


Business Process Management in Manufacturing: From Process to Value

**New Capgemini research shows how organizations
can move to the next level of BPM maturity**



People matter, results count.

BPM can help manufacturing companies address global competitive challenges and economic pressures, enabling them to reduce costs and improve the value they create as well as their speed-to-market.

As manufacturing companies emerge from the economic slowdown, they are looking for topline growth opportunities while still maintaining control over costs. But years of globalization and expansion – some organic, but much of it through mergers and acquisitions – have resulted in complexity in the value chain, redundancy in systems and processes, and a lack of transparency and flexibility in processes. Improving performance can be a challenge in this environment.

Business Process Management (BPM) is a powerful approach to deal with these issues. BPM aims to improve and optimize the business processes of an organization, supported by Business Process Management Technology (BPMT). BPM can help companies address global competitive challenges and economic pressures, enabling them to reduce costs and improve the value they create as well as their speed-to-market.

Though manufacturing organizations have been putting BPM initiatives in place for some time, only now has the underlying technology reached a threshold point where it can truly deliver new potential – by improving cost efficiency, speed-to-market and acceleration of innovation.

Taking a Close-Up Look at BPM in Manufacturing

To better understand the current state of BPM in the manufacturing industry, as well as the benefits and implementation opportunities, Capgemini conducted research looking at the BPM practices of leading manufacturing companies. Among the key findings:

- Manufacturing companies are investing in BPM(T) to further optimize their complex business processes, as well as to manage processes that are not yet automated.
- The application areas for BPM in manufacturing are centered around Innovation & Lifecycle Management (ILM; shorter time to market), Customer Relationship Management (CRM; leveraging multi-channel client interaction) and Supply Chain Management (SCM; managing volatility in the supply chain). In addition, support functions like administration and finance can be made more efficient and compliant.
- Three types of BPM implementation levels are observed within the manufacturing sector: individual process transformation, agility layers on top of legacy applications and end-to-end transformation.
- BPM(T) implementation at most of the companies studied is at a nascent stage and predominantly deployed at a process level as opposed to an enterprise-wide transformation.

Identifying the Benefits of BPM

The research identified a number of benefits achieved from the implementation of BPM among the manufacturing companies studied:

- A global diversified technology and industrial manufacturer automated its paper-based processes within the procurement division using BPM to shorten the SCM cycle for approvals and receipt of goods.
- A leading automotive manufacturer deployed BPM to increase efficiency and decrease costs with respect to document management in its marketing function.
- A global industrial equipment company leveraged workflow automation and visibility through BPM for greater operational control over its sales process.
- One of the largest global automotive companies resolved complexities in its warranty management process by implementing BPM, thereby improving quality and costs in its customer support services.
- A global industrial equipment manufacturer's machinery construction division leveraged BPM's process modeling, risk management and visibility tools to achieve SOX compliance.
- An aerospace and defense manufacturer overcame the cross-border integration challenge in its design process by implementing a BPM-PLM (Product Lifecycle Management) integration suite.
- Through effective implementation of BPM across the value chain, an aerospace and defense company benefited from strong governance and quality control within one of its divisions.

BPM Implementation Landscape in the Manufacturing Sector

Although manufacturing companies have started to realize early benefits from BPM implemented in a landscape that ranges from operational process levels to strategic enterprise level, the companies still have a long way to go to extract the full potential from BPM transformations. The evolving landscape broadly comprises three types of process transformation opportunities leveraging BPM in manufacturing companies:

I. Individual Process

Transformation: Transformation that focus on improving discreet processes/functions within one or two components of the manufacturing value chain

II. Agility Layer Across Legacy

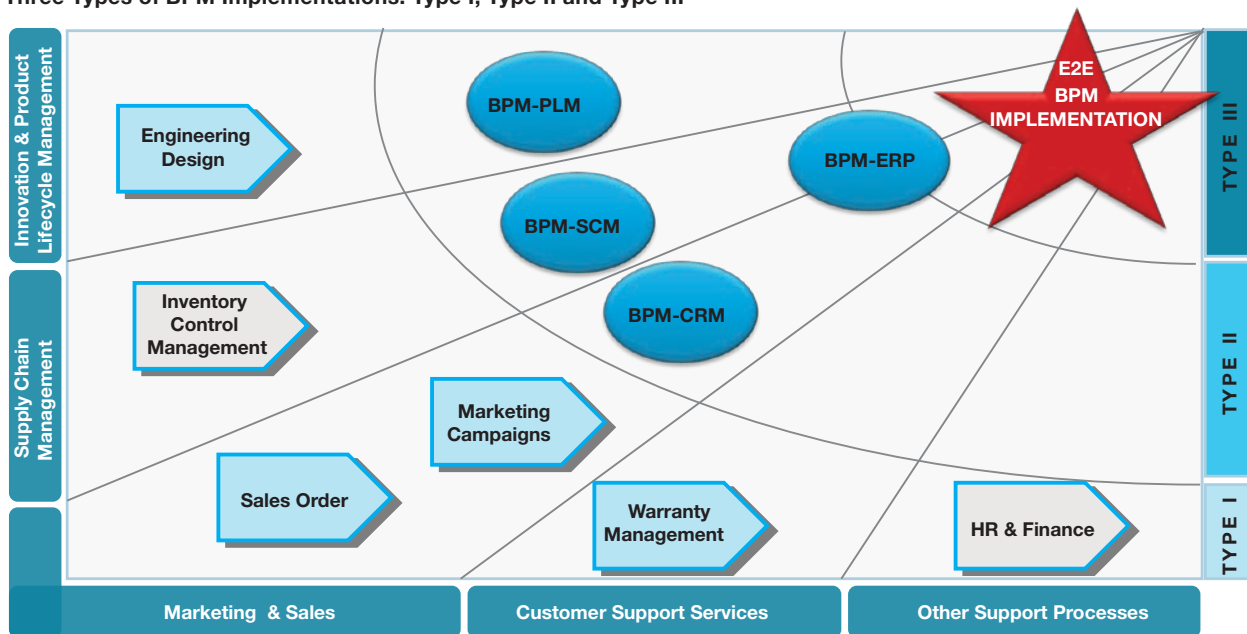
Applications: Transformations that focus on integration of cross-functional systems like PLM that connect several key components of the value chain

III. End-to-End Transformation:

Transformations that focus on creating a "BPM transformed" organization with integration of all the components of the value chain



Three Types of BPM Implementations: Type I, Type II and Type III



Note: E2E = End-to-end (enterprise-wide)
Source: Capgemini

Among the companies studied, most have implemented Type I projects (functional level) with few focusing on Type II (cross-functional level) or Type III (enterprise level). However, opportunities clearly exist for companies to move to Type II BPM implementations with the potential for additional benefits and to Type III for full benefits.

Type I: Individual Process Transformation

At the lowest level, companies are adopting BPM in certain processes within their core functions. This approach offers improvements in individual processes, which can be across the board. Warranty management, for example, can encompass several areas, including marketing campaigns and engineering design. BPM can enable companies to cross these silos more effectively by providing better visibility, agility and, most notably, governance control of their processes.

In the case of engineering design, most of the companies studied are using BPM to link to external R&D sources, collaborate on research and troubleshoot design problems. The BPM implementations here are being supported by technology changes such as collaborative platforms, social BPM and process orchestration engines across a Service-Oriented Architecture landscape.

In the area of marketing campaigns, BPM is being used to orchestrate campaigns, which enables companies to scale up the marketing operations and thus create efficient repeatable processes. Leveraging cloud-based technology, these campaigns allow manufacturing companies to connect more directly with potential customers and multiple partners, resulting in higher campaign success rates.

Type II: Agility Layer Across Legacy Applications

One step up is about having a layer of BPM capabilities across a functional area, such as CRM, SCM or PLM. Architecturally this acts as an agility layer across the existing IT system landscape.

With this approach, BPM can extend PLM functionalities by embedding flexibility, agility and visibility in Product Lifecycle Management systems. BPM can also extend SCM benefits by embedding governance and real-time monitoring of the entire supply chain in collaboration with the partner ecosystem. Additionally, BPM can enhance CRM through effective interaction of the process owners and legacy applications across the value chain.

Type III: End-to-End Transformation

At the highest level some manufacturing companies are launching initiatives to reorganize themselves to become “process-focused” organizations. These companies have determined that a need exists for best-in-class architecture, IT systems and a governance control mechanism that spans the entire enterprise covering all stakeholders – from the board down – for all of the different end-to-end processes. They are looking at how to redesign the process model from the top down and fitting applications to that landscape. However, in terms of both implementing this transformation and supporting it with technology, these companies still have a long way to go.



Research Methodology

Capgemini's BPM in Manufacturing study involved research into the evolution and use of BPM within the manufacturing sector. The BPM practices of more than 20 leading global manufacturing companies were mapped against functional areas such as R&D and engineering, procurement, production, marketing, sales and service management to identify key business drivers for BPM implementation in the manufacturing sector. The study team also mapped the BPM maturity and assessed the type of BPM implementation of these companies.

Implementing BPM for Manufacturing: How Capgemini Can Help

Regardless of the current state of a manufacturing company's BPM implementations, Capgemini can help identify and implement the right BPM level for an organization. Our end-to-end Business Process Management approach treats processes as assets that directly contribute to your business value and performance. Capgemini draws on 40 years of experience in advancing our clients' business technology and management processes. We combine deep manufacturing and BPM knowledge with a pragmatic attitude to work in partnership with you. Our process improvement and transformation expertise enable us to deliver quick and measurable results.

We focus on five key areas to reduce costs and make manufacturing organizations more innovative and agile. To go from process to value, all these areas need to work in harmony.

1. Value and Performance

Management to define goals and evaluate and steer progress

2. Accelerated Business Analysis

to optimize BPM delivery, using our Global Process Model^{®1} for manufacturing

3. Leveraging BPM Technology

to maximize the use of selected BPM and Business Rules Management technology, tools and platforms

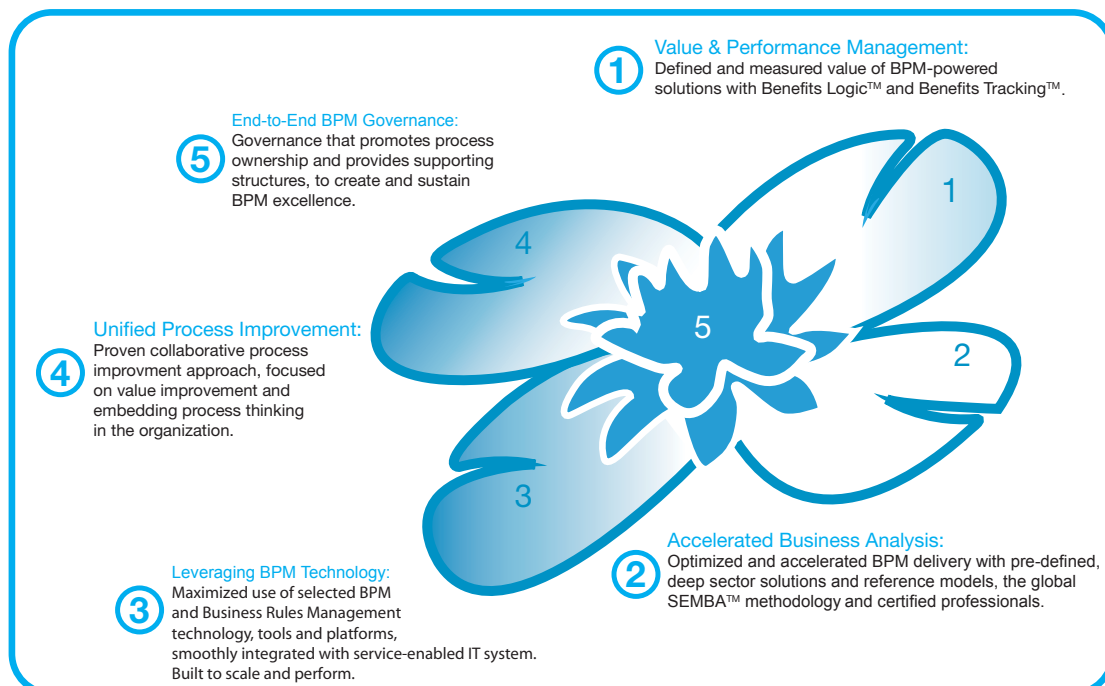
4. Unified Process Improvement

to ensure process-oriented thinking gets embedded across the organization

5. End-to-End BPM Governance

to sustain BPM excellence

From Process to Value: Five Key Areas for BPM Success



Source: Capgemini

1. Capgemini's Global Process Model[®] is a map that defines the best flow for each process and sub-process, backed by a comprehensive database of defined, world-class controls and measures representing global and industry best practices.



This executive summary provides an overview of our “BPM in Manufacturing” study. For more information about our BPM research and solutions, please contact:

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