

The Economic Impact of a Digital Manufacturing Partner for **Production** **Workloads**

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Introduction

Balancing growth and profitability, including streamlining general and administrative expenses, are common focus areas amongst investors, c-level executives, and supply chain leaders these days. According to [Pitchbook](#), investors are concerned about not seeing portfolio companies on a path to profitability. C-levels may have fresh capital from investors but are feeling challenged with heavy bill of material (BOM) costs relative to pricing strategies, costs relating to underdeveloped supply chains and managing them adequately, rising materials and logistics costs, and skilled labor shortages.

To help achieve that balance and expand margins, Fictiv provides a Digital Manufacturing Partnership to give original equipment manufacturers (OEMs) access to a ready-made and resilient Fortune 500 Global Supply Chain. The partnership delivers business and financial benefits to customers through Fictiv's investment in the four Ps:

Process – A clearly defined and proven business workflow to effectively orchestrate the flow of information and materials in the manufacturing process.

Platform – Proprietary technology platform that automates and accelerates large portions of the manufacturing workflow for activities such as quoting, DFM feedback, supplier matching, fulfillment, and order tracking.

Partner Network – A digitally connected network of highly vetted manufacturing partners possessing the capabilities, quality standards, and speed enterprises require. Situated in four key global geographies and operating with built-in failover, the Fictiv platform can withstand any major geopolitical, weather, labor-related, or other major global event.

People – Highly skilled engineering and manufacturing professionals who support optimal design for manufacturability and associated cost-down support, highly tuned and efficient logistics, program management, and “boots on the ground” quality operations in the region for successful end-to-end manufacturing.

This paper explores the financial benefits of a Fictiv Digital Manufacturing Partnership.

These benefits include:

- Higher revenue through faster time-to-market
- Increased product margins through lower BOM costs
- Reduced internal procurement expenses involved in sourcing, vetting, and onboarding multiple suppliers
- Lower inventory investment
- Low to no capex required for factory setup

Supply Chain Transformation

Supply chain leaders are using a Fictiv Digital Manufacturing Partnership to transform their supply chains and, in some cases, build one out entirely. An analogy is the transformation that occurred in the IT sector because of the migration to the cloud. Migrating to the cloud made IT operations leaner, directed more effort to business outcomes, and focused less on lower-value activities. The same transformation is happening to supply chain management.

A Fictiv partnership enables supply chain teams to focus on and improve the key drivers of a manufacturer’s financial performance, including:

- Revenue growth
- Profitability
- Asset utilization

Illustrative benefits from a Digital Manufacturing Partnership are shown in Table 1. The benefits are for an industrial manufacturer with \$100 million in revenue. Values are estimated using median benchmarks for operational key performance indicators (KPIs) for Industrial Manufacturing provided by the American Productivity & Quality Center (APQC) and research conducted by FinListics Solutions.

These benefits are scalable to different sizes of revenue. For example, the illustrative benefits are 2X for a company with \$200 million in revenue, and 0.5X for a company with \$50 million in revenue.

Table 1
Illustrative Digital Manufacturing Partnership Benefits for an Industrial Manufacturer with \$100 Million in Revenue

Benefit Area	Illustrative % Benefit	Dollar Benefit
New Product Introduction Acceleration	10%	\$1.3M Revenue
Bill of Materials Cost Reduction	5%	\$1.74M Cost of Goods Sold
Internal Procurement Cost Reduction	10%	\$23K General & Administrative
Reduction in Held Inventory	10%	\$660K Parts Inventory
Reduced Capital Expenditure	10%	\$680K Equipment

Sources: APQC for Operational KPIs Median Values FinListics Solutions for Industry Financial Benchmarks



New Product Introduction Acceleration

Three potential revenue benefits from a Fictiv Digital Manufacturing Partnership are:

- Accelerate new product introduction
- Reduce risk of launch failure
- Increase in average sales price

Conventional sourcing methods in product development are wildly inefficient and slow down the efforts of even the most ambitious R&D teams. The time spent sending quotes via email, waiting days for responses to specific component questions, and long production lead times spurred by delays at capacity-constrained suppliers result in sluggish development cycles.

A Fictiv Digital Manufacturing Partnership matches an OEM's parts requirements with its extensive network of vetted suppliers. This significantly reduces the time for quotes and parts lead times, resulting in faster new product introduction. This, in turn, provides quicker revenue recognition. [One medical device company](#) was able to accelerate time-to-market by 8 years—from 10-year cycles down to just 2—after partnering with Fictiv.

For illustrative purposes, consider an OEM that generates \$100 million in annual revenue, and the Industrial Manufacturing industry median new product introduction is 13% of total revenue. The annual revenue benefit is \$1.3M for each 10% improvement in new product introduction time to market.



New Product Introduction Acceleration (cont'd)

Benefits for Startup Companies

Faster new product introduction using a Fictiv Digital Manufacturing Partnership is particularly significant to start-up new product companies. These companies must demonstrate to investors, often venture capitalists, that their products will succeed. Being first to market has benefits, such as higher market share and profitability.

Diminished Risk of Launch Failure

Fictiv also helps to boost revenues and lower expenses by reducing the risk of launch failure. Fictiv supports the high-risk transition from rapid prototyping to production, up to 1M units annually, and all the steps in between, providing engineering expertise, redundant sourcing, and “boots on the ground” to ensure streamlined and successful execution. The end result? Diminished risk of launch failure.

Decreased Cycle Times for Higher Value Products

Another benefit to revenue is that Fictiv helps customers build a better product that can result in a higher average selling price (ASP). For example, engineering might aim to have 20 different iterations of a given mechanical component to get an efficient design that feels good in consumers' hands. But if they can't get 20 iterations because of slow lead times, they might have to reduce the number of iterations to just, say, 10, resulting in a non-optimal product and lower ASP. Fictiv helps customers go through the iterative design process more quickly, providing design expertise as well as shorter lead times. This results in a better product and user experience and higher ASP.





Bill of Materials Cost Reduction

Fictiv offers on-demand access to a Fortune 500-class supply chain with high-quality, economical sourcing options globally. Fictiv's quality management and proprietary direct supplier relationships provide customers with an unprecedented opportunity to reduce part costs while maintaining high-quality standards and expanding profitability.

Parts and materials are 55% of the cost of goods sold using the Industrial Manufacturing median. For illustrative purposes, the annual reduction in the cost of goods sold from lower parts and materials cost is \$1.74M for each 5% benefit. This would help increase gross profit margin by almost 200 basis points for a company with \$100 million in revenue. Some Fictiv customers have achieved a 10% to 20% lower BOM. Better managing materials is one of the most important initiatives pursued by manufacturers to expand gross profit margins since they comprise the highest percentage of production costs.

Material costs are also lowered by having better Design for Manufacturability (DFM). As in [this Honeywell case study](#), Fictiv provides AI-powered DFM feedback and guided expertise through its team of manufacturing engineers to help engineers design more efficient parts, resulting in a lower part cost and faster lead times.

From a strategic perspective, lower materials costs provide greater pricing flexibility to obtain greater market share. In another [Fictiv case study](#), a customer was able to offer 20% lower prices than competitors.

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Internal Procurement Cost Reduction

Vendor consolidation is one of the key benefits of a Fictiv Digital Manufacturing Partnership. Suppose a manufacturer is managing 200 part numbers across ten different suppliers. Internal resources are being used to qualify suppliers, cut purchase orders, and manage the suppliers. This can be especially burdensome for start-ups and smaller companies with limited personnel resources. Unfortunately, highly valued engineers are often those managing suppliers for these companies, taking time away from much more productive activities like product innovation.

With a Fictiv Digital Manufacturing Partnership, internal procurement expenses are lowered since Fictiv manages the complexities of a global supply chain and the management of their mechanical parts. Internal procurement expenses were estimated to be [lowered 80% in one Fictiv case study](#). Table 1 shows that each 10% reduction in internal procurement expense reduces General and Administrative overhead \$23 thousand.

Reduction in Held Inventory

A Fictiv Digital Manufacturing Partnership can better manage inventory in several ways. First, it provides greater parts delivery options to optimize parts consumption. Second, it provides more flexibility in ramping production up and down in response to customer demand. A 20% reduction in inventory was estimated in one [Fictiv case study](#).

Table 1 shows a 10% reduction in parts inventory delivers a \$660K balance sheet benefit.



Reduced Capital Expenditures

Reduced capital expenditures is another benefit of a digital manufacturing partnership. Leveraging Fictiv's network of suppliers reduces the need for investment in parts manufacturing equipment and factory space. In one [case study](#), a medical device company was able to save millions of dollars in combined infrastructure, people and time costs when compared to traditional development and supply chain strategies.

Table 1 shows that a 10% reduction in capital expenditures avoids \$680K in investment in equipment for a company with \$100 million in revenue.

Lower capital expenditures help to generate higher free cash flow and return on capital. It also affords greater flexibility to respond to changing market conditions and mitigates risks arising from sources like technological obsolescence and regulatory change.

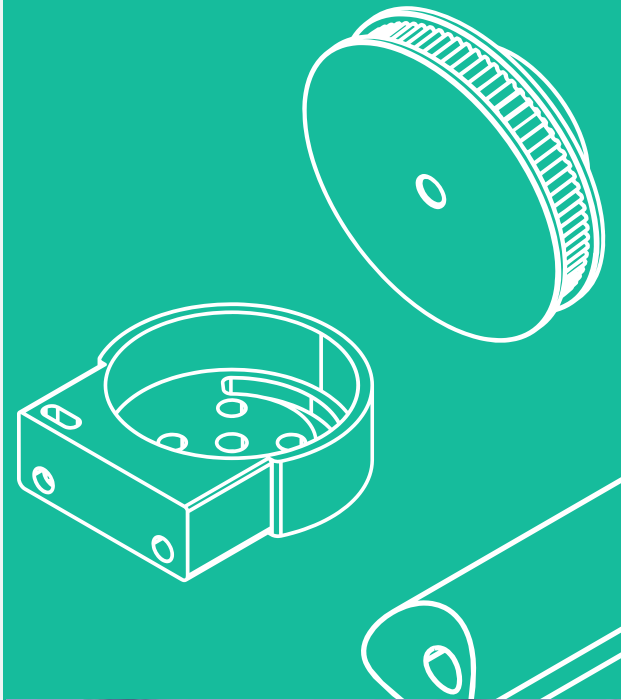
Conclusion

A Fictiv Digital Manufacturing Partnership plays a key role in improving overall financial performance. It provides faster introduction times for a new product, lower cost of parts and internal procurement costs, and less inventory investment.

These partnerships are catalysts for growth, innovation, and efficiency. It's time for manufacturers to embrace this digital transformation, not as a choice but as a crucial step towards future-proofing their operations. The journey towards digital manufacturing excellence begins now – are you ready to take the first step?

[Click here](#) to schedule a free and personalized economic impact consultation.





ABOUT THE AUTHORS



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Dave Evans is the CEO and Co-Founder of Fictiv, a global manufacturing company. Dave is a regular contributor for *Fast Company* and *Forbes* and, prior to Fictiv, was the first hire at Ford's Silicon Valley Innovation Lab. Dave graduated from Stanford University with a B.S. in Mechanical Engineering.



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