A MULTI-PRONGED ANALYTICAL APPROACH FOR LOGISTICS COST SAVINGS

Abstract

When Steve Becker, Supply Chain Distribution Lead at a leading FMCG giant, found his logistics costs inflating above the comfort zone, he turned to Infosys BPM for help. This case details how Infosys BPM implemented an advanced analytics engine that increased Steve's process visibility and provided actionable insights, leading to identification of $1.5 Mn in cost optimisation opportunities and an immediate cost reduction of $270K.

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Logistic costs spiralling beyond control

Steve Becker is the Supply Chain Distribution Lead at a global fast moving consumer goods (FMCG) company that supplies a vast portfolio of products across 150 countries. The FMCG giant has a widespread logistics network of over 57,000 suppliers and more than 20 freight carriers, which operates across multiple modes of transport. Steve is responsible for overseeing this complex network and managing contracts with individual suppliers, with the primary objective of optimising overall costs and delivery performance.

Following a structured approach to select an optimal group of logistics service providers (LSPs), Steve had his logistics team rate the freight carriers based on parameters like cost efficiency, performance, and responsiveness. The team then used these ratings to categorise the carriers into four subgroups, namely: Primary A, Primary B, Backup A, Backup B to use as a preferred carrier list. Steve then entered into long-term contracts with these LSPs, with the intention to lock in competitive rates and avoid any spikes

triggered by spot-buying — which would often occur due to immediate, unplanned shipping requirements.

However, even after his measures, Steve found his total logistics costs rising too high for comfort. He realised that the team would struggle to obtain sufficient data and insights for identifying fraudulent carriers — who would not adhere to contract terms, refuse carrier loads, and over-utilise spot buy — and other repeat offenders, which would often make the team fall back on the more expensive backup carriers. Upon a closer review of the supply chain, he also found his team over-relying on spot-buying for several shipping routes, further contributing to the inflated costs. The spot buys were accounting for 35% of the total logistics expenditure, while only making up 15%-20% of total shipments.

Aware of the several missed opportunities to optimise costs, Steve took it upon himself to cut overall logistics expenses at least by 10% year-on-year. However, the lack of data insights hindered Steve's

visibility, making it difficult for him to negotiate better rates, reduce spot-buy expenses, or move these routes under long-term contracts.

Set on his mission to achieve the cost optimisation target, Steve began looking out for professional external service providers who could help him achieve his goals via relevant statistical analysis, actionable data insights, and more. He sent out a global RFP with all the key details and received numerous responses within weeks. After reviewing several proposals, Steve signed on Infosys BPM as his partner for the project. Steve soon set up a series of meetings with Ananya Dubey, the Infosys BPM project team lead, where he walked her through his supplier network, described the cost challenges, and underscored the lack of data availability as his key issue. With these meetings, Steve also conveyed his cost optimisation target to Ananya, while highlighting the importance of preserving customer service levels.

Building a cost-optimising analytics solution

Taking note of Steve's list of objectives and requirements, Ananya rounded up her team to assess the company's logistics network in detail, hypothesise the problem statement, and study the core issues contributing to the lack of efficiencies.

Approach summary

Data consolidation into a standardised format to identify opportunities

Rule-based alert system to identify carriers consistently not adhering to contract terms

Power BI action engine to summarise top lanes and opportunityareas, with ability to trigger targeted mails to specific distribution lists
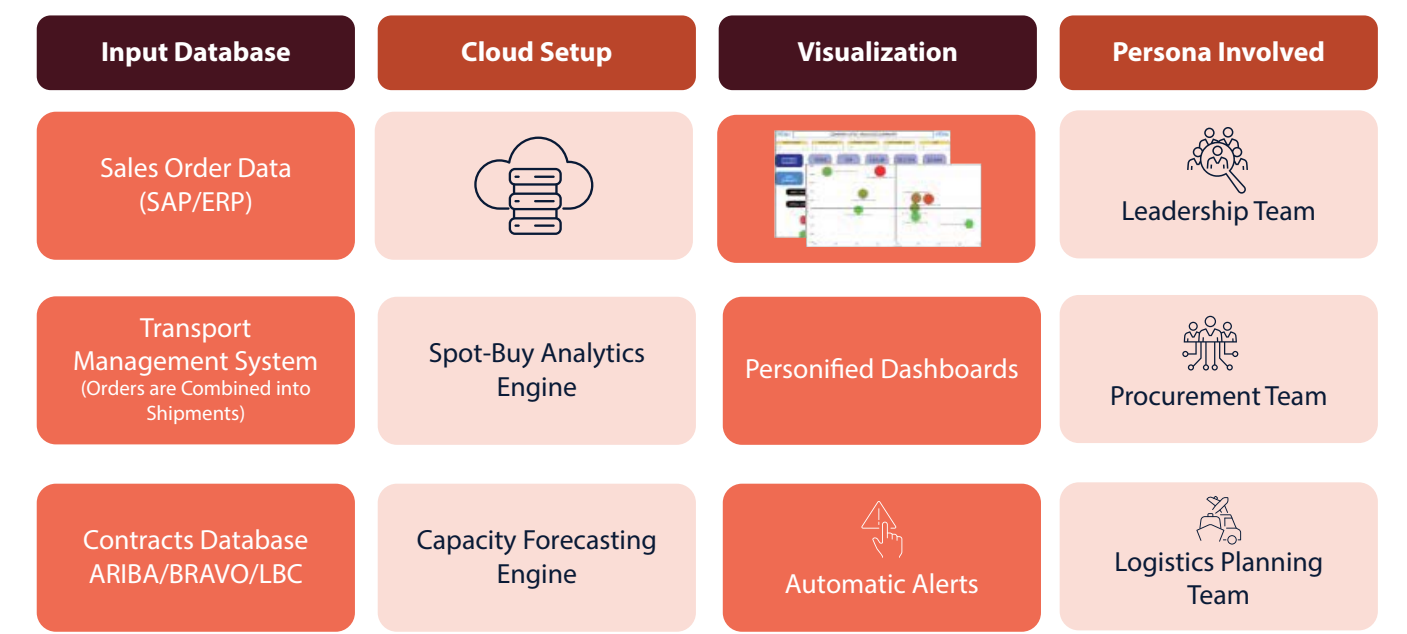
Capacity forecasting engine deployment to identify lanes that could move from a spot buy to a contracted scenario

Upon finding the company's logistics data to be spread across multiple systems and formats, Ananya and her team worked with Steve to identify, collate, and gather all inputs in one place. This included converting all structured and non-structured data available on spot-spend, LSP contracts, and shipment volumes—and feeding them into a standardised database for simpler analysis.

With the comprehensive database in place, Ananya's team then developed advanced analytics models to study the LSP data across shipping lanes/routes, and identify areas with high frequency of backup carriers, spot-buying, and contract non-adherence. They also analysed historical shipping patterns and trends to identify the number of carrier load refusals and pinpoint reasons for the same.

Input Database	Cloud Setup	Visualization	Persona Involved
Sales Order Data (SAP/ERP)			Leadership Team
Transport Management System (Orders are Combined into Shipments)	Spot-Buy Analytics Engine	Personified Dashboards	Procurement Team
Contracts Database ARIBA/BRAVO/LBC	Capacity Forecasting Engine	Automatic Alerts	Logistics Planning Team

To complement their analysis, the team then set up a capacity forecasting engine and AI/ML algorithms to predict freight volumes and shipping demands at the lane level, allowing Steve to shift existing spot-buy lanes under longer-term contracts. Ananya and her team also set up a Power BI dashboard, providing Steve's team with a persona-based view of the logistics network, along with drill-down and simulation abilities to better study individual routes, regions, and carriers.

Finally, Ananya deployed a bot to run relevant analyses every week, automating the routine evaluation of cost metrics, carrier performance, LSP contract compliances, and more. The team set up the bot to send email updates to Steve and his team, alerting them about any carriers not adhering to contract terms or concerning spot-buy lanes that could need proactive action.

Delivering shipments and savings

Ananya and her team's advanced analytics engine setup did wonders in keeping the FMCG giant's logistics expenses in check.

The predictive analytics, automated alerts, and actionable insights gave Steve the process visibility and intelligence he needed to make informed decisions, allowing him to minimise spot-buys and negotiate better long-term contracts with LSPs.

Key benefits

$1.5 Mn in cost optimisation opportunities identified

$270,000 immediate reduction in costs

30% reduction in contract compliance issues

Impressively, the data analytics and visualisation revealed ~$1.5 Mn in logistics cost optimisation opportunities, out of which, the team successfully reduced ~$270k in the initial stages itself. Moreover, the dashboard and alerts helped Steve address compliance issues in LSP contracts, leading to a 30% reduction in the same.

To Steve's delight, the proactive and expert support from Ananya and her team not only helped him comfortably achieve his cost optimisation target, but also gave him the tools to continue optimising his logistics operations every year. It looks like smooth sailing for Steve's logistics network from here on!

Names have been altered to preserve the identities of the people involved.

For more information, contact infosysbpm@infosys.com

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