

Digital Transformation Benchmark - 2012

Insights for the Manufacturing Industry

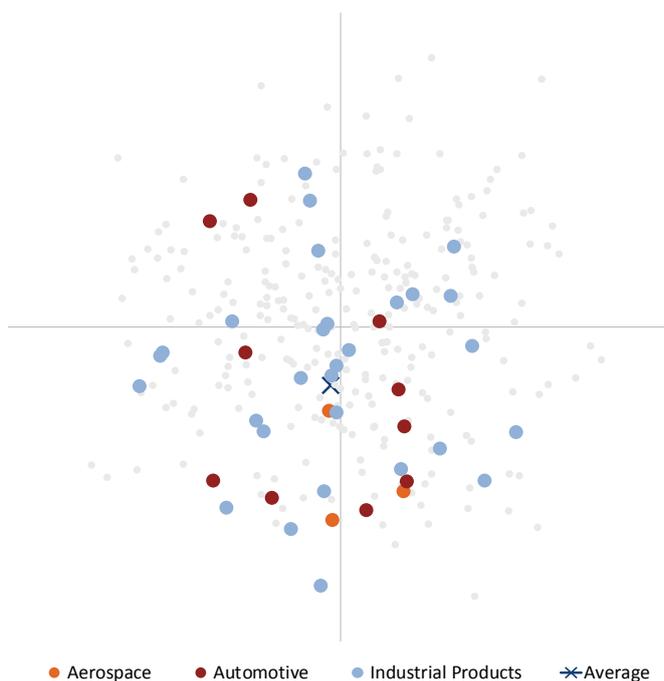


Digital Transformation in the Manufacturing Industry

Manufacturing companies have traditionally been slow to react to digital technologies and their impact across the manufacturing operating model and value chain.¹

Overall, figures for digital intensity and transformation management practices remain low in the manufacturing industry. According to Figure 1, a large number of manufacturers are only starting their Digital Transformation journeys (“Beginners”) and less than 10% stand out as “Digitati.”

Figure 1: firms’ positioning in the Digital Maturity Matrix



Interpreting the Digital Maturity Matrix

- The vertical axis measures “Digital Intensity,” i.e. firms’ digital practices
- The horizontal axis measures “Transformation Management Intensity,” i.e. the management practices implemented by the firms around digital transformation

For more information, read the MIT Center for Digital Business and Capgemini Consulting Research Report “Digital Transformation: a Roadmap for Billion-Dollar Organizations” (2011)

Learning 1: Manufacturers perceive Digital Transformation as a key enabler to increase operational process efficiency, focusing on bottom-line more than top-line improvements

Two-thirds of the manufacturing companies we surveyed believe that Digital Transformation contributes to performance through improvements in operational efficiency. They perceive fewer opportunities to improve their top-line through market share or revenue growth

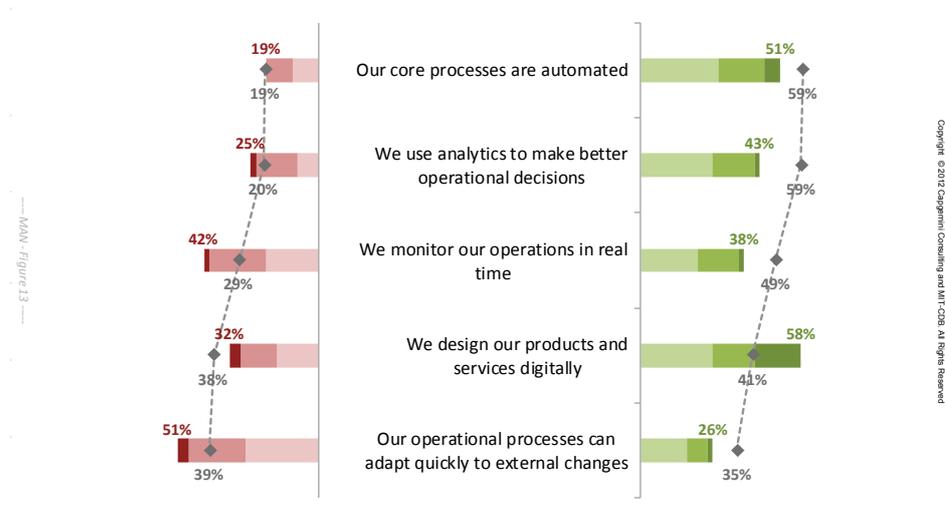
(38% and 37% respectively), and appear to focus their efforts in digital on operational domains. Manufacturers stand out in leveraging digital technologies in their design processes. This wide margin (17 percentage points higher than the cross industry average) highlights the cost-saving potential of solutions such as virtual prototyping, digital mock-ups and digital testing for manufacturing. In addition, a slight majority (51%) report that their core processes are automated and 43% are using

analytics to make better operational decisions, though both of these figures are below cross-industry averages (see Figure 2). Manufacturers also reported using digital technologies to enhance operations by enabling workers.

In every measure of worker enablement, manufacturers were slightly above cross-industry

averages: 75% of companies reported that their employees collaborate digitally with colleagues, or that they can perform their work duties from any location. Also, nearly two-thirds reported that digital technologies improve communications between senior executives and employees.

Figure 2: process digitization



Legend:

- Red bars represent the percentage of companies disagreeing with each statement (answers 1, 2 and 3 on a scale from 1 = strongly disagree to 7 = strongly agree) in the industry; green bars represent the percentage of companies agreeing with each statement (answers 5, 6, or 7).
- Grey marks represent disagreement (answers 1, 2 or 3) or agreement (answers 5, 6 or 7) across all companies in our study.

Learning 2: Mobile technologies are being used to improve operations, less so in customer-facing applications

The manufacturing industry is characterized by a traditional, individual-related sales approach. Although a third of the manufacturers we surveyed are using mobile technologies with customers to promote products and services, the majority of firms are not using mobile in any of the

capacities covered in our survey. For some manufacturers, this may reflect the limits of a more traditional B2B sales approach. For others, it may present new opportunities to interact with customers through mobile channels. One the other hand, a large majority of manufacturing companies are using mobile to improve operational processes (77% versus a cross-industry average of 66%). This is consistent with the operational focus of

Digital Transformation within the industry overall (see Learning 1).

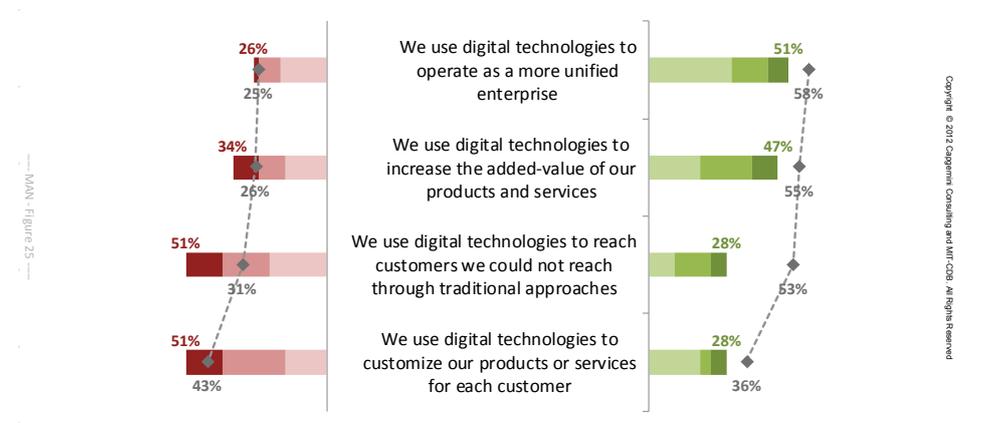
Learning 3: Business model transformation is limited in manufacturing, and focuses on operations

Scores for business model changes among manufacturing firms were lower than average overall, which may reflect the limitations of Digital Transformation for the product-oriented industry (see Figure 3). However, some companies highlighted using digital technologies in their operations to transform business models. A slight majority (51%) reported using digital to operate

as a more unified enterprise. The importance of enterprise integration is also visible in firms' responses around data integration; 70% reported having an integrated view of operational performance (versus a 60% average) and 55% said that they have an integrated view of supply-chain status.

These strengths may open the door to further business model transformation, by launching new businesses or linking customer-facing and operational processes in new ways. For example, many car manufacturers have launched new B2C services based on connectivity.

Figure 3: development of new business models based on digital technologies



Legend:

- Red bars represent the percentage of companies disagreeing with each statement (answers 1, 2 and 3 on a scale from 1 = strongly disagree to 7 = strongly agree) in the industry; green bars represent the percentage of companies agreeing with each statement (answers 5, 6, or 7).
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Learning 4: Manufacturing's Digirati lead the industry in digital governance, value discipline, and use of mobile with customers

Comparing digital management practices, the industry's Digirati

are clearly doing more than other manufacturers in the firm-level coordination of initiatives. They also show a considerable margin over non-Digirati in investing in skills and initiatives. In both cases,

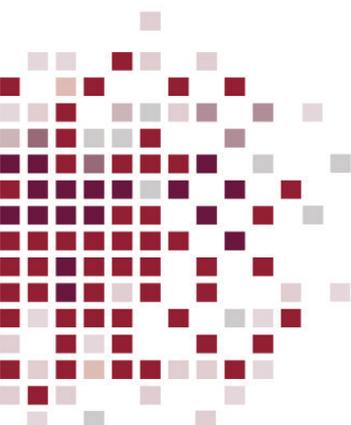
non-Digirati score below cross-industry averages, while Digirati score well above. Digirati also stand out in areas of the customer

experience; they make more use of mobile with customers than manufacturing's Beginners, Fashionistas and Conservatives.

The above findings confirm the conclusions of our recently published study, "Are Manufacturing Companies Ready to Go Digital?" Where firms in other industries are continuously reinventing themselves through digital business models and solutions, many manufacturing companies are just beginning to realize their digital potentials.

Some manufacturers are already leveraging digital technologies, though mostly in operational applications. Firms may want to build on these efforts - and to consider additional uses of digital technologies - to continue developing their digital maturity:

- **Extend Digital Transformation to other areas** – The focus for digital in most manufacturing firms has clearly been on operational improvements. However, manufacturers still do less than firms in other industries in areas such as analytics and real-time monitoring. More than half of the manufacturing companies we surveyed also reported that their operational processes cannot adapt quickly to external changes. As globalization increases the competitiveness and complexity of the manufacturing industry, firms may want to explore these areas, where digital technologies have the potential to enhance operational performance and agility. Where manufacturers can develop B2C relationships, they may also want to explore opportunities for digital in the customer experience.
- **Develop robust digital governance and value discipline** – Manufacturing's Digirati also outpace the industry in coordination of digital initiatives, funding for digital initiatives and investment in digital skills. To realize value from digital efforts, firms may want to focus on aligning initiatives to corporate objectives, clarifying roles and responsibilities, using business cases to assess initiatives and track performance through KPI's.



Sources:

1- See "Are manufacturing companies ready to go digital?" – Capgemini Consulting, 2012

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This analysis is based on data collected during the second year of our joint research program with the MIT Center for Digital Business.

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