

Supply Chain Analytics



Capgemini Analytics

Supply Chain Analytics brings data-driven intelligence to your business, reducing overall cost to serve and improving service levels.

Supply Chain Analytics aims to improve operational efficiency and effectiveness by enabling data-driven decisions at strategic, operational and tactical levels.

It encompasses virtually the complete value chain: sourcing, manufacturing, distribution and logistics.

Supply Chain Challenges

- Lack of synchronization between planning and execution.
- Lack of real-time data visibility, with no common view across all businesses and channels.
- Irregular reviews of safety stock levels, causing frequent stock-outs or excess inventory.
- Lack of flexibility in the network and distribution footprint, so that decision-makers find it difficult to prioritize between cost to serve and customer service levels, resulting in less profitability.
- Price volatility and difficulty in de-risking.
- Production line imbalance and suboptimal batch sizes, creating asset underutilization.

Key Deliverables

- *Reduce inventory and release cash*
- *Improve fill rates and deliver growth*
- *Eliminate wastages and improve margins*
- *Improve forecast accuracy*
- *Improve service levels*
- *Reduce cost to serve*
- *Devise inventory norms for all nodes in the supply chain*
- *Conduct root cause analysis for excess inventory or stock outs at the nodes*
- *Optimize freight utilization by improving loading levels and routing, reducing cost to serve and improving service levels*
- *Support reconfiguration of a network by identifying all feasible network scenarios, evaluating the transition costs, risks and returns for each one*

Approach

Through Supply Chain Analytics we deliver growth in revenues, improve margins, manage working capital in a better way and enhance the control points across the supply chain.

Revenue Growth

Revenue Analytics identifies all the opportunities and supply chain initiatives for growth as well as control potential revenue losses due to supply chain inefficiencies.

One such product in field revenue growth is Demand Forecasting where we collate the historical data and work collaboratively with the customers to identify the SKU's, the time horizon and the frequency of the demand forecasts to be done. Based on our predictive modeling technique we can help synchronize demand with your sources of supply. After setting the demand correct the execution efficiency is measured and monitored using order fill, SKU availability and loss of sales. Estimating the right demand helps in planning the right resources at the right time at the right place and monitoring the sales efficiency helps in recognizing the new avenues of improvement and hence revenue growth.

Working Capital Improvement

With working capital analytics focused on end to end supply chain inventory, it helps free up locked capital and improve cash flow.

Inventory Analytics forms a core of working capital improvement where we optimize inventory data using analytical capabilities to determine the right safety stock levels for both finished goods and raw material. We also help set optimum inventory norms, lot sizes, we analyze slow-moving, obsolete inventory and balance stock across locations to ensure lower inventory carrying cost. This overall process of improving inventory positions improves downstream service levels and reduces loss of sales.

Margin Improvement

Expense Analytics helps identify and analyze the supply chain costs across the nodes starting from network costs to delivery at the last mile.

An important product in this area is supply chain network optimization where we analyze the "as is" network in terms of cost to serve and service levels. We then evaluate and compare scenarios covering all foreseeable market dynamics, identifying the best available option. We also analyze the complete Spend in logistics by categorizing it into buckets and deriving meaningful insights from the analysis. In Logistics Cost Analytics we periodically analyze freight cost and find scope for renegotiation - making buying decisions smarter.

Control Enhancements

With Control Analytics, not only can we identify risks in various supply chain operations; but we also analyze financial and other risks of all your supply chain partners.

We examine all your vendors by analyzing the financial, legal and operational risks associated with each to ensure continuity of services delivered and to maintain high compliance.

Success Stories

We set up a business knowledge helpdesk for a major consumer packaged goods (CPG) company and identified **potential saving opportunities worth around €60m** through analysis of various components for multiple countries and product categories.

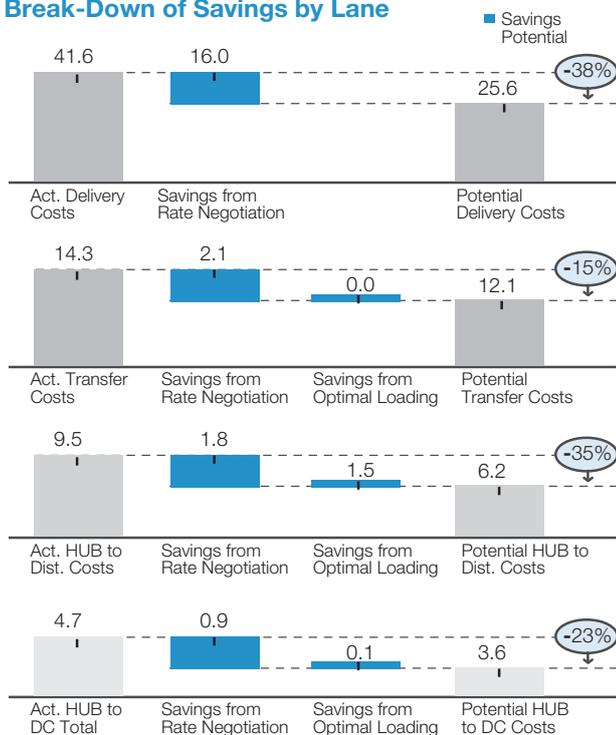
We also identified potential savings in the network footprint. By optimizing the distribution network and channels across the chain, the company could increase flexibility and reduce distribution cost by about €30m.

Illustrative Outputs



For a CPG company, we evaluated the logistics in a particular region. We found cost reduction opportunities worth over 30% (or about €9m) by optimizing the loading of shipments and re-negotiation of transporter rates.

Break-Down of Savings by Lane



For a renowned CPG company within one region, we identified savings of around 10% (€17m) by eliminating inefficient trade spend, which would have minimal impact on net sales value.

In one instance, our analysis also highlighted slow-moving and low-margin SKUs that were impacting the cost of carrying inventory. We found potential for an 11% reduction of total inventory by rationalizing 60% of the SKUs.

Capital expenditure on assets offered scope for savings at one CPG client. Our analysis revealed an opportunity to redeploy 15% of the assets held at point of sale and achieve savings by reducing capex and cost to serve. Within the scope we were able to save around €3.3m.

Our Analytical Tools and Capabilities



Our statistical analysis makes use of a range of quantitative and exploratory techniques.



Predictive modeling techniques help us deliver dynamic models to forecast product demand.

We also use **optimization models** and client-identified tools to find an appropriate strategy for complex operational problems with multiple constraints.

A user-friendly, in-house **supply chain simulation** tool helps train operations personnel in supply chain concepts and their business implications.

Our **customer trade terms analyzer** is a proprietary tool for comparing customer-specific trade terms. It helps build scenarios to evaluate different pricing components and arrive at desired profitability parameters.

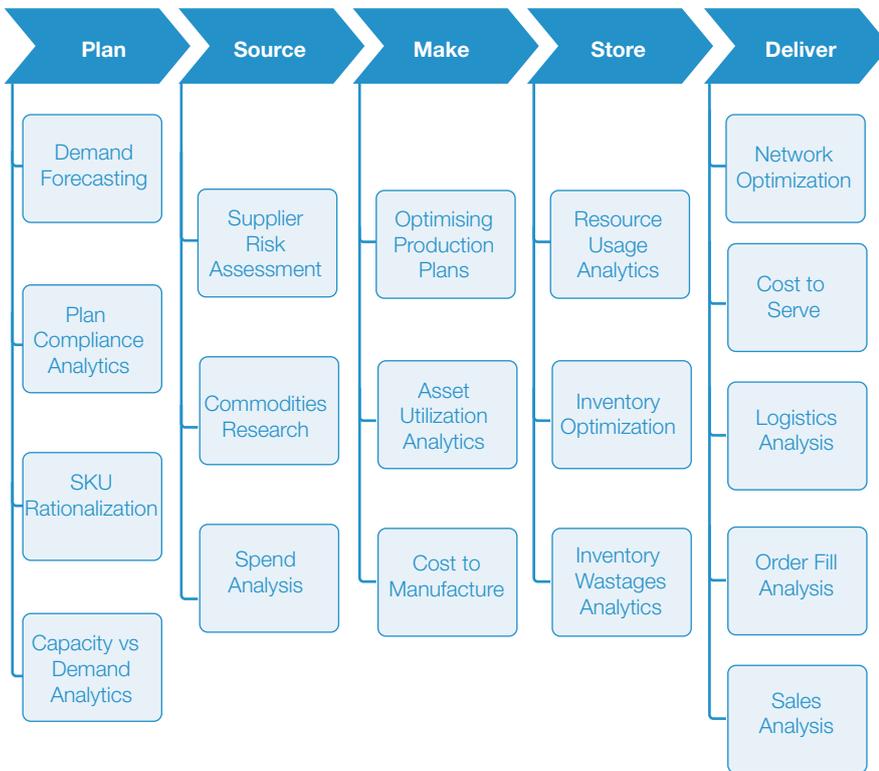
Our **bills of materials analyzer** is an in-house tool that helps compare bills of materials of comparable competitor products and analyze opportunities for changes in raw material pricing, ingredients, proportions and suppliers for optimal product costing.

The Capgemini Experience

The team has a strong analytical background with specialization in disciplines of management, engineering and statistics. Their experience includes CPG and retail, consulting, research and supply chain.

Our clients get lasting value because we engage directly and meaningfully with stakeholders at each level of the enterprise – from boardroom to shop floor and warehouse.

Our Capabilities in Supply Chain Analytics



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About Capgemini

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Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want.

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