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January, 2011

ERP: Much Better Off With than Without

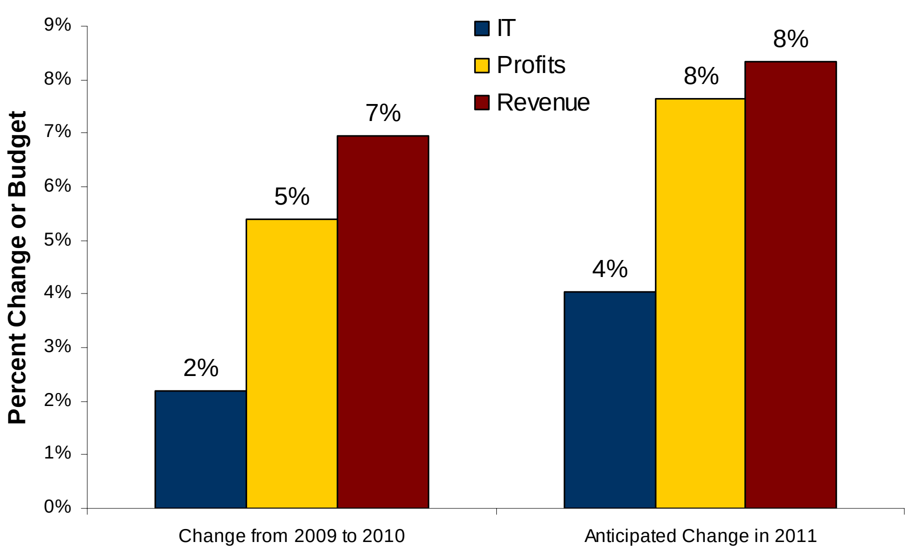
As complex a system as ERP is, the decision-making around selecting, upgrading, and changing an ERP system is even more complex. The system touches almost every aspect of planning for a manufacturing company, from budgets and reporting, to detailed inventory and production scheduling. It becomes the foundation for growth in both operational efficiency, as well as growth into new, distributed markets. Aberdeen's research shows that even the least efficient ERP implementation provides more operational benefits than doing nothing.

As profitable growth returns in 2010 and 2011, companies are taking advantage of the cash they are sitting on to expand IT budgets and shore up their business infrastructure. IT budgets have doubled from 2% to 4% of revenue from 2010 to 2011. In fact, Figure 1 is based on Aberdeen's *Economy 2011: Back on Track for Growth*; January 2011 report. The IT budget is outpacing revenue growth with IT listed as the actual budget as a percent of revenue.

Analyst Insight

Aberdeen's Insights provide the analyst perspective of the research as drawn from an aggregated view of the research surveys, interviews, and data analysis

Figure 1: Manufacturing Growth and IT Budgets



Source: Aberdeen Group, January 2011

Its not all about the money, but its close

Manufacturing companies are deservedly notorious for being focused on cost. But scratching the surface of company priorities provides a little more insight into changing business drivers. Aberdeen's August 2010 *ERP in*

Manufacturing report provides some perspective when researching the business priorities of manufacturing companies that are ERP users and non-ERP users.

Table 1: Top Two Business Drivers for Manufacturers

Business Driver	Response from All Manufacturers
Must reduce cost	43%
We must be easier to do business with	33%
Need to manage growth expectations	29%
Must improve customer response time	27%
Interoperability issues across locations	24%
Pressures to innovate	17%
Global market factors	13%
Interoperability with customers and partners	11%

Source: Aberdeen Group, August 2010

While cost continues to be a primary challenge for all business activities, managing growth and the customer experience are close behind. Interestingly, companies without ERP are feeling more pressure to improve the customer experience and innovate. This is derived from having a lack of systems or scattered systems that can frustrate, or at a minimum, be a drag on customer interaction.

Is ERP worth it? The Answer is a Resounding Yes

There is a lot of myth and legend around ERP benefits and Return on Investment (ROI). Aberdeen's *ERP in Manufacturing 2010* report shows that there are discernible, and in many cases significant, differences in the operational and planning efficiencies of companies that have invested in ERP. It is especially true for companies that are considered Best-in-Class for ERP implementations. Table 2 outlines what Aberdeen considers the criteria to be considered Best in Class.

Table 2: Manufacturing ERP User Best-in-Class Criteria (YoY comparison)

Definition of Maturity Class	Mean Class Performance
Best-in-Class: Top 20% of aggregate performance scorers	▪ 22% reduction in inventory levels ▪ 97% inventory accuracy ▪ 3.4 days to close a month ▪ 96% manufacturing schedule compliance ▪ 98% complete and on-time shipments

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Definition of Maturity Class	Mean Class Performance
Industry Average: Middle 50% of aggregate performance scorers	▪ 11% reduction in inventory levels ▪ 94% inventory accuracy ▪ 5.3 days to close a month ▪ 88% manufacturing schedule compliance ▪ 93% complete and on-time shipments
Laggard: Bottom 30% of aggregate performance scorers	▪ 3% reduction in inventory levels ▪ 90% inventory accuracy ▪ 7.3 days to close a month ▪ 73% manufacturing schedule compliance ▪ 84% complete and on-time shipments

Source: Aberdeen Group, August 2010

Now comparing ERP users to non-ERP users in Table 3 from the same report shows the differences with a few interesting highlights.

Table 3: Performance ERP to non-ERP (YoY comparison)

Definition of Maturity Class	Mean Class Performance
Best-in-Class: Top 20% of ERP Users	▪ 97% inventory accuracy ▪ 9% operating margin growth YoY ▪ 3.4 days to close a month ▪ 96% manufacturing schedule compliance ▪ 98% complete and on-time shipments
Non-ERP Users: n=82	▪ 90% inventory accuracy ▪ 7% operating margin growth YoY ▪ 5.3 days to close a month ▪ 87% manufacturing schedule compliance ▪ 89% complete and on-time shipments

Source: Aberdeen Group, August 2010

While Best-in-Class companies outstrip non-ERP companies in all performance metrics, the differences may be starker if you consider some mitigating factors. The respondents for non-ERP companies were 75% small manufacturers with less than US$50M in annual revenue. These companies tend to have a "if it ain't broke, don't fix it" mentality. The higher growth in small manufacturing companies tends to mask the fact that non-ERP users lag ERP users in all operating metrics. They are just plain less efficient than ERP users and don't even realize it because they are growing.

Telephone: 617 854 5200
Fax: 617 723 7897

What has ERP done for me lately?

If ERP does anything, it makes you more efficient and disciplined in your business processes. Table 4 from Aberdeen's ERP in 2010 manufacturing report shows that of the strategies companies take related to reasons for implementing ERP, streamlining and standardizing business processes is the primary action companies take to respond to business drivers.

Table 4: Top Strategic Actions Related to ERP

Strategic Action	Best in Class	Industry Average	Laggard
Streamline and accelerate processes to improve efficiency and productivity	62%	62%	69%
Standardize business processes	62%	57%	57%
Optimize the use of current capacity	36%	34%	43%
Provide visibility to business processes across functions and departments	40%	42%	37%
Modernize technology infrastructure and applications	22%	31%	19%
Reduce the number of disparate enterprise applications	20%	17%	15%
Link global operations to improve interoperability and collaboration	12%	17%	11%
Centralize selected functions using shared services	14%	17%	17%
Integrate disparate enterprise applications	19%	11%	19%

Source: Aberdeen Group, August 2010

Visibility into those processes and optimizing capacity are also important actions enabled by ERP. Non-ERP companies are relying on manual reporting through spreadsheets, email, and accounting systems to plan resources and maintain consistency in their processes. Manufacturing companies using ERP have a solid foundation on which to establish disciplined and consistent processes. And considering the fact that ERP's middle and last names are "resource" and "planning," managing capacity is what ERP is built for.

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Fax: 617 723 7897

Using that standard process foundation and the ability to do enterprise-wide resource planning, let's look at what real benefits companies get from having a well-established ERP system. Table 5 shows that even the least efficient ERP implementations derive significant benefits from ERP.

Table 5: Operational Benefits of Having an ERP System

Definition of Maturity Class	Mean Class Performance
Best-in-Class: Top 20% of aggregate performance scorers	▪ 20% reduction in operating cost ▪ 18% reduction in administrative cost ▪ 22% reduction in inventory cost ▪ 17% improvement in complete & on time shipment ▪ 18% improvement in manufacturing schedule compliance
Industry Average: Middle 50% of aggregate performance scorers	▪ 13% reduction in operating cost ▪ 10% reduction in administrative cost ▪ 11% reduction in inventory cost ▪ 13% improvement in complete & on time shipment ▪ 12% improvement in manufacturing schedule compliance
Laggard: Bottom 30% of aggregate performance scorers	▪ 5% reduction in operating cost ▪ 4% reduction in administrative cost ▪ 3% reduction in inventory cost ▪ 5% improvement in complete & on time shipment ▪ 7% improvement in manufacturing schedule compliance

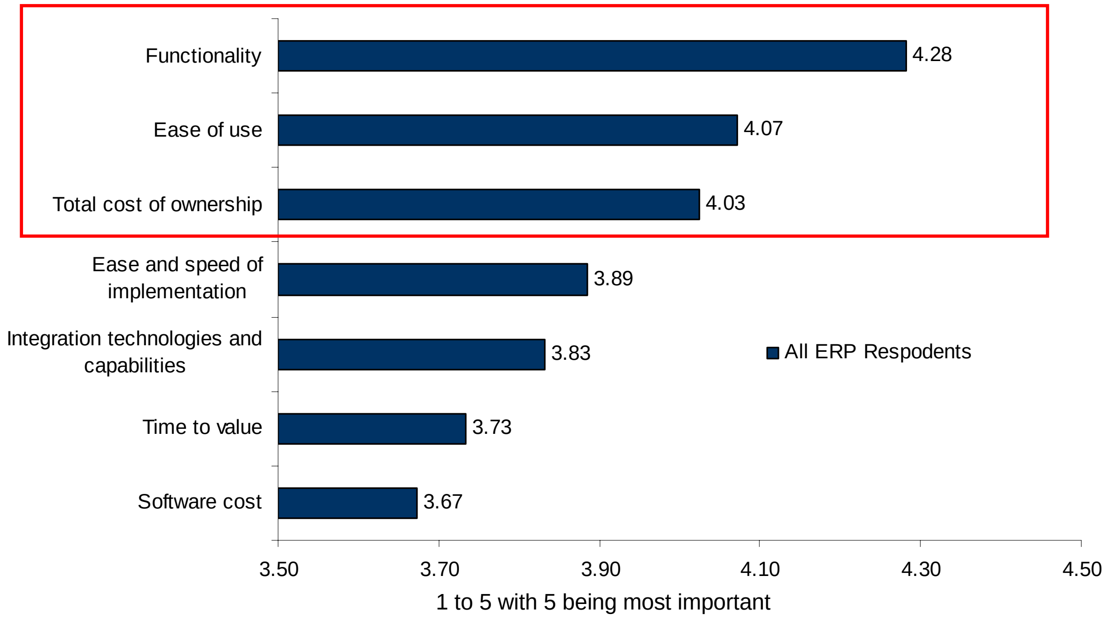
Source: Aberdeen Group, August 2010

Whether you are at the top of the class in operational efficiency, or in the bottom 30%, significant benefits are derived from implementing ERP.

Selecting for Success

Seeing the impact that a good ERP system has on a manufacturing company's performance, you can understand the critical nature of the selection process. Aberdeen's January 2011 document, *Economy 2011: Back on Track for Growth* highlights the typical selection criteria and rates the importance to potential ERP users.

Figure 2: Top Selection Criteria for ERP



Source: Aberdeen Group, January 2011

As you can see from Figure 2, actual software cost is of lesser importance than other criteria. Functions and ease of use are at the top, but basically, regardless of the cost, companies are saying if I can't use it effectively, no price will be low enough. Looking just below functions and ease of use criteria is Total Cost of Ownership (TCO). TCO is made of the following criteria:

- Implementation Effort and cost
- Software cost
- Integration costs
- Maintenance and support costs

The first three components of TCO are in the top seven criteria shown in Figure 2. So in the end, even though fit to function and usability are the top two criteria, TCO or one of its key components makes up four of the top seven.

So is ERP a no-brainer?

While looking at the information above may lead you to think ERP is a no-brainer, companies do have their reasons for not implementing ERP. Figure 3 provides some insight into the frame of mind for non-ERP companies.

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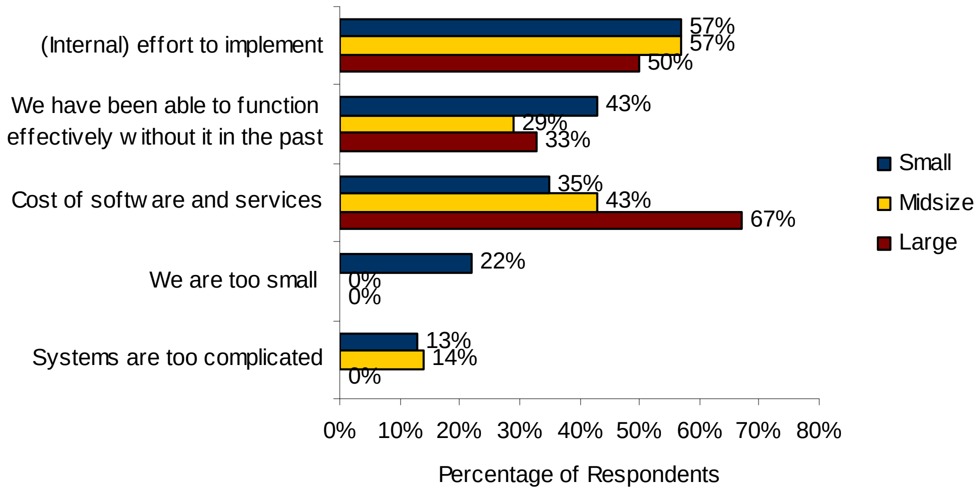
Figure 3: Top Reasons for not Implementing ERP



Source: Aberdeen Group, August 2010

What it comes down to is that for smaller companies, which make up the bulk of non-ERP users, the lack of resources and the feeling that they can't slow down enough to get the system in and running. Smaller companies sometimes are growing so fast that they can't stop to prepare themselves for even more growth. In larger companies, cost is still the significant factor with services a significant concern. But even in larger manufacturing companies, internal effort and resources are a top concern.

Software as a Service (SaaS) and cloud-based systems are deployment options that provide one more tool in the belt that both large and small companies can assess. Lowering some of the risk in ERP deployments would address several of the issues in Figure 4. Smaller companies would tend to look at SaaS as a way to get the system up and running with no IT staff and minimal resources consumed. But larger companies still weigh cost as the deciding factor when evaluating deployment options.

Even for companies that have embraced ERP, upgrading takes on the same pale when looking at the decision criteria.

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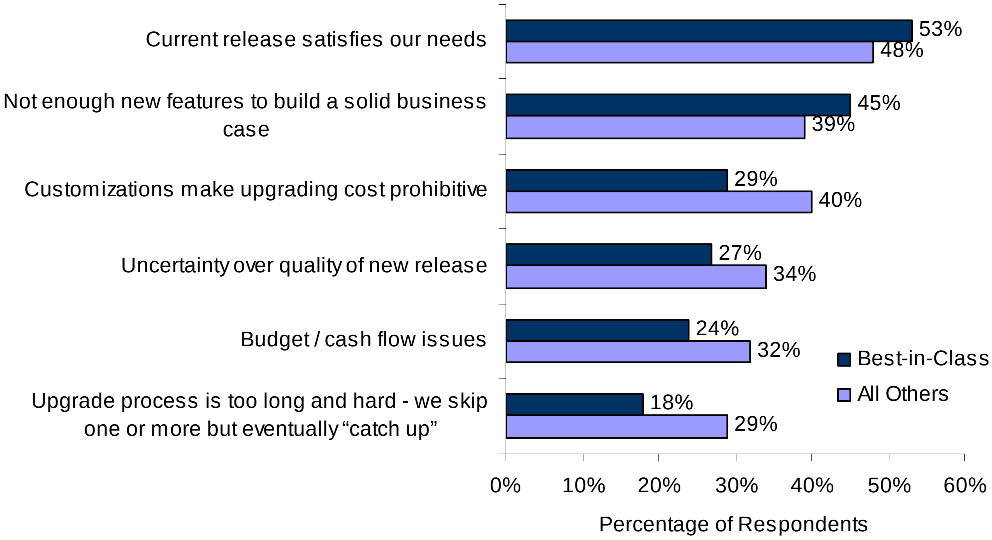
Figure 4: Top Reasons for Putting Off an ERP Upgrade



Source: Aberdeen Group, August 2010

Figure 4 shows that the status quo wins out and fit to business needs is also relatively important when ranking upgrade criteria. It is also interesting that quality of new releases shows up as a significant issue. The conclusion from this one point is that experienced ERP users are skeptical of the upgrade process when disruption to the business is balanced against possible gain.

Key Takeaways

Regardless of how efficient you are, a good ERP implementation will make you more efficient. You should focus on streamlining and standardization of your business processes as a goal for your system. Selection of your ERP should be as much about defining the functions you need to grow, as well as the ease of use for the entire strata of users in your company. One critical aspect of the selection process will be the definition of ease of use. And that is something each company must define on its own.

From a cost perspective, use TCO as a key selection criterion. Once again, TCO encompasses several components with software cost having lower importance:

- Software costs
- Implementation costs, including outside services, internal resources, and disruption to operations
- Ongoing maintenance and support costs
- Integration costs to existing systems

Finally, you should consider all deployment options, from on premise, to simple hosting, or to full cloud-based operations. The deployment option

Telephone: 617 854 5200
Fax: 617 723 7897

depends on how much internal IT support you can sustain and how much risk you are willing to take with your capital.

As manufacturing companies have been and are in transition from cost maintenance strategies to growth strategies, focus your ERP return expectations on optimizing current capacity and ability to handle flexible growth. Even for companies that currently have an ERP system; the upgrade process should still follow a similar rigor as selecting a new system.

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

Related Research	
ERP: Is High ROI with Low TCO Possible?, January 2011 *Economy 2011: Back on Track for Growth*; January 2011	*ERP in SME: Fueling Growth and Profits*; August 2010 *ERP in Manufacturing*; August 2010

Author: Kevin Prouty, Research Director and Practice Lead, Enterprise Apps (Kevin.Prouty@aberdeen.com)