DIGITAL TRANSFORMATION IN ORDER MANAGEMENT

Replacing high-touch order management procedures with AI-powered automation increases productivity and better serves customers.
Executive Summary

Processing orders is one of the most, if not the most important part of any business endeavor. After all, order fulfillment is the cornerstone of most profit for any organization. Yet, order processing can take an inordinate number of man hours and introduce inefficiencies into operations, especially when manual processes are used for order fulfillment. What’s more, orders are the foundation of the supply chain, impacting every step of the supply chain from manufacturing to shipment to delivery. Without orders, the supply chain becomes irrelevant.

Numerous businesses view order processing as a cost of doing business, ignoring the potential value of streamlining and automating the process. Many businesses still process purchase orders using manual steps that include the need to route paper copies of orders, move copies of those orders across departments and manually track the fulfillment process — all while informing those responsible for supply chain operations of what is needed and when. What’s more, manual processes introduce the possibility of errors or oversights, further reducing productivity and ultimately impacting customer sentiments.

The biggest improvements to the order processing process can be realized by introducing automation and reducing the need for physical paperwork to traverse the fulfillment chain. In other words, digitizing order processing workflows can help businesses improve fulfillment speeds, reduce the chance of errors, better calculate fulfillment costs, and improve the ability to measure efficiencies. Automation also brings with it the capability for BI (Business Intelligence), data analytics and other analysis that can further improve the overall supply chain. However, accomplishing these goals require incorporating technology into the process to either reduce or automate the number of manual steps.

Technologies such as AI (Artificial Intelligence) and RPA (Robotic Process Automation) have come onto the scene to empower organizations’ digital transformation efforts within order management. AI injects decision-making capabilities into automation,
while RPA can transform manual data entry steps into the automatic movement of data across a workflow. AI and RPA working in concert can bring automation to non-standard procedures, taking the burden off of humans, while also reducing the incidence of errors.

By using a platform approach, AI-driven automation solutions can bring forth extensive benefits to the order fulfillment process by eliminating errors, improving communications, bringing visibility to the process, reducing costs and improving customer satisfaction. Order processing is the catalyst of the supply chain, and any improvements to the process enhances the supply chain, while also bringing actionable data to management and, ultimately, the customer.

**Introduction**

Order management has long been a hands-on, manual process, only leveraging basic technology to bring forth simplistic workflows that only drive more manual steps. Take, for example, the primary high-touch areas of order processing, such as customer service, sales, production and the supply chain. Whether it’s via phone calls, emails or other forms of communication, each touch needed for an interaction impacts productivity. If a customer calls for an update on an order, that usually requires an individual to seek out pertinent information to relay to that customer — an endeavor that may require numerous “touches” to garner the proper information. Much the same can be said about processing a change to an order, where numerous manual steps may be required to meet the customer’s expectations. Other issues sapping productivity include: lack of visibility into the order fulfillment process, a lack of triggers to alert staffers of problems, loss of merchandise, shipping issues, etc. Simply put, manual steps can introduce errors into a supply chain and impact customer satisfaction, while increasing operational expenses.

These problems are not reserved for just order processing, as other elements of the supply chain have experienced similar challenges. However, those issues seemed to have a lower threshold for corrective action to be taken, creating the opportunity for software firms to build platforms to solve those problems. Hence the rise of BPM (Business Process Management), SCM (Supply Chain Management), CRM (Customer Relationship Management), and BI solutions. While those quickly adopted solutions became commonplace, little thought was given to order fulfillment.

BPM, SCM and CRM are steadily evolving and bringing forth new capabilities, such as sharing data, improved forecasting, data analytics and bringing automation to workflows. Simply put, those solutions have proven that digital transformation via a platform approach brings forth measurable benefits, which makes the case for bringing those technical innovations to other parts of the business.
Order Processing — Slow to Evolve

Arguably, the biggest challenge for digital transformation in order fulfillment can be summed up in a single phrase: “We have always done it that way.” However, avoidance based upon fear of change should be quickly dismissed once the facts are revealed and the concept of “we have always done it that way” can be quickly turning into an advantage for those looking for digital transformation. Simply put, if there is a “way,” then there is a loosely defined process or workflow that can be transformed into a digital solution. It all comes down to identifying the steps defined to process orders manually and then look at where those steps can be digitized then automated.

“Leaving well enough alone” is quickly becoming a nonsensical argument. Business is being redefined by legislative compliance requirements, supply chain automation and other changes that will force businesses to adopt more automation along with the need for measurable data. Compliance is impacting a wide swath of the business ecosystem, with new regulations coming out of state and federal government impacting the supply chain.

For example, HIPAA (Health Insurance Portability and Accountability Act) has an impact on how pharmaceutical manufacturers do business via sales reps. Other regulations are more directly impacting the processing of orders. The Dodd-Frank act requires that public companies must be able to prove that certain sourced minerals are not coming from places that are financing conflict. In the EU (European Union), the REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) law governs the sale and purchase of chemicals considered “substances of very high concern.”

Numerous other regulations impact a multitude of businesses, which dictate that orders and sales must be accurately tracked, and more importantly, be fully auditable. Compliance adds overhead to the supply chain and the function of order fulfillment, sapping productivity while increasing costs. Restoring productivity and reducing associated costs requires rethinking workflows and more importantly, introducing automation to gather data and prevent errors.

Instituting a platform-based approach that leverages automation and implements well defined workflows can help businesses avoid problems, while also removing many of the manual steps associated with order processing.

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Tear Down Silos with Order Management Automation

In its simplest form, the concept of automation is little more than transforming a manual process into something accomplished by a machine. However, embracing automation for the sake of just removing manual processes can only deliver so much value. Automation needs to be viewed as step forward beyond just automatic controls. To fully appreciate what automation can offer, one has to rethink processes and tear down the silos so that separate teams can benefit.

Digital automation goes much further than just transforming a manual process into an automated one. Automation can increase value in many other ways. Take, for example, the implications of AI and ML (Machine Learning) when combined with automation. Those technologies allow systems to learn from the process, eventually understanding elements of a workflow and introducing heuristics to improve the process. Other automation technologies further benefit from this machine-driven, problem-solving approach.

RPA, for example, is a technology that started out as a method to automate data entry, where data was scraped from one system and then inputted into another. Intelligent RPA leverages machine-learned information to help further the data entry process when data elements fall outside of norms. In other words, an RPA system can learn the difference between a U.S. zip code and postal code from another nation and fill out the appropriate fields on a form. RPA can also use heuristics to identify data errors based upon past experience. RPA brings additional automation to order processing by pulling related information from portals, eliminating the need for a manual lookup. For example, if an order has a state and town listed, RPA can retrieve the correct zip code without the need for human intervention.

Automating order processing and fulfillment requires a holistic approach, meaning that order processing must be viewed as a component of something larger. Since orders are something that drives businesses’ processes, order management takes on a more significant role in the supply chain, where interaction is required among different business units. That requires a platform approach to order processing, allowing data to be shared and passed along to stakeholders, as well as keeping customers informed.

An order fulfillment and supply chain management platform brings forth efficiencies, including: making it easier to meet compliance requirements; breaking down communication barriers; helping teams to work collaboratively; removing entry errors from the process; reducing or eliminating duplicate efforts; bringing visibility to the supply chain; reducing processing time; and improving customer satisfaction. Platforms improve the speed of business and also can better accommodate change, whether it is from a customer or from an internal requirement. The workflows that drive platforms are customizable and adaptable to change, and can be quickly automated.
Automation and Integration Delivers a Wealth of Data

Bringing automation to order fulfillment is one of the first steps for transforming the order management process. Incorporating technologies that can process submitted orders, regardless of the source (e.g., email, fax, portal, EDI, etc.), reduces the possibility of errors, and also better meet the needs of the customer by offering 24/7 flexibility. However, many businesses look at some automation technologies as a path to reduce headcounts — creating fear, uncertainty and doubt among staffers. These issues seem to be magnified once intelligent automation or AI is added to the narrative. Yet, AI and automation can make team members more valuable by freeing up their time to do more productive tasks. Take, for example, sales staff: bringing automation into the order fulfillment process allows them to focus more on sales and increase customer collaboration. What’s more, automation better informs sales staff of the status of orders, where things are in the order process, and customer histories, providing critical data to help serve customers better.

Numerous other staffers benefit from intelligent automation, including customer service representatives who are burdened with repetitive tasks such as inputting data into additional systems or moving paper along the approval process. RPA allows those workers to shift to tasks that require human intervention or decision making. Machine learning, as part of the order fulfillment process, can identify additional data points and feed that data into ERP (Enterprise Resource Planning) systems. The data captured by automation has a positive impact on analytics, where BI can discover relationships between the data from multiple sources and offer insights to decision makers. Automation also prevents data from being lost or misfiled and prevents the issue of misplaced orders common among manual systems.

Incorporating automation into order processing enhances customer interactions, allowing businesses to better serve their customers. Since the digital transformation of order processing captures data and provides relevant insights, those dealing with customers have the full knowledge of previous interactions available, allowing them to interact with customers more effectively. Customers can also be set up to interact with the system, either by placing orders through a portal, or by tracking order fulfillment. A platform-based solution helps to eliminate surprises. Staffers charged with fulfillment have full visibility into the order process and can spot potential issues before a problem arises. Over time, ML will help to automate problem detection and resolutions, while alerting the relevant staffers. Shared information also empowers collaboration among team members bringing forth more predictable order processing and improved support for customers.
Conclusion

Incorporating automation into the order management process better aligns order processing with supply chain needs. Intelligent automation takes that further by removing what were once manual steps that had to be handled by human intervention. The solution approach supports a cradle-to-grave process, where orders are born, put into the system, given the necessary approval, passed on to the ERP, and then fulfilled, all with complete visibility into the process.

The data gathered during processing can be used to develop further insights and find relationships between data elements. Examples include how and when an order is placed may impact its fulfillment by taking into account logistics, supply shortages, shipping and events, such as holidays or work slowdowns. That allows those managing the supply chain to have a better understanding of what the fulfillment process may require, while also feeding critical information to other systems for analysis. What’s more, order processing automation helps businesses to deal with compliance issues. The system can identify potential compliance violations and records all information involved with fulfillment creating an audit trail.

According to research firm Gartner, supply chains must undergo digital transformation if businesses hope to remain viable. Change is coming in the form of shrinking labor supplies, improved machine intelligence, the need for real-time analytics and the need to reduce waste.

“Understanding trends and impacts is a challenging task for supply chain leaders responsible for identifying and putting in place strategies to build the right set of capabilities,” says Steven Steutermann, Managing Vice President at Gartner. “We expect that the supply chain of the future will undergo a major transformation process. At the end of this process, supply chains will act ‘on their own’ with the ability to self-regulate and take appropriate actions, and as a result, will increase and augment the capabilities of humans well beyond what is known today.”

Yet, the supply chain is ripe for disruption - “As companies seek to exploit the benefits of greater levels of digitalization, new and innovative technologies, such as blockchain and artificial intelligence/machine learning, can potentially and significantly disrupt existing supply chain operating models,” says Christian Titze, VP Analyst, Gartner.

For businesses, introducing automation and analytics into order fulfillment has become not just an option but a requirement. Businesses that transform today will be able to meet the needs of tomorrow, while also improving customer service and efficiency.