



USE CASE

Application of Copilot in Manufacturing Supply Chain Fraud Analytics



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Enterprise manufacturers often work with extensive networks of suppliers, sometimes numbering in the hundreds or even thousands. Managing these supplier relationships and ensuring that all transactions are accurate, compliant, and fraud-free is a significant challenge. Even with sophisticated enterprise resource planning (ERP) systems, keeping track of every detail related to suppliers, inventory, and compliance can be overwhelming, manual, and error-prone. Supply chain fraud, such as billing discrepancies or misreported inventory, can substantially increase operational costs and expose manufacturers to regulatory risks.

Anomali Copilot provides powerful AI-driven capabilities for analyzing the complex data associated with large-scale supply chains. By applying multiple advanced LLM models, manufacturers can improve their ability to detect fraud, ensure compliance, and optimize supply chain operations. Below are three examples of how Anomali Copilot can address supply chain requirements in this context.

Fraud Detection and Billing Discrepancy Resolution

Challenge

With hundreds or thousands of suppliers, manual review of supplier invoices and inventory records is error-prone and inefficient. Fraudulent activities, such as false billing, double/fraudulent billing, or unauthorized outsourcing, can cause significant financial losses.

Copilot Application

Anomali Copilot can automatically identify discrepancies between supplier invoices and inventory records. Copilot's LLMs can be trained to recognize patterns of normal billing behavior and flag anomalies for further investigation. For instance, if a supplier consistently bills for a quantity of goods that significantly deviates from inventory usage patterns, Copilot can highlight this as a potential red flag.

Implementation:

- 1. Gather a Comprehensive View of Supply Chain Data:** Integrate invoice data, inventory records, and supplier contracts into an Anomali data lake.
- 2. Train model on Supply Chain Behaviors:** Use Copilot to develop machine learning (ML) models that learn from historical data to understand typical billing patterns and inventory levels.

3. **Monitor Invoices in Real Time:** Deploy trained models to analyze incoming invoices in real time. Copilot flags invoices with irregularities, such as discrepancies in quantities or prices.
4. **Flag Discrepancies as They Happen:** Copilot can generate automated alerts for financial analysts to review flagged discrepancies and investigate further.

Outcome

This approach reduces the time and labor required for manual invoice checks, increases fraud detection accuracy, and minimizes financial losses due to billing errors.

Compliance Monitoring and Certification Validation

Challenge

Manufacturers must ensure that suppliers meet regulatory requirements and certifications. Manually verifying compliance across a vast number of suppliers is both time-consuming and error-prone.

Copilot Application

Copilot's use of natural language processing (NLP) for document analysis can automatically extract and validate compliance-related information from supplier documents and certifications stored in lookup tables. AI can cross-reference these documents with regulatory requirements and internal compliance standards.

Implementation:

1. **Gather a Comprehensive View of Compliance Data:** Collect and digitize supplier certification documents and regulatory requirements.
2. **Investigate with NLP:** Use Copilot's NLP algorithms to parse and extract relevant information from certification documents, such as expiration dates, certification types, and compliance clauses.
3. **Apply Regulatory Criteria to Investigations:** Copilot compares extracted data against a database of regulatory requirements and internal compliance criteria.
4. **Visualize Compliance Status:** Develop a compliance dashboard highlighting suppliers' certification status, expiration dates, and compliance gaps.

Outcome

This solution ensures that suppliers are consistently monitored for compliance, reducing the risk of accidental non-compliance and ensuring that only certified suppliers are used.

Predictive Analytics for Inventory Optimization

Challenge

Manufacturers need to efficiently manage their inventory levels and related data to avoid overstocking or stockouts. Without advanced analytical tools, it is a challenge to accurately predict demand across an extensive supplier network.

Copilot Application

Copilot can forecast inventory needs by analyzing historical sales data, market trends, and supplier performance. Copilot's ML models can predict future demand and suggest optimal inventory levels, considering factors such as supplier lead times and historical reliability.

Implementation:

1. **Gather a Comprehensive View of Inventory Drivers**
Data: Collect data on historical sales, inventory levels, supplier lead times, and market trends.
2. **Forecast Inventory Requirements:** Use this data to train ML models to forecast future demand and inventory needs. Models can incorporate seasonal trends, market changes, and supplier performance.
3. **Optimize Inventory Management:** Implement Copilot to calculate optimal inventory levels and reorder points based on demand forecasts and supplier constraints.
4. **Develop Inventory Management Support Systems:** Create a decision support system that provides inventory purchasing and supplier management recommendations comprehensively.

Outcome

Predictive analytics helps manufacturers optimize inventory levels, reduce carrying costs, avoid stockouts, and improve overall supply chain efficiency. By anticipating demand and adjusting inventory strategies accordingly, manufacturers can enhance operational performance and reduce waste.

Conclusion

Anomali Copilot offers transformative solutions for managing the complexities of large-scale manufacturing supply chains. By applying Copilot to fraud detection, compliance monitoring, and inventory optimization, manufacturers can significantly improve their operational efficiency, mitigate risks, and ensure compliance with regulatory requirements. Copilot's advanced AI capabilities help enterprises navigate the challenges of managing extensive supplier networks and maintaining robust, fraud-free supply chain operations.

Security Operations Done Differently.

Anomali is the leading AI-Powered Security Operations Platform that delivers mind-blowing speed, scale and performance at a fraction of the cost. Our cloud-native approach modernizes the delivery of legacy systems, combining ETL, SIEM, NG SIEM, XDR, UEBA, SOAR, and TIP to deliver security analytics that enable our customers to detect, investigate, respond, and remediate threats in one integrated platform.

[**Request a demo**](#) to learn more about the Anomali AI-Powered Security Operations Platform.