

The Case for Supply Chain Metrics

RAPID Conference – May 2017

Bill Speroni – Buyer Leader
Arizona Public Service Co



Metric-Driven Performance

- Objective of Metrics
- Examples of Business Needs
- Successful Metrics
- Benchmarking
- Examples

Objective of a Metric

- Addressing Business Needs
 - Problem that needs solving
 - Preventing a business problem
 - Proving adherence to regulations
 - Performance that needs to be maintained (KRA, KPI, SLA)
- Is the Metric forward looking?
 - Measuring to address future goals, indicators, and behaviors

Examples of Business Needs

- Cost control/management
- Compliance with rules and regulations (internal and external)
- Workload management
- Customer Support and Customer Behavior
- Performance (ours, supplier, BU) / Efficiencies
- Support Continuous Improvement initiatives
- Validate key decisions or adjust on results
- Develop lessons learned
- Anticipate future status based on current behaviors and trends

Successful Metrics

What. Who. When. Where. How.

- Meaningful Data
- The Importance of Accuracy
- Method and Tools
- Contrasting Data
- Check and Adjust

Benchmarking

- Many sources and associations available:
 - Other Utilities
 - UPMG
 - UMMBC
 - NSCSL
 - CAPS Research / ISM
 - EPRI

Examples



Example SCM Performance

SCM Operations Performance

Metric / KPI	Target	CM	FM	STD	Tier	Comments
Capital Budget Adherence						If budget structured as such for utility, normally measures SCM ability to meet a capital budget predetermined by the BU, measured as an absolute value
As projected in Forecasts						
O&M Budget Adherence						If budget structured as such for utility, normally measures SCM ability to meet a O&M budget predetermined by the BU, measured as an absolute value
As projected in Forecasts						
Savings Achieved (as percentage of total spend)						Measures the negotiation performance of SCM. Roll up to Tier 1 or 2 of Company's Business Plan
Supplier Relationship Management (SRM)						
Value Added (Quotes)						
Annualized (Negotiations)						
Payment Terms and Discounts						Shows SCM's ability to negotiate favorable payment terms, specifically those that may result in discounts
Percentage of Discounts Available / Dollar Spent						
Percentage of Discounts Obtained / Available						
Net 45 or better Compliance						
Invoices Paid on time						SCM's ability to address issues and pay for services rendered or material received. Affected by Supplier's, Stores, and A/P performances
Percentage of total invoices						
Percentage of total dollars						
Efficiencies /Effectiveness - Automation						Measure of effectiveness addressing SCM's reduction of time spent on repetitive and low value transactions
PR2PO Cycle Time						
Average Cost of Order (AVG Value per PO)						
Percent of Inventory Releases Automated						
Percent of Orders pre-priced (on contracts)						
Percent of Orders auto released/B2B						
Percent of Invoices auto received/B2B						
Percent of Payments via Wire or ACH						

Example Online/Outage Performance

Outage / On Line Support and Preparation						
Metric / KPI	Target	CM	FM	STD	Tier	Comments
Outage Material Requests						Compares number of material requests from previous outages to next one representing preparedness
Material Requested vs. Historical by Milestone						
Outage Coverage						Measures compliance with EPRI rules for outage work (all ready by M-1 or better)
Material Available by M-1 (T-4)						
Outage Purchase Requests						Compares number of service requests from previous outages to next one representing preparedness
Requests Submitted vs. Historical by Milestone						
Requests Placed on Contracts by Mx (define milestone)						
On-Line Support						Indicates percentage of preparedness by T-Week, normally increasing goal as T-Week progresses (i.e. 90% T-8, 95% T-4, 99% T-1)
Percent of Coverage by T-Week						

Example Category MGMT Performance

SCM Category Management Performance						
Metric / KPI	Target	CM	FM	STD	Tier	Comments
Adherence to Initiatives						For organizations structured as such, measures the percentage of orders issued to suppliers with which initiatives were created, vs. non-key suppliers
Percentage of Committed Dollars under Strategic Initiatives						
Percentage of Committed Dollars not under Strategic Initiatives						
Percentage of Purchases via Blankets						
Percentage of Purchases via P-Cards						
Percentage of Orders Issued to Sole/Single Source and OEM						
Average Value of Sole/Single Source Orders						
Adherence to Phase Gate Process						
Supplier Management						Determines the effectiveness of initiatives to reduce suppliers and/or push purchases to initiatives
Number of SRM Projects/Initiatives						
Supplier Reduction/Consolidation Initiatives						
Negotiation Blocks (Redlines / Pushback)						
Fuels Cost Management						

Example Inventory Performance

Inventory						
Metric / KPI	Target	CM	FM	STD	Tier	Comments
Inventory Value						Normally represented in dollars by business type, and/or by location
Inventory Turns						Measures health of inventory population (at a-b-c levels)
Slow/no-move Inventory Value (excludes Critical Spares)						Used to identify potential reduction
Critical Spares Coverage						Percentage of CS with inventory
Critical Spares Value / Total Inventory						Value or QTY of CS vs. total inventory, industry average is 7-10%
Inventory / MW Generation						Measures inventory value against plant's generation potential
Inventory / Transmission/Distribution Miles						Measures inventory value against BU T&D miles
Material Availability (Shared with Stores)						Percentage of MRs covered by inventory

Example Warehouse Performance

Warehousing						
Metric / KPI	Target	CM	FM	STD	Tier	Comments
Cycle Times						Speed of Stores to either put away or issue materials; contributes to Material Availability goals; represented as average of days
Dock to Stock						
Stock to Issue						
Restock Queue						Measures percentage of material returned either as excess, discrepant, repairs, etc.
Restock Value or Percent of Issues						
Restocking cycle times						
Cycle Count						Measured to show compliance with SOX requirements
Percent Available						
Material Availability (Shared with Procurement)						
Inventory Accuracy						
Cycle Counts over \$10K						
Cycle Counts Behind (SOX)						

Example Supplier Performance

Supplier Performance						
Metric / KPI	Target	CM	FM	STD	Tier	Comments
PO Delivery						For receivable orders, compares the date of receipt against the order ETA
Lots on Time						
Lots Late						
Percent of Damage						
Percent of Overage / Shortages						
Percent of Discrepancies						
Pricing						Counts times an order had to be amended for pricing to correct quoting issues, or unexpected pricing changes (pre-post shipping)
Percent of Pricing Issues / PO lines ordered						
Discrepant Rates Billed (T&M)						
Number of Revisions to Fixed-Price Contract						
Rental Rates Adherence / PO lines ordered						
Performance						Normally subjective indicators provided by BU work managers analyzing the effectiveness of work performance by supplier
Work Scope Adherence						
Schedule Adherence						
Safety Adherence						
Quality / Workmanship						
Closure Performance (DRG Redline Submittals, Lien Releases)						
Worker Qualification						

Example Business Unit Performance

Business Unit Performance						
Metric / KPI	Target	CM	FM	STD	Tier	Comments
Work Planning						BU ability to plan their work affecting SCM performance, by submitting requests on time
SOW Quality						
PR Submittal						
Material Request Submittal - Planning Efficiency						
Bids						BU participation in bid events, also measures quality of work
Package Development						
Number of Sole Sources Requested / Total PO Lines						
Average Sole Source Value						
Post Award Supplier Management						Measures BU effectiveness in managing contracts generated by SCM with regards to milestone adherence, cost control, closure process
Work Management (Field)						
Invoice Approval / Cost Management						
Closure Notifications						

Example Company Performance

Company Performance						
Metric / KPI	Target	CM	FM	STD	Tier	Comments
Generation						Indirect indicators showing Generation BU effectiveness affected by SCM performance. Normally measured by location or plant
Capacity Factor						
Commercial Availability Factor						
Schedule Adherence						
Non-Fuel Cost / Megawatt						
Seasonal Readiness (stock coverage)						
T&D						Indirect indicators showing T&D BU effectiveness affected by SCM performance. Normally measured by areas of control (Construction, Maintenance, etc.)
Construction Schedule Adherence						
Storm Impact / Lines Replaced Rates						
Cost of Transmitted / Distributed Megawatt						
Seasonal Readiness (stock coverage)						

Example RAPID Performance

RAPID Performance						
Metric / KPI	Target	CM	FM	STD	Tier	Comments
Purchases						Measures the adherence to the program as well as solutions provided by employing RAPID
Dollars Purchased from RAPID						
Number of RAPID Orders						
Estimated RAPID Savings						
Sales						Measures impact to inventory (both positive or otherwise) resulting from RAPID requests by outside entities
Dollars Sold through RAPID						
Number of RAPID Sales						
Reduction of Inventory due to RAPID						

Others

Others Measured

Metric / KPI	Target	CM	FM	STD	Tier	Comments
Procurement Operations						
1						
2						
3						
4						
Stores						
1						
2						
3						
4						
Strategic Procurement						
1						
2						
3						
4						
Supplier Performance						
1						
2						
3						
4						
BU Performance						
1						
2						
3						
4						
Company Performance						
1						
2						
3						
4						

Worksheet



Microsoft Excel Worksheet