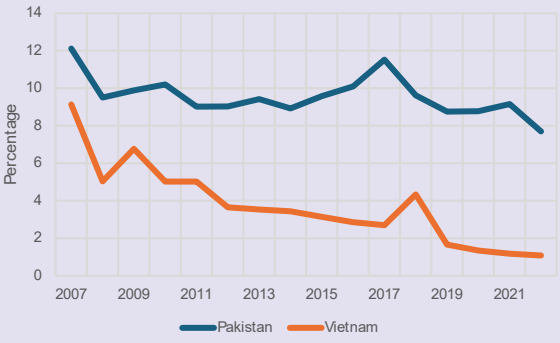
The participation in GVCs, disaggregated in terms of backward, forward and two-sided, in the leading export and import sectors of Pakistan and Vietnam, is reported in Figure 3. The top five sectors, classified according to the International Standard Industry Classification (ISIC) revision 3.1, in terms of recording the highest levels of exports and imports are reported in Table 1 below. Pakistan, which is more likely to export products that are further processed into exportable outputs in the trading partner, as reported earlier, exhibits higher levels of forward linkages as an exporter and higher levels of backward linkages as an importer than Vietnam. Further, Vietnam reports higher backward linkages as an exporter and higher forward linkages as an importer than Pakistan, largely reversing the trend observed in Pakistan across sectors. While higher levels of forward linkages for an exporter suggest that more export processing activities are likely to occur in the exporter's trading partners, the prominence of backward linkages for an importer suggests that more value-added manufacturing processes are likely to occur in the exporting country, where imported inputs are transformed into exports. Further, the prominence of backward linkages as an exporter suggests that Vietnam is adding larger value to imported inputs from its trading partner and processing them into exports. In contrast, the prominence of forward linkages as an importer suggests that Vietnam is adding greater value to inputs from its trading partners and processing them for further exports. The two-sided GVCs are almost non-existent in Pakistan, whereas they are more prominent in Vietnam across sectors. This again clearly suggests that Vietnam's manufacturing sectors are likely adding value to trade relative to Pakistan's, as trading partners exporting to Vietnam rely on its manufacturing capabilities for further export-based production. This also signifies a critical link between exports and imports, which is likely supported through lower tariffs and trade restrictions.

Table 1: Top five export and import sectors of Pakistan and Vietnam

Pakistan		Vietnam	
Top five export sectors	**Top five import sectors**	**Top five export sectors**	**Top five import sectors**
Food, beverages and tobacco	Food, beverages and tobacco	Food, beverages and tobacco	Coke, refined petroleum and nuclear fuel
Textiles and textile products	Coke, refined petroleum and nuclear fuel	Textiles and textile products	Chemicals and chemical products
Leather, leather products and footwear	Chemicals and chemical products	Leather, leather products and footwear	Basic metals and fabricated metals
Chemicals and chemical products	Basic metals and fabricated metals	Basic metals and fabricated metals	Machinery, not elsewhere classified
Manufacturing, not elsewhere classified; recycling	Manufacturing, not elsewhere classified; recycling	Electrical and optical equipment	Electrical and optical equipment

Source: Author's Compilation

Figure 4: Weighted average tariff rates applied on imports into Pakistan and Vietnam



Source: Author's Compilation

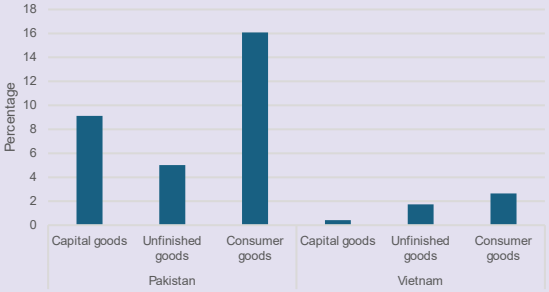
The weighted average tariff rates applied on imports into Pakistan and Vietnam between 2007 and 2022 are reported in Figure 4. Vietnam has reduced its tariff rates from 9.1 percent in 2007 to 1.08 percent in 2022, clearly demonstrating the Vietnamese government's preference for eliminating import tariffs and duties. Although there is a decreasing trend in tariffs on imports into Pakistan between 2007 and 2022, the average tariff rate has decreased only from 12 percent in 2007 to 7.7 percent in 2022. Pakistan imposes relatively higher import tariffs than several of its Asian counterparts, particularly Vietnam. The next figures will delve deeper into tariff analysis by disaggregating imports at the product level.

Figure 5: Total imports into Pakistan and Vietnam by stages of production of goods

Source: Author's Compilation

The imports into Pakistan and Vietnam classified according to the stages of production, namely capital goods, unfinished goods that require further processing before being sold as final goods, and consumer goods, into Pakistan and Vietnam, are reported in Figure 5. Pakistan mostly imports unfinished goods, which account for more than 50 percent of its total imports, followed by consumer and capital goods. Vietnam imports more capital goods than any other type of goods, followed by unfinished goods and consumer goods. The composition suggests that Vietnam's imports are likely building additional capacity in the country through infrastructure and business-related investments. In contrast, Pakistan's imports are more likely to meet the needs of existing investments than to support an increase in production capacity. It is also interesting to note that the sum of imports of capital goods and unfinished goods is approximately $200 billion more than the import of consumer goods into Vietnam, highlighting the ability of the domestic manufacturing sector to produce and process industrial inputs into final goods. Pakistan lacks similar capabilities.

Figure 6: Average tariff rates applied by Pakistan and Vietnam on imports by stages of production of goods



Source: Author's Compilation

The weighted average tariff rates applied to imports classified by production stage are reported in Figure 6. The average tariffs on consumer goods imported into Pakistan are 16 percent, on capital goods 9 percent, and on unfinished goods 5 percent. The tariff rates on imports into Vietnam across all products are lower than those applied by Pakistan, with consumer goods at 2.7 percent and capital goods at 0.4 percent. Pakistan imposes higher tariffs on imports of capital goods than on unfinished goods, while Vietnam imposes the lowest tariffs on capital goods. Consumer goods face the highest tariff rates in both countries, but the intensity of those rates in Pakistan is significantly higher than in Vietnam. Although both countries have cascading tariff rates, the intensity of the differences in those rates is much lower in Vietnam than in Pakistan, likely creating significantly lower distortions in the former.

Figure 7: Average tariff rates on imports of goods into Pakistan and Vietnam by their stages of production and the importance of exporting sectors

Source: Author's Compilation

The weighted average tariff rates reported in Figure 7 are further disaggregated by the prominence of sector-wise exports, as listed in Table 1. The average tariff rates applied by Pakistan to imports of products at the same stage of production in non-export-oriented sectors are higher than those for export-oriented sectors. The average tariff rates on imports of consumer goods in non-export-oriented sectors in Pakistan exceed 20 percent. High tariffs on consumer goods in such sectors are unlikely to protect export-oriented products; rather, they are more likely to be applied as a fiscal tool to generate tariff-based revenue in import-competing industries. Tariff rates remain low in Vietnam, regardless of whether the sectors are export oriented. Therefore, the policymakers in Vietnam are unlikely to impose tariff measures as either protectionist tools or instruments to generate tariff revenue. The imposition of high tariff rates

in Pakistan needs to be further evaluated in terms of their consequences for the capabilities of Pakistan's manufacturing sectors.

In essence, the higher participation rates in GVCs, particularly in backward GVCs, accompanied by low tariff rates in Vietnam, suggest that its policymakers not only encourage greater trade openness to promote regional and global integration, but they have also successfully developed a manufacturing sector that contributes to global and regional production chains. Unfortunately, Pakistan's lack of participation in GVCs and its high import tariffs have had significant implications for the domestic economy.

There is an urgent need to overhaul the business and investment climate in the country, with reforms aimed towards greater openness and integration into global and regional value chains. The National Tariff Policy 2025-2030 is a step in the right direction. Reversing the stagnation in exports is critical, and such a reversal will require a holistic approach to business and investment-related reforms that not only ensure a more competitive environment where businesses and investors have easier access to their markets but also enable them to access supply chains across regional and global networks more effectively and improve their participation in GVCs.

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TAX EXPENDITURES IN PAKISTAN

Business Facilitation to Fiscal Burden

Alam Khan and Mahmood Khalid

Tax expenditures have become an increasingly prominent, widely used policy handle, yet insufficiently scrutinized, instrument of fiscal policy. Commonly defined as deviations from a benchmark tax system and categorized such as exemptions, deductions, tax credits, and preferential rates. These reduce tax liabilities for specified sectors, activities, or groups (Asian Development Bank, 2023[80]; World Bank, 2024[81]). While these measures are often justified as tools for promoting investment, supporting industries, and facilitating economic development, they also represent implicit public spending in the form of forgone revenue (International Monetary Fund, 2019)[82]hence need to be scrutinized on similar levels as of the normal budgetary allocations.

However, unlike direct expenditures, tax expenditures are embedded within tax legislation, schedules, and statutory instruments. Consequently, they often escape the determination of volume, degree of scrutiny, prioritization, and performance evaluation typically applied to budgetary spending. This institutional feature raises a central policy question: whether tax expenditures function as effective instruments for influencing business behavior or primarily operate as mechanisms that enhance profitability only without generating meaningful economic outcomes.

80. https://www.adb.org/sites/default/files/publication/932086/tax-expenditure-estimation-tool-kit.pdf
81. https://documents1.worldbank.org/curated/en/099062724151636908/pdf/P174543148ba880bb188fd1ce06f588a6aa.pdf
82. Tax expenditures—How to measure and evaluate them. International Monetary Fund.

TAX EXPENDITURES BEHAVIORAL IMPACT

From a business development perspective, the government's employ tax expenditures as incentives to promote private investment, encourage sectoral development, and enhance export competitiveness. In principle, such measures are intended to influence firm behavior by altering relative costs and returns. However, the critical element in effectiveness of these instruments depends critically on their design and conditionality.

A key analytical distinction arises between:

Income-based incentives: reduced tax rates and exemptions, and
Input-based incentives: concessions on raw materials and intermediate goods

Both categories reduce the tax burden, but neither necessarily ensures a change in economic behavior. Income-based incentives tend to increase after-tax profitability without guaranteeing additional investment or productivity gains. Similarly, input-based incentives reduce production costs but do not directly promote value addition, export performance, or technological upgrading.

In the absence of clearly defined performance criteria, allowed budget and sun-set clauses the causal link between tax expenditures and desired economic outcomes remains weak. This limits their effectiveness as instruments of business policy and complicates their evaluation.

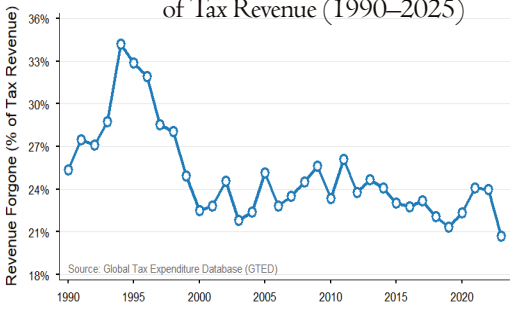
GLOBAL EVIDENCE AND POLICY LESSONS

From Figures 1 and 2, based on Global Tax Expenditure Database , it can be seen that tax expenditures constitute a significant share of fiscal systems globally, often ranging between 3 and 5 percent of GDP (with increasing trend) and 20-25 percentage of Revenue (decreasing trend). While their magnitude is comparable across countries, their institutional management differs substantially.

Figure1: Revenue Forgone from Tax Expenditures as a Percentage of GDP (1990–2025)

Source: Author's Compilation

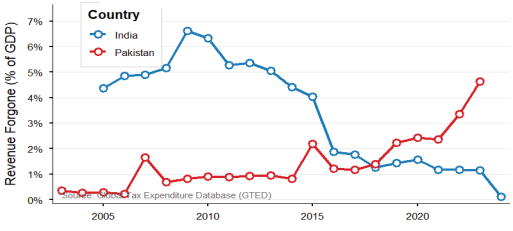
Figure 2: Revenue Forgone as a Percentage of Tax Revenue (1990–2025)



Source: Author's Compilation

Figure 3 also provides an important comparative perspective for Pakistan in this regard. India's experience demonstrated that the fiscal cost of tax expenditures can be reduced through policy reform (OECD, 2011)[84], including the rationalization of exemptions and the broadening of the tax base. The observed decline reflects a transition toward a more rule-based and transparent system, supported by periodic review and policy discipline.

Figure 3: Revenue Forgone (% of GDP) Pakistan v/s India (2005–2025)



Source: Author's Compilation

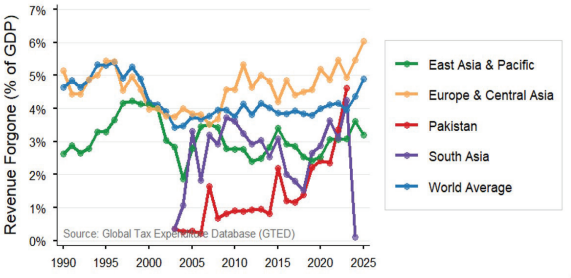
In contrast, Pakistan exhibits a persistent upward trend in tax expenditures as a percentage of GDP. This divergence suggests that the issue is not merely the existence of tax incentives but with least impact and the absence of systematic mechanisms for evaluating their relevance, effectiveness, and continuation.

84. https://www.oecd.org/content/dam/oecd/en/publications/reports/2011/06/oecd-economic-surveys-india-2011_g1g1166e/eco_surveys-ind-2011-en.pdf

PAKISTAN's CASE: STRUCTURAL IMBALANCE IN FISCAL POLICY DUE TO TAX EXPENDITURES

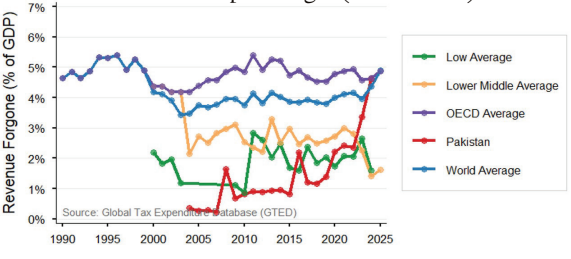
The relationship between tax expenditures and revenue mobilization in Pakistan reveals a notable structural imbalance. Figures 4 and 5 show a steady increase in tax expenditures, approaching 4–5 percent of GDP in recent years. At the same time, Figure 6 indicates that the tax-to-GDP ratio remains persistently low, fluctuating around 10 percent.

Figure 4: Revenue Foregone (% of GDP)
Pakistan VS. Regional and World Averages
(1990-2025)



Source: Author's Compilation

Figure 5: Revenue Foregone (% of GDP)
Pakistan VS. World. OECD, and
Income Group Averages (1990-2025)



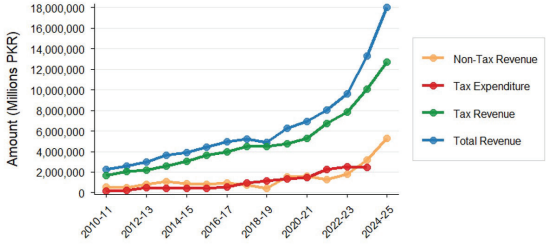
Source: Author's Compilation

This coexistence suggests that tax expenditures have not contributed to a commensurate expansion of the tax base. Instead, they appear to reduce effective tax rates without generating sufficient additional economic activity to offset revenue losses. The result is a weakening of fiscal capacity and a continued reliance on a narrow tax base.

STRUCTURE AND CONCENTRATION OF TAX EXPENDITURES

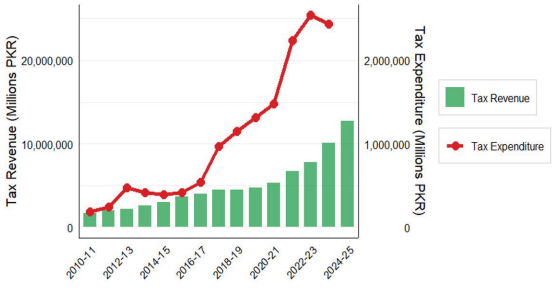
Tax expenditures in Pakistan are primarily embedded within the Income Tax Ordinance 2001, the Sales Tax Act 1990, and the Customs Act 1969, and are operationalized through schedules and statutory regulatory orders (FBR, 2025)[85]. Figures 6 and 7 demonstrate that the fiscal cost of these provisions is substantial, while Figures 9 to 12 reveal that tax expenditures are highly concentrated within a limited number of provisions.

Figure 6: Pakistan: Revenue & Tax
Expenditure Trends
2010-11 to 2024-25 (Amounts in Millions PKR)



Source: Author's Compilation

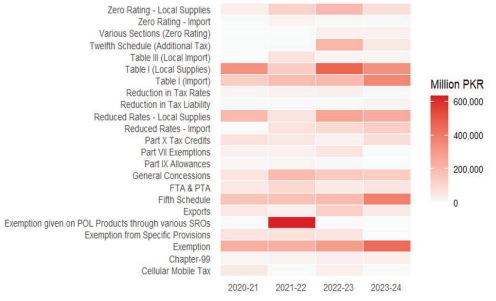
Figure 7: Pakistan: Tax Revenue VS.
Tax Expenditure
Tax Revenue (Bars) I Tax Expenditure
(Line, Right Axis)



Source: Author's Compilation

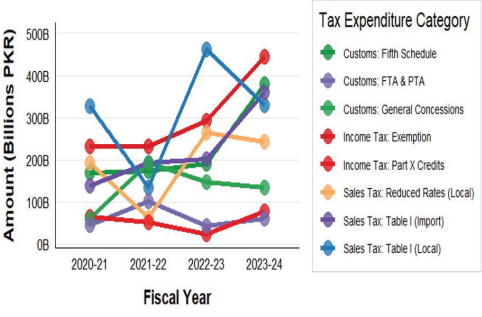
85. https://download1.fbr.gov.pk/Docs/202595159423458TaxExpenditureReport2025.pdf

Figure 8: Tax Expenditure Heatmap
Major Subcategories
(Amounts>10,000 Million PKR)



Source: Author's Compilation

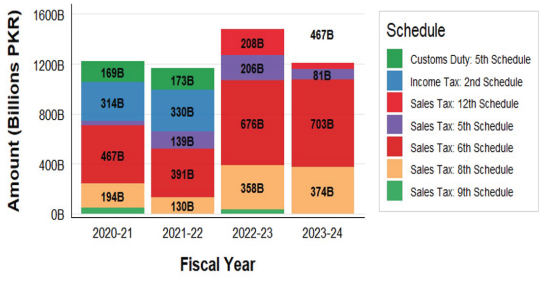
Figure 9: Top 8 Tax Expenditures:
Trend Analysis FY2020-21 to FY2023-24
(Amounts in Billions PKR)



Source: Federal Board of Revenue (FBR)

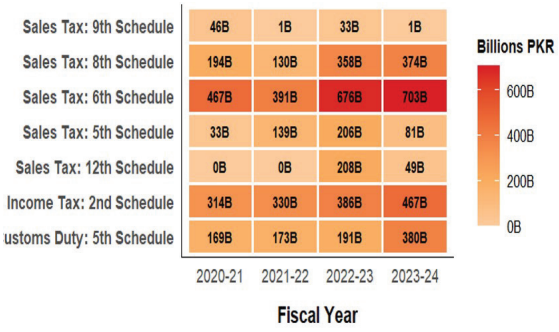
This concentration has dual implications. On the one hand, it suggests that targeted reforms could yield significant fiscal gains. On the other hand, it raises concerns regarding the criteria for inclusion and the persistence of such provisions as of now. The available evidence indicates that many entries lack clearly articulated objectives and are not subject to systematic evaluation.

Figure 10: Tax Expenditure by Schedule
FY2020-21 to FY2023-24
(Amounts in Billions PKR)



Source: Federal Board of Revenue (FBR)

Figure 11: Tax Expenditure by Schedule
Color intensity shows magnitude (Billions PKR)



Source: Federal Board of Revenue (FBR)

The reliance on schedules as a policy instrument further contributes to rigidity. Over time, these schedules tend to accumulate provisions introduced under varying economic conditions, without a corresponding mechanism for review or removal. This results in a system characterized by policy layering rather than policy design.

EVALUATING EFFECTIVENESS: KEY POLICY CONCERNS

The analysis highlights several critical concerns regarding the effectiveness of tax expenditures in Pakistan:

Weak linkage to performance outcomes: Most incentives are not tied to measurable indicators such as investment, exports, or employment.
Limited evaluation mechanisms: There is little evidence of systematic ex-ante or ex-post assessment.

Policy persistence: Many provisions continue indefinitely without review or sunset clauses.
Administrative complexity: The proliferation of schedules and SROs complicates tax administration.

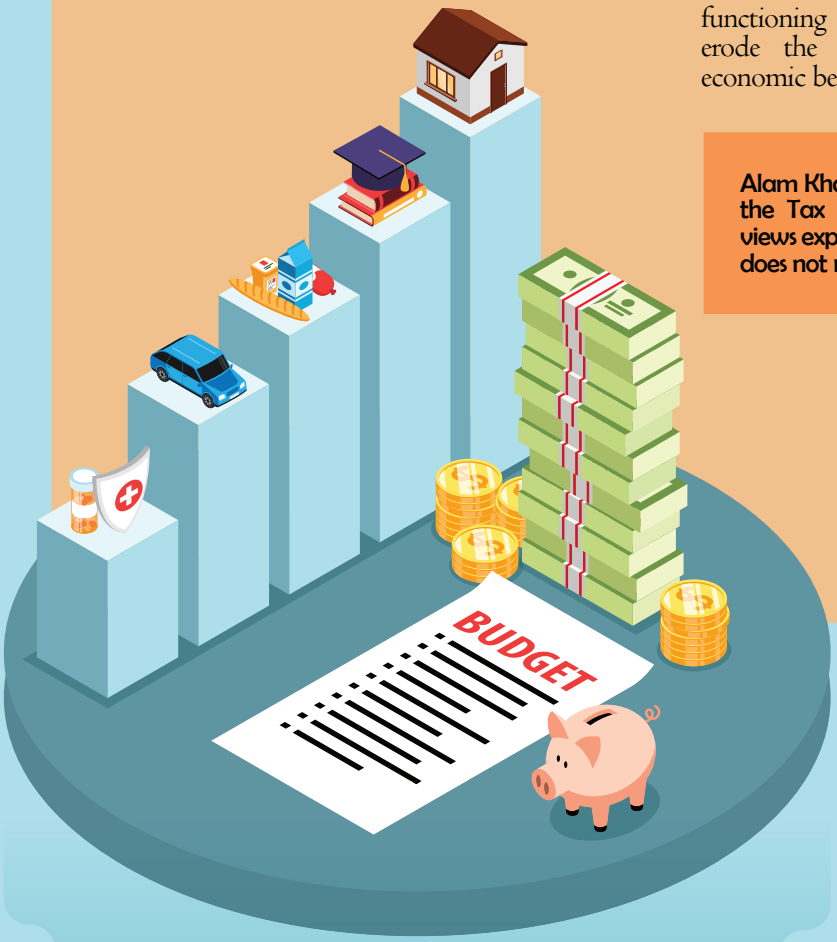
Potential redundancy: Some incentives may provide benefits without altering economic behavior.

These issues collectively suggest that the current system lacks the institutional features necessary to ensure that tax expenditures function as effective policy instruments.

CONCLUSION

Tax expenditures in Pakistan represent a significant component of the fiscal system, both in terms of scale and structural importance. However, their current design and implementation raise important concerns regarding efficiency, effectiveness, and policy coherence.

The evidence indicates that tax expenditures are highly concentrated, predominantly input-based, and largely embedded within schedules and statutory instruments. Their alignment with measurable economic outcomes remains limited, and mechanisms for systematic evaluation are weak. As a result, many provisions appear to enhance profitability without exerting a meaningful influence on business behavior.



The central policy challenge lies not in the existence of tax expenditures, but in their design, targeting, and governance. A transition toward a more performance-oriented framework would require:

Linking incentives to clearly defined and measurable outcomes

Introducing sunset clauses and periodic review mechanisms

Reducing reliance on input-based concessions

Integrating tax expenditures within a broader business and industrial strategy

Without such reforms, tax expenditures risk functioning as inefficient fiscal instruments that erode the tax base while delivering limited economic benefits.

Alam Khan and Mahmood Khalid are working in the Tax Policy Office, Ministry of Finance. The views expressed are solely those of the authors and does not represent their office version on this issue.

PROPERTY RIGHTS AND LAND TITLING:

Unlocking the Credit Pipeline for Industrial Growth in Pakistan

Azwar Muhammad Aslam

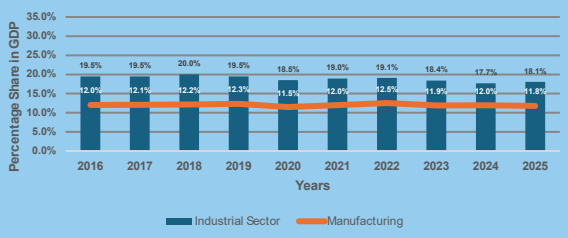
Every industrial growth requires investment, and investment, in turn, requires security of asset ownership. The security of ownership requires a functioning land titling system that guarantees rights to the property. The first is an aspiration that largely remains unfulfilled in Pakistan, the second is structurally nonexistent and the third has never been legislatively or institutionally addressed in the country. The system in Place not only deters investment but also prevents access to the collateral required for manufacturing expansion, which is the primary mechanism through which developing economies achieve sustainable structural transformation.

In the fiscal year 2025, the industrial activities contributed 18.07 percent to the GDP of Pakistan, a figure that has stagnated and has barely moved over more than a decade. Manufacturing, which can be regarded as an engine of every successful

industrial economy, share in GDP is 11.79 percent, again barely moving, see figure 1 below. And even though Pakistan possesses a young and growinglabor force, strategic geographic positioning, along with decades of industrial tradition in several industries. The country failed to achieve manufacturing-led industrialization that has visibly transformed economies in South and Southeast Asia.

The standard policy diagnoses are well known, which include high energy tariffs, macroeconomic volatility, political instability, low factor productivity, and a business environment that is not conducive to the survival of firms, let alone growth. All of these, coupled with the weak rule of law, inadequate intellectual property rights, and taxation that changes every now and then, act as a primary deterrent of investment in the country. The constraints are real, but they are second-order constraints imposed on a first-order institutional deficiency that the country could never succeed in addressing in mainstream policy discourse or otherwise: the country does not have a working land titling system.

Figure 1: Sectoral Share in GDP



Source: Pakistan Economic Survey, 2024-2025

ISSUE WITH RIGHTS

Pakistan does not operate a land titling system, but rather a land record apparatus, which was designed by the British colony to extract revenue, not to confer rights. The patwari system was a fiscal instrument, the record of rights, the mutation registrar, and the transfer deed regime currently in place were all conceived in the revenue paradigm. Even all the reforms are aimed at the digitization of the current system without changing its legal status.

Entries in the record of rights "Shall be presumed to be true until the contrary is proved"[1]. In a similar fashion, deed registration does not equate to registration of title[2]. The third instrument in the current system is even weaker, mutation entries, since they are not part of the record of rights, and they don't even provide a presumption of truth[3]. Hence, revenue records are not title documents and resultantly, the country at present is devoid of title registration of property[4].

MISSING CREDIT PIPELINE

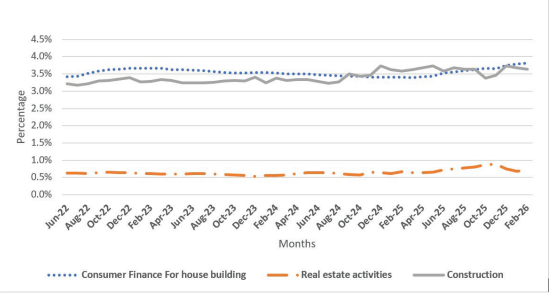
Across the globe in almost every industrialized economy, land serves as the primary form of collateral. The collateral function requires that the title can be verified by the lender and easily liquidated in the event of default. However, this condition cannot be reliably exercised in Pakistan. Since the titles are not guaranteed by the state, requires an extensive scrutiny exercise for validation and are not insured. Unclear titles mean that the banks won't provide credit against the titles, and hence, the land can not be used in the credit markets to raise capital.

The credit constraint may limit manufacturers' investment , which is not only due to insufficient supply but also due to the absence of bankable collateral. When firms are unable to pledge land as collateral, the reliance is on unsecured credit or credit backed by current assets. Which in turn bifurcates the credit markets, the credit is then mostly short-term and is secured at high cost against working capital assets (i.e., inventory, receivables, etc.). The manufacturing sector absorbed 54 percent[6] of all private sector loans outstanding in February 2026. The industry is clearly not shut out by the banks; banks do lend to manufacturers. The composition of this lending is where the problem reveals itself, most of the lending is dominated by short-term facilities that are against receivables, inventory financings, bill discounting, and letter of credit against trade flows. All of these are secured against current assets. None of these requires land titles. What land unlocks is categorically different: long-term investment credit. It is basically the credit that would finance industrial capacity expansion, technological upgrading, new plant construction, etc. This is the credit market failure that would be addressed by reforming the land titles and ensuring property rights. International evidence shows this mechanism, where secure land titles unlocked significant long-term credit for industrial investment. In China, the government rolled out land certification programs, and the impact on entrepreneurship and firm investment was substantial. Where business creation in treated counties

increased by 4 percent compared to untreated counties. The business created in response to this reform showed higher quality, which was measured by survival rates and job creation, showing that the credit channel led to more productive investments. Moreover, rural enterprises significantly improved their ability to access land-backed credit, which was followed by the titling reform[7]. The result of industrial investment is severe. Without access to long-term credit collateralized by land. Firms may either self-finance through retained earnings or access expensive short-term credit, which is not suitable for long-term assets or forgo investment entirely.

The real estate credit data makes this gap visible, where the loans to real estate activities only account for 0.39 percent, and for the construction sector it is 1.97 percent of total loans to the private sector, and this hasn't moved much over the years, see figure 2 below.

Figure 2: Loans to Private Sector



Source: State Bank of Pakistan

Since land is Pakistan's single largest asset class by value, and in any functioning land titling economy with clear property rights, it is one of the largest credit categories. Given the scale of the real estate market, its almost disappearance from the formal credit market is what an absent collateral mechanism suggests. Pakistan's mortgage to GDP ratio is 0.3 percent, one of the lowest in the region, against South Asia's average of 3.4 percent[8]. The share in Malaysia is 44% and that of Thailand is 20 percent[9].

1.West Pakistan Land Revenue Act, 1967
2. Registration Act, 1908
3. Aslam, A. M., & Qasim, A. W. (2024). Land titles: A missing basic elemental of the real estate market (Knowledge Brief No. 2024:125). Pakistan Institute of Development Economics.
4. Ibid
5. Gelos, R. G., & Werner, A. M. (2002). Financial liberalization, credit constraints, and collateral: investment in the Mexican manufacturing sector. Journal of Development Economics, 67(1), 1-27.

Mortgage loan to GDP ratio					
Pakistan	India	Bangladesh	Indonesia	Singapore	Malaysia
0.20%	11.20%	1.90%	5.10%	33%	44.40%

Source: House Building Finance Company Limited. (2025).[10]

DISPUTES AND INVESTMENT

Investment in any industrial activity starts with land, and all land related investments ought to be legally certain and insurable, which is currently a risky exercise in Pakistan. Since no guaranteed rights are provided, the investment is susceptible to litigation and can be easily challenged. The issuance of a stay order in these events locks the investment and halts the activity for decades, on average an inheritance case takes more than 4.25 years, and inland courts take 6 years[11]. In the present state, the country finds it hard to attract long-term investment when the foundational instruments of industrial investment are unavailable.

The litigation tax that this imposes on the economy affects almost everything; courts are consumed by disputes. The scale and scope of land related litigation in Pakistan is unmatched. Lower courts and high courts have a significant stock and flow of land related litigations, the backlog of which will take years to fade away. Land related litigation in the country accounts for 60 to 70 percent of all civil litigation in the courts and gives rise to almost 40 to 50 percent of all litigation in the country[12]. Even 90 percent of criminal disputes are due to land and water related disputes in the country[13]. This significantly weakens the enforcement of contracts in the country, adding huge opportunity costs.

The consequences of litigation and dispute environment are beyond those that are directly incurred and are severe for the industry. Every dispute that arises imposes three costs simultaneously. First is the foregone economic activity on the land during the period of litigation, the period during which a factory or plant remains idle or underutilized. Second is the time and fees which is required for litigation, which otherwise would have been invested in economic activity, and third is the risk discount that may be applied by rational investors on land in the country. The last cost is what affects the most and is the least measurable for Pakistan. In capital budgeting, investors discount future cash flows by the risk-free rate and a risk premium for market risk, along with a country-specific risk premium that shows institutional quality and enforcement reliability. The possibility of disputed titles introduces an additional discount, which is the probability of

losing all or part of the investment due to adverse judicial outcomes. This is different from normal business risk, and it is the institutional risk stemming from weakness of the property rights system, deterring investment[14].

WAY FORWARD

The logical path for the state is to reform the land title system to provide owners with rights to their property. Rights which are backed by the state and are insured, rights which do not require extensive inquiry in establishing the chain of ownership in the event of the sale or purchase of land in the country.

This will not unlock the potential of the land, which is largely locked and is at present dead capital. The current land record system is to be replaced with a system of land titling; such systems are widely adopted by countries across the globe. Moving away from mere registration of instruments and moving towards registration of titles, through the adoption of the Torrens land titling system .

Under which the state guarantees title and maintains a single definitive register, eliminating the need for retrospective chain of title inquiries. This will be done through the formation of a cadastral that would record transactions and assign titles to the property. The cadastral will act as an institution and will nullify all invalid claims. It will remove the single largest structural barrier to long-term industrial credit. This will primarily affect confidence in future lending. Banks will begin to evaluate land as collateral in response to clearer state-backed titles, along with changing risk assessments. For the industrial sector, the land will be transformed into a bankable asset, which will unlock long-term credit that is required by the manufacturers.

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6. State bank of Pakistan, credit and loans classified by borrowers.
7. Bu, D., & Liao, Y. (2022). Land property rights and rural enterprise growth: Evidence from land titling reform in China. Journal of Development Economics, 157, 102853.
8. World Bank (2021). Pakistan housing finance: Is there a business case for financial institutions? International Finance Corporation.
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11. Haque, N. U. & Qasim, A. W. (2024). Pide Sludge Audit Vol 3 (No. 2024: 1). Pakistan Institute of Development Economics.
12. Siddique, O. (2020). The Economic Analysis of Law in Pakistan. The Pakistan Development Review, 121-127
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14. Besley, T. (1995). Property rights and investment incentives: Theory and evidence from Ghana. Journal of political Economy, 103(5), 903-937.

DIGITAL EXPORTS, ANALOG POLICIES

Barriers to Pakistan's Services Trade and Global Integration

Asif Javed

Pakistan's export sector is concentrated in traditional goods, specifically agriculture and textiles. However, one promising shift is emerging in the form of a rise in digital services exports. Freelancers, IT firms, and remote service providers are developing an effective engagement with global markets, earning foreign exchange and participating in cross-border value creation.

The Strategic Trade Policy Framework (2020-25)[86] has also acknowledged the significance of this transformation. The policy identifies IT and digital trade as an emerging and priority area for export promotion. Nevertheless, this recognition has not been converted into a vibrant or enabling ecosystem. The policy must be supported by institutional and regulatory alignment.

This gap demonstrates a structural issue: Pakistan continues to implement trade policy through a goods-centric, industrial-era lens, even as the global economy has entered a digitized world that revolves around services, data, and digital platforms.

FROM RECOGNITION TO REALITY: THE SERVICES GAP IN POLICY

The STPF 2020-25 acknowledges export concentration, low value addition, and limited diversification as key challenges affecting trade performance, especially Pakistan's exports. The policy emphasizes the significance of promoting services sectors such as IT, logistics, and tourism. However, in practice, the framework remains heavily focused towards manufacturing-leg export growth, tariff rationalization, product diversification within goods sectors and industrial clustering. The government intends to increase IT exports to $15 billion by 2030, but this seems a far-off vision without concrete measures.

This demonstrates a policy paradox as services are acknowledged as important in policy documents but remain out of attention in the implementation process. The outcome is a disconnect between stated policy objectives and actual policy instruments.

DIGITAL EXPORTS: PARTICIPATION WITHOUT INTEGRATION

The growth of freelancers operating on global platforms has generated substantial export earnings for Pakistan. According to the State Bank of Pakistan, freelancers earned $557 million in foreign exchange in the first six months of FY 2025-26, up from $352 million during the same period of the previous fiscal year. A 58% year-on-year growth reflects the vibrant role of freelancers in services exports and external accounts. Key services provided by freelancers in Pakistan include software development, design, marketing, and consulting. But issues such as informality, fragmentation, and weak integration into global value chains are hindering progress in this regard.

Unlike goods exports, which are supported by establishing export regimes, digital services operate mainly outside formal policy support systems. This explains why Pakistan has a visible presence in global freelancing markets yet lacks a structured, scalable services export sector.

POLICY BARRIERS IN A DIGITAL ECONOMY

Payment Frictions

Digital trade depends on seamless cross-border payments. In Pakistan, the absence of trusted payment gateways such as PayPal and Stripe is affecting the IT industry and other relevant stakeholders. Receiving international payments is still a major challenge for the industry due to limited access to global payment platforms, foreign exchange controls, and intermediary-based transfer mechanisms. These frictions increase transaction costs and discourage formal financial integration, reinforcing informality.

Tax Uncertainty and Incentive Distortion

Digital workers and IT firms often face an incoherent and inconsistent tax environment. This translates into uncertainty about compliance obligations, administrative burdens for microenterprises, and disincentives to scale operations. Hence, the process of freelancers moving into formal enterprises remains negligible, and firms, especially micro and small enterprises, remain outside the formal domain.

Goods-Centric Policy Orientation

Export incentives, institutional support, and trade facilitation measures are mainly directed towards goods-based exports. Services, especially digitally delivered services, require a different policy framework. The key aspects to focus on include regulatory clarity rather than tariff reduction, digital infrastructure rather than physical logistics, and financial integration rather than customs facilitation. Without such targeted interventions, the growth in services exports cannot be achieved.

86. Strategic Trade Policy Framework, Ministry of Commerce, Government of Pakistan, https://www.commerce.gov.pk/wp-content/uploads/2024/07/Final-STPF-2020-25.pdf

Skills without Strategy: A Missing Link in Digital Trade

The constraints on digital exports are not limited to regulation and payments. They are also rooted in a deeper skills mismatch. Employers increasingly demand not only technical expertise but also analytical thinking, adaptability, and digital fluency, skills that remain underdeveloped in Pakistan's workforce[87].

Furthermore, success in services trade requires communication, collaboration, and the ability to work in global, virtual teams. These competencies are critical for scaling from freelancing to firm-level exports yet remain largely absent from education and training systems. A reactive policy approach compounds the problem. Rather than anticipating future skills needs in areas such as AI, data, and digital services, policymaking continues to respond to immediate employment concerns. This limits Pakistan's ability to position itself in high-value segments of global services trade.

WHY THIS MATTERS: BEYOND SECTORAL GROWTH

The constraints on digital exports have broader macroeconomic implications.

Export Concentration

According to the State Bank of Pakistan's data, in FY 2025, total services exports were $8.4 billion, compared to $32.3 billion in goods exports. Besides, Pakistan's exports are limited to a few sectors, and the STPF also identifies this as a structural vulnerability. Without diversifying exports and incorporating services into policy attention, this concentration may persist.

87. Accountability Lab. (2024). 21st century employability skills. Policy Brief, https://pakistan.accountabilitylab.org/wp-content/uploads/2024/09/Policy-Brief-21st-Century-Employability-Skills.pdf
88. Lanz, R., and Maurer, A. (2015). Services and global value chains-Some evidence on servicification of manufacturing and services networks. World Trade Organization, Economic Research and Statistics Division

Limited Global Value Chain Integration

Modern global value chains are increasingly service-intensive, involving design, coordination, logistics, finance, and digital intermediation. Manufacturing trade itself also relies on services inputs, a phenomenon often explained as the servicification of production[88]. Pakistan's weak services ecosystem is not just a sectoral limitation; it is a structural constraint on integration. Low export volumes of services, combined with limited domestic services capabilities, confine Pakistan to lower-value segments of global value chains. While other economies capture value through embedded services, Pakistan remains concentrated in basic production stages.

Furthermore, traditional trade metrics understate the significance of services, leading to a policy bias that prioritizes goods while neglecting the very inputs that determine competitiveness. This misalignment reinforces a cycle where weak services constrain export upgrading, and limited integration into global value chains further reduces incentives to develop service capabilities.

Foregone Productivity Gains

Digital services are typically high-value-added and less capital-intensive, offering a pathway to productivity growth without the constraints associated with traditional industrial expansion. Unlike manufacturing, which often requires significant physical infrastructure and scale, digital exports enable firms and individuals to generate higher returns with relatively lower upfront investment.

However, Pakistan's limited development of this sector results in significant forgone productivity gains. By remaining concentrated in low-value activities across goods and digital services, the economy fails to capture the efficiency and income gains associated with higher-value segments such as software development, data services, and digital platforms.

This constraint is not merely technological but policy-driven. Barriers related to payments, taxation, and regulatory uncertainty prevent the scaling of high-productivity firms, while weak skills alignment limits movement into more sophisticated service activities. As a result, digital participation

remains shallow, and its potential contribution to overall productivity growth is under-realized.

REORIENTING POLICY FOR DIGITAL TRADE INTEGRATION

Enabling Pakistan's digital exports requires a fundamental reorientation of policy toward the realities of services trade. At the most basic level, seamless financial flows must be ensured by improving access to international payment systems, simplifying foreign exchange regulations, and reducing transaction costs for exporters. Without this, participation in digital markets will remain constrained by avoidable frictions. At the same time, a predictable and supportive tax regime is essential. Clear and simplified tax structures for digital workers and IT firms, combined with consistency across institutions, can encourage formalization and scaling rather than reinforcing incentives to remain small and informal.

Apart from these foundational measures, services must be operationalized within the broader trade policy framework. Although existing policy documents acknowledge services as a priority area, this recognition should translate into dedicated export promotion strategies, targeted incentives for digital exporters, and the integration of services into trade negotiations and institutional frameworks. Equally important is supporting the transition from freelancers to firms by facilitating business registration, improving access to finance, and building institutional mechanisms that connect service providers with global markets.

Besides, long-term competitiveness depends on aligning skills and global positioning with market demands. This requires reorienting education and training systems toward high-demand digital capabilities, promoting specialization in higher-value service segments, and developing coherent branding strategies to position Pakistan as a competitive exporter of digital services. Without such alignment, policy reforms in other areas will have limited impact on the country's ability to scale and integrate into global services trade.

CONCLUSION: BRIDGING THE GAP BETWEEN POLICY AND PRACTICE

Pakistan's Strategic Trade Policy Framework 2020-25 rightly highlighted the structural weaknesses of the export sector, including concentration, low value addition, and limited diversification into services. Yet, this identification has not been converted into execution. The policy remains rooted in a goods-centric framework, even as the global economy has shifted toward services and digital trade.

Digital exports can provide Pakistan a practical way forward to diversify exports, improve productivity, and integrate into global value chains. However, persistent barriers, ranging from payment frictions and tax uncertainty to weak skills alignment and institutional gaps, continue to constrain this potential. The challenge, therefore, is not a lack of policy intent but of misalignment. Pakistan is attempting to compete in a services-driven global economy with regulatory, financial, and institutional systems designed for an earlier industrial era.

Addressing this requires a shift from incremental reform to a strategic reorientation, placing services, particularly digital services, at the center of trade policy. Without such a transition, Pakistan risks remaining confined to low-value segments of global trade, despite possessing the human capital and market access needed to move up the value chain. In a global economy defined by services and digital integration, the real constraint is no longer what Pakistan produces, but how it enables value to be created, delivered, and scaled.

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EXPLORING THE UNTAPPED POTENTIAL OF THE DAIRY SECTOR TO ENHANCE EXPORTS

Muhammad Mohsin Kiani

Pakistan possesses a formidable animal heritage, with a livestock population exceeding 250 million, cementing its status as the world's 4th-largest milk producer. The sector is a cornerstone of the national economy, contributing roughly 15% to national GDP and 64% of agricultural GDP. With an estimated annual milk production of 72 billion liters, Pakistan contributes about 7% to global milk production[89]. Renowned for high-fat content milk from native buffalo and cow breeds, the country is perfectly positioned to produce premium, high-value dairy products, including buffalo mozzarella, specialized butter, and yogurt.

Valued at US$30 billion and growing at 3.4% (2020-25), the dairy sector serves as a vital economic lifeline for over 11 million farm families. Around 95% of farmers are smallholders with fewer than 10 animals, accounting for 80% of the country's total milk supply. However, over the past two decades, a strong genesis of commercialization has emerged, using modern technologies and integrated with markets, although it remains small, e.g., approximately 200,000 highly productive heads at 25 corporate farms each possessing 1000+ heads; 100 commercial farms each having 250-1000 heads. Additionally, an estimated 15000 commercial dairies in peri-urban areas serve high demand in cities, and over 50 dairy processing plants and 140 multinational and national input suppliers in the private sector. Furthermore, the sector is central to food security, accounting for 22% of household expenditure on milk and 165 liters per capita of consumption[90].

Despite these significant assets, Pakistan's dairy sector is significantly underutilized in international markets. While world dairy trade reached approximately 86–95 million tonnes (milk equivalent) in 2024, valued at roughly US$50 billion[91], Pakistan is unable to harness this opportunity due to reliance on traditional processing methods, low mechanization, and limited value addition.

89. Pakistan Economic Survey , 2025-26
90. Household Integrated Economic Survey , 2024
91. Dairy Market Review (Overview of global market developments in 2024), FAO, 2025.

Consequently, instead of acting as a global dairy powerhouse, Pakistan's dairy sector has faced challenges, with recent data indicating a trade deficit approaching US$37 million in 2024[92]. To unlock its vast potential and transition from a subsistence-based industry to an export-oriented sector, Pakistan must adopt a multi-pronged strategy on technology and reforms to boost its export revenue, uplift rural livelihoods, and transform the trade deficit into a substantial trade surplus.

Pakistan is uniquely positioned to access substantial dairy markets in its neighborhood, which imports billions in dairy products; it includes China which is a massive market with over $12 billion in annual dairy imports; Middle East & GCC Including Saudi Arabia ($2.54 billion) and other GCC countries ($11.05 billion) and regional markets; Malaysia ($1.5 billion), Indonesia ($1.8 billion), and Central Asian Republic States ($4.2 billion)[93].

Pakistan has a significant advantage in value-added products that match international demand. It includes high-fat products: ghee, butter, and cheese, targeting China, Asia, and Africa, worth US$13.12B market, whey & by-products targeting global fitness and nutrition markets globally worth US$22.6B,[94] and specialty camel and goat milk products tailored for health-conscious consumers in the GCC markets[95].

Amid these opportunities, the dairy sector in Pakistan has a strong appetite for public and private sector investment. Analysis of the dairy sector in many developing countries has suggested that the private sector usually makes these investments, although the public sector also plays a catalytic role. Pakistan can learn from Turkey and India to improve the productivity and competitiveness of the dairy sector by leveraging modern technology in milk production, processing, value addition, and marketing, and by creating an enabling regulatory and policy framework for private-sector investment.

92. Pakistan Bureau of Statistics, 2024-25
93. Dairy industry Sources, 2026
94. FAO STAT, 2025-26
95. Pakistan Agriculture and Food Export Vision, 2040, MNFSR

The Uraan Pakistan initiative (National Economic Transformation Plan 2024–29) has identified the dairy sector as a pivotal subsector for transforming Pakistan's agriculture-based economy, aiming to turn it into a competitive, export-oriented industry. The vision is for Pakistan to transition from high production to high-value, export-oriented processing. The target is to generate a formal exportable surplus by boosting farm-level productivity, reducing supply chain losses, formalizing the supply chain to meet international safety standards, and achieving US$500M in exports by 2029, scaling up to US$2B by 2035.

To accelerate the development of the dairy sector, enhance productivity and achieve these export targets through private investment, the following comprehensive policy interventions are proposed, focused on policy reforms, institutional strengthening, and technological solutions.

In terms of policy reforms, implement comprehensive deregulation of milk markets to create an enabling, fair, and business-friendly environment for farmers and investors. At the same time, strictly enforce quality and safety standards to curb adulteration. Furthermore, abolish import duties and cap taxes on critical technologies, including modern machinery and genetic materials, at 5% or less to encourage mechanization. Consequently, reduce the General Sales Tax (GST) on value-added dairy products from 18% to 5% to boost processing, improve affordability, and formalize the sector. The government may simplify loan acquisition for small farmers by recognizing alternative forms of collateral, such as livestock. Additionally, stop the smuggling (illegal import) of milk powder into the country and offer special, cost-efficient carriage rates for the transportation of livestock to facilitate farmers. Concurrently, it may enact the National Animal Health, Welfare and Veterinary Public Health Act, 2026, and implement a national FMD (Foot and Mouth Disease) control, surveillance, and traceability system aligned with WOAH standards to unlock lucrative export markets.

Productivity enhancement is required by increasing the lactation yield of milking animals from 2000 liters to 4000 liters to achieve food security and create a surplus for exports. It may start by developing private-sector-led genomic technologies for screening breeding bulls and heifers, and by scaling up sexed-semen and embryo-transfer labs to improve the genetic potential of livestock breeds and ensure affordable access to these technologies for small-scale farmers.

Empowerment of dairy farmers may be the epicenter to the strategic planning through organizing smallholders into Farmer Entrepreneur Groups (FEGs) to centralize services, facilitate bulk purchasing of inputs and promote mechanization focused on; Silage, hay, and Total Mixed Ration (TMR) technology, Climate-smart housing and manure management systems, adoption of Calf Milk Replacer (CMR) to save calves and Cold chain logistics (chilling tanks) at the farm level. In addition, Incentivize FEGs to establish small-scale, mechanized rural processing units for value-added products like cheese, butter, and ghee, along with quality-testing labs, focusing on antimicrobial resistance (AMR) and toxic residues, and aligning standards with Codex.

Lastly, facilitate the dairy exporters through formally designate the dairy industry as a "priority product line" in the National Export Development Fund to unlock funding and facilitate strategic Business-to-Business (B2B) partnerships to target emerging markets in China, MENA (Middle East and North Africa), CARS (Central Asian Republic States), Russia, Indonesia, and Malaysia., Asian, African, and GCC requirements.

In conclusion, Pakistan's dairy sector holds immense untapped potential for export-led growth, rural employment generation, and food security. A coordinated, public-private partnership approach—where all stakeholders in the dairy value chain are integrated with markets and backed by clear policies, targeted incentives, and robust infrastructure—can transform the dairy sector into a globally competitive sector that enhances farmers' incomes, boosts exports, and ensures food security.

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PAKISTAN'S BALANCE-OF-PAYMENTS CONSTRAINED GROWTH:

Towards Export-Led Production

Bilal Aftab

INTRODUCTION

Over the course of Pakistan's history, sustainable economic growth has been hampered by recurring periods of growth followed by spells of economic crisis. This volatile economic growth is because of the balance-of-payments (BOP) constraint. Pakistan's export-to-import ratio has declined from 86% in 2001 to 53% in 2026[96]. Imports have continued to outweigh exports, leading Pakistan to face a payments imbalance. But the question remains: Why does Pakistan's economic growth continue to be BOP-constrained? Theoretically, if the BOP-constrained economic growth is less than the actual average growth rate during the same period, the economic growth is said to be BOP-constrained. Practically, there are two underlying reasons for the BOP constraint. One, there is a prevalent current account deficit, and two, there is no considerable financial support in the form of foreign exchange reserves. Thus, it is imperative to promote export-led growth to overcome this constraint.

The Export-led growth hypothesis states that export growth is one of the primary drivers of economic growth. Economic growth can be increased not only by growing the amount of labour and capital in the economy, but also by boosting exports. Empirical evidence[97] indicates that imports are highly correlated with relative prices and income, and that the BOP equilibrium growth rates correspond to real growth rates.

96. Pakistan (PAK) Exports, Imports, and Trade Partners | The Observatory of Economic Complexity. (n.d.). The Observatory of Economic Complexity. https://oec.world/en/profile/country/pak

97. Fasanya, I. O., & Olayemi, I. A. (2018). Balance of payment constrained economic growth in Nigeria: How useful is the Thirlwall's hypothesis? Future Business Journal, 4(1), 121–129. https://doi.org/10.1016/j.fbj.2018.03.004

However, the literature frequently overlooks the BOP in favor of highlighting the significance of exports for promoting economic development and efficiency. Krugman[98] and other prominent economists have bluntly discarded the demand-side explanation for variations in growth rates being proportionate to differences in demand elasticities. Further, substantial shifts in production specialization are required for countries to sustain high economic growth rates[99]. Thus, it is imperative to achieve both an increase in export growth and a reduction in the income elasticity of demand for imports simultaneously.

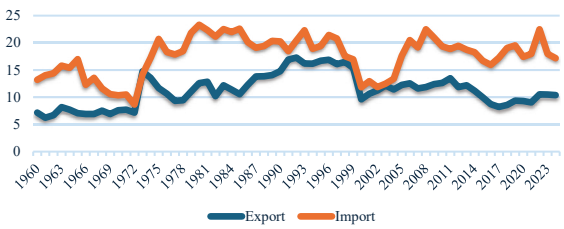
TRADE WOES

Historically, periods of rapid economic growth in Pakistan have been accompanied by disproportionately large increases in imports. This was attributable to three reasons. First, energy imports accounted for a major portion of the increase in total imports. Pakistan lacked sufficient energy supply and had an energy mix that relied heavily on non-renewable sources, such as imported oil and natural gas. Imported furnace oil was frequently used to power small generators during load shedding, as well as by industries to meet demand during periods of rapid economic growth. Second, as Pakistan did not manufacture essential machinery for infrastructural growth, it continued to rely on imports. Third, previous investments did not strengthen the country's production capacities, allowing them to replace certain imports and move its pattern of specialization toward more advanced items.

For decades, Pakistan's export performance has been poor. Since 2005, export growth has remained sluggish, and the average trade imbalance has increased (see Figure 1). Pakistan's exports continue to lose market share as the share of crude exports increases. Such goods have high price elasticity of demand and low income elasticity of demand. As a result, Pakistan's exports have lagged international income growth. There is also an anti-export bias, i.e., the ratio of the effective exchange rate for imports to that for exports is high.

It is alarming to note that Pakistan's export-to-GDP ratio has declined from 17.3 percent in 1992 to 10.4 percent in 2024[100]. Moreover, Pakistan continues to struggle to compete globally in trade – it is ranked 99th on the Global Innovation Index.[101]

Figure 1 Pakistan's Exports & Imports (% of GDP)

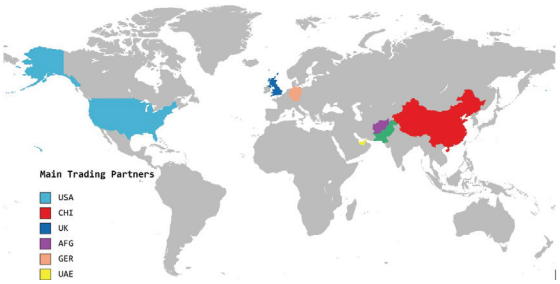


Source: World Development Indicators (WDI)

Pakistan continues to trade with nations worldwide (See Figure 2). In doing so, it has incurred trade costs due to the added travel costs. As time is money, we must not forget the immense importance of time in trading. A country like Japan would rather import a slightly less value-added product from a country that delivers it considerably faster. Unfortunately, Pakistan has failed to take these factors into account. Add to this, the trade hampering caused by political tensions between Pakistan and its neighboring countries. Pakistan is not part of any major trading bloc, with only a handful of local firms involved in the global market. Unnecessarily, Pakistan has developed a habit of protecting inefficient industries, particularly large-scale, import-oriented industries. The trade strategy is biased towards merchandise rather than export-boosting products.

98. Krugman, P. (1989). Differences in income elasticities and trends in real exchange rates. European Economic Review, 33(5), 1031–1046. https://doi.org/10.1016/0014-2921(89)90013-5
99. Holland, M., Vieira, F., & Canuto, O. (2004). Economic Growth and the Balance-of-Payments Constraint in Latin America. Investigación Económica, 63(247), 45-74. Retrieved June 24, 2021, from http://www.-jstor.org/stable/42779050
100. World Bank Open Data. (n.d.). World Bank Open Data. https://data.world-bank.org/indicator/NE.EXP.GNFS.ZS?locations=PK
101. WIPO. (2025). Pakistan ranking in the Global Innovation Index 2025. World Intellectual Property Organization. Retrieved March 21, 2026, from https://www.wipo.int/edocs/gii-ranking/2025/pk.pdf

Figure 2: Pakistan's Main Trading Partners



Source: Authors' Mapping

SECTORAL ANALYSIS

Pakistan's economy is semi-industrialized, with industry accounting for around 21% of GDP. However, the industrial sector suffers from low export competitiveness, high import dependence, and inadequate value addition.

Steel: The steel sector is highly fragmented, with over 500 mills. The steel industry produces around 9-10 million metric tons of steel per year. Yet the total imports of steel and related products are significantly greater than its exports. Pakistan is self-sufficient in long products but depends on imports for flat products, especially hot-rolled coils. In the steel sector, as advocated by the National Tariff Commission (NTC), it is pertinent to rationalize tariffs on raw materials by reducing customs duty on iron ore, pig iron, ferro-silicon, and shredded scrap to 0%. However, re-rollable scrap now has a 5 percent duty, which should be reconsidered. This will help maintain a cascading tariff differential to protect domestic value addition. It is also essential to establish a Steel Industrial Zone near the port to create a cluster with utilities and export facilitation.

Home Appliances: The home appliances sector suffers from low localization levels for refrigerators, split ACs, and LED TVs. Consequently, most components are imported, adding to the import bill. For the home appliances sector, phased tariff rationalization with components that can be localized at escalating duties of 15 to 30% and finished goods at 40% must be implemented. This should be further promoted by localizing evaporators, motors, and other components through joint ventures and technology agreements, with zero-duty on raw materials for such investments and the withdrawal of regulatory duties on parts and components that increase production costs and encourage smuggling.

Fans: The fan manufacturing industry imports more than half of its raw materials, including electrical steel sheets, copper, and aluminum. To enhance fan manufacturing, local production of raw materials such as electrical silicon steel sheet, ball bearings, and enameled copper wire must be encouraged. It is equally important to restore regulatory duties on the export of recycled copper, steel, and aluminum to ensure availability for the domestic fan industry.

Mobile Devices: The mobile device manufacturing policy has encouraged local assembly, yet most components remain imported. For mobile manufacturing, the existing duty differential, i.e., CKD/SKD manufacturing enjoys lower duties compared to CBU imports, must be maintained. Additionally, localization of parts and components through favorable tariff treatment and exports of locally assembled handsets must be facilitated.

Cables & Conductors: The cables and conductors industry, with many cottage units, faces high import costs for raw materials such as PVC resin, plasticizers, and XLPE compounds. The industry requires revised duties on finished goods to ensure a level playing field for local manufacturers, especially against imported cables under lower duty HS codes. In this regard, an increase in the DLTL rate from 3% to 6% and the extension to non-traditional markets with an additional 2% drawback are recommended.

Transformers: The transformer industry relies on imported silicon steel, copper rod, and foil. To boost transformer production, it is imperative to reduce or eliminate the regulatory duty on silicon steel (HS 7225.1100) and copper rod/foil (HS 7408.1100, 7409.1100). This can be further supported by simplifying the Duty and Tax Remission for Exports (DTRE) process, cumulatively providing export rebates, and increasing the Drawback on Local Taxes and Levies (DLTL) rates for target markets to 5%.

Pumps, Motors & Electric Meters: Similarly, the pumps and motors industry depends on imported pig iron, electric silicon steel sheet, and ball bearings. For pumps and motors, an increase in customs duty on finished submersible motors (HS 8501.5210, 8501.5320) from 11% to 20% can protect the local industry. There should also be a ban on the import of second-hand/used motors

and pumps and enforcement of valuation rulings to prevent under-invoicing. In the electric meters sector, reduced duties on four-layer PCB, high-accuracy capacitors, and lithium batteries to 0% (HS codes 8534.0000, 8532.2900, 8506.5000) can enhance local production.

Footwears: The footwear sector (the seventh-largest producer globally) ranks 50th globally in footwear exports.[102] The Pakistani footwear industry has immense export potential. It can be untapped by restricting the export of raw leather (HS code 41) through increased export taxes or a complete ban to ensure availability for domestic footwear manufacturing. A cherry on top would be the establishment of a Specialized Industrial Estate for footwear and associated manufacturers, offering land on subsidized rent or easy installments.

Surgical & Pharmaceuticals: The surgical and medical appliances sector, concentrated in Sialkot, exports mainly precision metal instruments but has yet to capture the growing global market for higher-value appliances. On the other hand, the pharmaceutical sector imports 95% of its active pharmaceutical ingredients, exposing it to exchange rate volatility. The pharmaceutical industry essentially requires the establishment of a quality testing and regulatory authority to certify products in accordance with US and EU standards, reducing the need for expensive foreign testing.

Chemical & Petrochemicals: For the chemical and petrochemical industry, it is necessary to maintain a 5-6% cascading tariff differential along the value chain to encourage mid-stream investment. It can be further facilitated by rationalized duties on polyester chips to align with other resins and remove anomalies on film and textile-grade resins. This must be coupled with an exemption from duties for energy-saving machinery and molds, and with the provision of a zero tariff on exotic metals, CNC equipment, and 3D printers.

POLICY INTERVENTIONS

Addressing the BOP constraint requires a comprehensive set of cross-cutting interventions: Simplify DTRE and make it valid for three years. Enhance DLTL for engineering goods and extend it to non-traditional markets.

Strengthen the Long-Term Financing Facility (LTFF) and Temporary Economic Refinance Facility (TERF) for technology upgradation, with simplified collateral requirements.

Establish accredited testing laboratories to support international certifications and reduce compliance costs.

Enforce quality standards by reducing Pakistan Standards & Quality Control Authority (PSQCA) licensing fees by 50% to encourage documentation and quality products.

Ensure uniform implementation of price preference for locally manufactured goods across all public procurement.

CONCLUSION

To sum up, Pakistan's economic growth remains BOP-constrained, reflecting poor export performance. The country consumes more than it produces, and its industrial base remains overly dependent on imports. Across the industrial sectors, the pattern is the same: high import content, low exports, and missed opportunities for import substitution and export growth. The analysis above provides a comprehensive, sector-specific roadmap to address these structural weaknesses. By implementing the proposed fiscal, financial, and facilitation interventions (ranging from tariff rationalization and quality enforcement to technology upgradation and export facilitation), Pakistan can gradually reduce its import dependence, enhance export competitiveness, and achieve sustainable growth that is no longer constrained.

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102. TDAP. (2024). Pakistan Footwear Industry. Trade Development Authority of Pakistan. Retrieved March 21, 2026, from https://tdap.gov.pk/wp-content/uploads/2024/05/Footwear-Brochure.pdf

TALENT, SKILLS, AND COMPETITIVENESS: Where Pakistan Stands in GTCI 2025

Henna Ahsan

Major factors that are making a difference in the country's progress in the twenty-first century are the country's overall environment and its people's ability to navigate a rapidly changing world. In Pakistan, a large youth force graduates every year, and young people are indeed a valuable asset to a country, but only if they are equipped with the latest skills and provided with opportunities to use them. Unfortunately, Pakistan is lagging on all these fronts, as a significant gap exists between what people learn in their studies and what is demanded by the labor market.

Furthermore, Pakistan has the lowest productivity per worker among its neighboring countries. Why are such things happening? Why aren't we producing young adults capable of grabbing their share of the international market, and why are we lagging behind our regional neighbors? The Global Talent Competitiveness Index (GTCI) 2025 may provide the answers to these questions.

Figure 1: Labor Productivity across Region (GDP per worker in US $)

Source: ILO STAT retrieved, 2025

GTCI is an index that captures a country's ability to attract, retain and nurture talent by providing an enabling environment and was introduced and developed by INSEAD in 2013. The index could serve as a mirror and compass for countries' policymakers, providing them with information on where their country stands in global competitiveness and what they can do to improve it in a rapidly changing world, driven by global phenomena such as climate change and artificial intelligence (AI). The index comprises 77 indicators collected across 135 countries, thus collectively representing over 97% of global GDP and 93% of the world's population.

The latest issue of the GTCII in 2025 shows that Pakistan ranks 124th, quite low compared to even its regional neighbors, India, Bangladesh, and Sri Lanka. The concern is that Pakistan's position has steeply declined over the last few years, from 109th in 2023 to 124th in 2025.

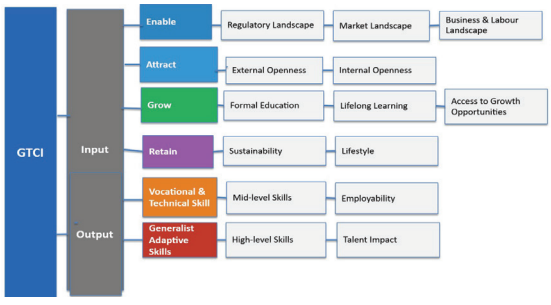
Table 1: GTCI Regional Comparison

Country	GTCI 2025 Rank	Key Strengths	Key Weaknesses
India	65	Strong IT sector, innovation hubs	Inequality, rural skill gaps
Sri Lanka	82	Higher literacy, vocational training	Political instability
Bangladesh	98	Textile industry skills	Weak higher education
Pakistan	115	Youth potential, digital startups	Informality, low productivity

Source: Author's Compilation

The GTCI is, in fact, a six-pillar input-output model that determines how a country's enabling environment helps leverage its human capital for competitiveness and innovation. The four input pillars (enable, attract, grow and retain) represent the institutional setup of a country i.e. it's institutional policies and regulatory measures, market landscape and the other key determinants of it's talent eco system and two output pillars represent the Vocational and Technical Skills (VT Skills) and Generalist Adaptive Skills (GA Skills) which are the result of four input measures. The four input pillars are comprised of ten sub-pillars, and the two output pillars are comprised of four sub-pillars.

Figure 2: The GTCI 2025 Model



Source: Author's Compilation

The "Enable" pillar, which is the first main pillar, is supported by three sub-pillars: regulatory framework, market landscape, and business and labor landscape. It shows that Pakistan ranks 126 out of 135 countries. The sub-pillar regulatory framework shows Pakistan's low performance across parameters such as government effectiveness, political stability, rule of law, regulatory quality, and corruption. It's no secret that political stability, which ensures policy continuity, has remained a dream in Pakistan. In the last 79 years, only a few democratic governments in Pakistan have completed their tenures. Further political stability is often disrupted by unnecessary protests and sit-ins, which sometimes lead to unmanageable violence.

Regarding governments' effectiveness, measured by people's perceptions of the public services offered by civil service departments and the quality of policy formulation and implementation, Pakistan is ranked 100th out of 135 countries. Though new policies are introduced from time to time to increase process efficiency, implementation of such policies remains poor, which could be one of the main reasons Pakistan lags on this important indicator.

Regarding corruption, despite the introduction of institutions like the National Accountability Bureau (NAB), corruption remains rampant in Pakistan, especially in the public sector, due to selective accountability, which is mostly targeted toward dissidents. So, one should not be surprised when we are listed at 107th position on the corruption sub-index. Regarding the rule of law, there's a general perception among the public that the weak are punished by the courts, while the strong easily manipulate the judicial system.

The score for the sub-pillar "Market Landscape" is calculated using parameters such as market dominance, domestic credit to the private sector, cluster development, R&D expenditure, population covered by at least a 3G mobile network, internet access in schools, and urbanization.

The parameter extent of market dominance is measured through an interesting question posed to market players: whether, in their opinion, market share is equally distributed among many firms or only a few players dominate the market. Pakistan ranks at 111 on this parameter. The score on this parameter is quite in line with the prevailing opinion, as people generally feel that it is very difficult to do business in Pakistan and that most businesses are controlled by a few influential families.

Further regarding "credit availability for private sector," Pakistan's low ranking (124) on this parameter indicates limited availability of loans, trade credits, and financial resources to the private sector from financial institutions. Though Pakistan performed a little better on "Cluster development," it ranks too low on R&D expenditure, access to the internet and urbanization.

The business and labor landscape subpillar is calculated by evaluating a country's performance on parameters such as labor rights, management practices, and firm technology adoption. Pakistan is one of the countries with the poorest enforcement of labor laws, and despite clear announcements by the government, many people remain unable to receive their minimum wages and are deprived of benefits promised by law. Slow technological adoption in businesses is mainly due to additional costs and perhaps due to reluctance to document transactions to avoid tax liabilities.

The second main pillar, "Attract," is measured through the sub-pillars of external openness and internal openness. External openness is measured through a country's flexibility regarding foreign direct investment (FDI), its investment portfolio, how integrated the country is in global financial flows, whether organizations find a suitable candidate for their vacant posts from the migrant and international students available in the country and finally, how many personnel related to AI technology have migrated to this country. Internal openness refers to how tolerant a country is of migrants and minorities; the proportion of women occupying leadership positions, and the equal opportunities they have to compete with men. One interesting indicator of internal openness is the number of opportunities a person has to improve their life through work, regardless of their socio-economic status. Unfortunately, Pakistan's rank on the "Attract" pillar is 133, i.e., just two countries are below us in this list.

The third main pillar, "Grow" (Pakistan ranking 117), measures the status of Formal education, Opportunities for lifelong learning, and Access to growth opportunities. The status of formal education is measured by parameters such as how many secondary-level students are enrolled in vocational programs, how much of the relevant population is enrolled in tertiary education, and how much the government is spending per person enrolled in tertiary education. Further, this parameter shows the reading, math, and science skills of 15-year-olds in a country, and finally, where universities in the subject stand in international rankings.

The sub-pillar Opportunities for lifelong learning is measured through Business Masters programs offered in the country, along with programs in business finance, management, and business analytics. Pakistan is performing well in business master's programs (ranking 47 in the list); however, scores on other parameters, such as the availability of professional training in firms and employee development, render a cumulative ranking of 113 for this sub-pillar.

The third sub-pillar, "Access to growth opportunities," is measured through empowerment and collaboration. Empowerment means how much senior management is willing to delegate authority to subordinates and how much the young population aged 15 to 24 is enrolled in education. Collaboration is measured through young people's participation in virtual social networks and professional networks such as LinkedIn. Again, Pakistan's ranking on this third sub-pillar is quite low, 123rd in the list.

The fourth main pillar, "Retain," is measured through the sub-pillars Sustainability and Lifestyle. Sustainability is related to pension coverage, social protection, and parameters measuring a person's and household's resilience in the face of adversity and financial shocks. The Sub pillar Lifestyle is measured by parameters such as the right to practice one's religion, access to justice, and political rights. Further, it entails how safe a person feels in a country, the level of sanitation facilities, the approach to a physician in case of illness, and the measures taken for employee well-being on the job. Pakistan ranks at 111 on the Retain pillar.

The fifth and sixth pillars represent the GTCI's output. These are Vocational and Technical Skills and Generalist Adaptive Skills, which appear because of the four input pillars. Mid-level Skills and Employability measure the Vocational and Technical Skills pillar. Mid-level skills include the percentage of the available labor force with secondary education, the percentage of the labor force that constitutes technicians and associate professionals, and labor productivity per person. High-level skills and Talent Impact measure the Pillar Generalist Skills. High-level skills are measured by the presence of tertiary-educated individuals, researchers, and senior officials and managers in a country. And Talent Impact is measured by the share of a country's exports that constitute telecommunications, computers, and information services. Also, these include high-level exports such as pharmaceuticals and electrical machinery, and the country's contribution to new app and software development.

Pakistan's ranking in Vocational and Technical Skills is 114, and in Generalist Adaptive Skills, it ranks 100th.

Hence, GTCI could serve as an eye-opener for all of us, especially policymakers, to work on areas that need improvement and to invest in our workforce so we can remain relevant in the twenty-first century. Only those countries will survive and thrive in this rapidly changing world, where governments will adopt the role of a facilitator rather than a regulator and work in close collaboration with the private sector to attract, nurture, and retain talent for the country's progress and productivity.

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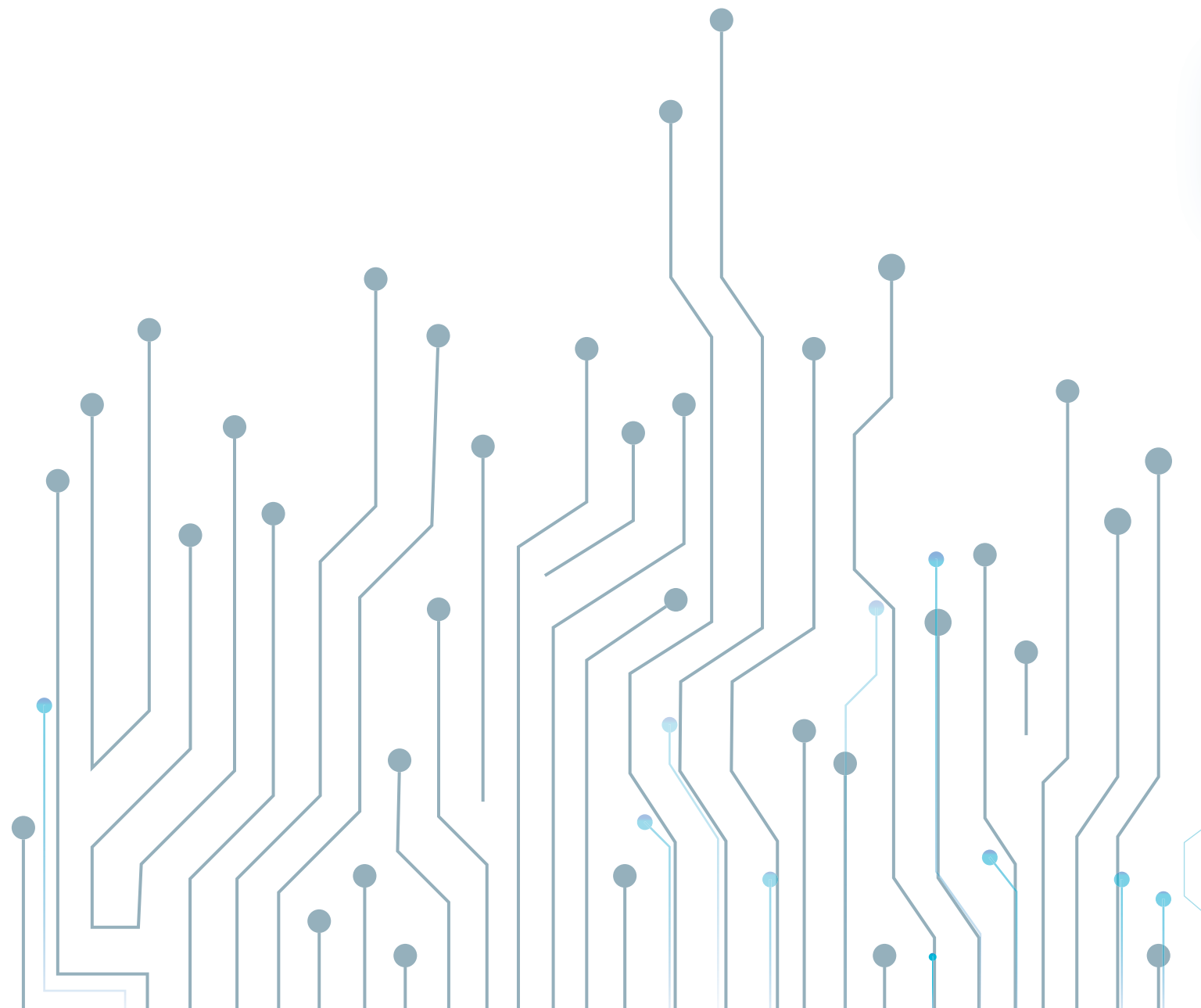

A DUAL MIGRATION STRATEGY FOR PAKISTAN

Muhammad Jehangir Khan and Muhammad Ajmal Khan

Over 13.5 million of Pakistan's citizens have migrated to work in about 50 countries. This makes Pakistan one of the largest exporters of human capital in the world[103]. This mass emigration functions as a financial lifeline for the country's economy. Pakistan received about $38.3 billion remittances in 2024-2025[104]. This makes the economy structurally fragile due to heavy dependence on a single geographic corridor of remittance inflows. Likewise, 54 percent of total remittances originate from the middle east, mainly Saudi Arabia and the UAE. This intensity could be transformed from an asset into vulnerability due to the recent war related instability in the Gulf[105].

This results a puzzling situation for Pakistan in a sense that on one hand it is losing its talent whereas at the other hand millions of its low-skilled workers work in a region now threatened by conflict. About 727,381 workers registered for overseas employment in 2024, and according to the statistics the number of highly skilled emigrants surged by 119 percent between 2022 and 2023[106]. According to Khizar remittances have become a remittance mirage for the country[107]. Pakistan have acquired time instead of structural or economic

According to Suleri (2026), about 96 percent of the registered Pakistani workers go to the GCC countries. In 2024, 62, 9 percent went to Saudi Arabia and UAE respectively. These two countries together provide about $11 billion annual remittances, which are more that one third of Pakistan's total remittance receipts[108]. According to Khizar , Pakistan has obtained what one can call it a "concentration risk on a grand scale"

103.Immigrant Times, (2026). Pakistani emigrants settle in Europe and the US, but the Gulf states only offer temporary stays
104. State Bank of Pakistan, (2026)
105. Insight Securities. (2026, March). Middle East tensions could threaten Pakistan's crucial remittance inflows
106. (Bureau of Emigration and Overseas Employment [BE&OE], 2024)
107. Khizar, A. (2026, February 2). Pakistan's remittance mirage. Business Recorder.
108. Express Tribune. (2026a, April 21). Falling remittances and rising energy prices: A double whammy.

The recent war crisis in the Middle East has now transformed this vulnerability into a clear threat. The Gulf reputation of a stable wealth hub has been shaken by the United States, Israel, and Iran war. The PIDE, projected that about half a million new workers may not migrate to the Gulf in 2026, if the war continues. Likewise, a similar number could be forced to return to Pakistan. It was estimated that remittance inflows would reduce by $3–4 billion on annual basis. In 2025, Pakistan's remittances were $38.3 billion, which are roughly equal to exports. The symmetry between remittances and the productive export capacity of the country reveals a structural flaw that no short-term stability can mask. The country must enhance its productive export capacity for long-term stability[109].

LOSING THE ENGINE OF INNOVATION

The Gulf dependency is further intensified by the accelerated exodus of skilled and highly educated professionals from the country. Accordingly, the country's economy is labeled Brain Drain Economy that heavily depends on exporting its workforce rather than retaining it to rebuild its institutions. In 2024 and 2025, it was recorded that nearly 5,000 doctors, 11,000 engineers, and over 13,000 accountants migrated from the country[110].

The skill composition of Pakistani emigrants reveals a concerning trend. The percentage of highly skilled individuals leaving has risen in recent years. The talent we have lost over the years could otherwise anchor a domestic innovation ecosystem. In the long run, brain drain can weaken economic growth potential by reducing innovation, increasing skill gaps, mentorship for future talent and reducing the quality of important services[111]. The financial benefit given by remittance flows is important but they cannot replace the dire institutional role of skilled professionals in terms of innovations.

THE DUAL STRATEGY

Here, we propose to manage migration strategically and not stop migration. This is neither feasible nor desirable given our young and growing labour force population. Shin , proposed a four-part framework in this regard which is quite intuitive in our case: brain train, brain gain, brain linkage, and brain circulation. Usually, countries do not rely solely on a single approach; instead, they combine a mix of these strategies over time[112]. Here we present the case of Pakistan's closest comparators like India and China which offer helpful evidence on these models.

CHINA'S TALENT CIRCULATION MODEL

China has strategically designed its migration and talent policies to transform brain drain into "brain circulation," positioning itself as a global hub for technology and innovation. Since the 1980s, China has increasingly attracted overseas Chinese scholars, primarily those trained in the United States, back into its domestic innovation system. Thousand Talents Program (TPP) initiated in 2008, provided substantial financial incentives, research funding, housing support, and senior academic positions to high-skilled returnees. Within five years, the program had attracted over 3,300 high-level overseas researchers, considerably enhancing China's scientific capacity[112]. By 2020, China's broader returnee population had reached approximately 6.23 million overseas-educated professionals, which indicates the large-scale success of its talent circulation strategy[113]. In addition to this, China now hosts around 91 million science and technology personnel, making it the largest scientific workforce worldwide, while returnees occupy dominant positions in research leadership accounting for over 70% of directors in key laboratories and more than 60% of PhD supervisors in top universities[114].

109. Pakistan Institute of Development Economics. (2026). Impact of Middle East conflict on overseas employment and workers' remittances [Working paper]. PIDE
110. iNews Global Insight. (2025, December 28). Pakistan brain drain deepens as thousands of skilled workers leave the country
111. Khan, A. M. (2024). The effect of brain drain on the economic growth of developing countries: Evidence from Pakistan. Annals of Human and Social Sciences, 5(2), 383-392.
112. Shin, G.-W. (2025). The four talent giants: National strategies for human resource development across Japan, Australia, China, and India. Stanford University Press
113. Xie, Y. (2021). Talent migration in knowledge economy: The case of China's Silicon Valley, Shenzhen. PMC / National Center for Biotechnology Information.
114. Kerr, W. R. (2007, January 22). The immigrant technologist: Studying technology transfer with China. Harvard Business School Working Knowledge

This strategy is clearly exhibited in innovation-driven regions such as Shenzhen, which combines incentives for overseas returnees, attraction of foreign experts, and strong support for domestic science and engineering graduates alongside continuous investment in higher education and R&D infrastructure. Consequently, China has experienced rapid technological upgrading, including a 219% increase in invention patent applications and a 435% rise in patent grants between 2011 and 2023, demonstrating its growing innovation capacity[115]. Empirical evidence further supports this model, shows that diaspora and returnee networks significantly enhance technology diffusion and increase exports in technology-intensive sectors.

INDIA's DIASPORA LINKAGE MODEL

India policy on the other hand focus on nurturing diaspora linkages rather than treating migration as permanent loss. It cultivated international linkages that route investment, knowledge, and productive networks back to the country. Shin, reports that alumni of the Indian Institutes of Technology (IIT) now function as intercontinental bridge between India and the Silicon Valley[116]. A major pillar of this model is the strong role of diaspora-led financial inflows. India remittances were $137 billion in 2024, making one of the largest recipient globally[117]. Importantly ,a growing share of these remittances originated not mainly from Gulf, but from a high-skilled diaspora in in the United States, the UK, Australia etc.[118]. these inflows not only support the household consumption but also considerably contribute to skills development, entrepreneurship and investment.

In addition to financial linkages, India has developed structured policy instruments to integrate diaspora expertise into domestic institutions. The schemes such as the VAJRA (Visiting Advanced Joint Research) Faculty Scheme, which brings overseas Indian researchers and scientists to collaborate in domestic institutions of importance[119].Alongside VAJRA, programs such as Pravasi Bharatiya Divas and OCI (Overseas Citizen of India) status further institutionalize diaspora engagement as a long-term development strategy

PAKISTAN's PATH FORWARD: A TWO-TRACK POLICY AGENDA

TRACK ONE: DIVERSIFYING LOW-SKILLED LABOUR EXPORT

With the over expanding labour force of 83 million in 2024 and 26 percent aged 15–29[120], the immediate policy response should be a geographic diversification away from the Gulf. Pakistan should actively pursue bilateral labour agreements with Europe, East Asia, and emerging markets in Africa and Central Asia at the earliest. Government-funded vocational training programmes such as Prime Mister Youth Skill Development Programme under the NAVTTC should be tailored to the skill demands of these destination countries such as caregiving in Japan and manufacturing in Eastern Europe to increase per-worker remittance earnings while reducing dependence on any single corridor such as the Gulf.

Likewise, the upgradation of the skills of workers currently directed at Gulf employment would also yield dividends. A semi-skilled construction worker with a professional certification would command higher wages and will remit more to the country. The BE&OE and NAVTTC authorities should shift from a volume-based model to a value-based model giving premium to certification.

115. Xie, Y. (2021). Talent migration in knowledge economy: The case of China's Silicon Valley, Shenzhen. PMC / National Center for Biotechnology Information.
116. Shin, G.-W. (2025). The four talent giants: National strategies for human resource development across Japan, Australia, China, and India. Stanford University Press
117. World Bank. (2025). Migration and Development Brief: Remittances.
118. (United Nations Department of Economic and Social Affairs [UNDESA], 2025)
119. GeoStrata, The. (2025, October 17). India's lost talent: Analysing brain drain and its impact
120. Ministry of Finance, Government of Pakistan (2024)

TRACK TWO: ATTRACTING TOP DIASPORA TALENT FOR INDUSTRIAL GROWTH/ TECHNOLOGY-DRIVEN EXPORTS

Given the country's' emerging export-oriented sectors, there is a substantial scope to attract top talent in these sectors. In each of these sectors, the return of diaspora expertise and the attraction of global professionals can produce measurable export value. The main idea is that technology transfer through people, not just equipment is the critical variable to growth and development[121].

One of these sectors is IT, which has demonstrated remarkable growth in the recent past. IT and digital services exports reached $3.8 billion in FY2025, an 18 percent increase over the previous year (Dawn, 2026). The recent initiatives of the government that the Special Technology Zones Authority (STZA) has established zones offering tax exemptions and infrastructure support. The SBP has raised foreign currency retention limits for IT exporters to 50 percent, and the Digital Nation Act 2025 has further unlocked a wave of entrepreneurship. Additionally, the CPEC Phase II quantum valley project is positioning the country as a future hub for AI, quantum computing, etc.

But to truly unlock the growth potential from these initiatives, the country must complement these export facilitation measures with the policy to attract top diaspora talent. Pakistan's strong diaspora represents a vast untapped reservoir of capital, expertise, and global networks. A structured Pakistan Talent Return Programme, modelled on China's Thousand Talents Program and India's VAJRA scheme, could offer a start in the right direction.

AgriTech is another untapped opportunity for Pakistan. Platforms such as satellite-based crop intelligence and irrigation and smart warehousing can enhance crop productivity. The Pakistan Agricultural Research Council reported that adoption of precision agriculture techniques led to a 20 percent increase in productivity in Punjab and Sindh. Returning diaspora trained in countries with mature agricultural technology ecosystems can further enhance agricultural innovations in the country. Likewise, textile is Pakistan's largest export category and are awaiting the value-chain upgrade that only knowledge-intensive talent can deliver. Finally, Pharma, could become Pakistan's next major non-textile export success story[21].

In nutshell, Pakistan's migration story is a story of delayed choices. Without any doubt the remittances have provided the country with vital support, but they have also reduced the resolve for deeper structural reforms in the country. As the Gulf war threatening a $3–4 billion drop in remittances and also skilled professionals leaving the country, the country needs a proactive migration management policy. We need to diversify low-skilled labor exports beyond the Gulf, upgrade worker skills to boost remittance earnings, and create favorable conditions or environments to attract top diaspora talent. The narrative of India and China show that engaging top diaspora talent can turn brain drain into a national asset.

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Tabadlab. (2022, August 30). AgriTech: Crafting Pakistan's journey to impact. https://tabadlab.com/agritech-crafting-pakistans-journey-to-impact/

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Trade Development Authority of Pakistan. (2023). Pakistan pharmaceuticals export strategy 2023–2027. TDAP / International Trade Centre (ITC). https://tdap.gov.pk/pharmaceuticals/

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21. Agricultural Economist, The. (2025, January 30). Future of Pakistan's agriculture: Youth & innovation

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INDUSTRIAL POLICY IN PAKISTAN

Decades of Stagnation: Reimagining Export Processing Zones of Pakistan

Tuha Adil

Export-led growth remains a distant dream in Pakistan and the country's exports have not seen any remarkable increase. Effective policymaking and institutional competency remain the biggest bottlenecks. The establishment of Export Processing Zones (EPZs) in Pakistan began in the 1980s and after four decades of operation, the exports from the EPZs have hovered around $1 billion. Investors face bureaucratic hurdles, manual procedures, and dual controls, contributing to the high cost of doing business and stagnation.

Pakistan began establishing EPZs with the objective of promoting and facilitating exports. The rationale for establishing bonded areas was to ensure the efficient provision of services and to avoid the bureaucratic hurdles that are prevalent throughout the country (Akhtar, 2003[23]). The unique feature of EPZs is a special regulatory environment with additional fiscal and non-fiscal incentives (Aggarwal, 2005[24]). One-window facility eases investors' access to the requisite approvals and infrastructure to facilitate manufacturing activities.

It is pertinent to highlight that EPZs were designed for micro and small-scale industries, which have limited capital to purchase land and build infrastructure, and require government support and facilities to enable them to compete globally. Moreover, a cluster-based approach is usually adopted, in which the cohabitation of suppliers, manufacturers, and service providers optimizes supply chains, transfers knowledge and skills, and leads to joint ventures, business development, and economies of scale.

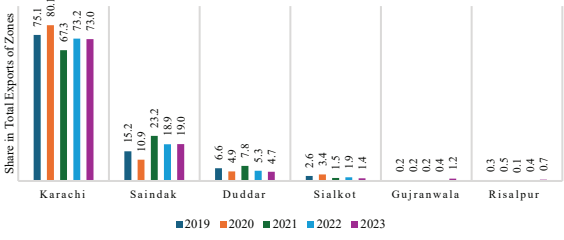
This article is based on the research carried out for the Export Processing Zones Authority (EPZA[25]), which evaluates the performance of EPZs, highlights the challenges faced by investors and presents a way forward to improve the performance of the zones.

BACKGROUND AND PERFORMANCE ASSESSMENT

Pakistan initiated work on EPZs with the promulgation of the EPZA Ordinance, the formation of the Export Processing Zones Authority in 1980, and the issuance of guiding principles in the form of the EPZA Rules in 1981. There are six operational export processing zones in Pakistan: Karachi, Sialkot, Gujranwala, Risalpur, Daddur and Saindak, with cumulative exports of $910 million[26] in 2023. Karachi Export Processing Zone (KEPZ) has two operational phases, covering 211 acres and 94 acres, with the third phase under planning. Rislapur Export Processing Zone (REPZ) has an area of 92 acres and operations started in 2002. Saindak Export Processing Zone is a single industrial unit zone operational since 2003, covering 1,284 acres. Sialkot Export Processing Zone (SEPZ) has an area of 238 acres and became operational in 2005. Gujranwala Export Processing Zone (GEPZ) has an area of 113 acres and became operational in 2013. Dadduar Export Processing Zone is also a single industrial unit that started operations in 2009.

Exports from zones have not shown substantial improvement over the last couple of years. The share of zone exports in the country's total exports increased from 2.85 percent in 2019 to 3.28 percent in 2023, amounting to $218 million. The comparative analysis of zone exports indicates that KEPZ has the highest share. The export of KEPZ stood at $665 million while its share declined from 75.1 percent in 2019 to 73.1 percent in 2023 (Figure 1). Export of Saindak stood at $173 million and its share increased from 15.2 percent in 2019 to 19 percent in 2023. Export of Duddar cloaked at $43 million and its share in total exports of zones declined from 6.6 percent in 2019 to 4.7 percent in 2023. The shares of Sialkot, Gujranwala, and Risalpur have been less than 2 percent, with exports of $11.8 million, $10.3 million, and $6.3 million, respectively.

Figure 1: Export Performance of EPZs



Source: Author's Compilation

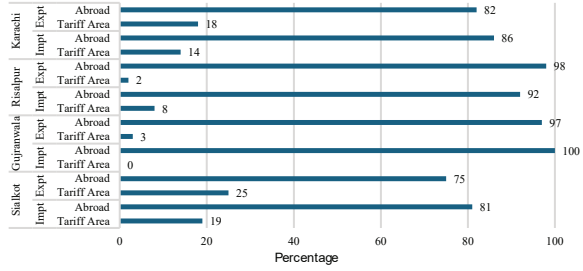
The analysis of trade composition is important, as EPZs were developed to use local raw materials and export at least 80 percent of production. In the case of KEPZ, around 86 percent of the raw materials used are imported from abroad, while 14 percent is imported from the tariff area (Figure 2). Moreover, KEPZ is exporting 82 percent abroad, while 18 percent is to the tariff area. In the case of GEPZ, the industrial units are consuming 100 percent of imported raw materials, which contradicts one of the objectives of using local raw materials. Moreover, GEPZ exports 97 percent abroad and 3 percent to the tariff area.

In the case of SEPZ, around 81 percent of the raw materials used are imported from abroad, while 19 percent is imported from the tariff area. Moreover, SEPZ is exporting 75 percent abroad while 25 percent to the tariff area, which is in contradiction to the EPZA rules. In the case of REPZ, around 92 percent of the raw materials used are imported from abroad, while 8 percent are imported from the tariff area. Moreover, REPZ is exporting 98 percent abroad, while 2 percent to the tariff area.

23. Akhtar, M. H. (2003). An evaluation of Karachi export processing zone: a preliminary investigation. The Pakistan Development Review, 927-940.
24. Aggarwal, A. (2005). Performance of Export Processing Zones: A comparative analysis of India, Sri Lanka and Bangladesh (No. 155). Working paper.
25. The data is taken from the report "Export Processing Zones in Pakistan: Improvement Plan and New Sites" commissioned by the Export Processing Zones Authority.
26. Export Processing Zones in Pakistan: Improvement Plan and New Sites, Export Processing Zones Authority.

The analysis indicates that all zones use imported raw materials rather than local inputs.

Figure 2: Composition of Trade

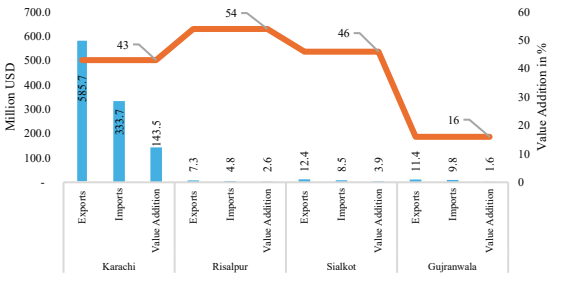


Source: Author's compilation

The zones have shown some improvement in exports. However, it is critical to evaluate the growth in real terms, which could be indicated by value addition. The value addition implies a difference between imports and exports in dollar terms. Value addition is higher in zones with higher levels of manufacturing and processing activity. The highest value addition is observed for REPZ cloaking at 54 percent or $2.6 million. In the case of SEPZ, exports stood at $12.4 million, imports at $8.5 million, and value addition are $3.9 million, or 46 percent (Figure 3). In the case of KEPZ, exports stood at 585.7 million, imports at $333.7 million, and value addition are $143.5 million, or 43 percent.

In comparison, the exports of GEPZ are $11.4 million, imports are $9.8 million and value addition are $1.6 million or 16 percent. The lower value addition of GEPZ results from its narrow focus on recycling and processing, importing scrap and exporting raw metal billets without graduating to manufacturing sophisticated or consumer goods.

Figure 3: Value Addition by Zones in 2023



Source: Author's Compilation

UNDERLYING CAUSES OF SUBOPTIMAL PERFORMANCE OF ZONES

One window facility and manual processes

EPZs are supposed to provide ease of doing business by removing bureaucratic hurdles and manual processes. However, manual processes and approvals continue to prevail. The absence of workshops and service centers in the zones prompts investors to send materials outside the zones for engineering services at various stages of production, requiring EPZA approval. The approval is obtained in the form of a gate pass, for which a specific form is submitted to the EPZA. This highlights two problems emanating from manual processing. First, the time required to visit EPZA to submit the form and obtain approval causes delays. Second is the difficulty in managing records. The expeditious provision of services becomes impossible if processes are manual. Moreover, tracking the movement of goods becomes difficult, which may lead to malpractices or misreporting.

Investor admission criteria

Since its inception, EPZA has not developed a comprehensive set of investor admission criteria to clarify the objectives of EPZs. At present, there are no guidelines available to evaluate business proposals. Moreover, the zone-specific investor admission criteria have not been developed. As a result, non-manufacturing activities such as trading, warehousing, and the recycling of used textile clothing have increased. Another objective of facilitating micro and small investors remains unfulfilled due to the sale of plots in GEPZ and SEPZ, and the leasing of plots in KEPZ at high prices to investors who have transitioned from small to medium enterprises.

Until now, investors have been granted approvals randomly, without any due diligence or detailed evaluation of business proposals. This can be illustrated by the fact that diverse activities are carried out inside sections of the zone. A planned strategy would have been to allot plots to investors in the same vicinity who intend to carry out the same type of activity. For instance, all traders

should have been located in the same vicinity within the zone, while manufacturers should have been located together. This would have promoted synergy among the industries operating in the same domain.

DUALITY OF CONTROL

The ownership and utilization of land hold significant importance in attracting investors to the zone. The land at KEPZ is owned by EPZA; therefore, it is easier to upgrade infrastructure and provide utilities to investors. However, the land of GEPZ, SEPZ and REPZ is owned by provincial governments; therefore, development of infrastructure is the responsibility of the provincial governments. Moreover, investors must deal with the provincial government, EPZA and customs while operating in the zones. In multiple instances involving GEPZ and SEPZ, the provincial government sold plots to investors without prior approval of the business plans from EPZA, making it difficult to promote manufacturing activities. The biggest problem arising from the duality of control is the real estate business, where investors purchase land, hold it for years, and then sell it at higher prices, as a lack of coordination between EPZA and provincial governments led to the evasion of penalties for delays in starting industrial activity. This also nullifies the cardinal objective of the EPZs, which is to provide all necessary amenities for industries without bureaucratic hurdles or unnecessary delays.

INFRASTRUCTURE

The operations in the EPZs are compromised due to infrastructure gaps and service deficiencies. To begin with, the poor state of roads effectively discourages potential investors. Since these roads fall under provincial jurisdiction, the EPZA's ability to act depends largely on collaboration with the local government. Within the zones themselves, the road networks are in poor condition and give a poor impression to prospective businesses. Security is another challenge. Broken boundary walls across multiple zones have led to repeated theft incidents, making investors feel vulnerable. There is no common facility center to support smaller investors, no proper display or exhibition area to showcase locally manufactured goods, and no dedicated library or research space for guidance. The zones lack on-site restaurants and lodging facilities, forcing investors to arrange meals and accommodation outside the zones and making them unsuitable for hosting foreign clients or attracting skilled professionals from other cities.

Banking services are also limited. The existing facility handles only foreign currency, so converting funds or paying wages to labor often involves risky cash transfers or trips outside the zone. There are no fuel stations, logistics companies, or trucking stations within the zones. As a result, transportation is outsourced at a higher cost, and trucks are frequently seen parked on the roads. Utilities are also unreliable. Power outages are common in several zones, and because there is no dedicated grid, investors bear the heavy expense of running generators. The waste disposal system is outdated and treated as a revenue source rather than a step toward sustainability.

These challenges create an environment where operational costs are high, profitability is uncertain, and convenience is lacking, which runs counter to the objectives of EPZs.

WAY FORWARD

Keeping in view the problems prevalent in the zones and bottlenecks faced by the investors, the following recommendations are in order:

Investor admission criteria should be developed using a cluster approach to ensure the desired industrial activity is carried out within the zones. An investment promotion strategy needs to be developed for the promotion of exports.

Priority attention is required for the development and maintenance of physical infrastructure. Business and common facility centers need to be developed in the zones.

A plug-and-play facility should be introduced in the zones to conserve scarce capital and reduce the burden on investors.

Adoption of the Enterprise Resource Planning System is crucial to digitize processes and ensure the timely availability of data for decision-making.

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