

ERP in Manufacturing

Creating a Hub for Visibility, Collaboration, and Innovation

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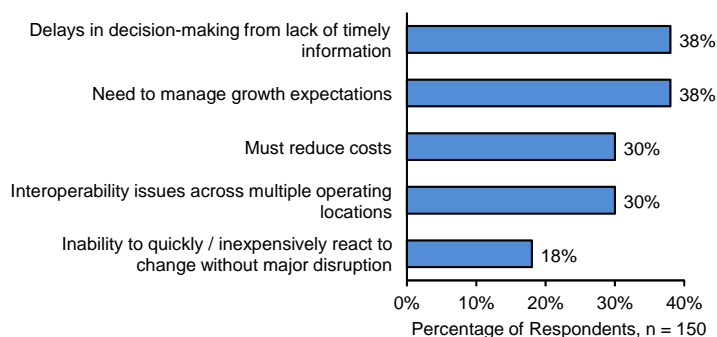
ERP in Manufacturing: Creating a Hub for Visibility, Collaboration, and Innovation

Enterprise Resource Planning (ERP) is the foundation of a successful manufacturing organization. It is essential for promoting standards throughout an organization, discovering potential efficiencies, and managing the front and back-end processes of an organization. But today's manufacturers are required to be increasingly innovative and more agile in decision making to both stay ahead of, and provide greater value to customers. Global competition and new sales channels adds greater competition. In many cases, it is no longer safe to provide the same products to the same customers without change. Therefore, manufacturers must enable collaboration and access to greater amounts of data. As such, ERP has evolved to become a hub for collaboration and continuous improvement. This report, based on a survey of 150 manufacturers, identifies Best-in-Class strategies for utilizing ERP to provide visibility to decision-makers and promoting collaboration across boundaries.

A Need for Improvement

Data from [Aberdeen's 2013 ERP Benchmark survey](#) illustrates the top business drivers impacting manufacturers' ERP strategies (Figure 1). These drivers indicate that manufacturers need to connect more employees and provide more data to employees when they need it.

Figure 1: Business Drivers for ERP in Manufacturing in 2013



Source: Aberdeen Group, June 2013

Thirty-eight percent (38%) of manufacturers cite a lack of timely information as their top business driver for ERP. If employees are unable to access data when they need it for decision-making, organizations can miss out on opportunities (such as favorable prices for materials), or be slow to react to

Sector Insight

Aberdeen's Sector Insights provide strategic perspective and analysis of primary research results by industry, market segment, or geography.

Aberdeen Methodology

The Aberdeen maturity class is comprised of three groups of survey respondents. Classified by their self-reported performance across several key metrics, each respondent falls into one of three categories:

- ✓ **Best-in-Class:** Top 20% of respondents based on performance
- ✓ **Industry Average:** Middle 50% of respondents based on performance
- ✓ **Laggard:** Bottom 30% of respondents based on performance

Sometimes we refer to a fourth category, **All Others**, which is Industry Average and Laggard combined.

How Do You Compare?

Manufacturing respondents to the [2013 ERP Benchmark survey](#) were ranked on the following criteria:

- ✓ **Days to close a month:**
Best-in-Class – 3,
Industry Average – 5.6,
Laggard – 7.3
- ✓ **Complete and on-time delivery:**
Best-in-Class – 96%,
Industry Average – 92%,
Laggard – 78%
- ✓ **Internal schedule compliance:**
Best-in-Class – 96%,
Industry Average – 91%,
Laggard – 82%
- ✓ **Inventory accuracy:**
Best-in-Class – 98%,
Industry Average – 94%,
Laggard – 86%

adverse events (such as products that need to be recalled). The costs to the organization can be substantial. As an extension of this, 18% have an inability to quickly and inexpensively react to business change. Providing employees with data can minimize costs and allow organizations to be agile when steering the organization to innovate and stay ahead of competitors. Successful manufacturers need to facilitate data access and arm their employees with the technology that can help them put available data to use.

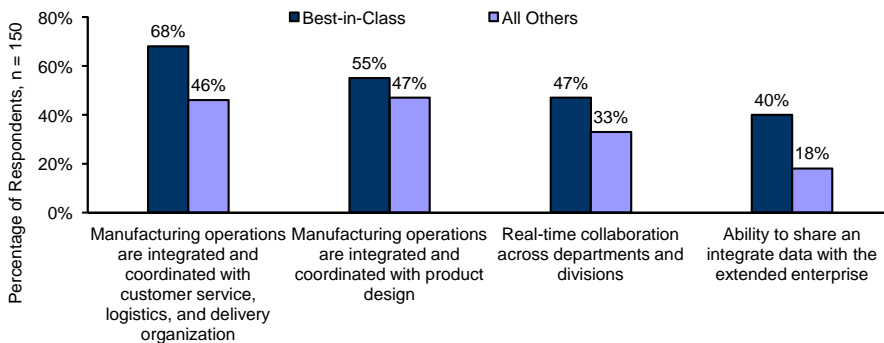
The above business drivers also indicate how ERP can be a hub for collaboration. As organizations grow, they often become geographically dispersed. It can become difficult to communicate between those business units. The organization can lose some of its cohesion and identity. As new best practices emerge in one unit, they may not be communicated to another. Truly, 30% of manufacturers cite interoperability issues across multiple operating locations. ERP needs to be a hub for this communication. Further, 38% cite a need to manage growth expectations. This requires making the most out of available resources. Continuous improvement for making the most out of these resources is spawned through collaboration.

Today’s manufacturers are driven to change their ERP strategies because of a need for collaboration and visibility into data. The capabilities and technologies that are more likely to be implemented by the Best-in-Class, illustrated below, help to enable these needs.

Creating a Hub

Since it is a single repository for the information needed to run a business, ERP can serve as a hub for collaboration. This hub will contain records of conversation, and facilitate communication between employees, no matter where they sit. This will help to minimize any interoperability issues across multiple locations. Best-in-Class organizations are more likely to utilize ERP to facilitate communication, collaboration, and continuous improvement (Figure 2).

Figure 2: A Hub for Collaboration and Innovation



Source: Aberdeen Group, June 2013

Best-in-Class manufacturers make it a priority to link functions throughout the organization. For example, they are 48% more likely than All Others to

integrate manufacturing operations with customer service and logistics. Further, 55% of the Best-in-Class link manufacturing operations and product design. These are just examples, but it is important to note that linking these functions creates efficiency and cost savings because linking functions that support one another ensures that things do not fall through the cracks and that there are no road blocks. For example, manufacturing operations can educate product design on why a new product may cause problems for the shop floor. Additionally, these units can work together to innovate and create new best practices. This linking is essential for creating continuous improvement teams. As a hub, ERP is a central record for this communication, but it is also a portal that enables it to happen. Today, 47% of the Best-in-Class have real time collaboration across departments and divisions. New functionality is making this easier and should continue to in the near future. While only 31% of the Best-in-Class currently have the ability for users to annotate, share, and collaborate on existing reports in real-time, they are 63% more likely than All Others to have this capability.

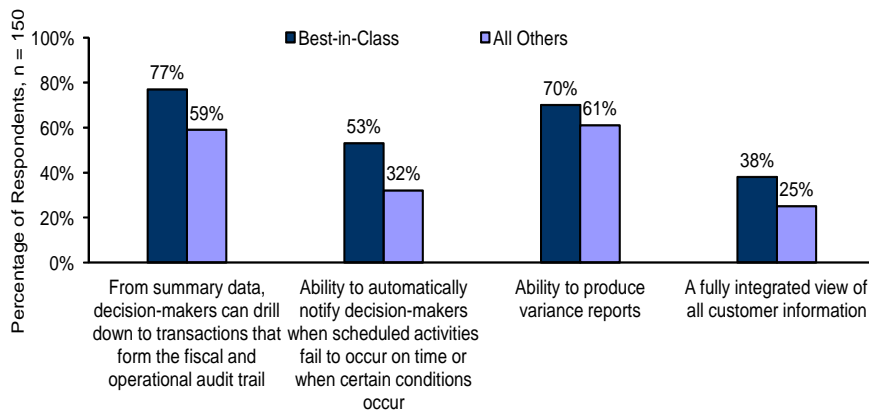
And ERP is not just a hub for collaboration internally. It is also a place where manufacturers can exchange data with their extended enterprise, whether they are suppliers, resellers, customers, or regulatory bodies. This is important because it enables manufacturers to have all of the data they need to run efficiently and can help them avoid situations that can hinder the business. For example, a manufacturer can be forecasting demand for a product but later find out that its suppliers are not going to be able to meet materials requirements to service that demand. Exchanging data with this supplier would alert a manufacturer of this predicament immediately. As such, the Best-in-Class are over twice as likely as All Others to be able to share and integrate data with the extended enterprise.

Today's manufacturing environment of increased global competition also calls for more informed and agile decisions. Best-in-Class organizations take advantage of the visibility into data that comes with an ERP solution (Figure 3).

Fast Facts

- √ Sixty-one percent (61%) of the Best-in-Class have cross-functional continuous improvement teams
- √ The Best-in-Class are 63% more likely than All Others to have the ability for users to annotate, share, and collaborate on an existing report or visualization in real-time

Figure 3: Data Drives Decisions



Source: Aberdeen Group, June 2013

Best-in-Class organizations are more likely than All Others to provide their employees with access to the data they need to make decisions. Seventy-seven percent (77%) of the Best-in-Class are able to view summaries that can then be drilled down in order to understand past performance and the status of processes across the organization. For example, project-based manufacturers can track costs that will help them steer projects away from scope creep and going over budget. It is not be enough to simply have all of this data available to employees. Since agile reactions are needed in today’s manufacturing environment, the Best-in-Class are 66% more likely than All Others to aid their employees with automatic notifications. And when they want to continuously monitor performance against goals, 70% of the Best-in-Class have the ability to create variance reports. These capabilities enable manufacturers to better guide their business in an increasingly competitive market.

For example, 38% of the Best-in-Class have a fully integrated view of all customer information. This is necessary for understanding customer requirements, shipping orders more quickly, and responding to service requests. Having these abilities can be a key differentiator that separates manufacturers from their competition. This is just one of the ways in which visibility can help an organization to perform more effectively. But what technologies can be utilized to provide the above capabilities?

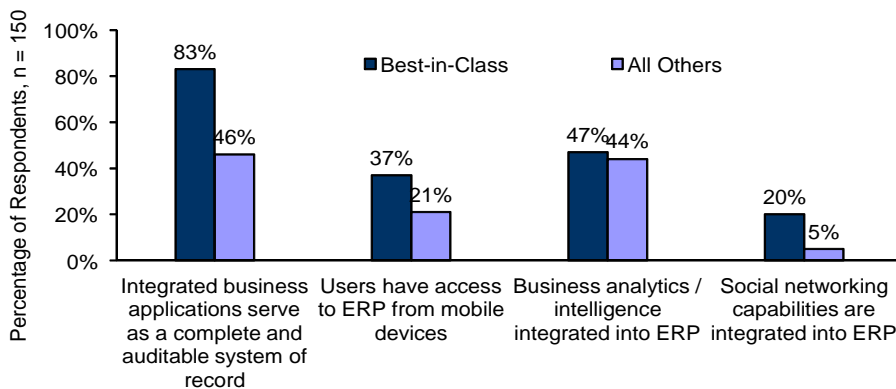
Creating a “One Stop Shop” for Data

Best-in-Class manufacturers have tailored their business systems to best serve their needs. Since collaboration and visibility are currently top business drivers of manufacturers, it makes sense that their operational backbone serves those needs specifically. This starts by creating a “one stop shop” for data. Best-in-Class manufacturers are 80% more likely than All Others to have integrated business systems serve as a complete system of record (Figure 4). This means that employees can find all of the data they need in one place. If it’s easy to find, then employees will be more likely to use it.

Fast Facts

- ✓ Seventy-eight percent (78%) of the Best-in-Class have the ability to do demand planning and forecasting compared to 40% of All Others
- ✓ Seventy-one percent (71%) of the Best-in-Class have the ability to track product costs
- ✓ The Best-in-Class are 22% more likely than All Others to have real time visibility into the status of all processes from quote to cash
- ✓ Seventy-three percent (73%) of the Best-in-Class have real time access to inventory
- ✓ Fifty-three percent (53%) of the Best-in-Class have the ability to monitor regulatory compliance
- ✓ The Best-in-Class are 86% more likely than All Others to have a centralized repository of metrics and KPIs
- ✓ The Best-in-Class are 43% more likely than All Others to have a unified view of labor costs and workforce data

Figure 4: Integrated Solutions for Manufacturing Excellence



Source: Aberdeen Group, June 2013

So how do these tailored systems align with the business drivers for manufacturing ERP strategies? From the visibility standpoint, the Best-in-Class are 76% more likely than All Others to enable users to access ERP from mobile devices. This allows them to react immediately and make decisions no matter where they are, whether out in the field or on a warehouse floor. While only 37% of the Best-in-Class have this technology today, another 40% of them plan to implement it in the near future. Additionally, 47% of the Best-in-Class aid their employees with Business Intelligence (BI). This can help employees to make sense of the data and use it in a predictive manner. Reports such as Aberdeen's [*ERP plus BI: Maximizing the Return on Your ERP Investment*](#) illustrate how BI can help organizations to better mine the data contained within ERP.

From the collaboration standpoint, the Best-in-Class are four times as likely as All Others to integrate social networking capabilities with ERP. While currently only 20% of the Best-in-Class are doing this, these numbers may increase in the future because many vendors are beginning to include social media functionality in their solutions. This means that employees can tag conversations about processes, products, customers, machines, and more. Not only does this create a record of the conversation for later reference, but it makes collaboration easier and more similar to the ways that employees interact outside of work.

As a result of implementing the capabilities and technologies that are noted above, Best-in-Class manufacturers can create a central hub for visibility, communication, and innovation.

Key Takeaways

ERP is ubiquitous in manufacturing organizations, 92% of respondents reported using it, but in an increasingly competitive market ERP can serve a greater function beyond which it was originally intended for. Top performing manufacturers are more likely to utilize ERP as a hub for collaboration, innovation, and agile decision-making. In order to do this and keep up with their peers, manufacturers should consider these points:

- Forty-seven percent (47%) of the Best-in-Class enable real-time collaboration across departments and divisions in comparison to 33% of All Others
- The Best-in-Class are over twice as likely as All Others to be able to share and integrate data with the extended enterprise
- The Best-in-Class are 66% more likely than All Others to provide their employees with automatic notifications when certain conditions occur
- Eighty-three percent (83%) of the Best-in-Class have integrated business systems that create a complete and auditable system of record

- The Best-in-Class are four times as likely as All Others to integrate social networking capabilities into ERP

Today’s successful manufacturing organizations are evolving their ERP strategies to support them in competitive markets. By providing collaboration capabilities and enhanced visibility, manufacturers can innovate, react, and stay ahead of the competition.

For more information on this or other research topics, please visit www.aberdeen.com.

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