

## **ERP in SME**

Fueling Growth and Profits

August 2010

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## Executive Summary

As optimism increases for a worldwide economic recovery, Small to Mid-size Enterprises (SMEs) once again look forward to revenue growth. As a result, SMEs must seek competitive advantages that enable them to contain costs to ensure that growth of revenues is not at the expense of profits. Enterprise Resource Planning (ERP) can indeed be a strategic weapon. Not only does it provide a necessary infrastructure that forms the transactional system of record upon which a business is based, but it also serves as a source of cost savings and operational improvements, streamlining and accelerating business processes, allowing SMEs to compete on the same stage as larger companies.

### Research Benchmark

Aberdeen's Research Benchmarks provide an in-depth and comprehensive look into process, procedure, methodologies, and technologies with best practice identification and actionable recommendations.

### Best-in-Class Performance

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Based on the input from 578 SMEs, Aberdeen used the following key performance criteria to distinguish Best-in-Class companies, with top performers producing impressive results:

- An average of 2.9 days to close a month
- An average of 34 Days Sales Outstanding (DSO)
- 95% complete and on-time delivery
- 17% growth in operating margins over the past two years

### Competitive Maturity Assessment

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Survey results show that the firms enjoying Best-in-Class performance shared several common characteristics, including:

- Top performers are 80% more likely to quantify the business benefits from ERP implementations
- The Best-in-Class are 50% more likely to have real-time visibility on the status of all processes from quote to cash
- The top 20% in aggregate performance scores also enjoy an 80% advantage in having access to ERP with mobile devices

### Required Actions

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In addition to the specific recommendations in Chapter Three of this report, to achieve Best-in-Class performance, companies must:

- Assign cross-functional teams for selection, implementation and continuous improvement
- Establish specific goals to measure progress and business benefits of ERP implementation
- Continuously improve visibility into ERP data - any time from any place

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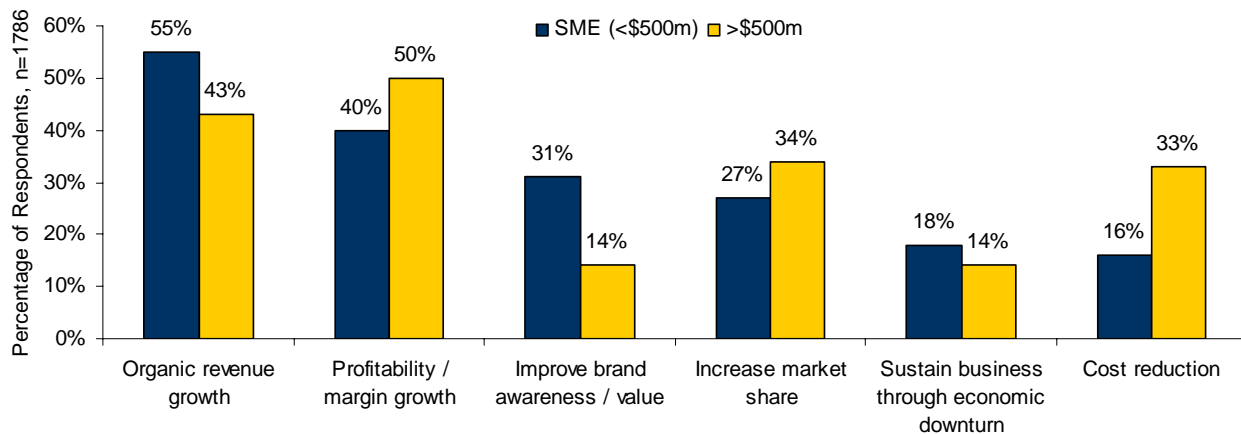
## Chapter One: Benchmarking the Best-in-Class

As the world economy continues to recover from its long recession, Small to Mid-size Enterprises (SMEs) poise themselves for future revenue growth and profits. The first quarter 2010 Aberdeen Business Review found these to be the top two business goals of small to midsize enterprises (Figure 1). While 52% of SMEs reported either flat or declining revenues in 2009, in March 2010, 80% anticipate growth in revenues and 72% predict an increase in operating margins.

### Fast Facts

- ✓ 80% of SMEs anticipate growth in revenue
- ✓ 72% predict growth in operating margins for 2010
- ✓ only 29% of SMEs have implemented ERP

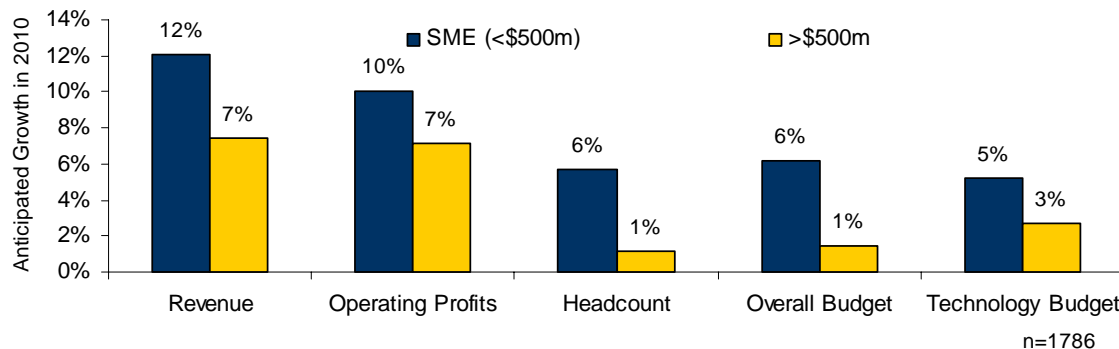
**Figure 1: Top Business Goals for 2010**



\* Respondents were asked to select two responses  
Source: Aberdeen Group, March 2010

Not only are a large percentage of SMEs focusing on growth of revenue and profits in 2010, but plans for growth are quite aggressive and significantly outstrip those of larger companies in terms of percentages, if not in terms of absolutes (Figure 2).

**Figure 2: Anticipated Growth Rates for 2010**

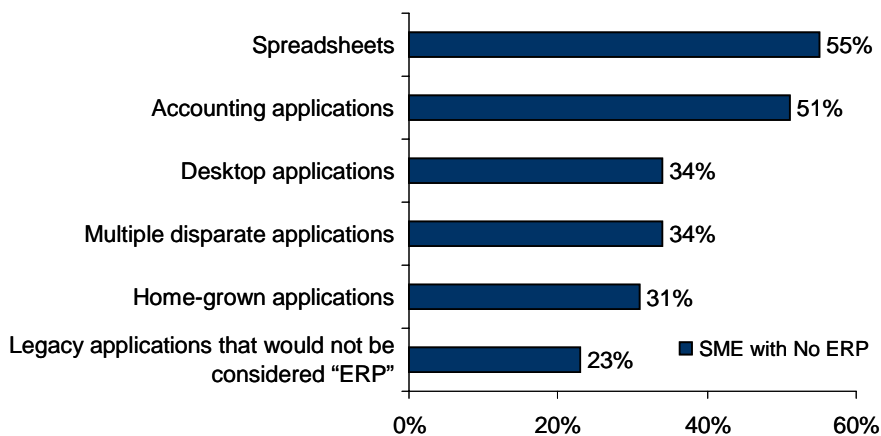


\* Respondents were asked to select two responses  
Source: Aberdeen Group, March 2010

By definition, small companies will have limited resources to devote to the implementation and maintenance of ERP. Small numbers of transactions and manageable volumes of data translate to a low perceived need for ERP. Small and growing companies tend to invest more in resources that directly fuel growth, rather than infrastructure. Data collected for the Q4 2009 Aberdeen Business Review found ERP is implemented in 41% of all companies surveyed, but only in 29% of SMEs. These adoption rates varied significantly across industries, with manufacturing companies more than twice as likely to have adopted ERP, but SMEs still lag significantly.

The Aberdeen Business Review is a more specific source of data than our annual ERP survey in terms of determining overall adoption rates, since those taking the ERP survey are self-selected based on a specific interest in ERP. However, 17% of SMEs taking the 2010 ERP survey indicated they had yet to invest in ERP. Of those without ERP the majority (68%) were companies with annual revenues under \$25 million. For these companies we were able to gather additional intelligence on what tools are used in place of ERP (Figure 3).

**Figure 3: Tools Used Instead of ERP**



Percentage of Respondents, n=96  
\* Participants were asked to select all that apply  
Source: Aberdeen Group, August 2010

Not surprisingly, spreadsheets top the list. But interestingly, spreadsheets were seldom the only tool used even in very small companies. Often spreadsheets are used in conjunction with stand-alone accounting applications and other desktop applications that do not qualify as true enterprise level applications or other applications that lack the breadth, depth or level of integration of ERP.

### Business Drivers Impacting ERP Strategies

ERP is more than a necessary infrastructure that forms the transactional system of record upon which a business is based. ERP is the potential

#### Company Size Definition

This benchmark report highlights the performance and capabilities of companies with annual revenues under \$500 million, referred to as Small to Medium-size Enterprises (SMEs)

#### Breakdown of companies with No ERP by company size

- √ 68% under \$25 million
- √ 10% \$25m to \$50m
- √ 9% \$50m to \$100m
- √ 8% \$100m to \$250m
- √ 4% \$250m to \$500m

Source: ERP 2010 survey

"[Regarding ERP implementation], we're pleased with our choice to proceed. We can accomplish much more than with our legacy system."

~ Staff, Small Industrial Equipment Manufacturer

source of cost savings and operational improvements. Informed small and mid-size companies understand that a stable, efficient and scalable infrastructure is essential to meet the expectation of sustainable future business growth. With the increased level of optimism for a worldwide economic recovery, these companies are finding that the seeds for growth must be planted now in order to remain competitive in the years of prosperity ahead.

While growth of revenue and profits are the top goals for SMEs in 2010, ERP is seen to have the most direct impact on costs, which in turn influence operating margins (Figure 4). Customer service also plays an important role. While in the past customer response times have been the leading customer-facing driver, with the advent of increased interoperability of business networks and new technologies used to connect with customers, it is not surprising to see the need to be “easier to do business with” pre-empting improving response times.

"The success is self-evident; the reduction in warehouse-wrestling, the cost control, the effectiveness of the production."

~ Manager, Small Industrial Product Manufacturer

**Figure 4: Top Business Drivers Impacting ERP Strategy**



\* Respondents were asked to select two responses  
Source: Aberdeen Group, August 2010

"ERP has very successfully improved the quality and accessibility of information in the business."

~ Manager, Small Food and Beverage Manufacturer

## The Maturity Class Framework

In this study, “Best-in-Class” refers to a top performing ERP implementation and therefore only those SMEs with ERP are included in the three maturity classes. Aberdeen used four key performance criteria to distinguish between Best-in-Class, Industry Average, and Laggard implementations. The choice of these Key Performance Indicators (KPIs) was influenced by both the desire to select metrics that are common across industries and to measure success in multiple dimensions. To that end, the selected KPIs reflect both effectiveness and efficiency in both back-office and customer facing metrics, as well as the financial health over the past two years.



**Table 1: Top Performers Earn Best-in-Class Status**

Definition of Maturity Class	Mean Class Performance
<b>Best-in-Class: Top 20%</b> of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ 2.9 Days to close a month</li> <li>▪ 34 Days sales outstanding (DSO)</li> <li>▪ 95% Complete and on-time delivery</li> <li>▪ 17% Growth in operating margins over past two years</li> </ul>
<b>Industry Average: Middle 50%</b> of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ 5.4 Days to close a month</li> <li>▪ 42 Days sales outstanding (DSO)</li> <li>▪ 91% Complete and on-time delivery</li> <li>▪ 4% Growth in operating margins over past two years</li> </ul>
<b>Laggard: Bottom 30%</b> of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ 9.1 Days to close a month</li> <li>▪ 46 Days sales outstanding (DSO)</li> <li>▪ 85% Complete and on-time delivery</li> <li>▪ 1% Decline in operating margins over past two years</li> </ul>

Source: Aberdeen Group, August 2010

### The Best-in-Class PACE Model

ERP plays the leading role in standardizing, streamlining and automating integrated business processes in the front office, back office, and in operations. To control costs and to achieve a high degree of flexibility and customer responsiveness, Best-in-Class companies blend a combination of strategic actions, organizational capabilities, and enabling technologies to:

- Standardize and accelerate business processes, including both the back-office as well as customer-facing functions
- Provide real time visibility throughout the quote to cash cycle
- Notify decision-makers in anticipation of exceptions to facilitate proactive response

**Table 2: The Best-in-Class PACE Framework**

Pressures	Actions	Capabilities	Enablers
<ul style="list-style-type: none"> <li>▪ Must reduce costs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Streamline and accelerate processes to improve efficiency and productivity</li> <li>▪ Standardize business processes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Standardized enterprise-wide procedures</li> <li>▪ Cross functional teams of IT and line of business individuals involved in both the selection and implementation of ERP</li> <li>▪ Collaboration continues for continuous operational improvement</li> <li>▪ From summary data, decision-makers can drill down to transactions that form the fiscal and operational audit trail</li> </ul>	<ul style="list-style-type: none"> <li>▪ Integrated ERP modules: General Ledger, Accounts Payable, Accounts Receivable, Fixed Asset Management, MRP, Shop Floor Control, Purchasing, Inventory Control, After Market Service, ECM, CRP, DRP, MPS, Forecasting / Demand Planning, Human Resources, Order Management, Project Management, EAM, Supplier collaboration / scheduling, Sales and marketing, product configurator, Payroll; Job Costing, Workforce scheduling</li> </ul>



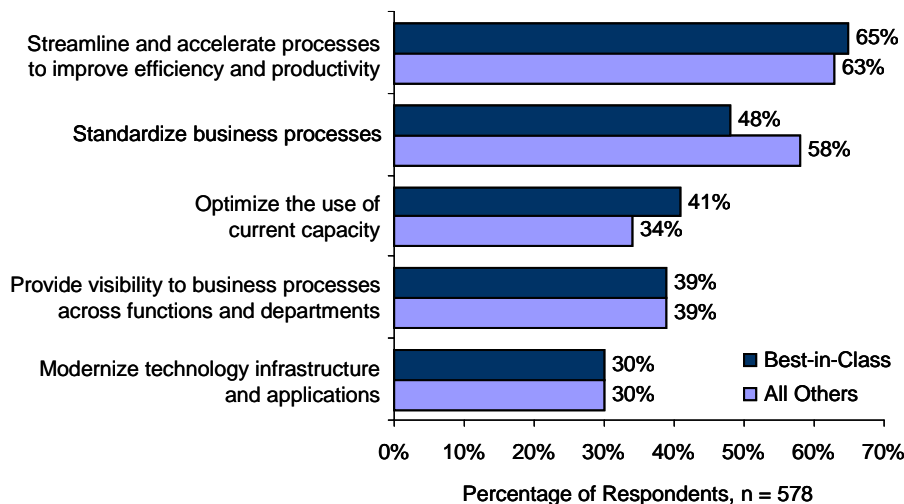
Pressures	Actions	Capabilities	Enablers
		<ul style="list-style-type: none"> <li>Quantifiable business benefits resulting from overall implementation of ERP are measured</li> </ul>	<ul style="list-style-type: none"> <li>Business intelligence platform and tools</li> <li>Workflow automation / Business Process Management</li> <li>Event Management (Triggers and Alerts)</li> </ul>

Source: Aberdeen Group, August 2010

### Best-in-Class Strategies

Often Aberdeen finds few differences between the strategic actions of the Best-in-Class and those of all other companies, giving testament to the idea that what differentiates the Best-in-Class is their ability to execute. Figure 5 illustrates the top strategies. Topping the list for both groups is the strategy of streamlining and accelerating processes to improve efficiency and productivity – a strategy likely to be on any company’s “to-do list” at any time, but particularly in a time when cutting costs is essential to realizing profitability. Standardizing business processes is often a necessary first step before efficiencies can be realized.

**Figure 5: Top ERP Strategies**



"It used to take a week with eight people to do inventory, now it takes two to three hours with only two people."

~ Frederick Coyle, Director of Quality, ETCO Inc.

\* Respondents were asked to select three responses  
Source: Aberdeen Group, August 2010

The pre-defined workflows and pre-built implementation templates provided with many ERP solutions today can be a useful tool in doing both. While we might find instances where operating units within large enterprises would be significantly enough different to justify **not** standardizing, we will find in Chapter Two that the Best-in-Class have indeed standardized more.

According to data collected for the Aberdeen Business Review, 69% of SMEs have cut discretionary spending, 66% have restricted budgets and 39% have cut or deferred spending on capital projects in response to the

economic downturn. A natural by-product of these cost-saving actions is to limit the expansion of capacity, whether capacity is provided by capital equipment or human capital, or any combination of both, making the optimization of current capacity all that much more important. Resource planning and scheduling capabilities of ERP therefore become increasingly important.

In addition, a well-executed ERP implementation provides visibility to business processes across functions and departments. Yet in spite of this recognition by most companies, we will see in Chapter Two that full visibility remains an elusive goal for most.

ERP solution providers take advantage of new technology capabilities to deliver more and better feature functionality as well as connectivity and interoperability. However, many ERP implementations are today supported by older, less robust technology. In order for companies running legacy applications to take full advantage of these capabilities, they often must modernize the underlying infrastructure. Replacing older applications with newer, more modern solutions often includes a complete refresh of technology.

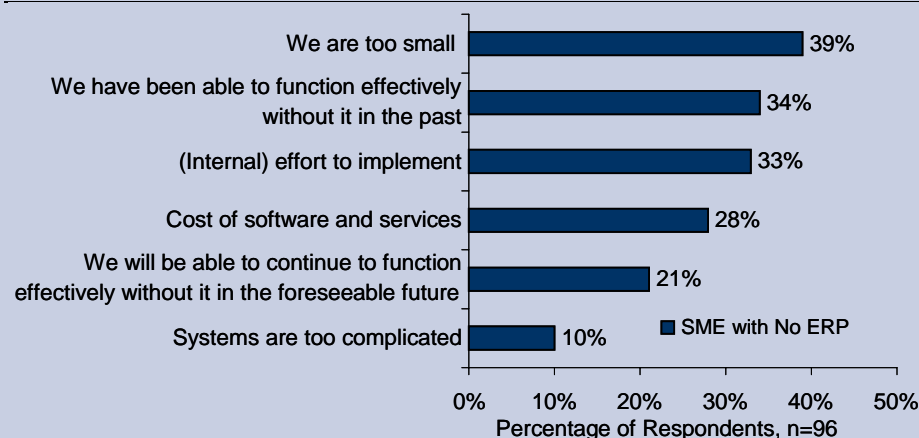
"Implementation continues as we gain additional understanding of the functionality of the system and engage individuals in taking ownership of their areas of responsibility."

~ CFO, Small Automotive Business

### Aberdeen Insights — Strategy

For those yet to invest in ERP, there are several noted barriers to entry.

**Figure 6: Why No ERP?**



\* Participants were asked to select all that apply

Source: Aberdeen Group, August 2010

Considering the majority (68%) of those participating in our annual ERP survey that had yet to invest in ERP were companies with annual revenues less than \$25 million, it comes as no surprise to see that size is most commonly cited. Thirty four percent (34%) also feel they have been able to function effectively without it in the past, yet only 21% feel they will be able to continue to function effectively into the foreseeable future. These are the SMEs most likely to implement ERP in the near term.

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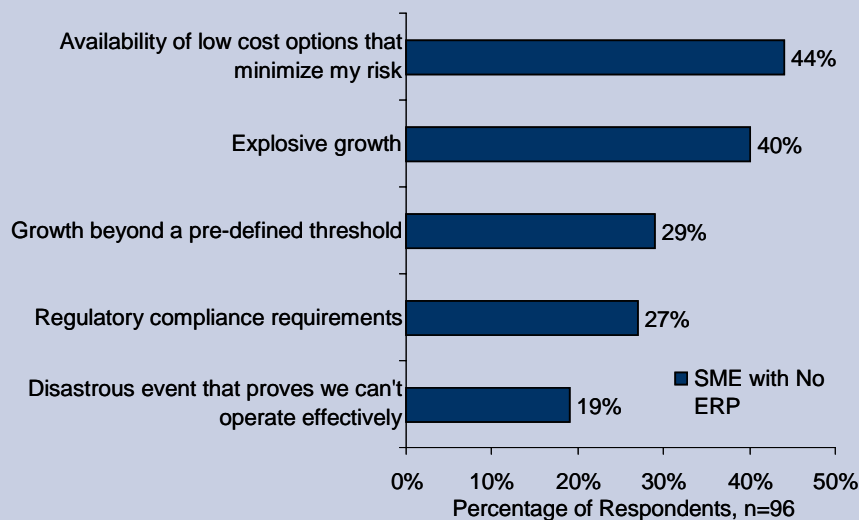
**Aberdeen Insights — Strategy**

Internal effort to implement and the outlay of cash for software and service are also significant deterrents, but Aberdeen would also caution these SMEs against ignoring the cost and effort of **not** implementing ERP. Is efficiency and productivity leaking out of your organization by not providing adequate tools to run, monitor and manage the business?

Only 35% of SMEs with no ERP have definitive plans to implement ERP, leaving 40% with no plans and an additional 25% undecided. Often for those without ERP, particularly those that feel they are functioning effectively, there must be a compelling event or condition that will spur them to action. Figure 7 depicts the factors most often cited by survey respondents that would force them to take the plunge and make an investment in ERP. The availability of lower cost options is most commonly cited. For the 44% that selected this as a compelling reason to implement ERP, Aberdeen would advise them to investigate options that exist today.

Many ERP solution providers offer full solutions today at a much lower price point than ever before, and there are also alternative deployment models such as Software as a Service (SaaS) that bring the price of ERP within range of almost any company. Both SaaS ERP and traditional on-premise implementations are available with subscription based pricing that allow companies to account for the investment as an operating expense rather than a capital expense.

**Figure 7: Compelling Event to Justify ERP**



\* Participants were asked to select all that apply  
Source: Aberdeen Group, August 2010  
*continued*

### Aberdeen Insights — Strategy

Expected growth is also a way of justifying the investment in ERP. Even if a company perceives they are operating effectively, this efficiency may not be preserved through growth spurts. If the optimism we see from the Aberdeen Business Review proves to be grounded in reality, then many of the companies that have not yet taken the plunge may be due for an upgrade of their tools and technology. Waiting until regulatory requirements or a disastrous event to force the implementation is both risky and dangerous. The average ERP implementation took our SME survey respondents 9.7 months from initial installation to the first go-live milestone. While anecdotally we have heard of implementations that were much quicker, allowing sufficient time for planning, training and execution is crucial to success.

In the next chapter, we will see what the top performers are doing to achieve these gains.

## Chapter Two: Benchmarking Requirements for Success

The integration of ERP with the company's organizational and operational infrastructure plays a crucial role in the ability to turn these strategies into profit.

### Case Study — LORD Corporation

LORD Corporation is a diversified technology company with a long history of developing breakthrough adhesive, coating and motion management technologies. LORD originated in Erie, Pennsylvania more than 85 years ago and today has annual sales exceeding \$610 million. Operating from world headquarters in Cary, NC, LORD has 17 manufacturing facilities in nine countries and 90 strategically located sales and support centers worldwide. Fifty-five percent (55%) of these sales are in international markets. LORD runs a multi-tier ERP implementation, with the corporate headquarters and the domestic business supported by one ERP solution and the international entities supported by another. With such worldwide operations, the company needs to be able to standardize business processes across many disparate locations and consolidate reporting.

Carney Vensel, Manager International Information Technology, is charged with these international ERP implementations. "The system at the corporate level is far more complex than we need at each of the offshore locations and we also needed to lower the cost structure. We selected a system for those locations that was designed specifically for SMEs. We reduced the cost of ERP at these locations to 1/30<sup>th</sup> of what we spent at the corporate level and yet by extending the solution at the manufacturing locations with a partner's solution, we have 98% of what is needed, without having to modify the package.

"The manufacturing facilities and sales and support locations around the world are separate legal entities, which are each an individual small to medium size company. We created a blueprint years ago, defining standard processes. Having a blueprint, fully documenting processes and allowing for flexibility to accommodate variation and yet still meet corporate reporting requirements is all key. Standard data is defined by the corporate ERP solution – item codes, account codes, supplier and customer codes and certain master data parameters."

*continued*

### Fast Facts

Best-in-Class ERP implementations produce quantifiable business benefits

- √ 22% reduction in operating costs
- √ 20% reduction in administrative costs
- √ 17% inventory reductions (manufacturing and distribution only)
- √ 19% improvements in complete and on-time delivery
- √ 17% improvements in schedule compliance (manufacturing and distribution only)

**Case Study — LORD Corporation**

LORD runs all European locations from one implementation that supports 120 users. Other implementations are in Japan, Hong Kong and India and another installation underway in China, which will be operational next month. “We will then move the Hong Kong implementation to China, but leave India and Japan separate,” said Vensel. By Vensel’s estimates, it normally takes a sales and distribution entity two to three months to get up and running, and four to five months for a manufacturing facility. Vensel continued, “We work the schedule for six months in order to allow for delays, most of which are associated with the migration and scrubbing of the master data.”

The company is looking to drive metrics through implementation and has already helped to produce a 10% reduction in DSO and improved profit center and contribution margin reporting. Vensel states, “Our ERP solution should carry us for the foreseeable future; our vendor has done a good job of enhancing the package. It has gotten quite good. I am amazed by what we can do.”

**Competitive Assessment**

Aberdeen Group analyzed the aggregated metrics of surveyed companies to determine whether their performance ranked as Best-in-Class, Industry Average, or Laggard. In addition to having common performance levels, each class also shared characteristics in five key categories: (1) **process** (the standardization of business processes and ERP implementations); (2) **organization** (continued commitment across functions and departments); (3) **knowledge management** (contextualizing data and exposing it to key stakeholders); (4) **technology** (scope of ERP deployment and accessibility); and (5) **performance management** (the ability of the organization to measure its results to improve its business). These characteristics (identified in Table 3) serve as a guideline for best practices, and correlate directly with Best-in-Class performance across the key metrics.

**Table 3: The Competitive Framework**

	<b>Best-in-Class</b>	<b>Average</b>	<b>Laggards</b>
<b>Process</b>	Standardized enterprise-wide procedures for procurement, cash collection, and financial reconciliation		
	72%	68%	55%
<b>Process</b>	Standardized procedures for order management and delivery / fulfillment across similar businesses within the enterprise		
	68%	62%	50%

	Best-in-Class	Average	Laggards
<b>Organization</b>	Cross functional teams of IT and line of business involved in both the selection and implementation of ERP		
	73%	68%	64%
	Cross-functional continuous improvement teams are responsible for improving operational performance		
	55%	47%	43%
<b>Knowledge</b>	From summary data, decision-makers can drill down to transactions that form the fiscal and operational audit trail		
	58%	49%	39%
	Real-time visibility into all processes from quote to cash		
	45%	34%	23%
<b>Technology</b>	Users have access to ERP through the Internet from any laptop or desktop computer (no special software required on the personal computer)		
	62%	47%	44%
	Users have access to ERP through mobile devices		
	27%	16%	13%
<b>Performance</b>	Quantifiable business benefits resulting from overall implementation of ERP are measured		
	45%	29%	17%
	Business benefits realized through implementation of ERP		
	<ul style="list-style-type: none"> <li>▪ 22% reduction in operating costs</li> <li>▪ 20% reduction in admin costs</li> <li>▪ 19% improvement in on-time and complete delivery</li> <li>▪ 31% improvement in time to decision</li> </ul>	<ul style="list-style-type: none"> <li>▪ 13% reduction in operating costs</li> <li>▪ 10% reduction in admin costs</li> <li>▪ 14% improvement in on-time and complete delivery</li> <li>▪ 15% improvement in time to decision</li> </ul>	<ul style="list-style-type: none"> <li>▪ 7% reduction in operating costs</li> <li>▪ 4% reduction in admin costs</li> <li>▪ 6% improvement in on-time and complete delivery</li> <li>▪ 11% improvement in time to decision</li> </ul>

Source: Aberdeen Group, August 2010

## Capabilities and Enablers

Based on the findings of the Competitive Framework and interviews with end users, Aberdeen’s analysis of the Best-in-Class demonstrates ERP is a mission critical component in the pursuit of corporate goals, including growth of revenue and profits.

"The entire company relies on the data in the system and could not survive without it."

~ EVP, Small Industrial Equipment Manufacturer

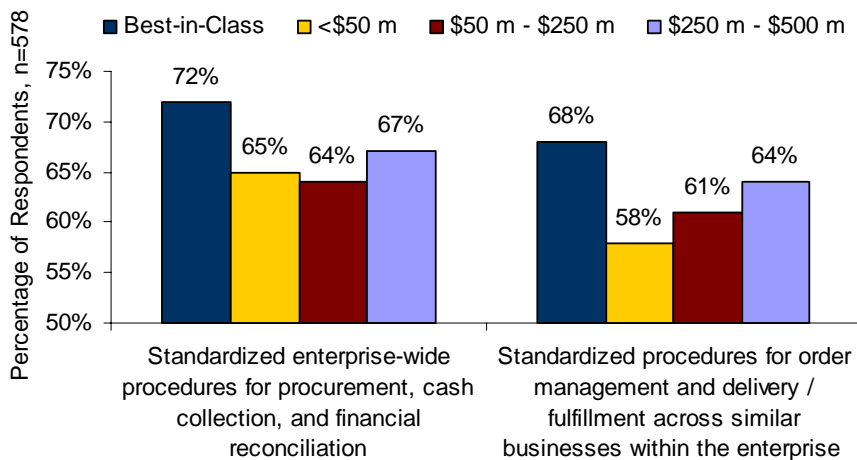


## Process

Standardized business processes are essential to improving efficiency and productivity. A single set of standard processes is far easier to streamline and automate than a collection of procedures designed only to meet a singular or individual need. Overall SMEs are more likely to standardize purely back-office processes such as procurement, cash collection and financial reconciliation than they are to standardize customer-facing activities such as order management, fulfillment and delivery (Figure 8). If companies grow through acquisition customer-facing processes are harder to change without impacting the customer or disrupting the business.

However, if growth is organic, lack of standardization is a symptom of inefficiency that should be remedied immediately. If growth is through geographic or market expansion, this standardization may become more difficult, but at the same time, is all that much more important – particularly in addressing the challenges associated with interoperability between operating locations and where customers are shared across different business units. We do find that as companies grow they are indeed more likely to standardize these customer-facing functions, but only by a relatively small percentage.

**Figure 8: Process Capabilities**



Source: Aberdeen Group, August 2010

Many companies today with distributed environments actually centralize back-office functions as a cost-saving or process improvement measure. While this centralization might ordinarily be associated with large enterprises, it is not only large companies that are distributed. The average number of operating locations grows along with company revenues. Aberdeen data finds the average number of locations grows to five or more as the threshold of \$250 million in annual revenue is exceeded.

### Number of Operating Locations

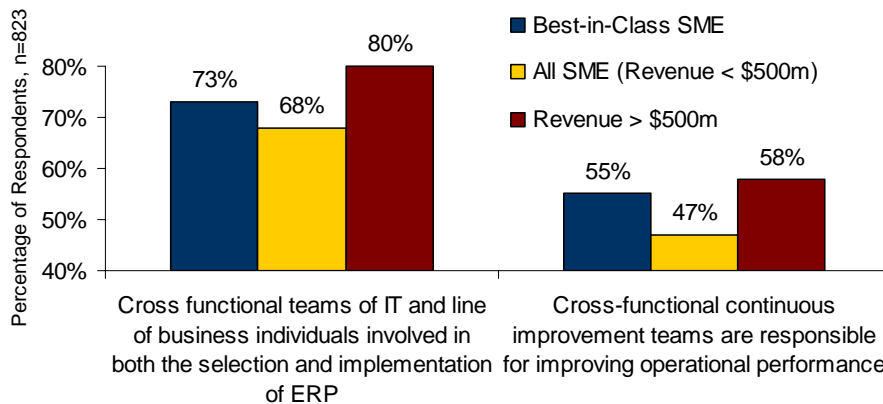
The average number of operating locations across all SMEs surveyed was 3.8, but this number grew as revenues grew:

- √ 2.5 locations in companies under \$50 million in annual revenues
- √ 5.0 locations in companies between \$50 million and \$250 million in annual revenues
- √ 6.5 locations in companies between \$250 million and \$500 million in annual revenues

## Organization

An ERP solution that truly forms a company's operational and transactional system of record has an impact across a broad cross-section of the enterprise and therefore we intuitively understand how cross-functional collaboration can improve not only the performance of the ERP implementation, but the performance of the company as well.

**Figure 9: Organizational Capabilities**



Source: Aberdeen Group, August 2010

It would seem that cross-functional collaboration should be far easier in smaller companies and yet we don't see strong evidence of this pattern emerging (Figure 9). While the majority of companies today understand that the selection and implementation of ERP should be a cross-functional collaborative exercise, even the Best-in-Class SMEs lag the general population of larger companies (those with revenues exceeding \$500 million) in this capability. Smaller companies run the risk of assuming that because they are small, coordination and collaboration will occur naturally. Yet only 68% of SMEs involve cross functional teams of IT and line of business in the selection and implementation of ERP, compared to 80% of companies with revenues in excess of \$500 million. As companies grow larger, the effort to maintain this level of internal cooperation is more formalized. SMEs should not trust that this will happen without formalizing and fostering collaborative efforts.

It would also appear that SMEs are more easily distracted from keeping their eye on the ball in terms of continuous operational improvement. Whether striving for a specific operational goal or improving the value derived from ERP implementations, small companies are often stretched and therefore breathe a collective sigh of relief when certain milestones are met. Team members go back to their "day jobs" and continued operational improvements stall as performance is viewed as "good enough." Complacency is the enemy of continuous improvement and the continuous search for more value to be derived from an ERP implementation is one

way of supporting operational improvements. And operational improvements are often needed to support growth of revenue and profits.

### Knowledge Management

Providing visibility across departments and functions has actually declined as a top strategy of both the Best-in-Class and all other companies. In 2009 providing visibility was cited as a top strategic action by 59% of SMEs; this year we see that percentage drop to 39%. Given increasing regulatory reporting requirements and other demands for transparency in performance reporting today, it is disappointing to see this drop in priority. One would hope this would be because higher levels of visibility have been achieved, but our data shows otherwise (Figure 10). In fact we see little change year over year and our Best-in-Class performance in this capability has moved in the wrong direction.

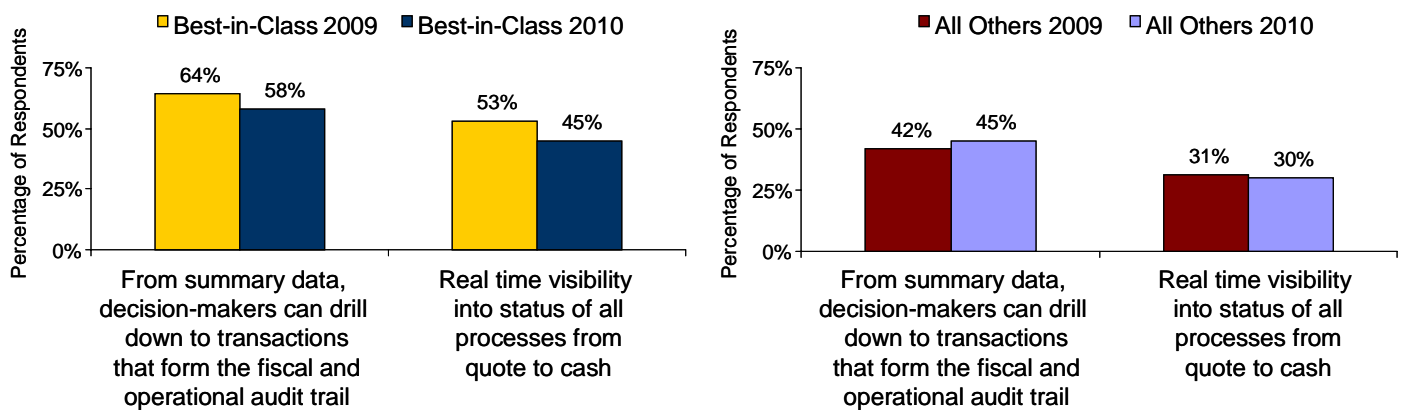
Less than half of our top performers (45%) have achieved full visibility throughout the quote to cash cycle, compared to 53% last year. At the same time, 58% have the ability for decision-makers to drill down from summary data, all the way to the detailed transactions that form the fiscal and operational audit trail (which also dropped from 64% last year). While all other companies (those not Best-in-Class) did not lose significant ground in this respect, neither did they make significant gains. Given this drill-down capability, what prevents SMEs from having full visibility? The most logical explanation is that either the ERP implementation stops short of standardizing and accelerating all the business processes from quote to cash or not all stakeholders have access to these capabilities. In either or both cases, the ERP solution is not complete and implementation has fallen short of its full potential. If the technical capability exists, but has not produced the desired or needed level of visibility, business benefits are being left on the table.

"We measure the success of our ERP implementation by evaluating the following:

- √ Adequacy of functionality
- √ Maintenance data integrity
- √ Ease of use
- √ Reporting capability
- √ Compatibility with other software"

~ CFO, Small Nutritional Supplement Wholesaler

**Figure 10: Visibility and Exception Management**



Source: Aberdeen Group, August 2010

## Technology

Indeed, it is not unusual at all to find ERP implementations that are not taking full advantage of technology or functionality currently available. Aberdeen's preferred method of measuring ERP usage is based on the number of modules implemented in combination with the percentage of functionality available (from those modules) that is actually used. The number of modules varies from 18 to 24 depending on the industry of the survey participant.

**Table 4: ERP Usage Varies by Maturity Class**

Average Aggregated ERP Usage				
Best-in-Class	Industry Average	Laggards	All SME	All with Revenue > \$500m
<ul style="list-style-type: none"> <li>▪ 11.2 modules implemented<sup>1</sup></li> <li>▪ 79% of functionality available deployed</li> <li>▪ 39.1% weighted average of ERP usage<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>▪ 9.7 modules implemented<sup>1</sup></li> <li>▪ 75% of functionality available deployed</li> <li>▪ 31.9% weighted average of ERP usage<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>▪ 8.9 modules implemented<sup>1</sup></li> <li>▪ 69% of functionality available deployed</li> <li>▪ 27.6% weighted average of ERP usage<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>▪ 10.1 modules implemented<sup>1</sup></li> <li>▪ 74% of functionality available deployed</li> <li>▪ 32.5% weighted average of ERP usage<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>▪ 10.4 modules implemented<sup>1</sup></li> <li>▪ 73% of functionality available deployed</li> <li>▪ 33.7% weighted average of ERP usage<sup>2</sup></li> </ul>

1. The number of modules is based on a set of 18 or 24 generic modules (see sidebar)
  2. Calculated as: average number of modules / (18 or 24) X percent of functionality used
- Source: Aberdeen Group, August 2010

Overall SMEs use slightly fewer modules but also a slightly higher percentage of functionality available (from those modules) than companies with revenues over \$500 million. However, this latter difference in percentage can be deceiving. For very small companies, this higher percentage of functionality may result from using less robust ERP solutions. A company running 75% of the functionality available from an ERP solution with fewer features and functions may actually have less functionality than a company using 65% of a more advanced solution. However, in general, better performance of the ERP solution correlates with more modules and more functionality deployed, as evidenced by our Best-in-Class implementations using 42% more functionality than Laggards.

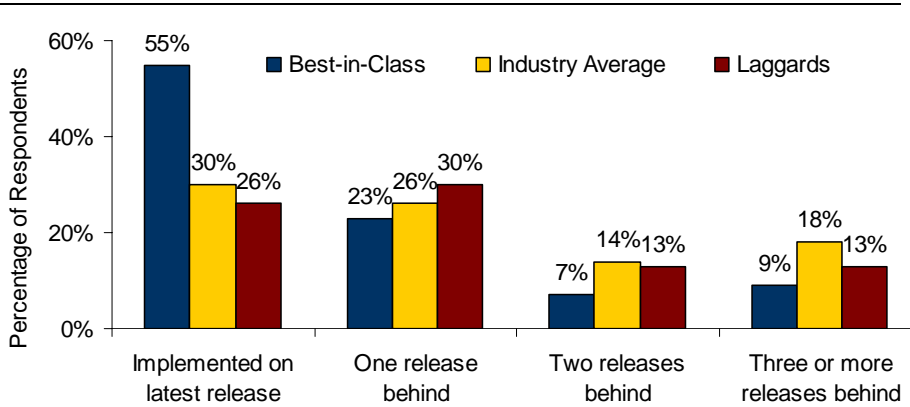
In recent years, the pace of innovation provided by leading ERP solution providers has accelerated. Service Oriented Architectures (SOA) and advanced application development tools have allowed vendors to deliver more functionality faster. Yet the average ERP implementation has not necessarily kept pace with these innovations. Two thirds of completed ERP implementations that are **not** Best-in-Class are also **not** running the latest release (Figure 11).

### Modules Included in ERP Usage:

- √ General Ledger
- √ Accounts Payable
- √ Accounts Receivable
- √ Fixed Asset Management
- √ Material Requirement Planning (MRP)
- √ Capacity Requirements Planning (CRP)
- √ Distribution Requirements Planning (DRP)
- √ Master Production Schedule (MPS)
- √ Forecasting / Demand Planning
- √ Human Capital Management
- √ Order Management
- √ Project Management
- √ Job Costing

*continued*

**Figure 11: Release Status of ERP\***



\*Percentages do not include those still in the process of implementing ERP  
Source: Aberdeen Group, August 2010

**Modules Included in ERP Usage (continued):**

- ✓ *Shop Floor Control*
- ✓ Purchasing
- ✓ Inventory Control
- ✓ After Market Service
- ✓ *Engineering Change Management*
- ✓ *Enterprise Asset Management*
- ✓ *Supplier Collaboration / Scheduling*
- ✓ Event Management
- ✓ Workflow Technologies
- ✓ Sales and Marketing
- ✓ Product Configurator
- ✓ Payroll
- ✓ Workforce Management

Note: Modules identified with *italics* are asked of *Manufacturers* only. Job Costing and Workforce Management pertain to Service and other industries.

**Performance Management**

Over the past five years of benchmarking ERP performance, Aberdeen has shown that the more likely companies are to quantify the results achieved through the implementation of ERP, the more business benefit is actually achieved. Table 5 compares the cost reduction and schedule improvements that can be tied directly to ERP implementations. However, while the Best-in-Class are 80% more likely to specifically quantify the benefits of ERP than all other companies, less than half (45%) actually do. In spite of this, the measurable benefits gained from ERP are quite impressive and even Laggard ERP implementations produce results. While single digit percentage savings may appear on the surface to be small, for every million dollars in operating cost, a 7% savings represents \$70,000. If you are a manufacturer or distributor with \$2 million in inventory, a 9% savings represents \$180,000 saved. You can apply the math to any of the cost reductions and remember, these percentages are for the bottom 30% in terms of performance. These numbers double and triple as performance improves.

**Table 5: Business Benefits Achieved from ERP**

Definition of Maturity Class	Improvement Gained through the Implementation of ERP
<b>Best-in-Class: Top 20%</b> of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ 22% reduction in operating costs</li> <li>▪ 20% reduction in administrative costs</li> <li>▪ 17% <i>reduction in inventory*</i></li> <li>▪ 17% <i>improvement in internal schedule compliance*</i></li> <li>▪ 19% improvement in complete and on-time delivery</li> </ul>
<b>Industry Average: Middle 50%</b> of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ 13% reduction in operating costs</li> <li>▪ 10% reduction in administrative costs</li> <li>▪ 12% <i>reduction in inventory*</i></li> <li>▪ 13% <i>improvement in internal schedule compliance*</i></li> <li>▪ 14% improvement in complete and on-time delivery</li> </ul>

Definition of Maturity Class	Improvement Gained through the Implementation of ERP
<b>Laggard: Bottom 30%</b> of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ 7% reduction in operating costs</li> <li>▪ 4% reduction in administrative costs</li> <li>▪ 9% <i>reduction in inventory*</i></li> <li>▪ 11% <i>improvement in internal schedule compliance*</i></li> <li>▪ 6% improvement in complete and on-time delivery</li> </ul>

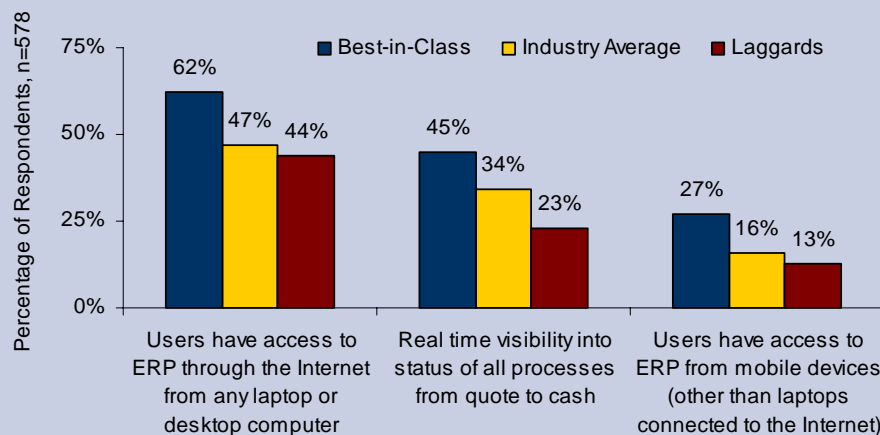
\*Improvements shown in italics were measured only for manufacturers and distributors  
Source: Aberdeen Group, August 2010

### Aberdeen Insights — Technology

Providing easy access to data for decision-making should be one of the business benefits of a successful ERP implementation. Yet decision makers are less likely today to be making decisions only within the four walls of the corporate offices. Knowledge workers have become more mobile, and being out of the office is no longer an acceptable excuse for being out of touch. Even when executives are not traveling, as business becomes more global the requirement to make an informed decision often has no respect for the end of the business day in any given time zone. Executives and senior staff need access anywhere, anytime.

Access to ERP data through a simple Internet connection without the need for any special software on a personal computer is certainly a first and necessary step to access anywhere. Our ERP survey data indicates the percentage of survey respondents with this type of access hover around the half way mark (49%) with Best-in-Class exceeding all others by 35% (Figure 12).

**Figure 12: Access is Key to Visibility**



Source: Aberdeen Group, August 2010  
*continued*

### Aberdeen Insights — Technology

However, the majority of ERP implementations have not produced real-time visibility to all processes from quote to cash. Could this be because decision makers have become so mobile today and so accustomed to having applications on their mobile devices that this 'desk-bound' Internet connection is simply not enough? As secure corporate email has become more prevalent on mobile devices, frequently-used BlackBerry smartphones have often been referred to as "CrackBerries", implying a level of addiction to being always connected and always accessible. While there is no similar play on words for today's application-rich iPhone and Android devices, the level of dependence has by no means subsided.

Executives and decision-makers have come to expect the same instant access to work assets as they have at their workplace, whether boarding an airplane or watching youth soccer. Yet the ability to connect to the data in the organization's ERP system, which is the life blood of the business, has not kept up with the ability to stay connected while on the move. Consider what having that data on demand 24x7 could do to improve the quality of those "conversations."



## Chapter Three: Required Actions

Whether a company is trying to move its performance of its ERP implementation from Laggard to Industry Average, or Industry Average to Best-in-Class, the following actions will help spur the necessary performance improvements:

### Laggard Steps to Success

- **Assign a cross-functional team for the selection and implementation of ERP.** This approach has become mainstream in larger companies, with 80% of those with revenue over \$500 million forming this type of cross-functional team including both IT and line of business. While almost two thirds of Laggards (64%) have taken this approach, those that have not are more likely to leave decisions entirely in the hands of the IT department. The IT staff is often largely focused on the time and effort associated with the implementation. By involving line of business in both the selection and the implementation, this attention will be balanced with achieving the full benefits such as cost reductions and schedule improvements.
- **Establish specific goals for obtaining business benefit from ERP – measure progress.** Only 17% of Laggards quantify the business benefits resulting from the implementation of ERP. While the reduction of cost was the top business driver of ERP strategies for almost half (49%) of Laggard companies, 31% do not measure reductions in operational costs and 23% do not measure reductions in administrative costs as a result of ERP. Ninety-four percent (94%) of the Best-in-Class measure these improvements. What is not measured is not managed.
- **Don't let maintenance dollars go to waste.** This has been a recurring theme over the past several years, but this year we see the Best-in-Class outpacing Laggard by more than a factor of two in terms of staying current on the latest release of software. A key to being able to continue to gain more business benefit is to take advantage of innovation provided by your ERP solution provider. The Best-in-Class are 112% more likely to be on the latest release of ERP.

### Industry Average Steps to Success

- **Coordinate, collaborate, and continuously improve.** Continuous improvement has become a hallmark of Best-in-Class companies yet the Industry Average are only 9% more likely than Laggards to have formed cross-functional continuous improvement teams responsible for improving operational performance. Whether striving for a specific operational improvement or improving the

#### Fast Facts

- √ The Best-in-Class use 23% more ERP functionality than Industry Average and 43% more than Laggards
- √ The Best-in-Class are 83% more likely than Industry Average and 112% more likely than Laggards to be running the most current release of ERP
- √ The Best-in-Class are 2.6 times more likely to quantify the benefits of ERP than Laggards

"Having a single instance ERP has enabled us to facilitate strong interaction between Operations, Sales, Finance and Marketing as everyone is 'on the same page' or using 'one version of the truth' and understand that they each own a piece of the system but affect each other."

~ Eric Piersol, MIS Global  
Business Applications Manager,  
Alltech

value derived from ERP, it is important to maintain the focus and not allow complacency to prevent you from achieving growth of either revenue or profits.

- **Broaden and deepen ERP usage.** This recommendation has been a consistent message throughout Aberdeen's ERP benchmark reports, but results are clear: Best-in-Class SMEs make more extensive use of ERP in terms of the number of modules implemented and the percentage of available functionality deployed. We see a gap of 23% between the Industry Average (9.7 modules, 31.9% weighted average) and Best-in-Class (11.2 modules, 39.1% weighted average).
- **Improve visibility to data in ERP.** Only about a third (34%) of Industry Average performers have real time visibility to all processes from quote to cash, although 49% have the technical capability that allows decision-makers to drill down from summary data to the transactional level. Providing improved visibility may mean providing easy and direct access to more decision makers in the organization. Or it may mean providing better tools to make the data more easily consumed. Forcing managers to wade through mountains of detail to get an answer is a sure fire way to make them look elsewhere for answers.

### **Best-in-Class Steps to Success**

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- **Directly connect decision-makers.** While the Best-in-Class are 35% more likely to be able to access ERP data through any laptop or desktop, without requiring special software to be installed on the personal computer, 38% still do not have this level of accessibility. The first step towards making ERP data securely available for decision-making at any time, from any place, is to fully enable Internet access.
- **Don't forget mobility.** Executives and key decision-makers have come to expect instant access 24X7, whether traveling in a different time zone or staying connected in off hours. Most today, however, still rely on emails to deliver data and to communicate. By having direct access to data which may trigger an alert or simply keep the decision maker informed, the quality of communication can be increased dramatically.

### Aberdeen Insights — Summary

As the world economy continues to recover from its long recession, Small and Mid-size Enterprises (SMEs) are poised for future revenue growth and profits. A well-managed ERP implementation can be a continuing source of cost savings and operational improvements which help companies survive and thrive as we emerge from these troubled economic times. While even our Laggard implementations derived business benefit from ERP, the wide gap between cost reductions and schedule improvements of our top and bottom performers indicate there is risk in neglecting to measure the business benefits. And for those SMEs that have yet to implement ERP, the performance gap will widen as ERP solution providers continue to innovate solutions and those with ERP continue to reap the benefits. Those that aspire to Best-in-Class status would be well advised to turn ERP into a strategic weapon by taking full advantage of the technology, features, and functions which continue to expand at an ever-increasing rate.

“We measure ERP implementation by the company being able to serve customers on-time, having the information needed available in real time and across all departments, and business continuity.”

~ Manager, Small Industrial  
Product Manufacturer

## Appendix A: Research Methodology

Between April and July 2010, Aberdeen examined the use, the experiences, and the intentions of 579 enterprises using ERP in a diverse set of small and mid-sized enterprises. These enterprises are defined as businesses accumulating \$500 million in annual revenue or less.

Aberdeen supplemented this online survey effort with interviews with select survey respondents, gathering additional information on ERP strategies, experiences, and results.

Responding enterprises included the following:

- *Job title:* The research sample included respondents with the following job titles: CEO / President / CFO / CIO (20%); EVP / SVP / VP (9%); Partner (2%); General Manager (4%); Director (13%); Manager (29%); Consultant (10%); and other (13%).
- *Department / function:* The research sample included respondents from the following departments or functions: corporate management (13%); information technology (34%); logistics / supply chain (8%); manufacturing / production (6%); operations (10%); procurement / purchasing (4%); quality management (1%); finance / administration (8%); product development / engineering (3%); and other (15%).
- *Industry:* The research sample included respondents from a wide range of industries. The most prevalent industries were automotive / other vehicles (10%); industrial equipment manufacturing (11%); industrial product manufacturing (14%); chemicals (10%); IT consulting / services (14%); aerospace and defense (7%); metals and metal products (8%); and software (8%).
- *Geography:* The majority of respondents (69%) were from North America. Remaining respondents were from South / Central America and Caribbean (7%); the Asia / Pacific region (10%); the Middle East and Africa (2%); and Europe (12%).
- *Company size:* Thirty-nine percent (39%) of respondents were from enterprises with under \$25 million in annual revenue; 16% were from enterprises with between \$25 and \$50 million in annual revenue; 17% were from enterprises with between \$50 and \$100 million in annual revenue; 17% were from enterprises with between \$100 and \$250 million in annual revenue; and 11% were from enterprises with between \$250 and \$500 million in annual revenue.
- *Headcount:* Sixty-one percent (61%) of respondents had less than 500 employees; 16% had between 500 and 1,000 employees; 11% had between 1,000 and 2,500 employees; and 12% had more than 2,500 employees.

### Study Focus

Responding executives completed an online survey that included questions designed to determine the following:

- √ The degree to which ERP is deployed in their organizations
- √ The structure and effectiveness of existing ERP implementations
- √ Current and planned use of ERP
- √ The business benefits that have been derived from ERP initiatives

The study aimed to identify emerging best practices for ERP usage in small and medium-sized enterprises, and to provide a framework by which readers could assess their own management capabilities.

**Table 6: The PACE Framework Key**

Overview
<p>Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:</p> <p><b>Pressures</b> — external forces that impact an organization’s market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)</p> <p><b>Actions</b> — the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product / service strategy, target markets, financial strategy, go-to-market, and sales strategy)</p> <p><b>Capabilities</b> — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products / services, ecosystem partners, financing)</p> <p><b>Enablers</b> — the key functionality of technology solutions required to support the organization’s enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)</p>

Source: Aberdeen Group, August 2010

**Table 7: The Competitive Framework Key**

Overview	
<p>The Aberdeen Competitive Framework defines enterprises as falling into one of the following three levels of practices and performance:</p> <p><b>Best-in-Class (20%)</b> — Practices that are the best currently being employed and are significantly superior to the Industry Average, and result in the top industry performance.</p> <p><b>Industry Average (50%)</b> — Practices that represent the average or norm, and result in average industry performance.</p> <p><b>Laggards (30%)</b> — Practices that are significantly behind the average of the industry, and result in below average performance.</p>	<p>In the following categories:</p> <p><b>Process</b> — What is the scope of process standardization? What is the efficiency and effectiveness of this process?</p> <p><b>Organization</b> — How is your company currently organized to manage and optimize this particular process?</p> <p><b>Knowledge</b> — What visibility do you have into key data and intelligence required to manage this process?</p> <p><b>Technology</b> — What level of automation have you used to support this process? How is this automation integrated and aligned?</p> <p><b>Performance</b> — What do you measure? How frequently? What’s your actual performance?</p>

Source: Aberdeen Group, August 2010

**Table 8: The Relationship Between PACE and the Competitive Framework**

PACE and the Competitive Framework – How They Interact
<p>Aberdeen research indicates that companies that identify the most influential pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that they make and how well they execute those decisions.</p>

Source: Aberdeen Group, August 2010

## Appendix B: Related Aberdeen Research

Related Aberdeen research that forms a companion or reference to this report includes:

- [ERP in Manufacturing 2010: Measuring Business Benefit and Time to Value](#); June 2010
- [SaaS ERP: Trends and Observations](#); December 2009
- [ERP in Manufacturing 2009: Expanding Beyond Traditional Boundaries](#); June 2009
- [Beyond the Total Cost of ERP Ownership](#); June 2009
- [Enterprise Solution Strategies: The Value of an Integrated Suite](#); September 2009
- [ERP in the MidMarket 2009: Managing the Complexities of a Distributed Environment](#); August 2009
- [Measuring the ROI of ERP in SMB: Keeping ERP Projects Alive When You Need Them the Most](#); March 2009
- [Enterprise Applications: The Cost of Keeping Current... Or Not](#); January 2009
- [ERP in Complex Manufacturing: Improving Collaboration and Visibility](#); December 2008
- [ERP Plus in Process Industries: Beyond Compliance](#); November 2008
- [2008 ERP in the Mid-Market](#); August 2008
- [2008 ERP in Manufacturing Benchmark Report](#); June 2008
- [The Order-to-Cash Cycle: Integrating Business Processes to Improve Operational Performance](#); March 2008

Information on these and any other Aberdeen publications can be found at [www.aberdeen.com](http://www.aberdeen.com).

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