Logistics Analysis

Capgemini Analytics

Logistics analysis across the value chain reduces the cost to serve and enables a flexible response to customer demand.

Advanced analytical capabilities when applied to logistics space provide actionable insights into value drivers and distribution complexities which result in optimization of costs and minimizing system inefficiencies.

Capgemini’s Logistics Analytics helps you look into logistic drivers like freight mix, time to market, logistic spend and product freshness across the value chain for your organization.

Challenges in Logistics

Most companies have yet to achieve a distribution approach that is flexible enough for today’s dynamic and growing markets. Decision makers find it difficult to achieve the target service levels with increasing operating costs. Underutilization of assets like warehouse, transport fleet, inventory and storage space ultimately affects the organization’s profitability.
Our Approach

With the help of the logistics framework which encompasses freight optimization and selection, loadability, optimal routing, and optimizing resources, analysis can be conducted for various logistics cost elements and drivers.

- **Freight Optimization and Selection** – We analyze market freight rates to rationalize the transportation fleet. Continuously analyzing freight costs offers scope for renegotiation. We analyze the existing cost structure to evaluate possible modes of transportation.
- **Loadability** – The analysis helps to get the truck utilization in terms of weight or volume.
- **Optimal Distance and Routing** – Analysis of the distances travelled, Internode transfers and the routes to optimize the trips. We can also analyze lead time at lane, branch and national levels.
- **Optimizing Resources** – Analysis on labour and staff productivity, in transit damage analysis and truck placement analysis to optimize the resources employed.
- **Sourcing** – Analysis of regional sourcing trends to improve the local sourcing percentage on the freight savings.

We analyze the root causes of high vehicle retention time, looking at transporter and freight records, vehicle time stamps and goods movement history. We also analyze market freight rates to rationalize the transportation fleet. Continuously analyzing freight costs scope for renegotiation, which can lower overall logistics costs.

After analyzing a company’s stock and location data, we suggest an optimal routing and replenishment strategy to minimize cost to serve.

In sum, our analysis will reveal a range of opportunities to reduce logistics costs. We review these findings with you and help plan your next steps.

Key Deliverables

Supply chain analytics at Capgemini can help you with all the analysis and insights you need to improve your end-to-end logistics. The outcomes are:

- Better loading from improvements in freight utilization
- Reductions in overall cost to serve
- Optimal routing
- Improved service levels
Success Story
Consumer Packaged Goods Giant finds €6m Savings Opportunity

A leading CPG company was looking to reduce outbound distribution costs for a specific product category and particular country. They asked us to create a business model to explore possible efficiencies.

Solution
Our business analytics services team analyzed large volumes of outbound distribution data across various lanes and routes. By comparing transport costs and exploring the maximum loading of vehicles, we identified an opportunity to save 32% of distribution costs.

Outcome
Our analysis showed the total logistics cost for the product category could potentially be reduced by €6 million by renegotiating rates with transporters and by optimising the loading of shipments. We also identified the routes with the biggest cost saving opportunities, and the transporters who were prime candidates for rate renegotiations.

Break-Down of Savings by Lane

<table>
<thead>
<tr>
<th></th>
<th>Act. Delivery Costs</th>
<th>Savings from Rate Negotiation</th>
<th>Potential Delivery Costs</th>
<th>Savings Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>41.6</td>
<td>16.0</td>
<td>25.6</td>
<td>38%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Act. Transfer Costs</th>
<th>Savings from Rate Negotiation</th>
<th>Savings from Optimal Loading</th>
<th>Potential Transfer Costs</th>
<th>Savings Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14.3</td>
<td>2.1</td>
<td>0.0</td>
<td>12.1</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Act. HUB to Dist. Costs</th>
<th>Savings from Rate Negotiation</th>
<th>Savings from Optimal Loading</th>
<th>Potential HUB to Dist. Costs</th>
<th>Savings Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.5</td>
<td>1.8</td>
<td>1.5</td>
<td>6.2</td>
<td>25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Act. HUB to DC Total</th>
<th>Savings from Rate Negotiation</th>
<th>Savings from Optimal Loading</th>
<th>Potential HUB to DC Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.7</td>
<td>0.9</td>
<td>0.1</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Success Story
CPG Leader finds Opportunities to Reduce Distribution Costs by 25%

This company was looking to improve margins on unit sales of food in a specific region by comparing its operational performance with those of its closest competitors.

Solution
With many local players jostling for sustainable market share, it made sense to re-evaluate conversion and distribution costs. We conducted a thorough analysis of press articles, company financial statements, and quarterly and annual reports.

After collating all the information, we were able to analyze market trends plus competitors' business strategies and short-term plans, deriving and comparing key performance metrics. As well as distribution and conversion costs, we compared operational KPIs such as employee productivity, capacity utilization and inventory cover.

Outcome
We produced a “shortlist” of four companies from over 20 that had initially been identified. These four had similar product portfolios and pricing to our client, and therefore provided suitable performance comparisons. We found the closest competitor’s distribution costs were about two percentage points lower than our client’s. Nine metrics were used for comparison, and research showed that the client fared well in eight of them. However, in the remaining one there were opportunities for improvement worth 25% of overall distribution costs.

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 analytical tools to model complex operational problems that may have multiple constraints, and find an appropriate strategy.

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

Plan
- Demand Forecasting
- Plan Compliance Analytics
- SKU Rationalization
- Capacity vs Demand Analytics

Source
- Supplier Risk Assessment
- Commodity Research
- Spend Analysis

Make
- Optimising Production Plans
- Asset Utilization Analytics
- Cost to Manufacture

Store
- Resource Usage Analytics
- Inventory Optimization
- Inventory Wastages Analytics

Deliver
- Network Optimization
- Cost to Serve
- Logistics Analysis
- Order Fill Analysis
- Sales Analysis

For more details contact:
Terry Sandiford
terence.sandiford@capgemini.com

About Capgemini

With more than 125,000 people in 44 countries, Capgemini is one of the world’s foremost providers of consulting, technology and outsourcing services. The Group reported 2012 global revenues of EUR 10.3 billion.

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

A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at www.capgemini.com