

# Product Costing- A Case for Driving Effectiveness

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Product Costing in CPG companies is an integral part of the Finance, Supply Chain and Marketing functions. It influences decisions on product pricing, new launches, manufacturing locations, product-machine scheduling, 'make vs buy' decisions and procurement & sourcing. Product Costing also has a direct impact on P&L through movements in inventory valuation.

Typically, in most organizations, Product Costing is considered the forte of the Finance function. Unfortunately, more often than not, Finance is unable to provide meaningful data and analysis to help supply chain and marketing teams take critical business decisions. Moreover, though many multi-national organizations today are on standard ERP systems, most organizations run the Product Costing module of these systems as transaction processing systems. This is further accentuated by the scale and complexity of processes, the number of stock-keeping units, customer touch-points and manufacturing locations in most large scale manufacturing organizations. Current approaches to product costing simply focus on cost without a view to real end customer need. The approach is often not "kaleidoscopic" in that they do not incorporate multiple views to product or target cost. Most analysis done today fails to decompose cost elements into cost objects that can be assigned to product, brand, manufacturing line level thereby limiting remediation activity. While Activity Based Costing attempts to bridge this gap, it is not a common practice in most organizations. Good cost estimation and cost analysis requires an increasing level of accuracy as a product goes from concept to design to production, supported by detailed analysis with insights from time to time, to help make sound business decisions and improve controllership.

This paper aims at presenting the evolution of Product Costing as a case for outsourcing through two case studies in CPG organisations. It also looks at how organizations post outsourcing systemized their costing process and coupled with analytics were able to derive considerable value from what was earlier just a transaction based costing activity.

Before we discuss the case studies, let us consider the typical challenges that organizations face in product costing.

## SOME TYPICAL CHALLENGES FACED IN PRODUCT COSTING IN CPG ORGANISATIONS

### Lack of cross-functional understanding

Although the industry has moved to advanced and integrated costing ERP systems, inter-linking knowledge still remains highly contextual and limited to a few relevant experts. These experts also have a limited understanding of end-to-end business processes. This is simply because concepts on Product Costing run across separate processes of Requisition to Cheque, Order to Cash, Record to Report and Design to Retire. In addition, these experts are not always involved with the physical supply chain processes as well.

**Lack of standard processes and clear allocation rules**

The most commonly used system of Product Costing based on standard costs is complex with regards to the correct allocation of overheads both fixed & variable, as well as direct and indirect costs. As a result, this allocation of overheads is often ad hoc, leading to poor quality information and analytics and thereafter to ill-informed decisions.

**Inaccurate benchmarking across manufacturing locations**

Even with global ERP systems, the costing processes are not standardized across regions. This is due to the fact that the central team is often the in-house team whose time is largely consumed by transaction data. Moreover, due to lack of synchronization, different regions operate on different policies even with regard to the same procedures.

**Manual generation of reports**

Surprisingly, most organizations even today, with expensive ERP systems manually generate reports on costs, wastage, conversion cost trends etc.

Effort is wasted on data capture and report generation; analysis is overlooked. Also, caught in a tight “accounts close” schedule, organizations tend to miss out on the big picture and also on ways of improving the processes.

**Lack of analysis**

Lack of processes and harmonized costing systems results in most organizations spending time on data capture, resulting in poor quality of analysis. Ad-hoc analysis is done on “as required” basis, which often is inaccurate and time consuming. Given the time pressures on closing books of accounts, accuracy in cost of the product is often overlooked. As different parts of the organization own pieces of information (Bill Of Materials by the technical team, rate of operation by manufacturing, item rates by purchase etc..) finance who consolidates is often at loggerheads for a meaningful variance analysis at a granular level.

**CASE STUDY 1: A HEALTH & HYGIENE COMPANY ACHIEVES INCREASED PRODUCTIVITY BENEFITS AND EARLY RESULTS REPORTING**

**Background & Challenge:**

This global health and hygiene company with a complex product portfolio of about over 27,000 active stock keeping units sourced from 50 manufacturing locations across North America and Europe, worked with about 170,000 bills of materials with over 300,000 material codes. Product Costing was done independently at each of the manufacturing sites until 2004. Variance analysis was reported as late as Work Day 4, and this was the biggest bottleneck in publishing monthly management results. Processes were then centralized in a central location separately for North America and Europe & the organization also moved to a SAP-based ERP system. Nearly 30% cost savings were achieved in centralizing, however limited end-to-end knowledge of SAP functionality, no metrics or KPIs to track performance or process improvements and analytics to support business was seen. The organization failed to generate any value from the expensive ERP system.

**Solution:**

The organization decided to outsource the centralized Product Costing process for all the manufacturing sites in North America and Europe to a leading service provider.

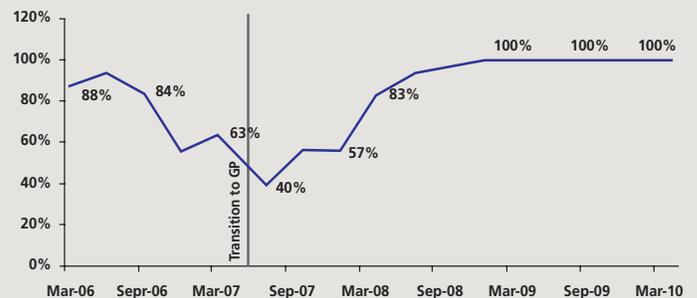
By studying the processes across regions and sectors using various six sigma and lean process improvement frameworks, Genpact was able to harmonize the supply chain accounting processes across all regions & sectors of the business - thereby saving significant hours for both partners.

The Analytics team at Genpact helped build tools for improved cost analysis and correct cost estimation. For instance, the Bill Of Materials and Rate of Operation Analytical tool that was developed

which gave exceptions by comparing Bill Of Material ingredients usage with actual usage in production. This helped in accurate cost estimation and reducing standard vs actual cost variance by 30%. In addition the variance analysis tool developed by Genpact helped the business identify losses pertaining to usage (wrong items being used), over/under consumption; and also helped analyse trends in various elements of costs over a period of time at various levels of hierarchy. This apart from identifying and reducing manufacturing variances has improved accuracy of product costs, helping the business take more robust decisions.

An e-learning tool covering various aspects of product costing was also jointly developed to train new resources on the conceptual, transactional and analytical aspects of product costing.

The graph below shows the impact of outsourcing in timely and accurate computation of cost of sales.



**Business Impact:**

- Reduction of 50 - 60% in overall cost from labor arbitrage
- Near - 40% increase in productivity benefits in a span of 3 years
- On-schedule and accurate standard costs. Business Analysts now flash results on cost of manufacture in one day after month-end as opposed to the earlier four days after month-end

- Seamless interaction between various teams of Supply Chain, Manufacturing, Analysts & the outsourcing partner to deliver increased business value

**Centralisation vs Outsourcing the constant debate**

The organization could have well decided to continue in a centralized fashion, but it chose to do otherwise as it was very clear on some of the real benefits apart from the one time labor arbitrage and conversion of its fixed costs of operations to variable. The myth that there is lack of control and ownership when processes move from a captive centralized operation to an outsourced partner was obviated by the stringent metrics, KPIs and Service Level Agreements for every part of the process. There were severe consequences for failure and at the same time incentives for performance. A governance mechanism was in place which ensured compliance.

Lean Idea	Metric Impacted	Benefit
Parallel running of certain ERP transactions for all manufacturing units	Accelerated month closing	Reduced 289 Hrs/Year
Automation of variance reporting against target	Accelerated month closing and accuracy	Reduced 234 Hrs/Year with 100% accuracy
Harmonization of processes between various sites, through end to end Value Stream Mapping	Cycle time reduction	466 Hrs/Year of customers time saved  Cycle Time Reduction from 25 days to 16 days in material life cycle i.e. in creation & deletion in SAP

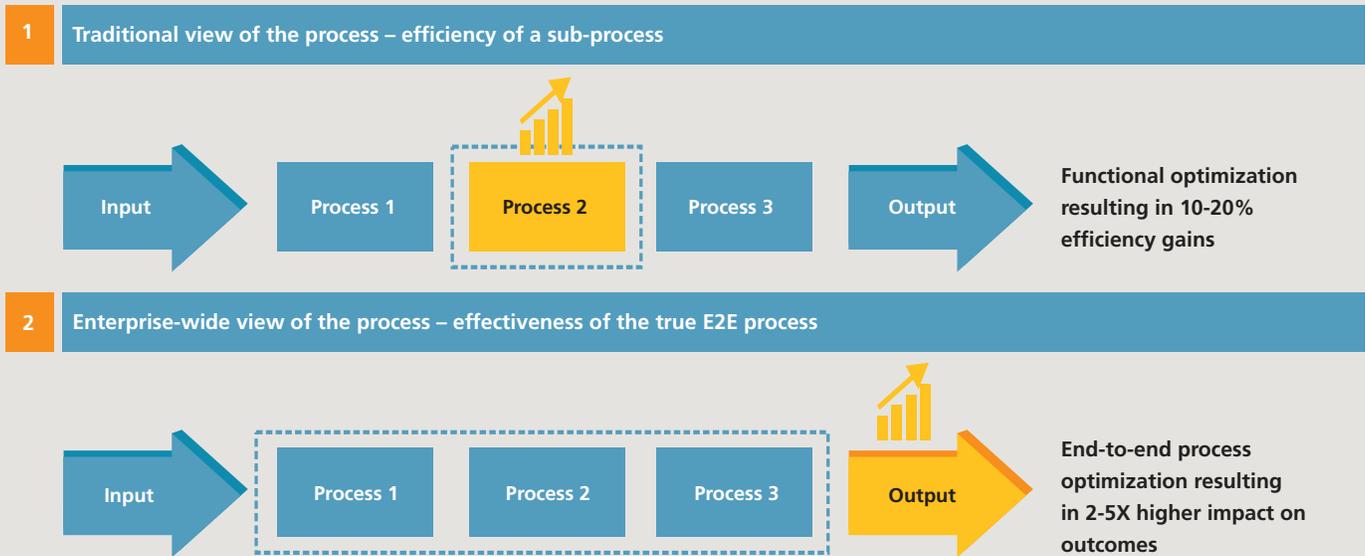
Genpact through its lean, and continuous improvement methodologies, value stream mapping (see Table 1) and looking at integrated end to end processes brought about significant improvement in processes creating white space for the retained organization—this was not possible in the centralised operation as this was simply not the core competence of the organization. The organization now had more time to focus on activities that were truly its competitive differentiators; while Genpact focused on providing industry best practices, superior systems and processes; cost savings, business impact and sound analysis to help the business take informed decisions. This was a truly symbiotic partnership which was a win-win for both partners.

**Efficiency vs Effectiveness - the next phase (Fig 1)**

While some organizations understand the importance of efficiency and effectiveness, often what is elusive is how good can they get at what they currently do? What is the best in class or world class process? Organizations need a scientific and structured approach to reach world class levels and set new benchmarks. While traditional outsourcing initiatives focus on taking costs out and rightfully so that is the first step - the new approach what Genpact calls SEP (Smart Enterprise Processes) focuses on improving enterprise level business outcomes—which represent five to ten times the impact of the cost opportunity (effectiveness).

This requires a granular approach with all metrics being looked at with both microscopic and telescopic lenses. Genpact worked with this client on the Accounts Payable process using the SEP methodology and identified opportunities worth US\$75 Mn of potential savings. This approach will now be extended to product costing to help deliver significantly high business impact through in-depth process analysis.

**Fig 1: Smart Enterprise Processes (SEP<sup>SM</sup>) - Managing end-to-end business process effectiveness**



**CASE STUDY 2: FAST MOVING CONSUMER GOODS COMPANY PLUGS THE GAPS IN END-TO-END PROCESS KNOWLEDGE TO CREATE MORE VALUE**

**Background & Challenge:**

This global FMCG marketed 400 brands across foods, home and personal care categories and sourced more than 15,000 SKUs from 264 manufacturing locations. The books of Accounts closed on the fifth working day after month-end with little or no analysis of change in product costs. Centralizing processes in-house did realize some significant benefits but still there were no systematic reporting formats and periodicity of reports other than sales trackers. Intense competition and focus on market share, gross margins and cash to drive sustainable

profitable growth meant that the company had to radically rethink its ways of working.

**Solution:**

The focus was on outsourcing end-to-end supply chain and finance processes. Areas of Master Data Management, Bill of Materials Management, Demand Planning, Production Planning, Customer Order Management and others were outsourced apart from the core F&A processes. All the processes, including the Supply Chain processes, Order to Cash, Requisition to Cheque and Record to Report were successfully brought under one roof with an outsourced partner. (areas that were hitherto considered core to the organization were also outsourced).

The scope of Supply Chain & F&A processes that were outsourced under one roof is as below (exhibit 2)

Core Activities						Non Core Activities	
Product Development	Sourcing & Procurement	Supply Chain Planning & Execution	Manufacturing Execution	Marketing	Sales	Finance & Accounting IT Services	HR
Product Concept & Strategy	<b>Sourcing</b> • Make Vs Buy • Vendor selection • Negotiation	Supply Chain Planning	Long Term Capacity Planning	Marketing Strategy Development	Sales Planning & Forecasting	Accounts Payable	Payroll Services
Market Analysis & Verification		Inventory Management	Plant Build out	<b>Marketing Analytics</b> • Market Mix Modelling • Competitor analysis • Customer segmentation	Retail Channel Management	Accounts Receivables	Benefits
Product Prototyping	<b>Spend Management</b> • Monitoring • Analysis • Allocation across categories	Warehousing	Demand Planning & Forecasting		<b>Promotion Planning</b> • Trade • Non-Trade	<b>Sales Through Other Channel</b> • Telesales • Catalog sales • Direct sales • Internet sales	Financial Analysis
Pre-Production		Supplier Collaboration (e.g., Supplier Managed Inventory)	Production Planning & Scheduling	<b>Media Planning</b>			<b>Order Fulfillment</b> • Order processing • Credit analysis & approval • Pricing, billing & invoicing • Supply chain processing • Collections • Dispute resolution • Claims>Returns handling
Product Data Management	Procurement Support	Distribution	Plant Operations		<b>Analytics</b> • Customer • Profitability • 3rd Party Data • POS Data	Sales Force Management	
Product Lifecycle Management	Supplier Administration	Inbound & Outbound Logistics	Quality Management	<b>Call Center</b> • Claims • Complaints & returns			Tax Accounting
	<b>Order Management</b> • Requisition creation • PO processing • Payment processing • Query handling	Reverse Logistics	Plant Maintenance		<b>Campaign Management</b>		Treasury Accounting
		Facilities Maintenance	Contract Manufacturing				IT Services
		Supply Chain Analytics				Master Data Management	
						Reporting	

■ Primarily In-House  
■ Currently Being Outsourced

Source: PwC

A significant amount of transactional work that was done in-house (with no measure on timeliness and accuracy of data processing) was outsourced with clear rules of engagement. And like in the previous case KPIs, metrics and service level agreements were put in place.

Part of the solution also meant setting up the master in a centralized fashion, with only goods receipt, and production reporting at the manufacturing locations.

**Business Impact:**

- Generation of unit wise/business wise/sku wise profitability reports which significantly helped decision-making on work day one after close. Some typical reports that were systemized were:
  - Material usage efficiency reports
  - Cost of production reports
  - Standard vs actual Cost Analysis reports
  - Benchmarking of product cost across sites on a quarterly basis.
- End-to-end processes under one roof helped in timely reporting of results with a thorough analysis of change across various time buckets on the first work day after month end. This was apart from the 15-20% cost benefit realized through effective process improvements.

**CONCLUSION**

Organizations can derive significant value from outsourcing complex and less understood activities like Product Costing. In the first case study, an organizations decision to outsource a inhouse centralized

product costing process saw significant productivity benefits (40% in three years) resulting from standardization of processes and value add from continuous improvement and lean methodologies and high end analytics. Improvement in P&L close and reporting from workday four after month end to work day one was a significant business objective realized. The organization along with Genpact is now all set to enjoy the next phase of improvements through Genpact's Smart Enterprise Processes (SEP) which enables companies to look at what is "possible". In the second case study, apart from the above benefits, an end-to-end process outsourcing under one roof significantly increased operating efficiencies and compliance, helping the organization focus on activities that were truly its competitive differentiators (brand building , point of sale execution, & strategies to drive growth and margins).

The decision to outsource Product Costing is strategic, and given the complexities involved, it requires immense effort from both partners to make it a success. However, the benefits and value that it leads to is not something that organizations can ignore in today's competitive environment.

**About Genpact**

Genpact is a global leader in business process and technology management, offering a broad portfolio of enterprise G&A and industry specific services, coupled with strong IT, analytics and reengineering capabilities.

For more information, visit: [www.genpact.com](http://www.genpact.com)

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