



GENERATING SUPPLY CHAIN IMPACT

Driving supply chain excellence through Lean DigitalSM



Supply chain excellence offers competitive advantage in a global marketplace that is characterized by high volatility in the availability of materials, fluctuating costs, and greater regulatory scrutiny. Creating strategic advantage in this environment requires improved performance visibility and real-time insights from operational data. Genpact's supply chain management solutions help organizations drive value-generating transformation by embedding digital technologies and analytics in our integrated planning, strategic sourcing, manufacturing process optimization, and logistic planning.

Business challenge

Supply chains today face a number of significant challenges:

- **Globalization.** While globalization has helped companies address diverse market requirements, manage input costs, and improve product quality, it has also resulted in greater supply chain complexity and risk
- **Volatility.** Market volatility is the biggest challenge for supply chain organizations and has a direct impact on their overall financial and market performance
- **Regulation.** Global supply chains face increasing regulatory scrutiny. Failure to manage compliance can result in significant financial and reputational risk, in particular for life sciences, healthcare, and heavy equipment manufacturing organizations
- **Customer demand.** Increasingly dynamic customer demand cycles have led to supply chains becoming key drivers of growth and costs in industries such as high tech and consumer goods
- **Fragmentation.** Organizational silos across the front, middle, and back office hinder internal information and process flows, and prevent businesses from improving performance

Progressive supply chain functions are leveraging technology to enable a clear, real-time view of their organizations. They reimagine their business processes by embedding analytics and technology to enable timely decision-making.

Genpact solution

Genpact's Lean DigitalSM approach extends the power of digital across the supply chain into the front, middle, and back office through design thinking, Lean principles, and advanced, process-centric digital technologies and analytics. It tightly aligns interventions to business objectives to eliminate waste and achieve impact. Our experience running large, complex operations and supply chains for innovative high-tech products, fast-moving consumer goods, heavy industrial

machinery, and highly regulated products like pharmaceuticals enables us to focus on what works while facilitating technology-enabled transformation. Our offerings include:

Integrated business planning

Companies need to balance short-term supply/input needs with holistic, sustainable, and reliable long-term planning. An effective supply chain business planning approach must align strategy, design, and execution with multiple functions, such as finance, operations, product life cycle management, sales, and marketing. Using **IO, our cloud-based integrated planning platform**, we enable companies to achieve greater supply chain planning visibility, improved governance, enhanced reporting and collaboration, higher customer satisfaction levels, reduced inventories, and more accurate forecasting. Our portfolio includes:

Genpact's Lean DigitalSM approach extends the power of digital across the supply chain into the front, middle, and back office through design thinking, Lean principles, and advanced, process-centric digital technologies and analytics

- **Product portfolio planning.** Portfolio rationalization, profitability analysis, and phase-in and phase-out planning
- **Demand planning.** Demand pattern and variability analysis, baseline and consensus forecasting, and forecast aggregation and disaggregation
- **Supply planning.** To drive procurement, production and capacity planning, inventory optimization, demand-supply balancing, and adherence to scheduled receipts plans
- **Scenario planning.** Outcome-driven risk and opportunity planning
- **Performance and risk visualization.** Solutions that leverage data, metrics, and insights to mitigate supply and demand risks

Strategic sourcing

In today's business environment, sourcing needs to be able to handle fluctuating material prices, increasing risk profiles in global markets, and the need to innovate. Enabled by proprietary solutions such as **Supplier-360**, **our cloud-based platform for supplier management and sourcing**, we transform sourcing to a strategic, value-adding activity while minimizing supply chain risk, improving productivity, and shortening delivery time:

While companies have access to an abundance of data and intelligence, it is often not leveraged effectively, or is acted upon in silos. Genpact's logistics planning solutions help organizations reduce costs and improve speed to market

- **Sourcing optimization.** Through spend analytics, commodity strategies, and sourcing KPI dashboards
- **Procurement market intelligence.** Supplier research and risk assessment, supply market intelligence, commodity price forecasting and category/commodity dossiers
- **Commercial/deflation support.** Optimizing procurement through global sourcing using should-cost analytics for direct commodities, cost-driver analysis for indirect categories, purchase price variance analysis and best-cost country sourcing
- **Supplier relationship management.** 360° performance evaluation through supplier segmentation, supplier performance dashboards, contract KPI management, and supplier consolidation

Manufacturing process optimization

An integrated approach to managing manufacturing processes needs companies to plan for delivery dates, material availability, and real-time manufacturing conditions, especially for multi-national operations. Genpact's manufacturing

process optimization solutions help companies enhance collaboration, and process optimization to improve cost productivity and quality while reducing lead times. Our solutions include:

- **Lead-time reduction** for order to delivery and new-product-introduction processes, driving faster time to market
- **Manufacturing quality** improvement through reduced cost of poor quality (COPQ), and improved first-pass yield using analytics solutions with process and product quality data
- **Manufacturing productivity** enhancement through total productive maintenance programs, layout optimization, and standard work-in-progress implementation to improve material flow, product costing, and cost-driver analysis
- **Manufacturing system optimization** via predictive analytics reliability analysis

Logistics planning

Global footprints, rising fuel costs, high demand volatility, and evolving customer service needs have increased the complexity of material and information flows. While companies have access to an abundance of data and intelligence, it is often not leveraged effectively, or is acted upon in silos. Genpact's logistics planning solutions help organizations reduce costs and improve speed to market:

- **Logistics network design and optimization.** Network visualization, as-is network modeling and calibration, scenario analysis for optimal site selection, and network optimization
- **Transportation network optimization.** Dedicated fleet planning, optimal route planning, load consolidation, and optimizing use of consolidation and deconsolidation hubs
- **Distribution center/warehouse optimization.** Warehouse design and planning, and warehouse process improvement
- **Carrier sourcing analytics.** Optimize costs and service using carrier spend analysis, freight cost optimization, RFX management and analysis, and carrier performance management

Supply chain advisory

Future state design

Supply chain services

| Plan | Source | Make | Deliver |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Demand and inventory | Sourcing and procurement | Manufacturing optimization | Logistics and fulfillment |
| <p>Demand planning</p> <ul style="list-style-type: none"> ▪ Demand data normalization and classification ▪ Baseline forecasting ▪ Demand shaping/intelligence ▪ Consensus forecasting <p>Supply planning</p> <ul style="list-style-type: none"> ▪ Inventory classification ▪ Inventory planning and optimization ▪ Replenishment plan ▪ Procurement plan ▪ Allocation plan <p>Demand and inventory management</p> <ul style="list-style-type: none"> ▪ Material planning ▪ Stock transfers | <p>Strategic sourcing</p> <ul style="list-style-type: none"> ▪ Spend analysis ▪ Commodity research ▪ Should-cost analytics ▪ Supply market intelligence ▪ Supplier risk ▪ Supplier performance <p>Direct/indirect procurement</p> <ul style="list-style-type: none"> ▪ PO management ▪ Material expediting ▪ Contract management ▪ RFX management ▪ E-sourcing | <p>Lead time optimization</p> <ul style="list-style-type: none"> ▪ Plan to deliver <p>Quality</p> <ul style="list-style-type: none"> ▪ COPQ reduction ▪ First pass yield (FPY) improvement ▪ Quality assurance program <p>Productivity</p> <ul style="list-style-type: none"> ▪ Layout optimization ▪ Overall equipment effectiveness (OEE) improvement <p>Manufacturing cost</p> <ul style="list-style-type: none"> ▪ Cost driver analysis and cost model <p>Contract manufacturing</p> <ul style="list-style-type: none"> ▪ Performance management ▪ Invoice and payables processing | <p>Logistics planning</p> <ul style="list-style-type: none"> ▪ Network design and optimization ▪ Transportation optimization ▪ Carrier sourcing analytics <p>Warehouse planning</p> <ul style="list-style-type: none"> ▪ Layout planning and optimization ▪ Resource planning <p>Execution</p> <ul style="list-style-type: none"> ▪ Logistics execution and administration ▪ Returns management and administration ▪ Order management ▪ Customer service |

Technology enabled transformation solutions



Figure 1: Solution portfolio: supply chain management

Supply chain control tower

Improving the supply chain begins with enhancing metrics and reporting to provide the necessary data for performance improvement, and end-to-end visibility of extended supply chains. However, globalization is making it necessary to go beyond the basics to achieve maximum impact. Genpact's

Supply Chain Control Tower solution helps companies control supply chain performance across the plan, source, make, deliver, and return functions through a combination of business process advisory, predictive analytics, collaboration tools, and master data management that enables supply chains to achieve better responsiveness, optimized cost structures, and real-time visibility for action.

Potential impact

| Solution | Potential impact | | |
|-------------------------------------------|-------------------------------------------------|------------------------------------|-----------------------------------------------------|
| Integrated business planning | Improve customer service (15 percentage points) | Reduce inventory levels (25%) | Improve forecast accuracy (15 percentage points) |
| Strategic sourcing | Reduce direct spend (8%) | Reduce sourcing costs (4%) | Improve supplier performance (15 percentage points) |
| Manufacturing process optimization | Reduce manufacturing lead time (20%) | Improve OEE (10 percentage points) | Reduction in COPQ (20%) |
| Logistics planning | Logistics cost savings (12%) | Transportation cost savings (10%) | Improve on-time delivery (18%) |

Delivered impact

High-tech major improves inventory forecasting by 30%

A leading high-tech manufacturer was facing forecasting and demand fulfillment issues due to challenging service level agreements with suppliers, short product cycles, and increasingly global operations. By deploying **IO - Intelligent Planning Platform**, Genpact's proprietary cloud-based integrated planning solution, the company improved forecast accuracy by 30% and reduced finished goods inventory by \$2 million within three quarters.

Company reduced spends with its highest-risk suppliers from 9% of total spend to 5.3% within 18 months

Global pharma major reduces supplier risk by 40%

A global pharmaceutical major with a diverse and growing supplier base wanted to evaluate and monitor its overall supplier ecosystem to gradually reduce its dependence on high-risk suppliers. It used Genpact's proprietary **Supplier-360** technology platform to design and implement a supplier evaluation process with customized checklists and scoring mechanisms. It also established a monitoring process, which ensured regular supplier assessments and more effective supplier relationship management. As a result, the company reduced spends with its highest-risk suppliers from 9% of total spend to 5.3% within 18 months.

About Genpact

Genpact (NYSE: G) stands for “**generating business impact.**” We are a global leader in digitally-powered business process management and services. Our **Lean Digital**SM approach and patented Smart Enterprise ProcessesSM framework reimagine our clients’ operating models end-to-end, including the middle and back offices – to deliver growth, efficiency, and business agility. First as a part of GE and later as an independent company, we have been passionately serving strategic client relationships including approximately one-fifth of the Fortune Global 500, and have grown to over 70,000 people. The resulting domain expertise and experience running complex operations are unique and help us drive choices across technology, analytics, and organizational design.

For additional information, contact, supplychain.analytics@genpact.com and visit www.genpact.com/home/solutions/analytics-research/industrial-manufacturing-and-technical-services/supply-chain-decision-services

Follow Genpact on Twitter, Facebook, LinkedIn, and YouTube.

© 2016 Copyright Genpact. All Rights Reserved.

77088_SO_DrivingSupplyChainExcellenceThrough_US_050216