

Managing Enterprise Product Cost—Through the Right Investments

CIMdata Commentary

Key takeaways:

- *Understanding the components of product cost over the product lifecycle is key to maximizing ROI*
- *The biggest opportunities for cost reduction often lie at the intersections of functions within an organization*
- *TCS takes a holistic view of costs and uses industry, technology, and process knowledge to solve difficult cost management problems*

Cost is an issue in every company. Cost management is not just a tool, but also a key process that helps ensure business success. A critical capability for managing cost is having an integrated view of cost across the value chain of product development and delivery. The challenge is that cost management processes and supporting systems and data are in silos and fragmented. The consequence of this fragmentation is a spiral effect of bad decisions and delays ultimately leading to an unsatisfactory ROI.

Cost can be a complex topic within the manufactured products industries. Understanding the components of product cost and how to manage them is a key element of business success. PLM solutions typically have a simple view of cost; it is an attribute on an item that can be rolled up in a BOM. A key question is “what cost?” Is it the prototype cost? Is it the cost at launch? Is it the cost at steady state production? The correct answer is probably yes to all of these questions, but it depends on context. An engineer working in product development focuses on target cost and how it relates to projected steady state production cost, while a manufacturing engineer may focus on the cost difference between launch and steady state production or capital cost of new production equipment. Someone working in supply chain or logistics may focus on transportation and fulfillment costs based on the production facility. As products have shorter lifecycles, the margin at each state of the product lifecycle can be key to ultimate profitability. Figure 1 shows some of the cost categories that can be measured over the product lifecycle.

Cost is a key attribute used for most product related decisions. It is used as a discriminator for many decisions including make versus buy, price versus quality, and price versus feature. Unfortunately, getting the right cost information to support product decisions can be difficult. Three key pain points in cost management include:

- Getting access to all the right cost data at the right time. In most organizations costs are considered privileged information and access is controlled. On top of this, data is stored in many repositories separated by organizational boundaries and software solution silos. In addition to enterprise solutions most organizations have a lot of cost and related data stored within a spreadsheet in a relatively unstructured format.
- While manufacturing cost is generally well understood, the cost of a part or product over its lifecycle usually is not as well understood.

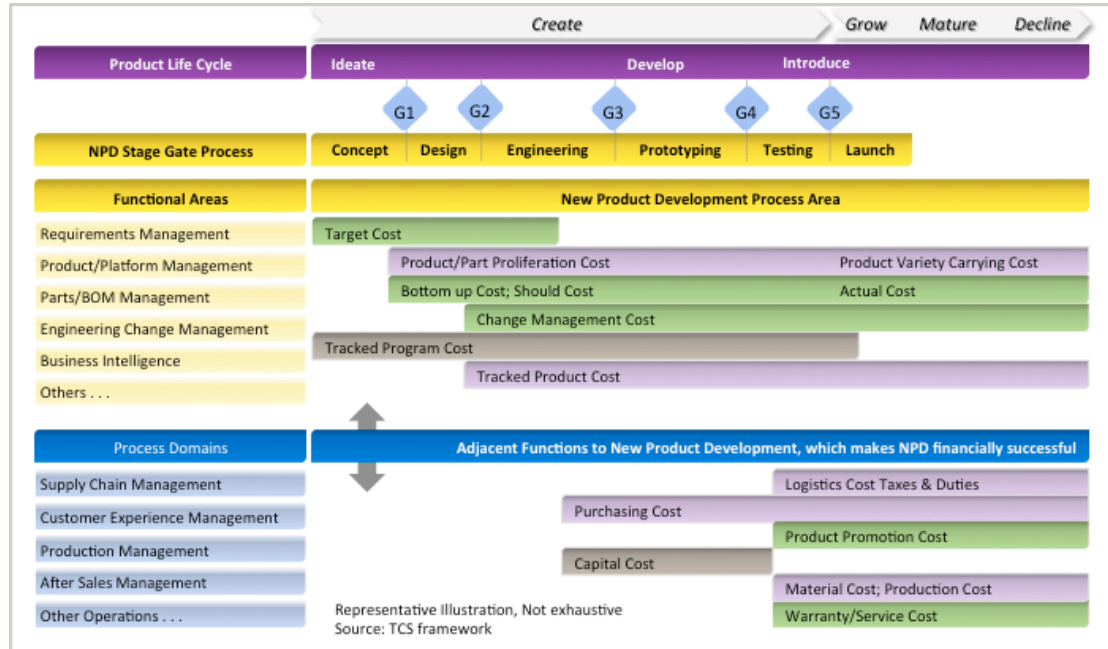


Figure 1—Lifecycle View of Types of Cost

- As companies move to platform or modular architectures determining how to allocate costs from the platform to saleable products is difficult and there is rarely consensus on how to do it.

Managing cost can be like squeezing a balloon, pushing in one area can cause expansion in another area. Understanding how changes affect other costs is key to achieving a real cost reduction and not just transferring the cost elsewhere in the extended enterprise. To accomplish this, cost management cannot be done in a vacuum or silo, an integrated view of cost over the product lifecycle needs to be accessible. The product cost also must be considered within the context of the business model of the company that includes the business processes and costing methods. This is a complex interplay of data and to successfully leverage the interplay, a software solution is required that understands the environment.

In addition, since costs are usually considered sensitive, access may need to be controlled, ideally however, the costs should be visible to anyone proposing, executing or approving a change that impacts product cost. At the minimum, the decision makers—the product managers and those with P&L responsibility need easy access to all cost related information.

A cost management solution needs certain key features. It needs to be based on data updated in real or near real time to provide useful information. The data must be reliable and accurate within the business context. Ease of use is critical. It must be possible to develop alternative what-if scenarios that generate actionable information. For example if a product manager sees that the forecasted production cost is high due to new manufacturing line technology requirements, he should be able to easily communicate the issue with manufacturing engineering, and task them with figuring out how to use existing manufacturing capabilities. It should easily integrate with the variety of repositories where cost data is stored while respecting security requirements. Finally, the solution must be sustainable, the solution should be adaptable to the changing business environment without requiring a rip and replace approach to upgrades.

TCS Cost Management Case Studies

CIMdata see significant advantages to working with large Consulting Organizations and System Integrators like TCS because they have broad and deep capabilities enabling the support of enterprise-wide business processes, not just product development. They are able to ideate, develop and implement business solutions that leverage technology, process reengineering, and organizational change to help businesses transform to better meet their business objectives.

Executives from the Consulting Arm of the Innovation and Transformation Group within the Manufacturing Industry Solution Unit of TCS recently reviewed several cost management related case studies with CIMdata. The case studies focused on cost management project successes in discrete manufacturing companies. They highlighted TCS's capabilities by focusing on how they used their framework to address process, technology and structure related cost issues.

The case studies focused on process issues and utilized TCS's Transformational Planning methodology¹ to develop solutions for several different manufacturing companies. The product portfolio and cost management maturity of the companies that were discussed were quite diverse. Although in each case the cost management is addressed differently, there were few common factors observed. The dashboards showcased were practical to use and able to provide visibility and the required details. In some other case studies presented, the cost issue was tackled by bringing in precision in the way product information is managed and communicated. Everyone involved in the product development lifecycle can find the right information, thus eliminating cost of duplicate work and/or rework. The principle of precision was also embedded for cases where reengineering of cost management processes was carried out. Processes and soft factors were streamlined through standardized terminology and common view of all costs involved in the product lifecycle.

Conclusion

The biggest cost reduction opportunities are in the design phase of a product's development when a small portion of the entire product cost is committed and cost of change is low. In order to make correct cost decisions, product developers (and for that matter everyone else involved) should have access to reliable and timely cost data. If the target is to reduce the total cost, and not just one part of it, then the entire organization should have a consistent view of all costs related to the product, over its entire lifecycle.

The topic of cost management may never be completely addressed, however there are demonstrated processes and tools that can help close this gap. TCS has presented a compelling portfolio of case studies in this context, demonstrating the variety of ways they have helped their customers reduce cost and improve ROI.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. To learn more about CIMdata's services, visit our website

¹ <http://www.cimdata.com/en/resources/complimentary-reports-research/commentaries/item/124-plm-transformation-planning-an-update-on-methods-and-tools-for-defining-a-high-impact-program-commentary>

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