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Why Start Your Digital Transformation Now?

End-To-End Business Integration is Fast Becoming Table Stakes in the Race for Competitive Advantage

As a manufacturing leader, you've likely heard a lot about the efficiencies and productivity gains realized from having a single digital thread that connects your factories to your back office financial functions, streamlining and linking work processes and production data from engineering and product design, through manufacturing and to delivery and field service. An emerging trend is to extend that thread to include your selling processes. Whether you sell B2B or B2C, it's becoming increasingly urgent to better coordinate data from every sales channel, from in-person brick and mortar stores, customer sales representatives and direct sales to all aspects of ecommerce, such as websites, online marketplaces, mobile apps and social.

The reason manufacturers must not delay digitizing their sales processes is that most of the rest of the world already has, creating customer expectations that you provide the same levels of sales and service offered elsewhere.

It's called the Amazon Effect, because it's causing buyers in every market and industry to expect every aspect of the buying process—research, product evaluations, comparisons, purchasing, delivery and aftermarket service—to be easier and more customer friendly. That is, as easy as buying from Amazon. As more buyers expect—and more manufacturers meet—these expectations, the risk grows that you'll fall behind your competitors or allow a new, digital-savvy entrant to capture market share.

The need to modernize—and digitize—your business is fast becoming non-negotiable. If you're not transforming your business, you're failing to adapt to new business realities. If you're not adapting to the way business is being conducted and interacting with your customers the way they want, then you're more likely to be making the wrong product, failing to offer the latest service or product features your customers are looking for, or not making your products available in the customer's preferred sales channel.

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In addition, as if dire warnings of losing to competitors aren't enough, two other constituents are demanding a modern, digital approach and they are, frankly, as important to your business as your customers. They are your current, most-likely aging workforce and recruits you

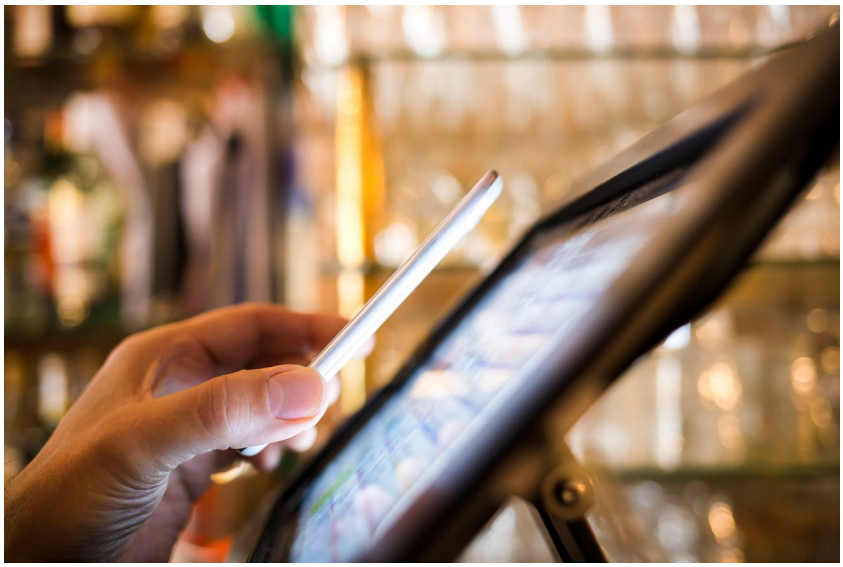
State of the Digital Manufacturing Business

The good news is that if you move quickly, you can still stake out first-mover advantage in your industry. A KPMG Manufacturing CIO survey reports that manufacturing companies say their digital strategies are not very effective. When asked the question, "How effective has your organization been in using digital technologies to advance business strategy," only 8 percent described them as "very effective," versus 18 percent for all industries.[1]

The bad news, especially if you're not ready to map your digital strategy, is that manufacturers are on the move. The KPMG survey, using investment in cloud services as proxy for digital investment, found that though manufacturing survey respondents trailed other industries in current year cloud services spending, they expect to increase their investment more than other industries in the next one to three years. This was true across all deployment models: Infrastructure as a Service (IaaS), up 20 percent verses 16 percent; Platform as a Service (PaaS), up 23 percent compared to 18 percent; and Software as a Service, up 33 percent to 22 percent.[2]

Transitioning to Manufacturing's Future Workforce

It's no secret that manufacturers are facing a retirement exodus. Reports indicate that an estimated 2.7 million manufacturing jobs will likely need to hope to hire as the current employees retire. Leveraging the latest technology makes your current workforce more productive, collects and codifies the best practices and tribal knowledge of your soon-to-be-retired workforce, and makes your company more attractive for the up-and-coming digital natives you need to take your company into the future.



What Customers Want

Though they've always been demanding, your customers' experience with other digital savvy businesses has amped up their expectations. They won't accept excuses. They want their customized short-run order delivered as quickly as if it were made to inventory—or faster—and at the same price. They know it's complicated, but also that every other company they buy from seems to have the latest technology figured out.

They also want a seamless, easy-to-understand buying process that allows them to engage via the channel of their choice—and, increasingly, that means interacting through more than one channel during their workday or as the purchase process proceeds.

be filled as a result of retirements of the existing workforce.[3] Others calculate the median age of a manufacturing worker today as closing in on 45, which means half are older.[4] Replacing these workers with new technology (which improves the workforce's productivity, so fewer employees are needed) and the millennial workforce is vital to any manufacturer's continued success.

Meanwhile, modern technology figures prominently in research about what organizations must do to recruit millennials. The 2018 Deloitte Millennial Survey notes that over half of respondents expect "Industry 4.0" (the consultancy's shorthand for the latest technology) to free them from routine and mundane work, allowing them to focus on more creative, human and value-adding work.[5] That's significant, because another report from Gallup found that millennials "… choose careers for more than a paycheck…. Their ultimate goal is to find a good job that fuels their sense of purpose and enables them to lead a life well-lived."[6]

The report also notes that millennials have "instant and constant access to technology, allowing them to become consumers of everything, including the workplace. They can seek and find information on jobs and companies with greater ease than any generation before them. Millennials recognize that they have options and they don't feel the need to stay with a job that isn't the best fit for them."[7]

Covering the basics.

For mid-size manufacturers, this 24/7 demand requires not only the need to offer multiple channels, but the need to offer a robust ecommerce website that's connected with their ERP system. This allows B2B customers to begin their purchasing process at work, from a desktop or laptop web browser, and continue it in the evening on an iPad from home or a smart phone just before going to bed. In the always-on world marketplace, checking and confirming product specs, availability, price and shipping schedules long ago stopped being done during traditional work hours. Phone, fax and even email are too inconvenient, slow and kludgy.

This basic setup, a website connected to the ERP, offers convenience to your customers while eliminating the hand-offs—and the potential for error they introduce—in your order fulfillment process. This allows manufacturers to deliver whatever the customer wants faster, better, and cheaper.

Achieving Digital Omni-commerce

When we talk about transforming a manufacturers business—not just its production—we're talking about extending ecommerce to each of its proliferating channels to achieve digital omnicommerce. This next-gen version of online operations isn't about offering ecommerce as a single channel like EDI, but rather offering it in all sales channels. We're also talking about extending it through to the factory floor.

Business buyers are changing, their needs are changing, and how they buy is changing. Manufacturing must change with them by moving from old systems that are paper-based, excel-based, fax- and even email-based to digital systems. For B2B and B2C businesses, digitizing these systems transforms the

entire business, from identifying customer needs and unifying brand expression to streamlining order fulfillment, production and delivery processes.

With digital omni-commerce for manufacturers and distributors, at the center is a cross-platform ERP solution. This solution drives off-line commerce, including kiosks, store locations, EDI, direct sales and customer sales representatives, and various online channels, including dealer network portals, online storefronts and markets, mobile and social. All the activity and information is managed from a single source of truth, the ERP system. This includes product, process, customer orders and stock.

Keeping tabs on customer needs.
By digitizing commerce, manufacturers can more easily stay apprised of their customers' changing needs. What and how are they buying? How are they consuming information and gathering research? Keeping the engagement channel open through digital omni-commerce helps manufacturers receive such feedback, so they know who their buyers are, how they are buying, what they are doing with the product, what challenges they face—and that feedback continuously loops back and forth between the customer and the factory floor.

This allows manufacturers' extended value chains to be responsive to their customer's changing needs, so they can make products that are uniquely targeted to specific customers—which distinguishes them from competitor's products.

Perfecting the brand experience.
With the digital omni-commerce, manufacturers and distributors also can ensure that no matter where a customer decides to shop, they will have a consistent brand experience. Think about shopping for clothes. Apparel manufacturers don't only sell through Macy's or Nordstrom, but also direct via their website and through other online marketplaces, yet their brand expressions are consistent throughout.

For manufacturers, the latest ecommerce solutions feature responsive design, so manufacturers can similarly communicate a consistent brand experience across any device.

Streamlining order fulfillment.
The benefits of digital omni-commerce extend through every part of the production process, eliminating the cost of manual interactions and duplicate data entry, which in turn reduces errors and operational costs.

Automating XTO and in-person sales.
For manufacturers that make-to-order (MTO), engineer-to-order (ETO) and configure to order (CTO), automated selling is as critical as it is easy to see the benefits. As SKUs and custom configurations proliferate, automated systems are crucial to ensuring order accuracy and speeding order delivery.

Still, digital ecommerce is critical even if your unique selling proposition involves a sales team personally interacting with your customers, human to human. Companies that thrive on personal selling must focus on digitizing every other aspect of their sales

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fulfillment process, just as the XTO manufacturers must. This includes automated order configuration, pricing and delivery confirmation.

For manufacturers that sell or service their products through dealers, for example, automated systems streamline order quoting, sales management, inventory tracking and warranty processing. With direct access into the ERP system—the single source of truth for all orders—such systems provide dealers with self-service access to their sales histories and allows them to personalize offers, offer convenient delivery options and maintain transparency throughout the buying process.

Or consider the comparison between two sales representatives competing for the same customer. One shows up with a paper catalog and a bunch of paper order forms that they manually complete, and which must be personally delivered or faxed to the office, with confirmations made via email or fax.

The other has an iPad that allows the sales person to help the customer electronically configure the order, as well as offer a digital representation of it along with confirmation of pricing and delivery dates. Once closed, the order immediately electronically flows all the way to the manufacturing floor, cutting days out of the lead time, eliminating order errors—and freeing the representative of paperwork hassles. Again, in addition to the benefits for the customer, such automated systems also offer manufacturers obvious benefits to facilitate personnel recruitment and retention.

What Workers Want

Which brings us to workforce considerations. You have two employee groups to worry about if you don't digitize: Your current ones and those you're trying to recruit. Digitizing your selling process isn't about replacing people—though it's true you may be able to do more with fewer employees. For current employees it's about boosting productivity and digitizing the work that can be automated, so they can focus on higher value-added ways to serve your customer.

Digitizing "tribal knowledge" and best practices. In most manufacturing companies, the most important assets walk out the door each evening, carrying with them the knowledge and best practices that help uniquely deliver what the customer needs and wants. These employees, while valuable, can create bottlenecks in order fulfillment, as they must always be personally consulted. Worse, these employees will, at some point in the near future, retire. When they walk out the door for the final time, you'll want to be assured that the valuable institutional knowledge they acquired over decades is codified, digitized and made available to every other employee.

By digitizing the process, companies will transfer valuable insights into the system—into the one single source of truth—where every other employee can easily access and use it.

Attracting the new workforce. As for replacing these retirees, anyone following business news understands the struggle manufacturers face. The problem, decades in the making, is now upon them. Manufacturers aren't looking to replace someone in the next decade or a few years from now; they need the new worker next year—or sooner. They can't wait.

Trouble is, the millennial workforce demands more from their jobs than earlier generations. The best among them—the people you want to recruit—aren't inclined to spend as much as a day working in a facility that runs on old technology. This cohort grew up with a smart phone in their hands and an iPad at the ready. They shop, bank, socialize, watch movies and get their news and do most other things you can think of using the latest technology—and they're happy to switch to even newer technology at the drop of a pin. They aren't going to accept less in their workplace.

It's harsh, but true: Going to work in a factory running old technology to a millennial would be like turning their career onto a dead-end street. What will they learn to set them up for their next move? They expect, or rather demand, not only the latest, but the opportunity to be on the leading edge, so they can learn and grow in their careers, as confirmed by the Gallup report, How Millennials Want to Work and Live.[8]

Just how demanding are they? One study found that "Workers of all ages are accustomed to using smartphones, tablets, wearables and apps to make their personal lives easier—and they want the same from the technology provided at work," according to a report in CIO magazine. However, the report also noted: "The study found that, of all age groups, millennials were the most likely to quit a job over tech; 42 percent stated they would leave a company due to 'substandard technology.' To compare, only 25 percent of those over age 35 agreed. Similarly, 82 percent of those under age 35 said that workplace tech would influence their choice when taking a new job, while only 67 percent of those over age 35 said the same."[9]

A 134-Year-Old Modern Manufacturer

Digitization isn't something that only "high-technology" companies do. Indeed, in the Amazon economy, every manufacturer must be a high-tech company, no matter what they make and sell. Indeed, it could be argued

that for "older" manufacturers that make what most people would call low-technology products, a digitized production and sales process is even more critical for success.

Consider the case of Rainier Industries. Founded in 1896, the company manufactures-to-order premium quality display, shade and shelter products, and delivers throughout the world from two locations in the U.S. With 300 employees, the company runs three online stores and has digitized sales rep, retail, wholesale and custom sales for its B2B and B2C customers.

Automating the purchasing process empowers customers to place orders when they want, for delivery how they want, and drop off or will call when they want.

For shade sales, 99 percent of orders are placed via one of six ERP-based Product Configurators—which means manual order entry, a significant potential point of failure, is eliminated. For the company's cloud products, a B2B or B2C customer can configure the product online, by shape, size and color, at each step monitoring a dynamically updated price before adding the selection to the cart. A similar system offers customers the opportunity to configure tents, choosing from among 1,000+ SKUs with custom pricing for retail or wholesale purchases.

Automating the purchasing process empowers Rainier customers to place orders when they want, for delivery how they want, and drop off or will call when they want. The orders flow automatically into the ERP system for seamless processing; they are picked, packed and shipped with minimal supervision. For Rainier, the system allows for easy management of store assets across multiple storefronts, SKUs, product description and custom pricing.

Rainier's story speaks to how critical modern digital technologies can be to the success of "old-line" mid-size manufacturers, which arguably represent those who are at the greatest risk as digital omni-commerce becomes the norm.

Time is of the Essence

The need to implement the latest technology to serve new customer and market expectations runs throughout the manufacturing business, from design and engineering, through production and into delivery and field service. For sales and marketing, the process for figuring out what this increasingly demanding customer wants or needs, and delivering faster than ever, is also being digitized. The speed at which manufacturers must identify a growing market then pivot to fill it is shrinking. Without digital technology, the opportunity will come and go before it can be capitalized upon. Any weak link in the digital value stream could be the cause.

The solution is to integrate every process, including every interaction with your customers, suppliers and dealers.

If you're not transforming your business through digitalization, you're not adapting to what is going on in the industry and not interacting with your buyers the way they prefer—and you're becoming out of synch with the market. With a digital omni-commerce solution driven by a single point of truth, manufacturers will maximize their ability to stay apprised of and meet the fast-changing market and customer demands.

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