

FUTUROOT

From Process Deviation to Procurement Excellence

A System-Based P2P Assessment for Lupin Limited

11 Procurement Processes · 40,000+ Transactions · SAP S/4HANA



The Context

Lupin Limited is a global pharmaceutical company and one of India's largest generic drug manufacturers, with operations spanning the US, Europe, Japan, and South Asia. As part of a strategic initiative to strengthen process discipline on its SAP S/4HANA platform, Lupin engaged FUTUROOT to deliver an objective, data-driven audit of its end-to-end Procure-to-Pay (P2P) landscape.

The assessment spanned 11 distinct procurement process types — from Raw Material and Capex purchasing through to Third-Party, Import, and Stock Transfer flows. With tens of thousands of transactions across multiple company codes and geographies, finance leadership needed hard evidence: are procurement workflows running as designed, or have deviations become normalised practice?

Traditional sampling-based audits would have captured only a fraction of the risk. FUTUROOT's system-based approach ingested 100% of transaction data directly from SAP and mapped every case against the ideal process path — surfacing deviations that manual review and periodic checks would never find.

METRIC	PERFORMANCE
Processes Assessed	11 end-to-end P2P process types on SAP S/4HANA
Transaction Coverage	100% — 40,000+ SAP transactions analysed
Highest Deviation Value	Rs.50 Cr exposed in Third-Party (HP) process
Lowest Conformance Rate	25% — Import Procurement (IP) — lowest of 11
PO Price Change Exposure	Systemic across all 11 processes assessed
Approval Bypass Risk	Rs.17.17 Cr: 707 missing PR Releases in Subcontracting
Coverage vs. Big 4 Audit	100% data vs. 2% manual sampling



The Challenge: Evidence vs. Assumptions

Finance leadership at Lupin needed an objective answer to a specific operational question: are our 11 procurement processes running as designed in SAP S/4HANA, or have process exceptions taken root as default practice?

Without complete, transaction-level visibility, the procurement team was relying on periodic reviews and user-reported issues — an approach that missed systemic deviations entirely.



Invisible Deviations:
Process exceptions — bypassed approvals, skipped GRs, retroactive POs — were occurring across every process category with no way to quantify the risk.



Fragmented Process Landscape:
11 distinct procurement types, each with its own SAP scope item and ideal path. No single audit methodology had covered all simultaneously.



PO Price Change Risk
PO prices were being modified post-approval across every process — unauthorised changes with no re-approval gate and no financial quantification.

The Solution: 100% Transaction Intelligence

FUTUROOT was deployed to perform a comprehensive system-based Process Mining assessment directly against Lupin's SAP S/4HANA environment. Unlike conventional audits, the platform ingested every transaction across all 11 P2P process types and reconstructed the actual process path for each case — comparing it against the ideal SAP Best Practice flow for the relevant scope item.

This 'Agentic' monitoring approach allowed the team to shift from reactive investigation to exception-led, prioritised analysis. Every deviation was classified by type (Missing Activity, Additional Activity, Invalid Path), quantified by case count and INR value, and attributed to specific vendors, materials, and process steps.

Analysis Scope



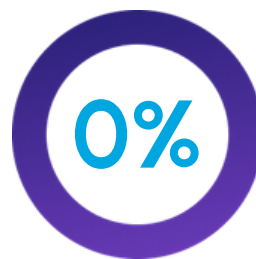
Process Types:
RP PP CP EP HP
NP SP Sub TP IP
ZU5



SAP Transactions
ingested & mapped
to ideal path



Data Coverage
(vs. 2% Big 4
sampling)



Sampling used —
every case classified
against ideal path

Key Findings

Process-Level Conformance Summary

Process	Scope	Cases	Conf.	Deviated Value	Risk
RP – Raw/Pack Materials	J45	4,020	79%	Rs.9.9 Cr	Medium
PP – Capex / Projects	J45	1,983	61%	Rs.2.45 Cr	High
CP – Consumables	BNX	9,524	61%	Rs.6.2 Cr	High
EP – Engineering Items	J45	6,964	67%	Rs.50.5 L	Medium
HP – Third Party	BD3	168	50%	Rs.50 Cr	Critical
NP – Promotional Items	J45	662	76%	Rs.2.5 Cr	Medium
SP – Services	22Z	1,820	74%	Rs.74.18 L	Medium
RP – Subcontracting	BMV	4,020	74%	Rs.32.99 Cr	High
TP – STO MM Route	BME	90	48%	N/A	High
IP – Import Procurement	J45	259	25%	Rs.1.61 Cr	Critical
ZU5 – Stock Transfer	BME	566	60%	N/A	High

1 Third-Party Process: Rs.50 Cr at Risk - Only 50% Conformance

The HP Third-Party process revealed the most critical control failure: 50% of all 168 cases deviated from the BD3 ideal path. Most critically, 84 cases worth Rs.29.77 Cr had a Purchase Order entirely missing from the transaction chain. A further 52 cases (31%) lacked an Inbound Delivery - Rs.3.38 Cr in unconfirmed goods receipt. With Rs.130 Cr flowing through this process, the exposure is both financial and regulatory.

2 Import Procurement: Only 25% Conformance - Lowest of All 11

The IP Import Procurement process recorded the single lowest conformance rate at just 25% of 259 cases assessed. Dominant deviations include PO Item Price Increases (62 cases, Rs.7.09L) and Invalid Path sequences where Down Payment Requests and Goods Receipts occurred out of the correct sequence. Given the cross-border regulatory nature of import transactions, these deviations carry elevated compliance risk well beyond their headline values.

3 Subcontracting: 707 Missing Approvals Totalling Rs.17.17 Cr

In the RP Subcontracting process, 707 cases — totalling Rs.17.17 Cr — were processed without the mandatory PR Release approval step. This is the largest single Missing Activity finding in the entire assessment: a systematic bypass of the authorisation gate for subcontractor spend. A further Rs.1.78 Cr in PR Quantity Increases and Rs.4.22 Cr in PR Quantity Decreases were flagged as uncontrolled additional activities within the same process.

4 PO Price Changes: Systemic Across Every One of the 11 Processes

PO Item Price Increases and Decreases appeared as deviations in every single process type assessed — from Raw Materials to Services to Promotional Items. While some changes reflect legitimate market adjustments, the volume (hundreds of cases per process) signals a systemic gap: prices are being modified after PO approval without a re-approval workflow. Most extreme case: a 14,900% price increase on banner materials and a -98% decrease on the same vendor-material

Top Deviations Across All Processes

Process	Deviation	Type	Cases	Value
HP – Third Party	PO Created (Missing)	Missing Activity	84	Rs.29.77 Cr
RP – Subcontracting	PR Released (Missing)	Missing Activity	707	Rs.17.17 Cr
CP – Consumables	PO Created to GR (Invalid)	Invalid Path	157	Rs.2.92 Cr
PP – Capex/Projects	Goods Receipt (Missing)	Missing Activity	250	Rs.1.79 Cr
CP – Consumables	PO Item Price Decreased	Additional Activity	791	Rs.25.26 L
HP – Third Party	PO Item Quantity Increased	Additional Activity	79	Rs.25.36 L
RP – Subcontracting	PR Quantity Decreased	Additional Activity	83	Rs.4.22 Cr
ZU5 – Stock Transfer	Post Goods Receipt (Missing)	Missing Activity	110	N/A
SP – Services	PO Released to Invoice (skip)	Invalid Path	117	Rs.8.84 L
IP – Import	PO Item Price Increased	Additional Activity	62	Rs.7.09 L

The Impact: Before vs. After FUTUROOT

DIMENSION	BEFORE FUTUROOT	AFTER FUTUROOT
Control Mointoring	<i>Predict 2% sampling</i>	100% coverage, continous automated assesment
Price Change Controls	<i>No visibility into post-PO modifications</i>	All PO price changes flagged, classified & quantified
Approval Compliance	<i>Unknown volume of missing PR Releases</i>	707 missing approvals identified — Rs.17.17 Cr in subcontracting
Third-Party Risk	<i>No PO visibility for 50% of HP process</i>	Rs.29.77 Cr in missing PO transactions identified & remediated
Goods Receipt Gaps	<i>GR exceptions discovered at period-end</i>	250 missing GRs in Capex process surfaced in real time
Import Compliance	<i>Assumed to run per ideal path</i>	25% conformance revealed; invalid step sequences corrected
Process Classification	<i>Goods/services confusion undetected</i>	Misclassified SES in goods process isolated & resolved
Data Foundation	<i>Anecdotal / assumption-based</i>	System-log evidenced truth across all 11 process types

CFO Perspective

"As finance leadership, we needed evidence, not assumptions. FUTUROOT delivered a complete, system-log picture of our P2P processes — surfacing missing approvals, price control gaps, and Third-Party PO deficiencies across all 11 processes. From insight to action: within weeks."

Finance Leadership, Lupin Limited



Why FUTUROOT

Depth of Insight:

Big 4-level analysis at a fraction of the time and cost —zero reliance on sampling.

Technical Range:

Deep SAP domain knowledge paired with process mining detects deviations the standard system cannot see.

Actionable Intelligence:

Every finding includes the specific vendor, material, user, amount, and deviation type required for immediate remediation.

Transformed Audit functions:

Unlike Big 4 approaches limited to 2% sampling, FUTUROOT covered 100% of 40,000+ transactions across all processes.

About

Lupin Limited is a global pharmaceutical company headquartered in Mumbai, India, with a presence in over 100 markets worldwide. It is one of the top five generic pharmaceutical companies in the United States and a leading player in anti-tuberculosis, cardiovascular, and anti-diabetic therapies. Their name is referenced with their consent.

FUTUROOT is an enterprise process intelligence platform that features native connectors for leading ERPs and CRMs that enable forensic-level process mining without the need for large data science teams.