



Predictive Capabilities in Manufacturing and Its Impact on Customer Experience

01/15/2019 - 8:05am

by Steve Smith

Manufacturing Business Technology

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For manufacturers, functioning equipment is the bedrock of business continuity. While there are dozens of reasons why equipment uptime is so important, the most pressing include the fact that end customers rely on capital equipment to keep their doors open, to satisfy customers, and ultimately, to generate revenue. Additionally, if capital equipment goes down, the downstream effects can be disastrous, potentially creating a crisis situation. Fortunately, the kind of reliability that manufacturers need to deliver

to their customers is attainable through technologies such as predictive maintenance and instant repair response.

Proper maintenance strategies allow manufacturers to avoid acting only in response to a disruptive incident; instead they can predict and/or prevent problems using predictive maintenance techniques. Technology enhancements around the Internet of Things (IoT) and data analytics enable service companies to preemptively get ahead of problems, minimizing—or even averting—the impact felt by customers when machines do malfunction.

Connected equipment sets up manufacturers so they're alerted to abnormalities around machine performance, with the goal of preventing downtime before it happens. When manufacturers spend millions on an asset that is already rapidly depreciating, avoiding even minimal downtime is essential.

Connected Devices for Avoiding Downtime

Great service leads to a great experience and puts a company that much closer to being in the smart minority of companies that *customers* say offer a “superior experience.” The disparity lies in the fact that 80 percent of companies believe that they deliver this “superior experience,” versus only 8 percent of customers who agree. There is a disconnect between companies and customers when it comes to the level of service expected. IoT sensors generate volumes of data to be processed and stored, giving companies insight into equipment health, performance and failures. Every unit can generate hundreds of thousands of data points every minute.



Steve Smith

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In field service, one of the missing elements in customer experience is reliability. In a recent [study](#), it was found that even though 80 percent *believe* they are offering a superior experience, only 30 percent of companies actually take the initiative to set up a strategy to deliver superior customer experience.

IoT and Preventative Maintenance

When it comes to equipment, in addition to providing a speedy response to a breakdown, companies must work to prevent failures in the first place. To bridge the gap, IoT and machine-to-machine (M2M) communication support the automation of decisions and initiate actions without the need for human intervention. The benefits are numerous: remote monitoring applications already save billions in transport and human capital management costs. Add the potential positive impact on customer engagement and its associated business value, and the call to action is clear. A complete IoT strategy leads to better and faster decisions throughout the service delivery lifecycle.

But production breakdowns inevitably occur and when they do, manufacturers can use Artificial Intelligence in workforce management solutions to get the right person to that asset, with the right tools and information, reducing downtime. This approach allows companies to take advantage of the insights gleaned from historical data to streamline efficiency in the future. Moreover, flexible scheduling, visibility into a technician's location and streamlined communication can further improve the customer experience.

Customer Expectations Are Evolving

When medical imaging equipment in a hospital or a piece of production line machinery breaks down, it can result in costly delays and impact a company's bottom line. In today's on-demand economy, customer expectations around timely delivery of service are changing, with a presumption of a speedy resolution. Optimized scheduling automatically coordinates the best time for the asset and the personnel to eliminate premature maintenance and the productivity loss that results.

Additionally, though many factors go into helping a service worker do their job, several of these are often out of their control. By analyzing data to account for these variables, predictive scheduling helps reduce the unknowns so that service technicians can focus on their job at hand, without having to worry about things like weather, traffic, and other unexpected delays.

Manufacturing companies must adopt predictive capabilities to stay on top of maintenance needs and meet the growing expectation of customers. Competition is good, it keeps companies innovative and fresh. Today, one of the best ways to get ahead of competitors is to incorporate AI across the organization. When it comes to field service management, it's time to either jump on board with AI or get left behind.

Steve Smith is VP of Strategic Industries at [ClickSoftware](#).

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