

Internal audit in Indian manufacturing: Risk, resilience and results

October 2025

Table of contents

Intoduction and challenges	02
Harnessing internal audit to strengthen the manufacturing value chain	03
Evolving role of internal audit in manufacturing excellence	04
Measuring what matters	05
Emerging focus areas	06
Conclusion	07
Connect with us	08

Introduction

India's manufacturing sector is at a pivotal juncture. With the Government's Make in India initiative, Production-Linked Incentive (PLI) schemes and increasing global supply chain diversification, India is positioning itself as a global manufacturing hub. Sectors such as automotive, pharmaceuticals, textiles, heavy engineering and electronics are witnessing significant capital inflows and technology integration. Simultaneously, Industry 4.0, automation and digitisation are reshaping operations.

This rapid growth comes with heightened risks, including compliance issues, operational inefficiencies, cyber vulnerabilities and Environmental, Social and Governance (ESG) accountability concerns. Against this backdrop, Internal Audit (IA) is no longer a back-office function but a strategic enabler ensuring governance, efficiency and resilience in the manufacturing value chain.

Challenges

Despite strong growth prospects, Indian manufacturers are facing mounting pressures. Global volatility, fluctuating commodity prices, supply chain disruptions and labour-related issues impact profitability and continuity. Meanwhile, regulatory frameworks around Goods & Services Tax (GST), ESG, health and safety and quality standards are becoming increasingly stringent.

Traditional IA approaches, often limited to compliance verification, struggle to address these multi-dimensional risks. Therefore, business leaders increasingly expect internal audits to deliver forward-looking insights, uncover value leakages, strengthen process resilience and align closely with strategic objectives. This makes a robust, future-ready IA function indispensable for the sector.



Harnessing internal audit to strengthen the manufacturing value chain



Procurement



Operation



Development



Marketing



Sales



Logistics



Talent



Service

The manufacturing value chain spans from the procurement of raw materials to product delivery, involving multiple processes, stakeholders and risks. IA is vital in identifying inefficiencies and providing assurance across each segment. A few critical dimensions highlight this:



Procurement and supply chain:

Risks include vendor selection biases, over-dependence on single suppliers, price fluctuations, counterfeit raw materials and weak contract management. IA can ensure robust vendor due diligence, fair bidding processes and strong supplier relationship governance.



Production and operations:

Manufacturing plants face risks such as equipment downtime, low yield, quality defects, non-compliance with safety standards and inefficient use of resources. IA ensures adherence to standard operating procedures, preventive maintenance and effective utilisation of automation and digital tools.



Inventory management:

Risks include obsolete stock, inaccurate valuation, stock shrinkage and pilferage. IA can implement perpetual inventory tracking, variance analysis and control over warehouse processes.



Sales and distribution:

Pricing leakages, credit risk, ineffective distributor management and customer delivery delays can erode margins and brand reputation. IA can design controls over credit approvals, trade discounts and logistics monitoring.



Finance and compliance:

The sector is heavily exposed to risks such as GST errors, foreign exchange mismatches, capex overruns and non-compliance with labour or environmental laws. IA helps organisations remain compliant while optimising working capital and financial accuracy.

IA provides the first line of defence in ensuring sustainability and resilience across value chains in manufacturing.

Evolving role of internal audit in manufacturing excellence

Internal audit in the manufacturing sector has progressed far beyond the role of a traditional regulator. Today, it is a strategic partner to management and stakeholders, offering oversight and forward-looking insights across the entire value chain. Internal audit's relevance in manufacturing lies in its ability to:



Provide visibility across plant-level operations and the broader enterprise



Safeguard assets against theft, misuse or deterioration



Enable risk-based decision-making by identifying vulnerabilities



Support transformation through insights into process efficiency, cost structures and productivity drivers



Build stakeholder confidence, as investors, regulators and boards rely on IA's independent assurance

In short, internal audits enable organisations to protect value, enhance efficiency and support transformation. In a dynamic manufacturing environment, they are critical for ensuring sustainable growth, competitiveness and long-term stakeholder confidence.

Measuring what matters

To measure effectiveness in the manufacturing sector, organisations need to define Key Performance Areas (KPAs) and track Key Performance Indicators (KPIs). Internal audit ensures that these metrics are well-defined and monitored with discipline, that organisations comply with standards, and that they strive for operational excellence. Some critical areas include:



Production efficiency:

Monitoring yield, cycle times, machine utilisation and downtime. Internal audit reviews whether preventive maintenance, lean practices and digital monitoring tools are effectively applied to sustain productivity.



Inventory and working capital:

Measuring stock turnover, dead/obsolete inventory and warehouse efficiency. Internal audit supports management by validating reported numbers through stock counts, reviewing demand planning and highlighting inefficiencies that lock up working capital.



Quality assurance:

Tracking defect rates, rework levels, warranty claims and customer complaints. Internal audit ensures that quality control processes, supplier checks and corrective actions are robust and consistently followed.



Cost and resource management:

Assessing raw material consumption, variance from standard costs and cost/energy consumed per unit produced. IA validates variance analyses, highlights wastage and recommends controls for cost optimisation.



Health, Safety and Environment (HSE):

Monitoring safety incident frequency, regulatory compliance and waste management practices. Internal audit evaluates whether safety protocols, training and environmental standards are being complied with in practice, not just on paper.



Financial discipline:

Tracking budget adherence, Return on Investment (ROI) on capex, receivable ageing and compliance with taxation frameworks. Internal audits strengthen governance by reviewing project cost controls, tax compliance and the accuracy of financial reporting.

Emerging focus areas

As the manufacturing sector evolves, internal audit must expand beyond traditional compliance and operational reviews to address new-age risks and opportunities. Some emerging focus areas include:



Digital transformation and Industry 4.0:

Assessing adoption of automation, Internet of Things (IoT) enables machinery, robotics and Artificial Intelligence (AI) to ensure investments deliver productivity, connected data remains reliable and cybersecurity gaps do not erode value.



Cybersecurity and data integrity:

Safeguarding smart factories from threats such as ransomware and industrial espionage by testing resilience, validating access controls and ensuring compliance with data protection norms



ESG and sustainability:

Verifying carbon neutrality targets, waste management and social responsibility programmes. IA ensures accuracy of ESG disclosures and alignment with global benchmarks to build stakeholder trust.



Supply chain resilience:

Strengthening preparedness against raw material shortages, geopolitical risks and logistics disruptions by reviewing supplier dependency, vendor performance and contingency strategies.



Innovation and Research & Development (R&D) governance:

Ensuring R&D investments are strategically aligned; intellectual property is protected and innovation pipelines are effectively governed to drive sustainable growth.



Talent and workforce readiness:

Evaluating whether skill development, succession planning and workplace culture enable a digitally skilled safe and future-ready workforce.

Conclusion

The Indian manufacturing sector stands at the cusp of immense opportunity, but with growth comes complexity. With its unique vantage point, internal audit provides independent assurance and forward-looking advisory to help organisations navigate risks and build resilient operations. Its relevance lies in compliance and in shaping the future of manufacturing through cost efficiency, operational excellence, digital enablement, ESG compliance and risk intelligence. For boards, regulators and stakeholders, internal audit has become the conscience-keeper and value-enhancer of the enterprise.



Bibliography

1. Government of India, National Manufacturing Policy and Make in India Reports
2. Deloitte, Future of Internal Audit in Manufacturing, 2023
3. Risk Landscape for Indian Manufacturing Sector, Quora
4. Internal Audit as a Strategic Partner in Manufacturing_ Business Outlook
5. World Economic Forum, Future of Manufacturing and Industry 4.0

Connect with us



Anthony Crasto

President, Assurance
Deloitte India
acrasto@deloitte.com



Peeyush Vaish

Partner, Assurance
Deloitte India
peeyushvaish@deloitte.com



Amit Gupta

Partner, Assurance
Deloitte India
guptaaamit@deloitte.com

Key contributors

Ankur Gupta

Varun Mavinkurve



Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited (“DTTL”), its global network of member firms, and their related entities (collectively, the “Deloitte organization”). DTTL (also referred to as “Deloitte Global”) and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see www.deloitte.com/about to learn more.

Deloitte Asia Pacific Limited is a company limited by guarantee and a member firm of DTTL. Members of Deloitte Asia Pacific Limited and their related entities, each of which is a separate and independent legal entity, provide services from more than 100 cities across the region, including Auckland, Bangkok, Beijing, Bengaluru, Hanoi, Hong Kong, Jakarta, Kuala Lumpur, Manila, Melbourne, Mumbai, New Delhi, Osaka, Seoul, Shanghai, Singapore, Sydney, Taipei and Tokyo.

This communication contains general information only, and none of DTTL, its global network of member firms or their related entities is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

No representations, warranties or undertakings (express or implied) are given as to the accuracy or completeness of the information in this communication, and none of DTTL, its member firms, related entities, employees or agents shall be liable or responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication.