KPIs
Measuring for Success

CITT Webinar Series
Date: Wednesday, May 20, 2015
Time: 12 pm EST
Hosted by: Laurie Turnbull, CCLP
Webinar Objectives

• To increase awareness regarding the use of KPIs (key performance indicators) to measure performance
• Illustrate examples for collecting and reporting KPIs
• Highlight the importance of performance measurement in logistics and supply chain management strategy
Why Measure Performance?

• Measuring supplier performance can be an effective process for determining:

  – If there is a strategic fit between your organization’s objectives and your supplier’s capabilities
  – If the services being measured are aligned with your customer’s needs and goals
The Challenge

• “Metrics are critical! We don’t know what the new ones should be, but we need them.”

Supply Chain Management from Vision to Implementation
The Problem:

- Internal stakeholders?
- External stakeholders?
- Tactical KPIs?
- Strategic KPIs?
- Domestic / International?
- Impact of JIT, Six Sigma, Lean?
- Where do I get this information?

What to Measure?
KPIs:

- Confirm what’s going well
- Identify problems areas
- Proactively resolve negative trends
Different KPIs Needed

- KPI measurements of organizational innovation should extend beyond internal metrics to include value chain partners through supply chain mandates

**Logistics KPI Measurement**

<table>
<thead>
<tr>
<th>Level</th>
<th>KPI Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive</td>
<td>Profitability and revenue KPIs</td>
</tr>
<tr>
<td>Tactical</td>
<td>Inventory turns, lead time fulfillment</td>
</tr>
<tr>
<td>Operational</td>
<td>Perfect order, on-time shipments</td>
</tr>
</tbody>
</table>

*Source: Global Business Strategy and Innovation: A Canadian Logistics Perspective*
Performance Measurement at IBM

- IBM had 30 supply chains, one for each business unit
- In 1993 IBM created “Integrated Supply Chain” (ISC)
- By 2003 ISC operations encompassed:
  - 10 manufacturing sites worldwide
  - Global logistics (outsourced)
  - Parts procurement
  - Customer fulfillment/order entry/billing
  - Inventory management and ‘tracking to delivery’
  - Overseeing 19,000 employees in 56 countries
  - $45bn in spending

Source: Supplychainbrain.com
Performance Measurement at IBM

• "It's important that different functions not get mesmerized by their own internal metrics...put customer value first and stay focused on end-to-end processes”

• "We added new (metrics) that tie the entire supply chain together with common goals and objectives, such as improvements in customer service or cash generated..."

_Sal Calta, ISC Vice President of Worldwide Manufacturing_

Source: Supplychainbrain.com
Performance Measurement at IBM

- ISC has returned tremendous benefit to IBM and its customers; based on 2005 numbers:
  - Inventory was the lowest it has been in 30 years
  - Cycle time performance was up 6%
  - Overall customer satisfaction was up more than 1%
  - Sales productivity was up 25%
  - Achieved $6bn in cost and expense savings

Source: Supplychainbrain.com
### Traditional Measurement Categories

<table>
<thead>
<tr>
<th>3 Areas of supply chain management:</th>
<th>Measured in 5 performance areas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Purchasing</td>
<td>• Asset management</td>
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<tr>
<td>• Production</td>
<td>• Cost</td>
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<tr>
<td>• Logistics</td>
<td>• Customer service</td>
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<td></td>
<td>• Productivity</td>
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<td>• Quality</td>
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Source: Fawcett, S.E., Ellram, L.M. & Ogden, J.A.: Supply Chain Management from Vision to Implementation
## Common Performance Measures

<table>
<thead>
<tr>
<th>(Excerpt)</th>
<th>Asset Management</th>
<th>Cost</th>
<th>Customer Service</th>
<th>Productivity</th>
<th>Quality</th>
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<tbody>
<tr>
<td>Logistics</td>
<td>Inventory turns</td>
<td>Total landed</td>
<td>On-time delivery</td>
<td>Order</td>
<td>Damage frequency</td>
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<tr>
<td></td>
<td></td>
<td>cost</td>
<td></td>
<td>productivity</td>
<td></td>
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<tr>
<td>Return on</td>
<td>Outbound freight</td>
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<td>Order cycle time</td>
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<td>Picking / Shipping</td>
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<td>assets</td>
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<td>accuracy</td>
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</tbody>
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Source: Fawcett, S.E., Ellram, L.M. & Ogden, J.A.: Supply Chain Management from Vision to Implementation
KPIs Contribute to Competitive Advantage

Can Apply To:
- Transportation
- Warehousing
- Customer Service
- Inventory
- Customs Clearance

Can Be Measured In:
- Units (i.e. materials, time)
- %
- Financial metrics
KPI Roadmap

1. What to measure
2. Why to measure it
3. How you will quantify it
4. How often you will measure it
5. What data sources you will use
6. Who you will share it with
7. What changes to make once data is collected:
   - No change
   - Reward suppliers
   - Punitive actions
8. How you will communicate information to stakeholders
KPI Alignment

- Low Cost
- Hybrid
- Differentiation (Service)

Effective KPIs Align With Strategy

Effective Strategy Aligns With Customer Needs
FED EX Express Strategy

- “… plan to improve profitability … and secure the long-term viability of our business …”

- Through five initiatives:
  - Improve efficiency of staff functions and processes
  - Modernize fleet with more fuel-efficient aircraft
  - Improve U.S. domestic pickup and delivery operations
  - Improve international profitability through diversification
  - Target customer segments for improved yield

KPIs Support Strategy at FED EX

- Fed EX surveys customers on customer loyalty:
  
  1. How satisfied you are
  2. How likely you are to do business with FedEx
  3. Most importantly, how likely you are to recommend FedEx

“At Walmart, we’re guided by our financial priorities – growth, leverage and returns”

Growth
- Focus on sales

Leverage
- Grow operating expenses slower than net sales

Returns
- ROI on assets
- Manage working capital through free cash flow

KPIs Support Strategy at Walmart

- Customer surveys ask:
- Did you find and buy everything you needed on this trip?
- How satisfied were you with the experience?
- How likely would you be to recommend Walmart?
- How likely are you to continue shopping at Walmart?

http://survey.Walmart.ca
Why KPIs are Important in Global Trade

“One out of every two containers is late”

- Eivind Kolding, Maersk Line CEO, 2011
Global Top 10 Carrier Performance*
Ranking – January 2015

<table>
<thead>
<tr>
<th>Carrier</th>
<th>60%</th>
<th>65%</th>
<th>70%</th>
<th>75%</th>
<th>80%</th>
<th>85%</th>
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<tr>
<td>Maersk Line</td>
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*Based on schedule reliability and container delivery reliability

Source: SeaIntel Maritime Analysis
Why KPIs are Important in Global Trade

Panama Canal
Suez Canal
Strait of Malacca
Logistics KPIs (Transportation)

**TACTICAL**
- On-time performance
- On-time pickup
- On-time delivery
- Equipment availability
- Claims (Damage/Loss)
- Invoicing accuracy

**STRATEGIC**
- E-commerce
- Sustainability
- Innovation
- Quality programmes
- Continuous improvement
Developing Supplier Scorecards

- Identify an objective for scorecards
  - Maintain / improve existing business
  - Reduce number of suppliers

- Determine relevant factors (consult with internal stakeholders as well as customers)
  - Determine “weight” of relevant factors

- Communicate results to suppliers regularly
# Weighted Scorecards

<table>
<thead>
<tr>
<th>Category</th>
<th>% Weight</th>
<th>Supplier #1</th>
<th>Supplier #2</th>
<th>Supplier #3</th>
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<tbody>
<tr>
<td>On-time pickup</td>
<td></td>
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<tr>
<td>➢ 98% = 10</td>
<td>25%</td>
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<tr>
<td>On-time delivery</td>
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<td>➢ 98% = 15</td>
<td>50%</td>
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<td>Claims</td>
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<tr>
<td>0 = 5</td>
<td>10%</td>
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<tr>
<td>Invoicing accuracy</td>
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<td>100% = 5</td>
<td>10%</td>
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<td>Attends monthly meetings</td>
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<td>Y = 5</td>
<td>5%</td>
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KPIs Need Data!
Globalization & Supply Chain KPIs

- Reliability
- Consistency
- Flexibility / Agility / Visibility

KPIs Contribute to COMPETITIVE ADVANTAGE