

# HURDLES AND ROADMAPS FOR THE MANUFACTURING INDUSTRY

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Manufacturers today have access to a wide range of technical solutions that help them enhance operational productivity and create exceptional business possibilities. Nonetheless, several manufacturers don't fully utilise these technologies, owing to a lack of appropriate information, an inflexible organisational structure, ineffective growth strategies, or safety issues. Hence, manufacturers are missing out on some of the most lucrative commercial prospects.

Automation, cyber-physical systems, and data interchange are all part of Industry 4.0 (also known as manufacturing digitization). It is no longer a prime focus, and production companies all over the world are using it to get the advantages of enhanced performance, decreased inefficiencies, and cheaper costs while increasing flexibility. The adoption of Industry 4.0 enabling technologies, on the other hand, is a demanding process that becomes considerably more complex without a consistent methodology. Absence of information, incapability of properly measuring the ROI, and unavailability of a competent workforce are just a few of the obstacles.

Let's have a look at the hurdles faced by the manufacturing industry—

## • The Skills Gap in the Manufacturing Industry

The increasing skills gap is among the most significant manufacturing issues. Younger people are urgently needed in the industrial industry. Many younger, tech-savvy factory floor operators and engineers have a good understanding of technology and can assist in translating the "jargon" for all those who are unfamiliar with it. As a result, companies with an ageing labour force may

perceive the skills gap as becoming an obstacle to implementation. Collaboration with reputable colleges to generate skilled employees for the factory floor might be a great strategy to overcome the skills gap.

### Key Points

- Automation, cyber-physical systems, and data interchange are all components of Industry 4.0. (also known as manufacturing digitization).
- Businesses required better, more flexible manufacturing techniques which helps to increase business output.
- Online platforms and E-commerce help every businessmen
- A digital unit should be designed to encourage creative approaches

## • Language Barrier

Manufacturers are used to complicated concepts and technical terms, but they sometimes struggle with unknown words when it comes to much more digital lingo. Among the most challenging barriers to digital engagement and implementation is the absence of a common language.

## • Expenses and ROI

The leading companies in Industry 4.0 are similar to the major players in financial advisory when it comes to expenses and returns on investment. They discuss how technology can have a "revolutionary" and "game-changing" effect on production and people, but compared to the expenses, the effect takes time to manifest. At this point, calculating an exact and expected ROI is extremely challenging. That only feeds into the idea that Industry 4.0 is costly.

## • supply chain and inventory management.

Every manufacturing company has to manage their supply chain and inventories. Businesses require better, more flexible manufacturing techniques as they try to increase output.

In the manufacturing sector, inventory management is a prevalent concern. Keeping insufficient stock can be detrimental to revenues as well as client relations. Maintaining an excessive number of goods can be expensive to keep and sell. As a result, manufacturers can save time and money by investing in the correct software and procedures for inventory tracking and management.

Following the COVID-19 pandemic, the impact of supply chain issues has been a hot topic. Several manufacturers depend on China for parts, particularly computer and electronic parts. The supply chain disruption is already having an impact on these businesses.

## • Safety Concerns

Regardless of the fact that many of us use net banking and are gradually shifting business online, there seems to be a widespread misconception in manufacturing that a cluster of on-premises servers is safer than a cloud-based application. In reality, most on-premises systems lack the level of security offered by the finest cloud service providers.

## A Digital Transformation Roadmap for the Manufacturing Industry

Picturing the roadmap and determining the path wherein the company is heading will help to determine further steps for digital transformation. Because digitization affects all aspects of

business, it must be well coordinated and organized. The roadmap lays out a step-by-step process for senior management to develop a strategy, define end-goals, and commit the necessary resources and assets to the digital transformation. This aids in determining where the organisation stands right now in terms of digitization and where it aims to go.



Image Source: fujitsu.com

### 1. Clarity of vision and digital strategy

Prior to embarking on any kind of transformation, companies must have a very clear understanding of what they are hoping to accomplish. The ability of the management team to convey the organisation's objectives to partners, workers, and customers is critical. Only then will they be able to make sure that everybody in the company understands and supports their goal. It will also make it easier to define precise goals for expanding the value chain, such as financial savings, profit, agent performance, and workforce satisfaction. New practises and skills that are needed to improve client satisfaction must also be considered.

### 2. Plan to encourage new fast operating procedures.

The way a company manages itself is extremely important for its success.

Internally, a digital unit should be established to promote creative approaches to operating for digital performance, including flexible production processes, running tests, acquiring knowledge about approaches which promote innovation whilst also retaining customers, and the formation of cross-functional teams with diverse skill sets.

### 3. Analyse your company's main strengths and capacities.

Manufacturers must address the main talents and skills required for transformation as we move into a new age of competition and innovation. Although optimisation is essential, it is unlikely to become the single aspect that determines success. Rather, an aspect of the transition is preparing to use digital skills and expertise to redesign the company's value propositions and procedures. Cloud services, actionable insights, e-commerce platforms, connected devices, the Internet of Things (IoT), data analytics, and other technologies have quickly become indispensable.

### 4. Select the appropriate digital transformation associate.

After doing internal talent evaluation, the organisation may have concluded that it won't be enough to handle such a large-scale shift as digital transformation. As a result, the company may

require the assistance of a trusted partner who will be there for every step of the way and will guide them through the digital transformation process. Prior to actually deciding on a technology partner, the company needs to think about their manufacturing experience, technology proficiency, and capability to assist and drive an effective roadmap.

In the manufacturing industry, a digital transformation roadmap lays out a strategy to manage changes in processes, business strategies, and client experience. Manufacturers can use this to create essential standards, monitor KPIs, and assess progress. It can cover everything, including establishing agile methodologies to skilling up employees, upgrading technology stacks, determining budgets and timelines, and redesigning architecture, among other things.

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