



# OPTIMIZING COSTS IN MODERN MANUFACTURING: LEVERAGING OUTSOURCING FOR EFFICIENCY AND SUSTAINABILITY

## Abstract

Modern manufacturing still must pay obeisance to the holy trinity of quality, cost, and delivery. How can this be done in Industry 4.0 and beyond? This point of view explores the possible ways BPM can be leveraged in manufacturing as part of an organization's cost reduction strategies.

To the world, manufacturing looks like a “boss” sector where hundreds, if not thousands, of workers mill around giant machines, churning out mysterious components that go upstream into building not-so-mysterious products such as automobiles, industrial equipment, and machinery. But internally, manufacturing

spells “g-r-i-n-d”: a hugely CapEx- and OpEx-intensive operation that demands hair-trigger precision in the holy trinity of QCD - quality, cost and delivery. This holds true in every kind of manufacturing, whether it’s an old-style, people-heavy operation or a smart Industry 4.0 factory, bustling with robotic arms, sensors, and

data analytics specialists.

Let’s consider the ‘C’ in this trinity: Costs, in fact, can be termed the primary driver among the three. Reduction in costs below a certain level is sure to negatively affect both quality and delivery. Above a certain level, if costs become untenable, the viability of the business may be at stake.



What, then, are some of the best cost reduction strategies business leaders can employ? Business process management (BPM) is one technology-driven paradigm

that can be employed as a key strategy to achieve cost reduction through outsourcing. Let us examine the broad cost categories in manufacturing, and

some of the impactful ways expert and experienced BPM partners can support manufacturing enterprises to reduce costs:

## 1. Labor Costs

These are costs associated with recruiting, training, and sustaining a large pool of workers to work with (or alongside) machinery on the shop floor, as well as the costs of hiring quality and warehousing personnel. Such costs tend to increase uniformly year-on-year.

## 2. Raw material costs

These include the cost of raw materials, sourced via local or remote supply chains, that go into the production line as key ingredients to build the final product. These costs fluctuate along with market dynamics, geopolitical moves and weather conditions. Huge deviations can upset costing calculations and hurt the business.

An important area associated with raw materials that can be examined for cost savings is sourcing and procurement. Strategic sourcing is one of the most important cost centers for large manufacturers. This calls for meticulous

spend analysis and benchmarking as well as market research and cost modelling, to ensure that spends are kept under control, suppliers are assessed as per quality benchmarks, and procurement is constantly aligned with market

trends. When outsourced to experts, manufacturers can also get support on opportunity assessment and sourcing strategy.

Product creation activities take place alongside raw material sourcing. In this, BPM partners can provide a range of cost-effective services such as product design support (CAD modelling, data

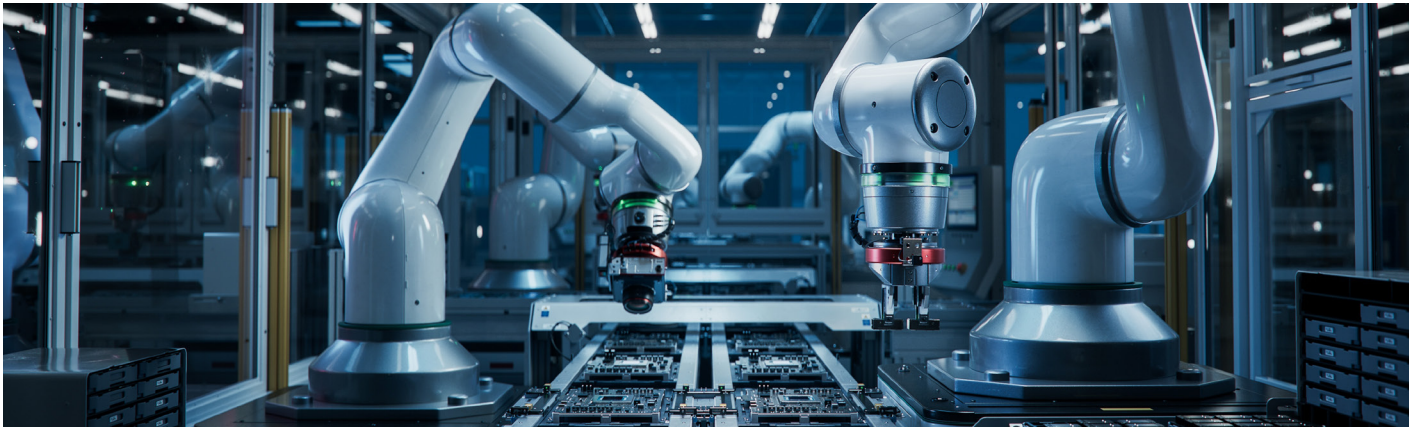
migration and legacy conversions, 2D to 3D conversions, data cleansing and processing), product realization support (logistics planning, visual aid creation, fabrication/weld process documentation)

and product sustenance support (control plans management, certification support and supplier quality management).

In actual production scenarios, the use of tools and technologies to optimize the processes and workflows of product manufacturing can be a huge cost cruncher. Whether it is [robotics in manufacturing](#) that can be “wired” to

feed production and quality data back into the servers, inventory management systems to maintain optimal raw material and product quantities, assembly line movement tracking and planning, or computer vision-aided quality control, the

data harvested from all these systems can be fed into AI/ML models to gain insights for planning, procurement, supply chain management and improving productivity.



3. Overhead costs

These include costs associated with activities such as utilities, rents, compliance, taxes and more. In a modern factory, data analysts, planners, supply chain managers and other office workers constitute indirect salaries. Some overhead costs may stay constant, while others may vary seasonally or randomly.

Reduction of overhead costs may be explored in finance and accounting. Use of an intelligent OEM accounting and reporting tool to manage sales and

tax use can result in significant savings. Managing and reporting the costs of new investments that businesses make in technology, platforms or equipment is

important and demands the expertise of experienced accountants.

Another function in this cost bucket where manufacturers can employ cost reduction strategies is sales and fulfilment. For example, service contract management is a major area that provides cost reduction opportunities.

When done properly, the benefits can be significant. Large automobile, aircraft and discrete manufacturers also face heavy costs with spare parts management. This can be outsourced to experienced BPM organizations to reap savings.

Another function in this area is warranty claims management, which requires a collaborative approach towards closure. While not a key focus for manufacturers, it can become a penalizing cost unless managed well.

In this information-driven era, customer service is paramount for success. Now aided by mature and emerging technologies, customer service is a sophisticated function that involves not just delighting the end customer, but

also providing dealer support. It involves a gamut of operations from product information, help desk support, dealer and service personnel training and contact center management. The goal is to provide a unified omnichannel experience to

all stakeholders via multiple integrated channels. Customer delight is driven by context passing via tools, and a focus on brand and experience management.

The right BPM partner, with expertise in manufacturing processes and tools, can pole-vault cost savings for large manufacturing entities, turning cost centers into profit centers. In complex systems spanning multiple locations, geographies, products, personnel, equipment and transportation, the cost reduction can be immense.

## Future outlook

With Industry 4.0 gaining center stage, and Industry 5.0 waiting in the wings, manufacturing and technology are reaching a point of symbiotic convergence like never before. What makes this time

all the more exciting are earth- and worker-friendly paradigms such as sustainable manufacturing, personalized manufacturing and human-machine collaboration that are gaining pace. Aided

by BPM partners, manufacturing can now look to move to the new trinity of PSC: Productivity, sustainability and customer satisfaction.

## How Infosys BPM can help

Infosys [BPM's digital services can transform your business by moving beyond standardized benchmarks and operating models](#). With a team of over 8000 committed professionals located

across twenty-seven global service delivery locations, we offer comprehensive business solutions tailored for the manufacturing industry. Our domain expertise is enhanced by a center of

excellence that brings together industry experts and business consultants to create new service offerings for our clients in the manufacturing sector.

For more information, contact [infosysbpm@infosys.com](mailto:infosysbpm@infosys.com)



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