**Process Mining Approach- Sourcing to Contract to PO to GRN to IV**

**This will be part of PTP Process**

**1. Control Gaps and Risk Triggers to be Captured via Process Mining**

| **Control Gap** | **Detection Logic** | **Dashboard Visual** |
| --- | --- | --- |
| **Common Vendors Always Receiving RFQs** | Count vendors with 90%+ RFQ coverage across PRs | Bar chart of vendor frequency |
| **2. Dummy Vendors** – Vendors always in RFQ list but never submit bids | RFQ shared ≠ Bid submitted across cycles | Table of vendors with RFQ:Bid ratio < 10% |
| **3. Preferred Vendor Bias** | Always winning vendor where others never respond | Highlight cases with winning vendor and all others with null bids |
| **4. Employee-Vendor Nexus** | Vendor address linked to employee address/contact | Cross-reference vendor master and HR master |
| **5. Bid Iteration Loops** | PR → RFQ → Bid → Resend → Rebid → Final | Process path with 3+ loops flagged |
| **6. Fast-track PO Cycle (Suspicious Speed)** | PR to GRN in < 50% of the avg lead time with same user-vendor pair | Heatmap of user-vendor + processing time |
| **7. High Change Frequency** | Frequent edits in PO, PR, RFQ by same user | CDHDR/CDPOS logs on EKKO/EBAN changes visualized |
| **8. Vendor Cartelization** | Same set of vendors bidding similar quotes repeatedly | Clustered bidding patterns, similarity scoring |
| **9. Split POs for Same PR** | One PR → Multiple POs → Same vendor | Trace PO quantity & value allocation |
| **10. Unapproved Invoices Being Parked** | Invoice parked before GRN or PO approval | Timeline outlier detection |
| **11. Transactions where PO Date is prior to PR** |  |  |
| **12. Instances where vendor code changed during invoice posting** |  |  |
| **13. Instances where GRN happened beyond 50% delay from the required delivery date** |  |  |

**2. Data Points Required**

**SAP Tables & Fields**

| **Table** | **Key Fields** |
| --- | --- |
| EBAN | BANFN, BNFPO, FRGDT, AENAM, AEDAT |
| EKKO / EKPO | EBELN, AEDAT, LIFNR, BANFN, FRGKZ |
| CDHDR / CDPOS | OBJECTCLAS = EINKBELEG, EBAN, EKKO |
| MSEG / MKPF | MBLNR, BWART, BUDAT, CPUDT |
| RBKP / BSEG | BELNR, BLDAT, CPUDT, BUDAT, AUGDT |

**Jaggaer Reports (or API extracts)**

| **Report** | **Fields** |
| --- | --- |
| RFQ Distribution | RFQ ID, PR Ref, Vendor ID, Date Shared |
| Bid Submission | RFQ ID, Vendor ID, Submission Timestamp, Quoted Value |
| Vendor Master | Vendor Contact, GST, Email, PAN |
| Workflow Logs | Step Name, Approver, Time Taken, Status |

**3. Event Log Construction for Process Mining**

Each event log entry should include:

* **Case ID** (PR No or PO No)
* **Activity Name** (e.g., PR Created, RFQ Shared, PO Approved, etc.)
* **Timestamp** (creation/posti ng/change date)
* **User ID**
* **Vendor Code**
* **System Origin (SAP/Jaggaer)**