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Revamp Your Operations with Artificial Intelligence for Improved Efficiency & Growth

Brought about by the advent of the Fourth Industrial Revolution (also known as Industry 4.0), this disruption seized upon the idea that data-driven, inter-connected manufacturing environments could enable a more integrated and, ultimately, a more efficient and profitable business.

Across the industry, manufacturers are **feeling the weight of digital disruption.**

Simply put, manufacturers from around the globe recognized an innovative opportunity to get their products to market faster, and they jumped. Well, most jumped, hence where the "disruption" of digital disruption comes into play. Adopting and implementing next-generation ERP (enterprise resource planning) system enhancements is no small endeavor, especially when considering what to do with existing legacy systems that are already in place. But manufacturers must grapple with how to remain relevant within a more globalized and ever-competitive marketplace. So, although complex and distressing, this disruption offers manufacturers the opportunity to rethink and modernize within their operations to ensure both stability and long-term growth.

This white paper will further contextualize the digital disruption taking place across the manufacturing industry, as well as specifically outline why manufacturers should adopt next-generation software for greater flexibility, visibility and overall efficiency within their enterprise.

FOLLOW THE MARKET

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In many ways, a manufacturers' ERP system is the heart of the organization. Thus, it naturally follows that next-generation software solutions would come from a renewed focus and attention to this core. And few, if any, industry experts could deny that a resurgence in artificial intelligence (AI) and cognitive computing technology is elevating these solutions forward. In fact, an October 2016 report from the International Data Corporation predicted that the widespread adoption of cognitive systems and AI across a broad range of industries would drive global revenues from around $8 billion in 2016 to more than $47 billion in 2020.

According to Research Director David Schubmehl from Cognitive Systems and Content Analytics at IDC, this data illustrates how software developers and end users are already embedding and deploying AI into a variety of enterprise applications or processes.

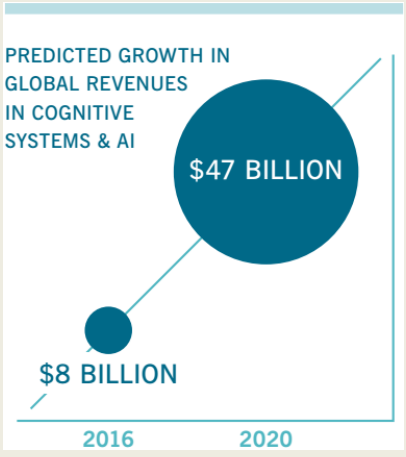
“Recent announcements by several large technology vendors and the booming venture capital market for AI startups illustrate the need for organizations to be planning and undertaking strategies that incorporate these wide-ranging technologies,” says Schubmehl. “Identifying, understanding and acting on the use cases, technologies and growth opportunities for cognitive/AI systems will be a differentiating factor for most enterprises and the digital disruption caused by these technologies will be significant.”

Jessica Goepfert, the program director of Customer Insights and Analysis at IDC, agrees and specifically noted the opportunity this provides manufacturers.
“Near-term opportunities for cognitive systems are in industries such as banking, securities and investments, and manufacturing,” says Goepfert. “In manufacturing, executives cite improving product quality as a top initiative. In this case, cognitive systems recognize and know how to respond to dynamic fluctuations in product specs by adapting the production to stay within quality targets.”
And that level of predictability is an invaluable asset for manufacturers, which is precisely why so many are investing in smarter operations. An AI-enabled ERP system optimizes existing operational models and elevates those processes to become even more efficient.

TACTICS FOR COPING WITH A VOLATILE MARKETPLACE

AI Technology ability to augment & improve functionality = **Manufacturers enhance & improve the effectiveness**

For manufacturers, maintaining a certain level of agility and flexibility amid uncertain times is of utmost importance. Manufacturers must be in tune with the shifting landscape of the marketplace and the changing industry as a whole. In fact, with a renewed national focus on manufacturing jobs, rhetoric on international trade tariffs and restrictions on outsourcing under the Trump administration, the rapid rate of change seems the only real certainty. And that’s why, more than ever, manufacturers must be strategic about their operations, supply chain and focus on forward thinking solutions.



Mark Humphlett, Infor’s Senior Director of Industry and Solution Strategy, says that manufacturers willing to make confident shifts toward new opportunities can not only survive digital disruption and volatility — but even thrive. “It is truly a global economy with major growth potential — for the manufacturers who are forward-thinking and well-equipped with modern software solutions,” Humphlett says. “However, for those who are struggling with outdated technology and hesitant about upgrading, growth may be an uphill battle.”

SOLUTIONS-ORIENTED

Here are some of the ways modern, AI-enabled software solutions can help manufacturers revamp their operations with long-term growth and stability in mind.

REDUCE ERRORS & DOWNTIME

Leveraging AI-enabled software means letting the computer to do the work for you.

Because AI technology has the ability to learn in order to augment and improve functionality, manufacturers can enhance and improve the effectiveness of their enterprise. For manufacturers, these Predictive analytics means workers will be able to not only anticipate trends but also spot potential problems or issues before they occur.

IMPROVE VISIBILITY

Manufacturing operations are — even at the best of times — complex. And for manufacturers whose operations spans multiple factory locations or continents, the complexity is exacerbated. However, by using advanced analytics and enhancing your ERP system, manufacturers can streamline their operations to minimize waste and optimize workforce productivity. This organizational centricity is also critical in terms of aftermarket support, customer relations, regulation compliance and, of course, quality control.

“Connecting the workforce across a range of devices and sources breaks down the barriers of multinational operations,” says Mary Ann Norris, the COO of Oblong Industries. “Companies must adopt new technology that helps them better digest and make actionable the immense amount of data gathered from the factory floor,” says Norris. “And in today’s changing work environment, with organizations operating global, dispersed teams, employees across locations must be on the same page and have access to the same information in order to effectively and efficiently make decisions.”

AI-enabled ERP systems can completely restructure the core of a manufacturer’s day-today business operations. For instance, human resources (HR) and accounting software such as AI Works developed by Works Applications, saves workers time by entering data, managing tasks and even scheduling or offering up a suggested course of action based on company policies.

RESPOND FASTER

By adopting a more flexible and supportive software platform, manufacturers will become more agile and flexible. And with greater visibility and an efficient operational structure, manufacturers are readying themselves to respond faster to upgrades, customer inquiries or logistics concerns. “And that just happens to be the beauty of artificial intelligence,” explains Grayson Brulte, the co-founder and president of Brulte & Company. “The best AI systems solve big problems and improve the overall quality of life. Alongside the right workforce, artificial intelligence will create tremendous opportunities for companies.”

CONCLUSION

Within this globalized marketplace, manufacturers nowadays can't afford not to invest in technologies driving the future of the industry. With increased competition and evolving customer demand, manufacturers must be willing to modernize and innovate to ensure their long-term health and overall operational efficiency. One strategy to confront these shifts head-on is the decision to adopt and invest in AI-enabled software, like that offered through Works Applications. Aside from the many advantages discussed above, one worth noting again is that manufacturers don't need to toss out their legacy equipment. And, although adoption can be complex, consider also where the market is headed and what's at stake if you choose to let digital disruption get the best of you.

So, embrace this age of disruption and AI-enabled software along with it. Because one thing is for sure:

IF YOU DON'T, **YOUR COMPETITION WILL.**

ABOUT THIS REPORT

The information in this report was researched and produced by Manufacturing.net in conjunction with Works Applications.

Statistical data was researched and compiled by Advantage Business Media in March 2017