



Purchasing Input Perfect Storm

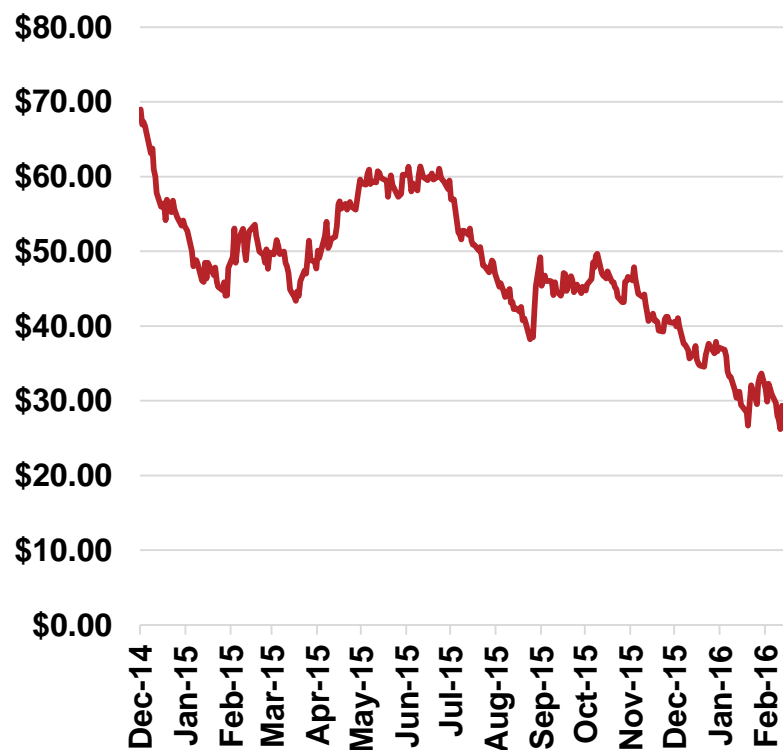
February 2016

Cost &
Capital

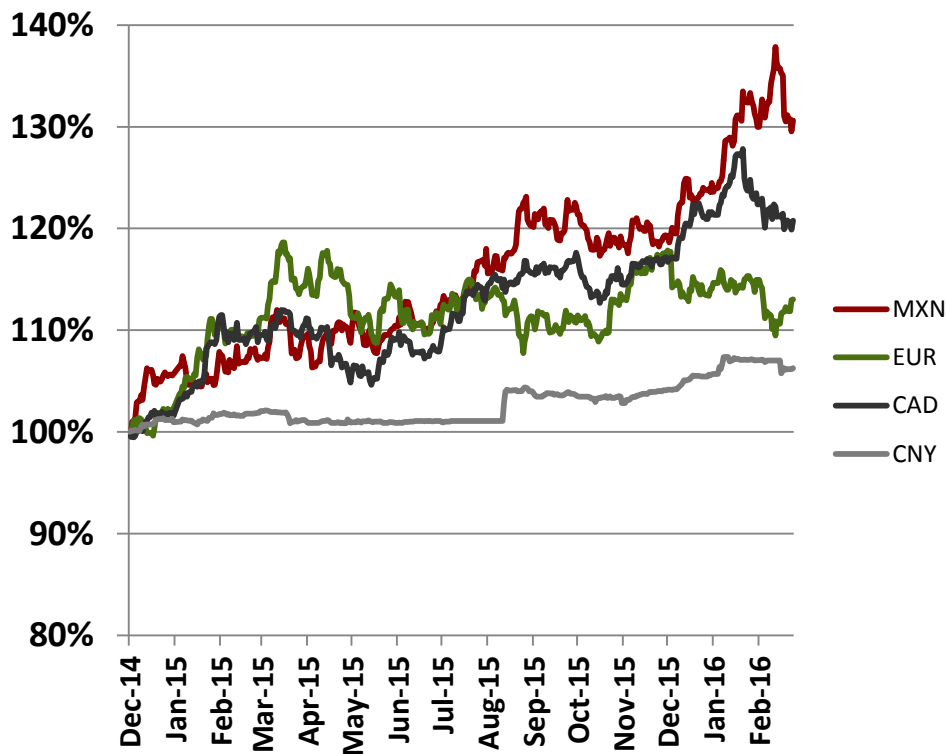
Executive Summary

The unprecedented decline in raw materials and the strength of the US Dollar created an environment of lower costs for many producers

WTI Spot Price \$/bbl.



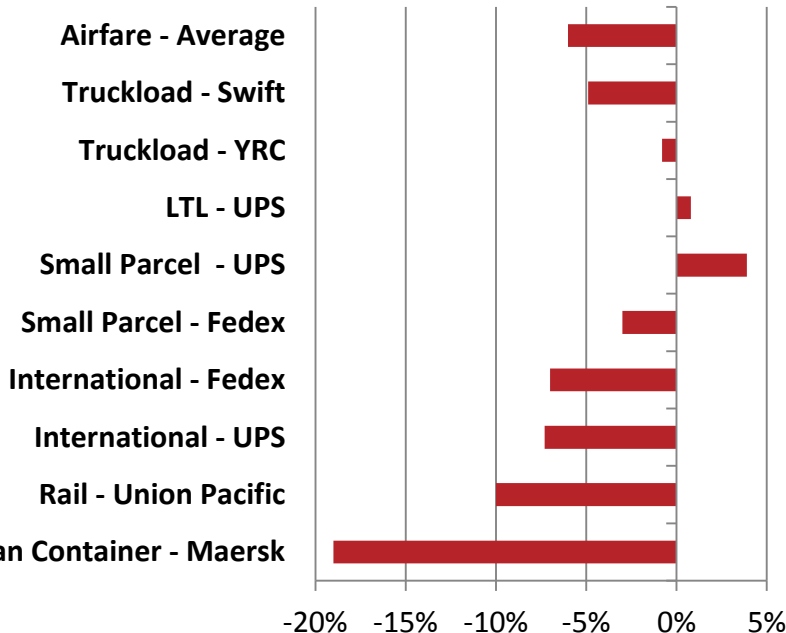
USD Currency Strength



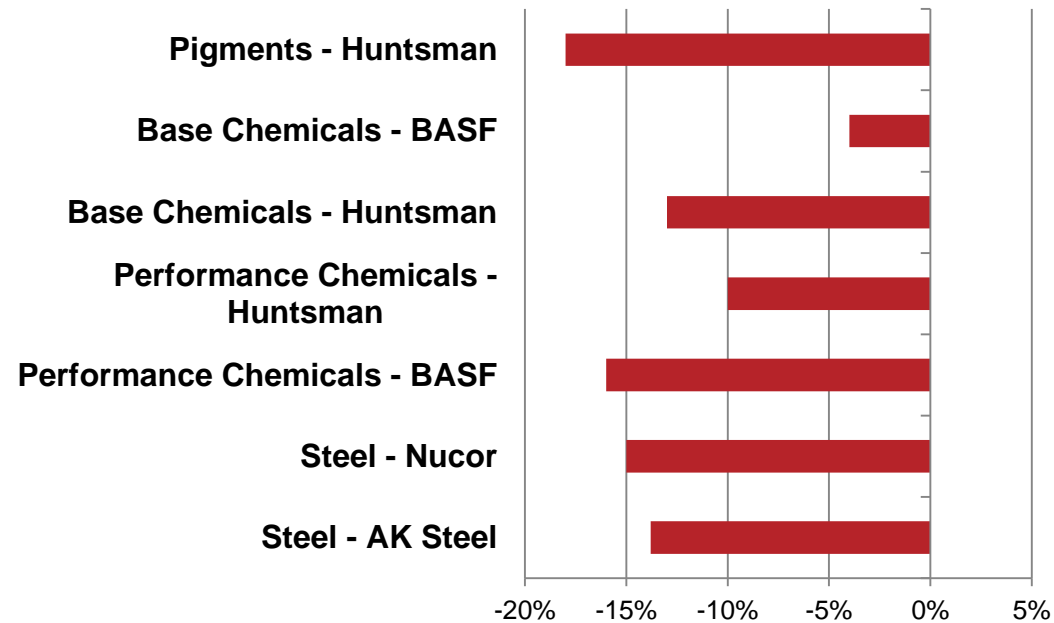
Reported year over year price changes

In financial reports, producers mostly reported lower net pricing.

Freight



Raw Materials



Capturing the Savings

Execution of sourcing tools will maximize the benefit of the current environment.

A well structured plan of attack will help ensure targets are met.

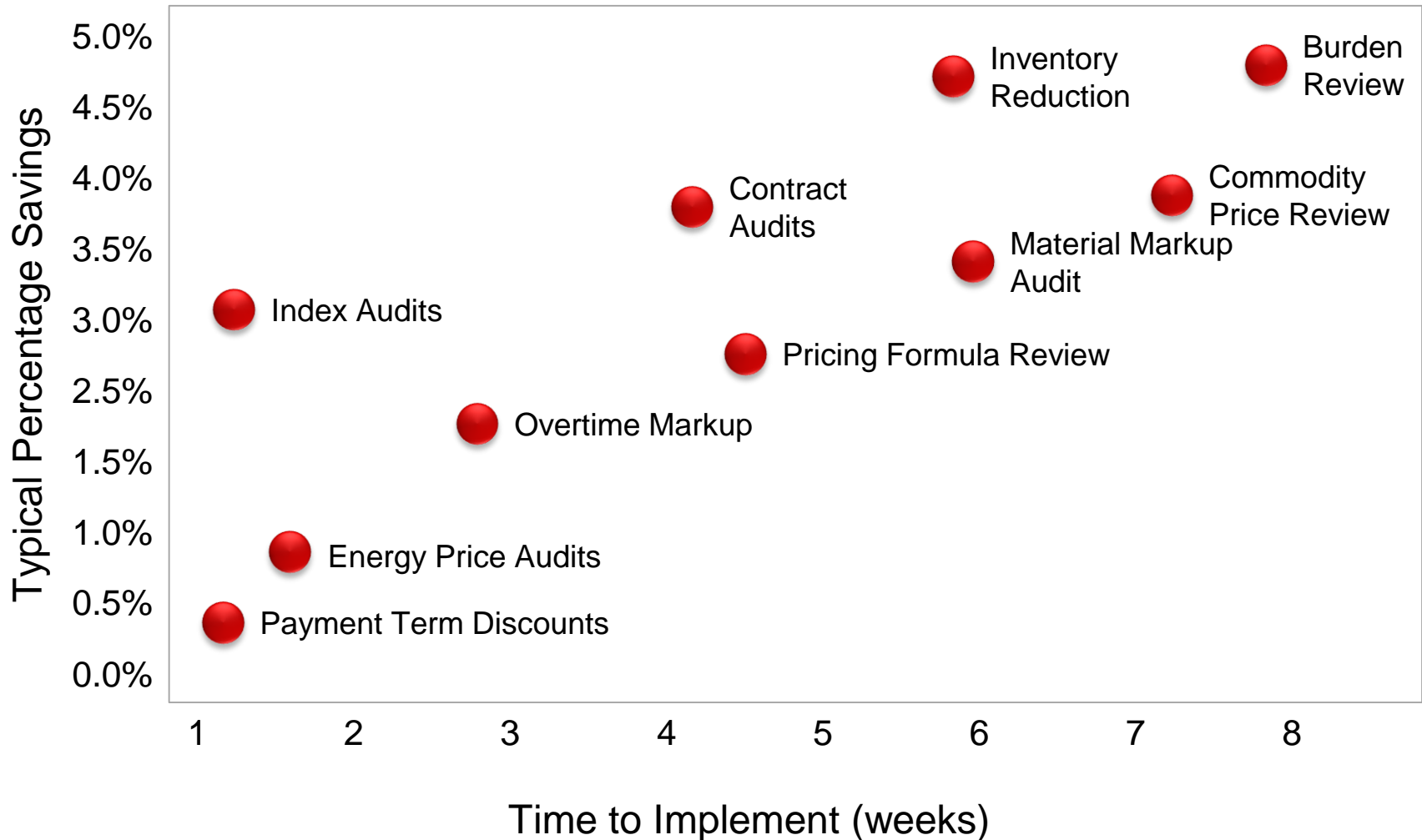
- **Identification** – A systematic approach will ensure savings opportunities are identified, tracked and achieved in a timely manner.
- **Initiatives** – The correct tool will depend on each category's cost structure and supply base.
- **Prioritization** – Budget closure initiatives must be reviewed for their ability to deliver measurable savings within a short timeframe.
- **Measurement** – Savings activities should be closely tied to existing internal and external metrics.
- **Execution** – Each initiative must be quantified and assigned clear actions that can be reviewed on a regular basis.

Gap Closure Initiatives

#	Initiative	Description
1	Commodity Price Review	Ensure declining market prices are reflected in contract price
2	Contract Audit	Validate that POs match terms and discounts are applied
3	Energy Pricing	Identify savings generated from shifts in the energy market
4	Index Audit	Find overcharges and inaccurate index correlations
5	Inventory Reduction	Review existing inventory and potential to delay purchases
6	Material & Labor Markup Audit	Eliminate excessive supplier markups on materials and labor
7	Overtime Markup Review	Ensure overtime multipliers are below 1.5x for loaded labor
8	Payment Term Discounts	Leverage early payment discounts offered by suppliers
9	Pricing Formula Review	Update price formulas to align with current market conditions
10	Burden Review/ Plant Visit	Eliminate supplier overcharges on depreciated assets and ensure proper labor charges by conducting a plant audit

Initiative Expectations

Budget closure initiatives must be reviewed for their ability to deliver measurable savings within a short timeframe



Gap Closure Initiatives by Category

The correct tool depends on the cost structure and supply base

	Common Categories	Commodity Price Review	Contract Audit	Energy Pricing	Index Audit	Inventory Reduction	Material/Labor Markup Audit	Overtime Markup Review	Payment Term Discount	Pricing Formula Review	Burden Review
Direct	Diesel										
	Resin										
	Metals										
	Glass										
	Batteries										
	Wiring										
	Castings										
	Inj Molding										
	Stampings										
	Textiles										
Indirect	Temp Labor										
	Services										
	Telecom/ IT										
	Packaging										
	Logistics										
	Travel										

Approach

A systematic approach will ensure savings opportunities are identified, tracked and achieved in a timely manner



Commodity Price Review

Ensure declining market prices are reflected in contract price

Approach

- Data specific to a supplier is most accurate, but macro level data can be useful as a starting point
- A cost breakdown must be developed to determine each raw material's respective portion of a component's total cost
- Volatile commodities should be prioritized
- Review changes in volume that have increased a supplier's buying power
- Identify savings supplier receives from scrap resale
- Use available data to set target prices and calculate the opportunity for improvement over time
- Common sources for commodity data include LME, CRU, AMM and EIA

What to Expect

- **Ideal Situation:** Components with a high percentage of material cost. Contracts that have not been reviewed in the past year.
- **Time to Conduct Study:** 2-3 days
- **Time to Negotiate:** 2-5 weeks
- **Potential Savings:** 3%-15%

Recent project work

Steel

Steel market study and negotiations resulting in 5% savings in 6 weeks.

Aluminum

Assessed proposed pricing increase compared to external market data and efficiency rebates resulting in 6% savings in 1 week.

Diesel

Created a process and value chain to arbitrage regional diesel price variance resulting in 2% savings in 7 weeks.

Contract Audit

Validate that POs match terms and discounts are applied

Approach

- Several areas should be reviewed for savings opportunities when conducting a contract audit
 - Expiration date
 - Volume commitments/ savings
 - Escalators and de-escalators
 - Annual savings targets
 - Savings sharing clauses
 - Commercial KPIs
- Contracts with volume commitments and pricing escalators should be prioritized
- POs should be compared to contracts to ensure pricing is consistent with agreed upon terms
- Penalties for quality and lead time should be enforced

What to Expect

- **Ideal Situation:** Suppliers with detailed pricing conditions in their contracts that may not have been followed. Contracts that have not been reviewed in the past year.
- **Time to Conduct Study:** 2 hours per contract
- **Time to Negotiate:** 1-5 weeks
- **Potential Savings:** 2-20%

Recent project work

Diesel Fuel

Contract audit to identify alternate suppliers and verify volume commitments resulting in 2% savings in 7 weeks.

Maintenance

Audit of contract rates vs. invoices resulting in 10% savings in 7 weeks.

Engineering Services

Reviewed billing history for service provider travel and materials to deliver 45% savings on assessed travel costs.

Energy Pricing

Identify savings generated from shifts in the energy market

Approach

- Determine energy's percentage of key categories' respective cost
- Identify suppliers' energy sources by location (i.e. power plant energy source)
 - Natural gas
 - Coal
 - Petroleum
 - Renewable
- Review if energy sources have changed over the past year (e.g. coal to natural gas)
- Engage suppliers to recover energy savings that have not been shared

What to Expect

- **Ideal Situation:** Components that require high amounts of energy to produce. Components produced in plants that may be powered by natural gas.
- **Time to Conduct Study:** 3 days
- **Time to Negotiate:** 2 weeks
- **Potential Savings:** 1-5%

Recent project work

Die Casting

Audited Chinese die casting supplier's 10% price increase request due to higher utility and energy costs – audited the energy costs and established lower should cost resulting in a 6% price reduction.

Chemicals

Audited energy and input commodity costs for a chemicals supplier to generate over \$1 million (5% annual savings).

Index Audit

Find overcharges and inaccurate index correlations

Approach

- Identify components that are tied to an index
- Compare the index's definition to best practice (i.e. indices should represent cost elements for providing a particular product or service, rather than for the product itself)
- Indexing should be used in cases where suppliers are exposed to dramatic and unpredictable changes in cost
- In cases where indexing is warranted, only the costs should be indexed, not the selling price
- Changes in price must work both ways— if the price can go up due to an index it must also go down if the index declines
- General CPI should be avoided

What to Expect

- **Ideal Situation:** Contracts tied to any general price index.
- **Time to Conduct Study:** 4 hours per contract
- **Time to Negotiate:** 1 week
- **Potential Savings:** 2-10%

Recent project work

Construction Materials

Contractual index review for crushed stones identified the incorrect index was being tracked resulting in 3% savings in 1 week.

Manual Labor

Realignment of index to match BLS standards resulted in 4% savings in 7 weeks.

Inventory Reduction

Review existing inventory and potential to delay purchases

Approach

- Required levels of inventory are primarily driven by lead time, forecast accuracy, SKU variation and service levels
- Identify days on hand for high cost and high volume SKUs
- Identify if inaccurate forecasting between the buyer and supplier is driving high inventory
- Inappropriately high safety stocks may have been set due to past stock outs
- Examine order history to identify process deficiencies that lead to high inventories
- Mapping component value chains identifies the physical movement and drivers of high inventory
- Set cost targets based on ideal state and engage suppliers to shift production if feasible

What to Expect

- **Ideal Situation:** Component whose inventory has not been recently reviewed and may exceed appropriate safety stock levels.
- **Time to Conduct Study:** 2 weeks
- **Time to Negotiate:** 3 weeks internal, 1 week external
- **Potential Savings:** Up to 100% in the near term if parts are not needed

Recent project work

Automotive Components

Two week SKU velocity study identified 50 part numbers with over one year of inventory enabling 250 kUSD in purchases to be delayed.

Construction Components

Initiated postponement strategy creating potential for inventory and lead time reduction.

Diesel

Audited inventory levels and supply agreements in 7 weeks to eliminate over-buying habits delaying 15 MUSD quarterly purchase.

Material and Labor Markup Audit

Eliminate excessive supplier markups on materials and labor

Approach

- Perform cost breakdown for markup portion of component or service's cost (if no cost breakdown exists, develop "should cost" models internally)
 - SUTA/ FUTA
 - Benefits
 - Employee screening
 - Transportation
 - SG&A
 - Profit
- Benchmark cost components across suppliers within similar regions to identify outliers
- Identify inconsistencies in requirements across departments (e.g. drug screening, background checks)
- Fact based negotiation templates should be developed to address any gaps

What to Expect

- **Ideal Situation:** Labor and materials whose markups are not justified with detailed cost breakdowns. Contracts that were originally negotiated by outside groups (e.g. HR for temp labor)
- **Time to Conduct Study:** 2 weeks
- **Time to Negotiate:** 2-3 weeks
- **Potential Savings:** 2-30%

Recent project work

Contingent Labor

Contingent Labor markup review leveraging detailed cost models and supplier consolidation resulting in 8% savings in 4 weeks.

Engineering Services

Contracted Services RFQ and negotiations resulting in 28% savings in 10 weeks.

Technical Labor

Contingent Labor markup benchmark, RFQ and negotiations resulting in 11% savings in 8 weeks.

Overtime Markup Review

Ensure overtime multipliers are below 1.5x for loaded labor

Approach



- Review contracts and invoices that include overtime rates
- Identify if overtime multiplier is applied to fully loaded labor costs (i.e. labor rates that include social costs, SG&A and Profit)
- In the US, overtime multipliers applied to fully loaded labor should be 1.38-1.43
- Review suppliers' recent charges and identify overcharges that may be reimbursed

What to Expect

- **Ideal Situation:** Any overtime rate of 1.5 times loaded regular time or more. Components produced on lines with more than 10% overtime.
- **Time to Conduct Study:** 1 week
- **Time to Negotiate:** 1-2 weeks
- **Potential Savings:** 3-12%

Recent project work

Engineering Services

Benchmark and markup review of contracted services resulting in 4% savings in 6 weeks.

Contingent Labor

Cost modeling for contingent labor resulting in 8% savings in 4 weeks.

Engine Component

Plant visit and labor study resulting in 6% savings in 7 weeks.

Payment Term Discounts

Leverage early payment discounts offered by suppliers

Approach

- Early payment discounts challenge sourcing and accounts payable to determine when a discount is in the best interest of the company
- The business case depends on the size of the discount, the number of days the payment is accelerated and the organization's cost of capital
- The treasury department should be engaged to determine the organization's cost of capital
- Supplier surveys can be distributed to determine how many suppliers are willing to offer discounts in exchange for faster payment

What to Expect

- **Ideal Situation:** Contracts that already have payment term discounts in place. Suppliers that are willing to provide discounts for early payment.
- **Time to Conduct Study:** 2 weeks (if survey is conducted)
- **Time to Negotiate:** 1 week
- **Potential Savings:** 1-3%

Recent project work

Mechanical Components

Supplier survey and payment term analysis resulting in 2% savings in 3 weeks.

Pricing Formula Review

Update price formulas to align with current market conditions

Approach

- Identify contracts tied to pricing formulas
- Verify via an invoice audit that pricing formulas are being followed
- Ensure that inputs to pricing formula are still accurate (e.g. energy or labor indices)
- Verify that pricing formula allows for reduction in pricing (i.e. one way escalation formulas must be eliminated)
- Identify if supplier has changed sub-suppliers and potential impact on pricing formulas

What to Expect

- **Ideal Situation:** Contracts with specific formulas for pricing that have not been reviewed in the past two quarters.
- **Time to Conduct Study:** 1 week
- **Time to Negotiate:** 2-3 weeks
- **Potential Savings:** 3-15%

Recent project work

Aluminum Extrusions

Audited pricing formulas for aluminum formed products and recycling costs.

Steel

Audited steel pricing formulas based on iron ore and coking coal to negotiate on cost drivers.

Burden Review/ Plant Visit

Eliminate supplier overcharges on depreciated assets and ensure proper labor charges by conducting a plant audit

Approach

- Visits should be coordinated with the supplier's engineering department as they will be most knowledgeable and open about operations
- Suppliers typically post key production metrics in their facility (e.g. equipment uptime, scrap cost, overtime hours, run rate, equipment utilization) which should be noted to challenge current pricing
- Allocating direct cost is a simple matter of counting and asking the right questions during the plant tour
- Allocating indirect costs is more difficult, but several key rules can help build a fair cost model (e.g. identify your company's share of the supplier's revenue and square footage to ensure fair allocation)

What to Expect

- **Ideal Situation:** Manufactured components of which fixed assets account for a significant portion of total cost. Also appropriate for situations where parts cannot be rapidly moved from one supplier to another.
- **Time to Conduct Study:** 3-4 Days
- **Time to Negotiate:** 3-4 Weeks
- **Potential Savings:** 5-20%

Recent project work

Automotive Components

Review of engine component supplier resulting in 20% savings achieved within 8 weeks.

Formed Metal

Review of roll-form operation resulted in 10% savings within 5 weeks.

Construction Materials

Review of concrete tie supplier resulting in 3% savings within 2 weeks.

Savings Reporting and Scorecards

Savings activities should be closely tied to existing internal and external metrics

- Savings metrics should exist for all internal and external stakeholders
- Stakeholders outside of sourcing such as suppliers and engineering should be involved upfront to help eliminate roadblocks
- Resources should be assigned to initiatives that will have the largest impact on the organization (i.e. cross departmental support may be needed)
- Savings should be tracked and results shared on a regular basis with all stakeholders

Group	Savings	Quality	Lead Time/ Forecast	VAVE
Buyer	Quarterly Review			
Category	Annual Target			
Supplier	Quarterly Review			
Engineering	Annual Target	Quarterly Review		Annual Target

Sample Report-out Format

Each initiative is quantified and assigned actions to be reviewed regularly.

Owner		
Component		
Idea Description:		
Implementation:	Validation (weeks):	
	Resources (FTEs, departments):	
	Costs of change:	
	Potential roadblocks:	
	Buy-in required from:	
	Estimated Implementation Date:	
Estimated savings impact FY16:		
Estimated savings impact FY17:		
Next Steps	Responsible	Deadline

Cost & Capital

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