Collaborative Cost Management
A New Basis for Understanding and Controlling Costs

by Harsha Koushik
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While many positive indicators point to an upturn in the global economy, business leaders around the world are still concerned about economic uncertainty. A bout of disappointing economic data, including news of catastrophic natural disasters and rising public deficit, play to these feelings of doubt in the robustness of economic recovery. Crowded marketplace, spiraling commodity prices, uncertain regulatory environment, macro-economic gyrations (think quantitative easing), sustainability mandates, off-shoring calculus, globalization and currency fluctuations are among a long list of drivers bringing strategic cost management to the forefront of issues faced by organizations worldwide, for years to come. To overcome the undertow of today’s market, organizations cannot confine their efforts to operating cost reduction. They must also deliver and create sustained value. Collaborative cost management (CCM) is a well-rounded approach that enables supply chain improvements that achieve these important levers, helping companies stay ahead of the competition.

Where Organizations Fall Short in Cost Control

Large OEMs, especially in the West, have spoken of their CFOs delivering on cost control initiatives for years now, so the easily-accessible opportunities have already been exploited. In fact most organizations survived the downturn by reaping a harvest of low-hanging fruits such as simple policy changes or travel restrictions. While those cuts proved effective in helping most companies meet short-term targets, most of those savings have already eroded, or will with time. In interviews, executives reported that a bulk of recessionary cost cuts were already being offset by increasing prices. Prior experience demonstrates that less than 15 percent of cost reductions prove sustainable just three to five years later.

Organizations undertook these belt-tightening measures predominantly to weather sluggish demand. However, enterprise-wide initiatives, development of innovative technologies and calculated investments in customer service processes were also strong motivators for cost reduction.

Many companies took interest in making long-term radical changes, yet very few were able to take on a systemic cost-modeling approach to understand product (or services) standards truly and transform the underlying cost structure of their business. This is because traditional cost-reduction approaches do not address true cost drivers.

While top-down approaches allow firms to settle for intermittent interventions based on half-baked benchmarks, unilateral bottom-up cost-modeling approaches prove reactive, and their results stress the organization. Overall they often serve to sabotage long-term value creation, stymie innovation and hurt revenue generation.

Many organizations with classic top-down thinking, especially larger firms, tend to adopt a shotgun approach with Draconian budget
cuts or employee downsizing. This is instead of focusing on areas where they could truly eliminate waste and achieve genuine efficiency savings in the near-term without undermining the sustainability of those cutbacks in the long-term. More often than not, companies find they are forced to make those investments anyway to remain competitive and avoid long-term irrelevance, such as maintaining product-line differentiation, recruiting new hires or rehiring ex-employees to support expansions.

This was the case for a Fortune 100 manufacturer of industrial and other heavy equipment, that kicked off an enterprise-level cost reduction program to cut purchased-component spend by ten percent across the board within three years. However, they did not lay any ground rules or specify target areas to meet the goal. While this strategy helped the entire organization drive towards a common goal and empowered product and process owners to control costs in their individual areas, it led to misguided decisions such as deferral of critical investments (i.e. upgrading aging equipment) or transferring costs from one area to another (i.e. indiscriminate measures compromising quality and leading to a spike in warranty costs).

More companies, particularly in the manufacturing sector, are turning to cost engineers to develop “should cost” models to better benchmark costs instead of simply relying on the lowest market price. While this may seem like a good idea, it remains a slash-and-burn approach and most firms use it only to go after price during supplier negotiations. A one-sided, bottom-up approach, it does not allow firms to tap the resources of their supply base, whether that be the knowledge capital of the supplier, collaborating on product innovation, reducing overall costs of procurement or investigating problems and situations that affect both their businesses.

In another instance, a transmission manufacturer was beating up key forging suppliers in pursuit of a price that was based on a should-cost figure obtained from bottom-up cost modeling that did not take into account other dynamic factors such as energy market fluctuations or steel market lead times. The manufacturer did not realize all the little things they were negotiating away in their relationship, and wound up with a very reluctant symbiotic relationship that did not allow them to realize potential mutual benefits (such as evaluating alternative part designs and manufacturing processes or mitigating exposure to the steel market, which would help reduce variability in both supply chains).

**Introducing Collaborative Cost Management**

There is no silver bullet to sustain cost reductions forever, but Collaborative Cost Management (CCM) can help organizations improve their changes by helping foster a synergistic relationship with supply chain partners. It does so by improving accountability, focusing on the quality (not just quantity) of costs cuts and by drawing a clear strategy. It treats cost reduction not as a response to an event but as a consistent process – a discipline rather than a reaction.

Collaborative Cost Management was used to transform an engagement with a diesel engine manufacturer who had limited success using traditional negotiation techniques to trim costs with its after-treatment systems supplier. By laying a framework to tackle costs at the root, jointly, and providing incentives through gain-sharing arrangements, CCM helped create a non-adversarial relationship. This enabled the OEM to leverage the supplier’s industry-leading advanced technologies, global engineering and manufacturing footprint, thereby gaining much more value than through just haggling costs.

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**Figure 1: Cost Trend Line**

- **Reactive, short-term approaches create “see-saw” movement**
  - Cost Baseline
  - Budget Cuts (e.g. IT, R&D)
  - Across-the-board Cuts (e.g. downsizing)
  - Cost Programs (e.g. % cuts from suppliers)
  - Inflation (e.g. Commodities, Fuel)
  - New Content (e.g. regulatory changes)

- **Holistic methods result in structural, sustainable change**
  - Cost Baseline
  - Holistic Approach (e.g. CCM)
  - Target Cost

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Cost modeling as a subset of cost management – what is the new normal?

Numerous market surveys and studies suggest that, companies are shifting to expansionary strategies, either by pursuing innovation through introducing new products or services or by expanding into new markets. While this may be the top priority going forward, the pace of cost reduction is not set to decline just yet. Whether planning to launch new cost reduction initiatives or executing opportunities started in the previous years, an overwhelming majority of chief executives are undertaking cost reduction initiatives in the coming year.¹

An efficient cost-management process is therefore required simply to keep up with today’s business environment. Cost modeling is a vital element of this overall process and is used by companies to baseline and control costs.

The market is flooded with a variety of cost-modeling tools. Some cost managers use quick-and-dirty solutions such as simple statistical tools to plot regression curves and identify cost outliers. Others rely on advanced third-party modeling software to generate should-cost figures based on design attributes and manufacturing processes. Few others, particularly at large, cash-rich OEMs, have even developed their own cost-estimating tools, either in-house or by partnering with independent developers.

Each of these options has its own merits, but there are numerous drawbacks associated with each. Some yield results that lack enough specificity to drive substantive action. Others generate outcomes that are overly-complex and granular. Certain tools require in-depth training and skilled users, while others, even with an easy-to-use interface, can prove too time-intensive. Third-party software with intuitive front-end interfaces can be enticing but come with hidden pitfalls – they often require significant investment and are not a scalable solution (e.g. limited license).

In general, most of these tools are reactive, proving effective only for stable designs and less accurate during the concept phase of a product lifecycle. Regardless, they provide absolute outputs that, due to lack of transparency, tend to be too ambiguous to prove. In an effort to reverse engineer cost rather than relying on the competitive quoting process alone, one Fortune 500 firm called on its specialist cost engineers to develop should-costs before going out to suppliers. The effort was ultimately unsuccessful. Cost drivers faced by suppliers were overlooked because they lacked the knowledge of the inner-workings of the cost model – calculations that were happening in a black box.

Even some of the most highly-touted products are best suited only for certain commodities or regions, requiring frequent investments to keep them up to date, which renders them ineffective in the long run.

In general, the biggest drawback is that no single tool will satisfy all needs. Many tools need to be used in concert to meet the needs of engineering, manufacturing, purchasing and other key functions within an organization. Therein lays another challenge – cross-functional collaboration – which causes the process to become unwieldy. Though most companies understand and impress the importance of this concept, many fail to execute.

Collaborative Cost Management – A flexible approach for the bad times and the good

CCM is a holistic framework designed to overcome traditional pitfalls and lay a foundation for real, sustainable change. It targets the same pockets of expenses and reductions by a set percentage, but it also involves a fundamental examination of cost drivers and a probe into how spending decisions are made. Companies, therefore, become more aware of costs and the direct implications of their business choices on the organization’s cost structure.

CCM cuts across silos and brings together all process owners throughout the extended supply chain to identify cost levers instead of arbitrary, should-cost figures (which either serve as performance benchmarks or help make trade-offs among different options). The process of discovering these levers involves the following steps:

1. Assess current state and identify target products

Before setting about identifying flaws and chasing cost reduction aggressively, this first step involves reexamination of the current cost structure. By evaluating product designs, manufacturing process choices, sourcing footprints and the supply chain networks, companies can determine whether these are still optimal in the current environment and if they align with the future operating strategy. After this quick assessment, target parts are selected and grouped into distinct product families with common traits (if any exist) to maximize returns compared to applying the process to a single component.

This more-direct approach proved successful in a situation where an OEM did not have a clear cost-mitigation strategy for a component family. It was, therefore, directly picked as a candidate and leapfrogged over the status-quo assessment.

2. Explore cost levers

This phase involves forming a cross-functional team, including cost managers, process owners, subject matter experts, internal customers and suppliers on a case-by-case basis. The team sets baseline conditions after a thorough analysis of the cost base across Quality, Cost, Logistics, Development and Management (QCLDM) factors, performance benchmarks, risk, flexibility and enterprise value. Convening this panel early in the CCM process helps eliminate bias, short-circuit debate, drive accountability, make decisions, and fast-track implementation.

In the 2011 Chief Supply Chain Officer (CSCO) Report published by SCM World, a global supply chain institute, over three-quarters of the survey respondents identified information visibility as the foundation for all other levers, and one lever, which supply chain professionals most associate with helping deliver value.
Unfortunately, many companies are ill-equipped to track all the costs at a granular level due to inconsistent tracking mechanisms and decentralized legacy systems that hold data spread across different regions. CCM helps circumvent traditional bottlenecks like data integrity issues by evaluating cost drivers instead of current costs numbers, alone. CCM directs focus on creating ‘levers’ to impact cost drivers early in the development phase when nearly 80 percent of costs are still fluid.

The primary challenge in this phase, however, lies in deciphering the effects a decision will have on all the different variables. The following case study illustrates this challenge for a mining equipment maker. The OEM realized that design complexity was the biggest cost driver for a critical power train component. Without truly understanding the application requirements and potential impact a design change would have on supplier process and quality, the company went ahead and changed the design of the part drastically. Because of a lower purchase price, this led to immediate cost savings. However, lack of thorough validation and premature release of the new design led to field failures that cost the company nearly $50 million in warranty claims, not to mention the intangible consequences like negative brand impact due to customer concerns. One incident compounded into another, causing a snowball of detrimental effects.

CCM helps avert such undesirable scenarios by providing a means for evaluating any change in a tangible manner. Cost drivers, including more than 90 qualitative and quantitative dimensions in eight segments, spread across four categories (design, operations, supply base and transportation) are analyzed both independently and relative to one another. Based on their relative importance and potential impact on target metrics (such as cost), they are assigned a weighting factor ranging from 1 to 5. The variables are then ranked based on their current state on a scale from 1 to 5 to determine the extent of the opportunity. Combining these scores, cost levers are identified and prioritized into three tiers (Lever 1, 2 and 3). This approach ensures analysis of costs from the most granular levels and rolls up to higher product and business levels. Additionally, it displays the levers in a clear, succinct interface that enables immediate action.

### 3. Evaluate trade-offs and make final decisions

Identifying cost levers is just one step in the right direction. Multiple options may emerge, and a decision cannot be made without understanding the impacts of the various levers or other factors in a holistic manner. In one instance, an automotive parts manufacturer considered a new manufacturing process for one of its emission components to lower costs. On the surface, it looked like a good idea, since the new technology was better suited for high-volume production than the previous labor-intensive process. However, there was potential for supply chain flexibility (for example, the ability to react to sudden demand spikes) to be adversely affected.

Higher-priced tooling, coupled with more frequent die maintenance

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<th>Cost Impact</th>
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<th>Operations</th>
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**Figure 2: CCM Cost Levers Evaluation Summary**

*Note: Cost drivers and percentages of cost impact will vary on a case-by-case basis*
routines, stand to overburden supplier operations (capacity) and cause a slip in delivery performance. This could force the OEM to invest additional capital and turn to peak shaving options in order to sustain production and avoid lost sales. Skyrocketing material prices would not help matters either, because raw material price exposure and scrap rate were both expected to increase, which would be passed on through escalation clauses (surcharge programs).

Nonetheless, these potential future scenarios are contingent on the quality of initial assumptions. Therefore, a multitude of tools and collaboration workshops must be used in conjunction to arrive at final cost levers. This may include “what if” scenario assessments, sensitivity analyses for evaluating the relationship among levers, interviews and workshops in order to help understand history and increase accuracy of assumptions.

4. Act on the Lever – Implement and Sustain Change

While the previous phase clarifies the right levers to act on, a strategy is only as good as its ability to be executed on. In fact, most companies fail, not because they lack good ideas but because they are poorly executed. Depending on the levers keyed out during collaboration workshops, a detailed execution plan is built to identify all key stakeholders and team members necessary to launch projects.

Unlike most corporate execution models, a CCM program is not run like a typical Six Sigma project. The execution team is comprised of a few, highly-capable individuals and brings a more pragmatic application of lean and Six Sigma methodologies, retaining their strengths and adding more strategic focus and velocity. This team works in tandem with those accountable for various functional areas, thereby providing the content, expertise and authority to make difficult trade-offs, especially in areas requiring detailed understanding of cost drivers and the ability to make acute judgments about which costs to trim.

The final step of the CCM process stresses coordination mechanisms and project management to measure effectively, monitor change, record adjustments affecting the baseline, applying the lessons learned and locking in new cost standards or metrics into company practice. Once all the projects identified during the first iteration are complete, the cross-collaboration team convenes once again to gauge progress, identify gaps and brainstorm opportunities for improvement. A platform is thus laid for continuous improvement and sustainable change.

Conclusion

Whether the economy gets locked in an accelerating downward spiral or stabilizes on a growth path, it is certain that companies will not be able to get by with run-of-the-mill cost-cutting methods. Decisions driven by just cost savings and opportunism can land a company in hot water. CCM’s targeted approach focuses on achieving a more fine-grained perspective on where costs occur. It brings structure and helps embed analytics into cost management without a major overhaul of enterprise data warehouse systems and business processes. Besides helping managers establish standards, CCM provides balances of costs across the value chain, integrates flexibility, fosters knowledge sharing and helps change the ways people think about costs.

CCM also serves as a first step for other deep-dive efforts such as low-cost country sourcing or fundamentally redefining relationships with suppliers. Companies can thus make informed cuts which are more likely to endure in a range of business settings, with everyone working in the same direction and helping people take action before the proverbial “train” leaves the station!

About Harsha Koushik

Harsha Koushik is a manager with CGN & Associates. He has expertise in strategy development, supply chain management, supplier negotiations, vendor management and operations management. To exchange thoughts on collaborative cost management, contact Harsha at hkoushik@cgn.net.

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1 Price Waterhouse Coopers 2011 Annual Global CEO Survey
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CGN takes the guesswork out of new markets, with local teams that know their markets and use that knowledge to create a strategy for your successful growth—and then work with you to execute it quickly and effectively. Our expertise includes new market analysis, market entry strategy, manufacturing footprints, network mapping, supplier development and supply chain management.

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CGN makes it possible for companies around the world to transform their organizations, improve their performance and become more profitable.

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Other CGN Focus Areas
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- Global Supply Chain & Operations
- Organizational Transformation
- Business Technology Integration