Performance Management in Supply Chain and Operations – Steering value chain activities towards exceptional performance

Digitalization of supply chains is dramatically changing today’s performance management

Customer focus, product complexity paired with shortened product lifecycles, increasing digitalization, and closer cooperation between partners increase performance management demands on supply chains.

The main drivers behind these developments are customer requirements and new technology, which have already reshaped traditional supply chains.

Customization of products and services, faster deliveries, real-time transparency, global scale, cost competition in fulfillment, and increased sustainability efforts are the result.

The digital transformation of supply chains and big data in supply chain management (SCM) are disrupting established organizations. Sensors and connected devices are being deployed increasingly, e.g., for tracking deliveries and monitoring assets. New technologies encourage process automation and precision in execution, while the exponential growth of data permits first-hand insights with the help of analytics to achieve better management of conflicting supply chain objectives and trade-offs.

As a result, access to analytical insights is no longer limited to executives and supply chain leaders.
Today, materials planners, customer order managers, and also professionals outside supply chain departments can easily prioritize their daily operations by using cross-functional supply chain information.

However, there are two sides to trade-offs. On the one hand, with the help of new technologies, companies can coordinate and manage their entire network better and more efficiently. Analyzing value chain activities to identify performance deviations and irregularities has become easier and is based on more information than in the past.

On the other hand, real-life use cases and the increasing application of Industry 4.0 technologies are transforming supply chains across multiple industries towards digital supply networks. The technology is already there and has hit the ground. It affects all areas of the value chain, the established supply chain and operations processes, and the metrics a company utilizes.

In summary, proven approaches to supply chain performance management need to be rethought to cope with increasing customer requirements, technological advancements, and ongoing challenges in supply chain complexity as well as pressure to increase revenues and profit margins.

Disruption of supply chains by digitalization and new technologies

Traditional Supply Chain

- Make-to-use with 3D Printing
- Analytics/sensor-driven suggested replenishment
- Proactive sensing and quality control

Develop  | Plan   | Source | Make   | Deliver | Support


- Fast deployment with cloud-based technologies
- Product traceability and inventory control
- Manage and monitor product quality information

Digital Supply Networks

- Cost
- Quality
- Speed
- Innovation
- Agility
- Service

Source: Deloitte
The key elements of supply chain management

Supply chains comprise the flow of products, information, and money. How they are managed greatly affects an organization’s competitiveness and profitability. Proper alignment with the business strategy is essential to ensure strong overall performance.

Supply chain performance management is a unified approach to improving the effectiveness and efficiency of all supply chain processes.

Key elements to be considered are:

- Supply Chain Strategy
- Organization
- Planning
- Management, and
- Control Activities

The combination of these elements fills the gap between the business’s decision-makers and IT systems for performance measurement with data structures and reporting tools.

In a nutshell, they are the bridge between strategic directives and successful execution by using available information to steer supply chains from an end-to-end perspective.

The foundation is aligned metrics that drive intended behavior at the management and operational levels. Ultimately, this will create value for both shareholders and customers.

Optimizing the end-to-end value chain with the help of an integrated solution

Source: Deloitte
Optimizing the end-to-end value chain through an integrated solution

Well-managed supply chain processes are an important differentiator in the highly competitive environment of commoditized markets. Supply chain transparency is a key and companies are increasingly developing one-stop-shops for supply chain information and reporting.

Integrated performance management in Supply Chain and Operations focuses on:
•  A common understanding of supply chain objectives and disciplined target-setting
•  Goal-oriented information on target achievements to all relevant stakeholders and the addressing of key messages to executives, managers, and professionals
•  Supply chain transparency by considering and aligning supply chain processes and technology with the organizational structure
•  Aligned and agreed-upon supply chain metrics covering all perspectives in supply chain management and also process performance indicators to enable root cause analyses in the event of deviations
•  Integrated technical solutions for the gathering of information and the distribution of reports covering the full cycle from planning to reporting to intervention
•  A flexible enterprise data warehouse and the adaptability of metrics, reports, and layouts

Current state of supply chain performance management

The purpose of a successful performance management approach is to give a complete and well-balanced view of all relevant supply chain information and underlying activities.

Key performance indicators (KPIs) are intended to structure the desired information in different dimensions such as customer service, costs, and assets. Ideally, KPIs are aligned across the reporting hierarchy levels and are available as required. Further supporting metrics allow deep dives into root causes to identify irregularities. However, for most companies the reality is different.

Many companies have implemented supply chain performance measurement systems solely focusing on a limited number of considerations. Most systems are isolated, static, and with metrics that are backward-looking and often not holistic. Root cause analyses are limited by data aggregation, with the loss of full details, or are simply not possible due to the lack of information. An end-to-end perspective has often not been considered and an integrated performance measurement concept has not been implemented.

Supply chain leaders and the business often face complex reporting landscapes with numerous options to measure and calculate performance. Different KPI definitions as well as specifics in the corporate structure and business processes make it hard to compare overall supply chain outcomes.

Among the reasons may be country-specific regulations or a unique business / supply chain steering logic. This complicates informed decision-making and in some cases results in significant cost to fulfill reporting requirements.

Balanced reporting ensures that trade-offs are transparent and properly managed. KPIs should cascade from strategy to tactics, and to the operational level. Successful organizations enable employees to understand the performance levers they influence and how they affect overall performance.

Standardized processes and metrics are prerequisites for realizing such advanced integration. These include:
•  Planning details throughout the entire Sales and Operations Planning process
•  Customer service levels
•  Accuracy of current inventories
•  Transparency of supply chain costs

The supply chain reporting should provide a balanced view on customers, demand and supply as well as on financials.
Leading performance management solutions utilize joint metrics to ensure the integration of all functions, for example, finished goods inventory is shared between Production and Sales. KPIs might be communicated to key supply chain partners using an overall perspective to optimize the end-to-end value chain and to manage trade-offs. Advanced solutions with dashboards exist that visualize a comprehensive suite of supply chain information at a single glance.

### Maturity levels of performance management in supply chain and operations

<table>
<thead>
<tr>
<th>Emerging</th>
<th>Developing</th>
<th>Defined</th>
<th>Advanced</th>
<th>Leading</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Informal operational performance metrics</td>
<td>• Standardized performance metrics within business units</td>
<td>• Trend analysis of performance measures</td>
<td>• Standardized metrics with formal target-setting process</td>
<td>• Optimized trade-offs in performance measures from conflicting objectives</td>
</tr>
<tr>
<td>• Local functional metrics and functional accountability</td>
<td>• Local functional metrics with shared accountability</td>
<td>• Regional functional metrics with shared accountability</td>
<td>• Regional process and functional metrics with shared accountability</td>
<td>• Global process metrics with shared accountability</td>
</tr>
<tr>
<td>• Executive incentives aligned with functional objectives</td>
<td>• Executive incentives based on regional cross-functional performance</td>
<td>• Executive incentives based on regional cross-functional performance</td>
<td>• Cross-business metrics aligned to support enterprise objectives</td>
<td>• Executive incentives aligned on global cross-functional performance</td>
</tr>
<tr>
<td></td>
<td>• Tools available to track key KPI’s</td>
<td></td>
<td>• Tools available to track key KPI’s</td>
<td>• Targets evaluated formally on a regular basis, and form the basis for continuous improvement</td>
</tr>
</tbody>
</table>

### Developing Supply Chains

Source: Deloitte

Leading supply chain performance management solutions build the bridge from strategic directives to successful execution.
What makes the difference?
Many companies have already implemented a robust supply chain performance management and are steadily improving their capabilities.

New technologies that drive supply chain digitalization are being used increasingly and allow for ad-hoc analyses and predictive analytics as well as improving report visualization.

However, the maturity of these supply chain performance management solutions varies. Leading companies differentiate in four areas.

The four differentiators in supply chain performance management

### #1 Supply chain strategy
- **Steering focus and related supply chain processes**
- **Characteristic measurements and metrics**

### #2 End-to-end processes
- **Integrated business planning and customer centricity**
- **Transparency on inventory and SCM costs**

### #3 Organizational alignment
- **Individual employees reacting are proactive to supply chain challenges**
- **Continuous improvement is encouraged**

### #4 Integrated technology
- **Single source of “clean” supply chain and financial data**
- **Supply chain KPIs are calculated and distributed automatically**

Differentiator #1 – Supply chain strategy sets the direction and defines the steering focus
The foundation for performance management is a company’s supply chain strategy with its unique value proposition to customers, the derived steering focus, and related supply chain processes. Regardless of whether supply chains are response-oriented or configured for efficiency, the strategy defines what and where to measure. Companies that have mastered the challenge of measuring the right areas in their supply chain and that have the right metrics in place can say why those measurements and steering are important for the execution of strategy.

Differentiator #2 – End-to-end processes paired with transparency of inventories and supply chain cost
Integrated business planning drives the alignment of Sales, Operations, and Finance towards the highest possible state. Planning information is coherent and always up-to-date. Supply chain end-to-end processes have been identified, globally harmonized, and sustainably implemented. ERP systems act as the backbone of SCM processes and their outcome, and the performance of the process in execution is accurately measured.

Customer centricity is the key to delivering exceptional performance. KPIs such as perfect order rate, delivery reliability, or delivery capability might be proper metrics for measuring customer service. Naturally, different service levels and business-specifics are considered when overall supply chain performance is evaluated.

Accurate inventory levels, including details on specific batches / serial items, are pivotal for taking meaningful decisions about supply and demand as well as managing working capital. Seamlessly integrated inventory data allow the swift identification of stock level variances and enable detailed root cause analyses in material flow movements.

Supply chain cost might be aggregated and should be available at a cost component level. The focus is often on production, warehousing, freight, and inventories, as
Employees must understand the levers they influence and how it affects overall performance.

these are typically the largest cost components. Leading companies utilize a total landed cost perspective and challenge their actual SCM cost. For example, logistics rebates agreed by Sales are verified by Operations and are objected to if rebate conditions and prerequisites are not met.

**Differentiator #3 – Organizational alignment and clear accountability for metrics**

Leading companies structure their organization according to the principle of customer centricity. The objectives of supply chain organization are clearly defined. By using an established set of SCM KPIs, individual employees are proactively reacting to supply chain challenges and risks.

The complete set of supply chain KPIs, including additional metrics such as process indicators, needs to reflect all relevant performance attributes and should be available to the whole organization. Cascading metrics permit a deep dive into single process measurements and enable more detailed analyses to identify irregularities. Reasonable targets and established thresholds cover all dimensions of supply chain performance. Continuous improvement is encouraged by a performance evaluation process and recurring (cross-functional) feedbacks.

The ownership of performance management systems is typically with the CFO, who forms partnerships with business functions such as Sales and Operations to achieve transparency of the company’s performance.

**Differentiator #4 – Integrated technology and adaptive reporting**

Technology is a key enabler of world class supply chain reporting and performance management. Successful companies operate an enterprise data warehouse that serves as single source of “clean” data for analyses. Source systems ensure consistent data provision in close to real-time with sufficient details to fulfill reporting needs and allow for ad-hoc analyses. External data is collected as required and seamlessly integrated with in-house supply chain information.

Reporting can be described as a centralized data highway with a uniform reporting language which is integrated, cross-functional, and adaptive. A supply chain dashboard application creates a single point of entry and provides an overview of the relevant supply chain metrics over multiple dimensions such as brands, products, locations, customers, and segments.

A solid reporting governance process ensures continuous and automated monitoring. Supply chain KPIs and related process performance indicators are measured and distributed proactively to relevant stakeholders. Predictive algorithms are used for advanced business intelligence and to determine timely corrective actions along the end-to-end supply chain.
Looking ahead – further development of performance management in SCM

Many companies are evaluating the opportunities of new technologies offered by Industry 4.0 and are conducting pilot use cases. Information transparency and the interoperability of machines and people are the key drivers that take supply chains and their performance to the next level.

As a result, supply chain performance management is gradually evolving, due to faster access to information and new ways of gaining insights. Trends with significant impact on how supply chains are managed include:

• Ongoing digitalization of supply chains and resulting exponential growth in data from connected devices, e.g., fleet assets, containers, deliveries, and in-use products

• A shift to real-time data enabled by sensors covering geo-locations and conditions such as temperature and pressure

• New ways of visualizing SCM insights and increasing the use of predictive methods to forecast sales, evaluate maintenance requirements, or detect product quality issues early enough for a proactive mitigation management

• Easier linking of internal supply chain data with external data sources, e.g., traffic and meteorological data for navigating trucks, the status of outsourced processes for enabling full supply chain transparency, or financial information about suppliers for improved supply chain risk management

• Improved analytics capabilities using cloud technologies and in-memory data storage that allow for fast analyses and the processing of large amounts of data

In order to capitalize on trends and improved reporting possibilities, performance management frameworks and reporting systems should be investigated and updated. Given the changes in supply chain management and in customer behavior, it is essential to maintain the right focus on what and where to measure.

Trends in management reporting and key theses of reporting 2020

In an information-enabled supply chain organization, more and more data is available. Deloitte predicts that reporting will advance towards finding the most relevant information in the data jungle by using web mining to quickly react to new events, predictive analytics with sound “what if?” scenarios, and preselected content using artificial intelligence.

Managers’ new working styles will shift reporting towards an always-on state with 24/7 availability. Reporting systems prospectively provide a personalized view and enable target groups of one. When designing reports, neuroscience insights will be increasingly incorporated and design will be no longer based on matters of taste. Automation frees up human time and robotics are being increasingly applied.

Organizational boundaries are gradually being removed through flexible teams, communities, and virtual organizations. This will affect the decision-making process that accelerates through collaboration, interactive discussions in “war rooms”, and a shared performance culture.

Trends for advancing management reporting

Source: Deloitte
Is it time to improve your company’s performance management in supply chain and operations?

Customer expectations and new technologies are transforming supply chain management faster than ever.

Signs of concern are suboptimal overall supply chain performance, inefficient resource allocation, individual targets that are not aligned with strategic objectives, operational managers without clear accountability, or reporting analyses efforts that fail to highlight potential issues in a timely manner.

If one of these symptoms is present, it is time to rethink your company’s performance management capabilities and the approach to measuring and managing supply chains.

**The Deloitte difference**

Deloitte supports companies to drive large-scale transformation initiatives in their supply chains, helps to institutionalize performance management, and enables the organization to steer their value chain activities towards exceptional performance.

With state-of-the-art supply chain performance management – from strategy to processes to technology – Deloitte has gained extensive experience covering a full range of services in performance management as a discipline and in managing value chains from an end-to-end perspective.

Deloitte can help your organization to improve transparency and your ability to manage supply chains and turn insights into action to increase overall performance.

---

### Deloitte’s core services for Performance Management in Supply Chain and Operations

<table>
<thead>
<tr>
<th>Supply chain strategy</th>
<th>End-to-end processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply chain strategy cascading</td>
<td>Performance management diagnosis and benchmarking</td>
</tr>
<tr>
<td>Value driver identification and performance attributes</td>
<td>Supply chain performance improvement</td>
</tr>
<tr>
<td>Supply chain performance metrics and target setting</td>
<td>Steering, reporting and analytics capabilities, processes and policies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organizational alignment</th>
<th>Integrated technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance culture and dialogue</td>
<td>Enterprise data warehouse and reporting system implementation</td>
</tr>
<tr>
<td>Decision rights alignment</td>
<td>Information and data modeling</td>
</tr>
<tr>
<td>Performance incentives alignment</td>
<td>Dashboard and management report design</td>
</tr>
</tbody>
</table>

Source: Deloitte
Your Contacts

Andreas Flegel  
Director, Supply Chain  
Tel: +49 (0)151 5800 5993  
afiegel@deloitte.de

Carsten Wutzler  
Senior Manager, Supply Chain  
Tel: +49 (0)151 5800 4269  
cwutzler@deloitte.de

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee (“DTTL”), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as “Deloitte Global”) does not provide services to clients. Please see www.deloitte.com/de/UeberUns for a more detailed description of DTTL and its member firms.

Deloitte provides audit, risk advisory, tax, financial advisory and consulting services to public and private clients spanning multiple industries; legal advisory services in Germany are provided by Deloitte Legal. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte's more than 244,000 professionals are committed to making an impact that matters.

This communication contains general information only not suitable for addressing the particular circumstances of any individual case and is not intended to be used as a basis for commercial decisions or decisions of any other kind. None of Deloitte Consulting GmbH or Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the “Deloitte network”) is, by means of this communication, rendering professional advice or services. No entity in the Deloitte network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.