How are manufacturers investing in AI?

By Antony Bourne, SVP Industries, IFS

Manufacturers are investing heavily in artificial intelligence (AI). One global forecast projects 49.5 percent annual growth of AI investments among manufacturing companies. Investments, though, require a use case. Where in their organizations will manufacturers focus?

According to a 2019 study by IFS found that more than 90 percent of manufacturers are planning investments in AI. It also gathered insights on exactly what use cases manufacturers are planning projects around. Of the more than 600 respondents, 383 were in manufacturing. When asked in what areas of their organization they are planning to make AI investments, industrial automation rose to the top.

In what areas of your business do you plan to make AI investments?

Industrial Automation	208	54%
Customer Relationship Management	138	36%
Inventory Planning/Logistics	154	40%
Production Scheduling	140	36%
Service Scheduling	97	25%
Not Planning to Invest	34	9%

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"We are seeing many real–world examples where technology is augmenting existing decision–making processes by providing users with more timely, accurate and pertinent information," IFS Vice President of Artificial Intelligence and Robotic Process Automation Bob De Caux said. “In today's disruptive economy, the convergence of technologies such as AI, robotic process automation (RPA), and IoT is bolstering a new form of business automation that will provide companies that are brave enough with the tools and services they need to be more competitive and outflank larger competitors."

Inventory planning and logistics and customer relationship management (CRM) were prioritized next after automation. Predictive approaches to inventory management are already popular so manufacturers can manage their supply chain and inventory levels based on algorithms that look forward based on current conditions in the business rather than relying on past performance. AI has also impacted CRM and the customer experience as chatbots equipped with natural language processing (NLP) capabilities can automate a high percentage of customer interactions and are getting smarter every day.

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AI cradle to grave

So we see here executives planning to use AI to generate value in manufacturing or production, to manage the flow of that value through inventory management and to tie value and perhaps the demand plan more closely in with what is going on with customers.

AI will come to market at first as a guide–on–the–side for human workers, helping them make more beneficial decisions. So it is not unreasonable that 65 percent of respondents said they wanted to use AI to make their existing workers more productive. Indeed, according to the **Cap Gemini Research Group**, smart factory technologies stand to boost the global economy by $1.5 trillion by 2023.

Increased productivity and even increased margin are well within reach. And initially according to experts, AI will support rather than replace humans.

“The integration of AI into the workplace will come through augmentation of human skills rather than substitution of jobs. AI, in fact, does not automate jobs. It automates certain skills in jobs,” wrote Pedro Uria–Recia **in Medium**. Urua–Recia stresses that AI will augment human capabilities in terms of process–oriented skills, quantitative and cross–functional reasoning. It is these ambiguous cross–functional reasoning skills where humans excel, and AI will take other loads off of people enabling them to devote more time to this very productive and important way of working.

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“While most AI initiatives create competitive advantage by perceiving an entirely new opportunity, enhancing current efforts, supplying a market segment that others have ignored, or creating new markets, connected devices that feed a constant stream of data about functionality, usage, production, needs and more to a central location will create even more fascinating competitive transformations,” Jayshree Pandya **writes for Forbes**. “That brings us to an important point: As the internet of things (IoT) integration will allow for the development of environments where users and consumers can interact, how will it change business models further, as it will be possible to design experiences over products?”

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Who were they?

Respondents were widely distributed across different types of manufacturing, including discrete, process and engineer–to–order. They were from all regions of the world, including North America, Scandinavia, Western Europe and Australia.

Discrete Manufacturing	143	37%
Process Manufacturing	207	54%
Engineer to Order Manufacturing	189	49%

Similar experiences

There were only minor differences in how manufacturers responded to the study as opposed to respondents in other industries. This should not surprise us given that most companies are initial adopters of AI technology and are taking those first tentative steps.

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Selected Question Comparison

	Manufacturers	All
Industrial Automation	54%	44%
Customer Relationship Management	36%	39%
Production Scheduling	36%	39%
Will Replace Existing Workers	27%	29%
Add Value to Products/Services	45%	48%
Expect Decrease in Headcount from AI	27%	29%

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Where to go from here

AI will change manufacturing on a fundamental level. So far, what we have seen are largely AI deployments across narrow swaths of the business. In the next several years, as our data shows, 90 percent of manufacturers will be investing in AI. Let's meet at your convenience to determine how IFS can help you along on this journey towards an uncertain but promising future.

As the Senior Vice President of IFS Industries, Antony's responsibilities include acting as the Global Industry Director for Manufacturing as well as leading the team of other global industry directors. Antony has over 20 years experience in the IT industry, including working in the manufacturing sector. Prior to joining IFS in 1997, he held Business Analyst positions with Ford Motor Company and AlliedSignal. During this time he implemented ERP applications as well as business process improvements.

About IFS

IFS develops and delivers enterprise software for companies around the world who manufacture and distribute goods, build and maintain assets, and manage service-focused operations. Within our single platform, our industry specific products are innately connected to a single data model and use embedded digital innovation so that our customers can be their best when it really matters to their customers–at the Moment of Service.

The industry expertise of our people and of our growing ecosystem, together with a commitment to deliver value at every single step, has made IFS a recognized leader and the most recommended supplier in our sector. Our team of 4,000 employees every day live our values of agility, trustworthiness and collaboration in how we support our 10,000+ customers. Learn more about how our enterprise software solutions can help your business today at **ifs.com**.

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