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The Role of ERP in Globalization

A low-cost approach to reaching new markets

February 2007



Executive Summary

One would expect globalization efforts to be largely driven either by the desire to exploit new markets or the need to lower manufacturing costs. Which is the dominant business driver? The answer is – **both**. A majority of companies (79%) view global markets as a growth opportunity, but of those companies half are also feeling pressures to reduce costs. Of those seeking to reduce costs either directly or by providing the necessary flexibility to ship from more cost effective locations, 74% are also seeking growth opportunities. We therefore conclude that **profitable growth** is the key consideration in globalization.

Key Business Value Findings

Globalization presents both business and technology challenges. Companies find there is no silver bullet when responding to the increased complexity of the supply chain resulting from globalization. Options range from balancing supply chain velocity with landed costs to relocating manufacturing operations. Enterprise Resource Planning (ERP) is a mission-critical component of any globalization strategy. The information made available through ERP is key to providing visibility to Key Performance Indicators (KPIs) and meeting corporate objectives. Yet this is often overlooked because companies focus only on supply chain issues. **The lack of standardized world-wide ERP implementations plagues more than half of global manufacturers.**

Implications & Analysis

Those companies that automate and streamline workflows across multiple sites including suppliers, partners, and manufacturing sites **produced 66% more improvement in reducing total time from order to delivery.** Yet, few companies take advantage of the technology available today that would support and sustain these collaborative efforts, leading Aberdeen to believe there is a huge opportunity for cost and productivity improvements.

Those that coordinate and collaborate between multiple sites, operating as a vertically integrated organization, have achieved **more than a 10% gain in global market share.** While global ERP may not be the panacea for market penetration, without a technologically sound architecture that supports global visibility and transactional interoperability a company's growth can be seriously stunted. Aberdeen research shows that integration technologies and Service Oriented Architectures (SOA) are often overlooked as software selection criteria, yet enterprises can't focus on gaining a competitive advantage if they struggle to integrate their own international operations. Internal operations must be integrated before inter-operability can be achieved on a global scale. The more seamless the integration, the easier it is to manage governance, risk and compliance.



Recommendations for Action

- Carefully evaluate the use of shared services both from a business process standpoint as well as a technologically. A “shared service” might be an accounting or administrative function such as purchasing or accounts payable, or a piece of technology shared across multiple enterprise applications.
- Automate and streamline workflows between suppliers, customers, and manufacturing sites.
- Standardize ERP implementations across the global enterprise.

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Chapter One: Issue at Hand

Key Takeaways

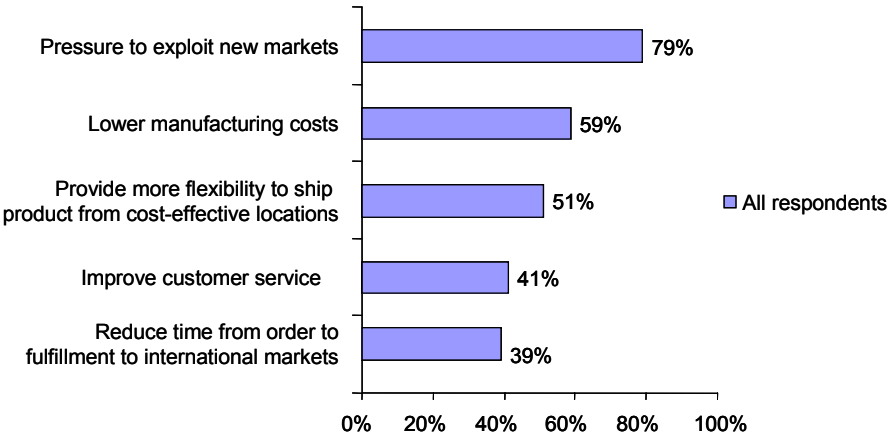
- Pressures to exploit new markets, along with the opportunity to lower manufacturing costs, combine to drive 80% of globalization efforts.
- The ability to support a multi-national implementation from a single instance of ERP is preferred by 89% of survey respondents.
- Multiple instances of ERP prevail at 56% of global companies.

Whether you view the world as flat or round, it is definitely shrinking. North American and European companies have been challenged by the introduction of lower priced products coming into their markets from countries with inexpensive labor, causing the trend in recent years toward low cost country sourcing as well as outsourcing of manufacturing operations and the opening of new offshore production facilities – all of which in turn introduce a higher level of complexity into the supply chain. In the meantime, some of these offshore companies (having grasped a foothold in US market share) have moved more operations to the US but are still managing to keep costs and prices low. This trend is creating even more competitive pressures and is causing many companies to re-think globalization strategies.

Aberdeen sees the pressures driving globalization to be clearly oriented towards growth and cost reduction, with improved customer service being a consideration but to a much lesser degree (Figure 1).

“We are globalizing because of cost considerations (low cost country sourcing), which are driven by our customers and competition. We are also looking to grow in the market in areas where we haven’t been strong in the past (Asia Pacific in particular).”
-IT Manager, automotive industry

Figure 1: Business Drivers of Globalization



Source: Aberdeen Group, February 2007



PACE Key — For more detailed description see Appendix A

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:

Pressures — external forces that impact an organization’s market position, competitiveness, or business operations

Actions — the strategic approaches that an organization takes in response to industry pressures

Capabilities — the business process competencies required to execute corporate strategy

Enablers — the key functionality of technology solutions required to support the organization’s enabling business practices

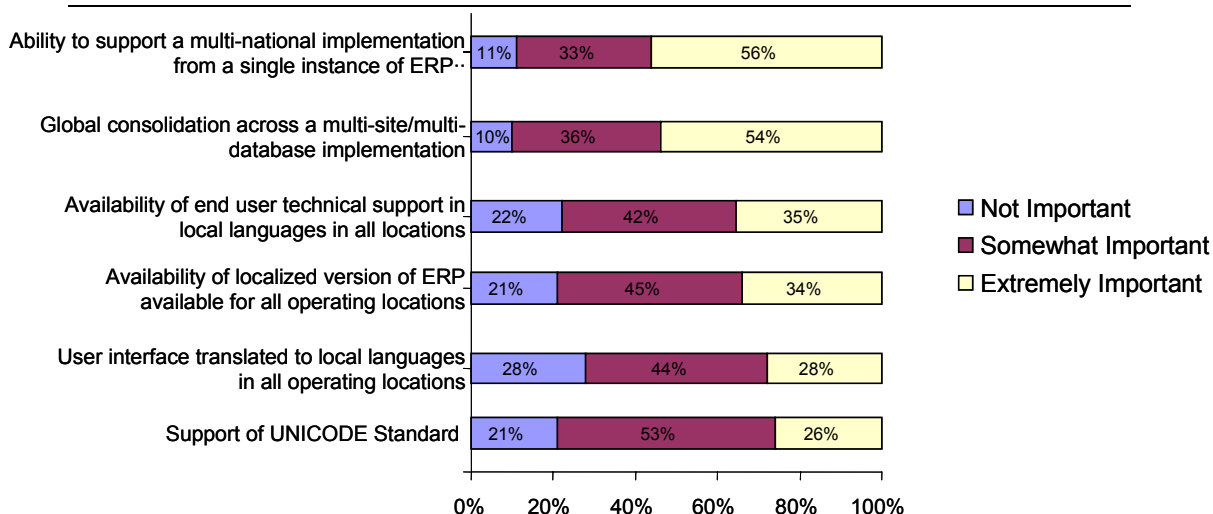
A majority of companies (79%) view global markets as a growth opportunity. Of those seeking to exploit new markets, half are also feeling pressures to reduce cost either by procuring materials from low-cost sources, out-sourcing manufacturing operations where labor is less expensive, or establishing their own or joint venture manufacturing operations in these same locations.

Of those seeking to reduce costs either directly or by providing flexibility to ship from more cost effective locations, 74% are also seeking growth opportunities. We therefore conclude that **profitable growth** is the key consideration in globalization.

Enterprises looking to compete in a global marketplace must be able to comply with international financial and legal requirements – they must be able to think globally but at the same time act (and comply) locally. Enterprises can’t focus on gaining a competitive advantage if they struggle to integrate their own international operations. Internal operations must be integrated before interoperability can be achieved on a global scale. The more seamless the integration, the easier it is to manage governance, risk, and compliance. Supply chain applications are at the forefront of discussions that center on globalization. But ultimately, corresponding transactions are captured in the back office; and that means core ERP must be able to deal with issues such as currency exchange, multi-site and multi-company transfer of inventory, consolidation, localization, and translation.

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Figure 2: Priorities of Global ERP Implementations



Source: Aberdeen Group, February 2007

Those companies operating in multiple countries around the world are required by law to operate as multiple legal entities. ERP also plays a key role in the consolidation of financials. The ability to support a multi-national implementation from a single instance of ERP and the global consolidation across multi-site and multi-database implementations are clearly viewed as the two highest ERP priorities for global companies (Figure 2).

However, Figure 3 shows us that a single instance of ERP supporting all global locations (22%) is far from the norm. While another 22% do have a single instance of ERP, it does not support all international locations in which the enterprise operates. And over half of our respondents are operating in what is perceived to be less than an optimal environment with either multiple instances of the same ERP or multiple ERPs.

Competitive Framework Key

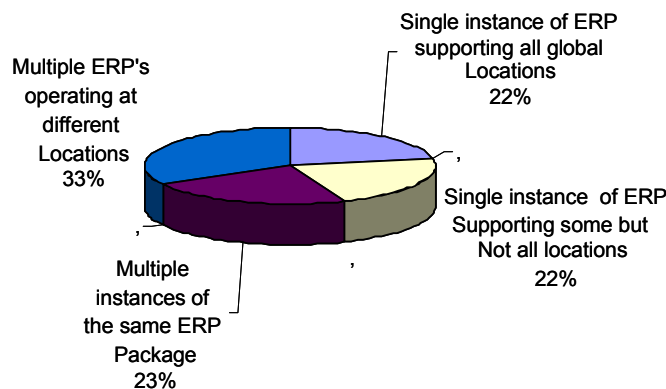
The Aberdeen Competitive Framework defines enterprises as falling into one of the three following levels of practices and performance:

Laggards (30%) —practices that are significantly behind the average of the industry

Industry norm (50%) —practices that represent the average or norm

Best in class (20%) —practices that are the best currently being employed and significantly superior to the industry norm

Figure 3: ERP Deployments



Source: Aberdeen Group, February 2007

One global automotive company in particular has multiple instances of ERP within their organization. The multiple ERP implementations are not primarily the result of technical limitations, but are due to previous business process decisions and preferences. “Our multiple instances of ERP were the result of a few factors. Past practices were to implement multiple instances for business process reasons, but recently we have seen those reasons being taken away. What was usually cited as a necessity was really only a local preference or a reflected past practice. Our past culture was that multiple systems (plant specific or divisional) were simply the norm. As the result of successful pilot projects in the Americas and France, (and to a lesser extent in other regions), we have proven that a regional-global approach works and we are now working to rapidly consolidate instances. In the past five years, we have gone from nearly 40 ERP instances to around 15 currently. Our target is four,” said the company’s IT manager.



Chapter Two: Key Business Value Findings

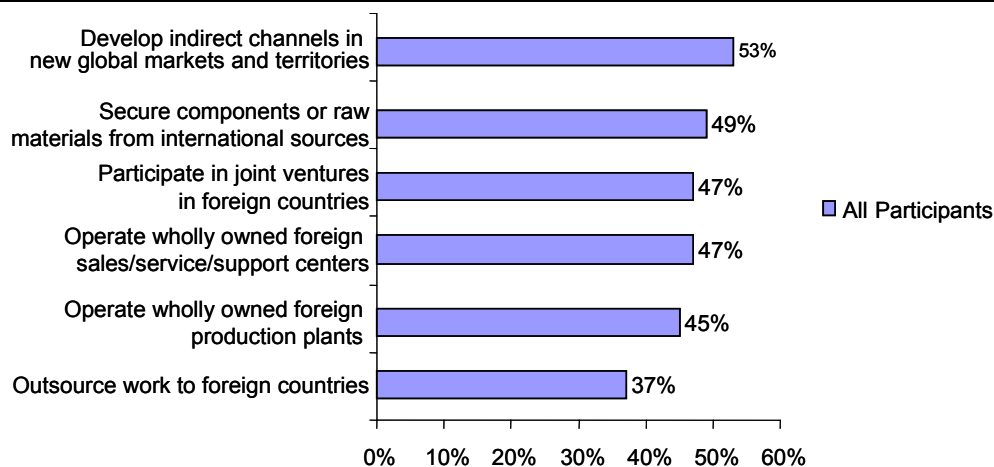
Key Takeaways

- Outsourcing takes a back seat to partnerships and direct presence offshore.
- There is no silver bullet in responding to the increased complexity of the supply chain resulting from globalization; options range from balancing supply chain velocity with landed costs to relocating manufacturing operations.
- A lack of standardized world-wide ERP implementations plagues more than half of global manufacturers.

There is no single dominant strategic action being taken by companies in response to the pressures created by an increasingly global economy (Figure 4). Those driven to open new markets in pursuit of growth are slightly more likely to do so through partnerships, either by *developing indirect channels* (53%) or *participating in joint ventures with local entities* (47%), although the move to *wholly owned sales, service and/or support centers in new global territories* (47%) is far from uncommon.

“We have entered into joint ventures to develop new products and rapidly acquire new technologies. Also, we strive towards business standardization and harmonization in order to lower our costs, decrease our variability, and improve our ability to operate seamlessly through having separate divisions operating in different global regions.”
-IT Manager, automotive industry

Figure 4: Strategic Actions in Globalizing



Source: Aberdeen Group, February 2007

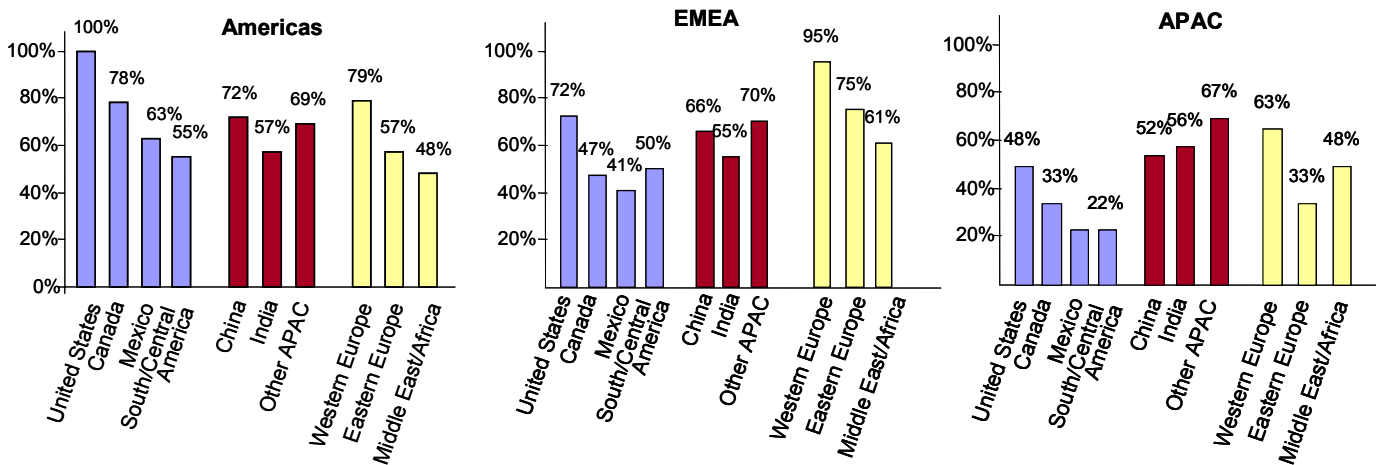
These joint ventures may in fact be launched for the purpose of manufacturing or sales, and therefore, this action may be taken either to fuel growth or reduce costs (or both). *Opening new wholly owned production plants* on foreign soil is also common (45%).

Companies are over 20% more likely to choose this approach over *outsourcing manufacturing operations* (37%). And of course, the availability of components or raw materials at lower prices makes procuring materials from low cost country sources is a strategy of choice for almost half of our respondents (49%).

How Global Are Companies Today?

The directions these globalization efforts take vary across the major regions of the world (Figure 5). While the reach of the majority of companies in Europe, Middle East, and Africa (EMEA) and the Americas (including the United States, Canada, Mexico, South and Central America) is truly global, companies in the Asia/Pacific region (APAC) have not expanded quite as universally. However, in our context, “doing business” means either procuring components or raw materials or selling goods to foreign countries. Thus, every purchase an American or European country makes from a low cost country source (generally from an emerging market such as Eastern Europe and most parts of APAC) represents a corresponding sales transaction in that emerging market.

Figure 5: Where Companies are Doing Business Today



Source: Aberdeen Group, February 2007

Business Challenges and Responses

The number one business challenge manufacturers face in going global today is the increased complexity of the supply chain (Table 1). In spite of these challenges, globalization efforts continue to expand (Figure 6). With the increasing percentage of components and raw materials that are sourced off-shore, often a trade-off is required between supply chain velocity and landed costs. This presents a challenge in containing lead times to adequately respond to customer and market demands, while preserving the cost savings.

“Our supply chain is more complex than before, both in the raw materials and finished goods. Raw materials (purchased items) are more and more globally sourced, and finished goods are sold locally but also throughout the world, often through third-party logistics providers that are required by our customers. We have also seen a trade-off to



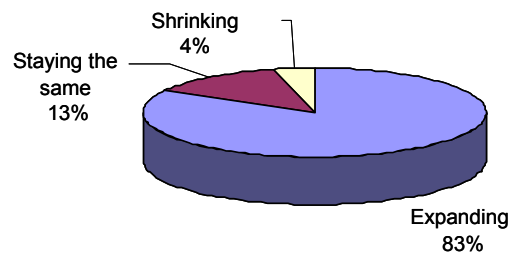
SCM velocity. We have seen lots of creativity on the payable and receivable side regarding payment terms, method of payment, consignment, and vendor managed inventory; and we are trying to manage the assets in the supply chain as effectively as possible,” says an IT Manager in the automotive industry.

Table 1: Key Business Challenges and Responses

Challenges	% Selected	Responses to Challenges	% Selected
Increased complexity of the supply chain	70%	Local experts hired on staff	58%
The need to adapt to business rules of foreign nations (governmental regulations and reporting requirements, taxation, labor laws, etc.)	49%	Implement solutions to provide online visibility and exception alerts to shipment status	45%
Lead times that inhibit the ability to respond to customer/market demands	45%	Sourcing and order fulfillment optimization that balances supply chain velocity and landed costs	41%
Challenges of human capital management in unfamiliar cultures	38%	Considering relocating specific manufacturing operations	33%
Lack of visibility into supply chain	32%	Score-carding and work-in-process monitoring of international vendors and service providers	33%
Product cost savings are eroded by global supply chain costs	29%	Implementation of electronic trade document and compliance processes	32%
Difficulty in making tradeoff decisions between supply chain velocity and landed cost	22%	Implementing localized financial and trade management applications	25%

Source: Aberdeen Group, February 2007

Figure 6: How Companies' International Operations are Expanding



Source: Aberdeen Group, February 2007

There seems to be no single best response to the added complexities of globalization. We saw a significant emphasis in globalization efforts placed on addressing the need to reduce the time from order to fulfillment. Company responses vary from relocating manufacturing to a closer proximity to customers, to optimizing sourcing and order fulfillment, balancing supply chain velocity with landed costs, and implementing solutions to provide visibility and exception alerts.

With the exception of hiring local experts and relocating manufacturing sites, all responses require some use of technology. As operations begin to expand into international territories, organizations are confronted with the need to adapt to the business rules of foreign countries, including government regulations and reporting requirements, and variations in tax and labor laws. The financial side of the supply chain becomes more complicated, as do payrolls. Companies operating in multiple countries are required by law to create separate legal entities. Simple inventory transactions are no longer simple, but instead must be treated as a purchase and sale between two separate legal entities. Fiscal reporting then takes on new challenges in the context of consolidating financials and eliminating corresponding entries of the purchase and sale of inventory between sister companies. Strategic application of technology can significantly reduce manual efforts and refocus energy into improving performance and driving growth.

“We reduced our manual efforts significantly when we implemented our ERP solution. We were able to take the 30+ individual interfaces we had previously and consolidate it down to one. We saw an immediate performance improvement in financial analysis as well.”

-Rainer Goehringer, Assistant General Manager for Business and Finance, Formex in Mexico.

IT Challenges and Responses

However, this application of technology comes with its own set of challenges. The *lack of standard implementation of ERP world-wide* was cited most often as one of the key IT challenges (55%). Figure 2 showed that 33% of participants run multiple ERPs and 23% run multiple instances of the same ERP package. Previous Aberdeen research ([The ERP in Manufacturing Benchmark Report](#)) found 71% of large companies with two or more ERP packages implemented across the enterprise and 26% with four or more. Aberdeen defines the threshold for the upper echelon of large companies to be \$1 billion in revenues and many of these companies have grown to be this size through merger and acquisition (M&A). Of those companies with more than one ERP package installed across the enterprise, the most often cited factor as the cause for this proliferation is growth through merger and acquisition (40%). ERP implementations that have been inherited through acquisition will never be “standard” unless rationalized or consolidated. [The ERP in Manufacturing Benchmark Report](#) showed that 74% of companies with multiple ERPs do intend to consolidate, and 17% of all companies have a replacement strategy (minimally for selected locations).



Table 2: IT Challenges and Responses

Challenges	% Selected	Responses to Challenges	% Selected
Lack of standard implementation of ERP world-wide	55%	Customize/enhance ERP using internal staff	54%
Challenges in providing service from a centralized IT installation	54%	Engage consultants or a systems integrator to customize/enhance ERP	48%
Challenges in managing a global, decentralized IT installation	48%	Upgrade existing ERP	42%
Lack of skilled IT resources available in (selected) international locations	37%	Implement localized version of ERP at additional international sites	37%
Lack of multi-national financial management features in ERP (e.g. currency conversion, material valuation, consolidations, g, etc.)	32%	Place local IT staff in strategic locations	35%
Lack of multi-national trade management features in ERP (e.g. management of exchange rates, document control, international settlement management, etc.)	30%	Replace ERP	30%
Lack of translated versions of ERP	12%		

Source: Aberdeen Group, February 2007

While operating from a single instance of ERP appears to be strongly favored, this is not a requirement for a standardized implementation. Even when confronted with disparate ERP implementations, best performing companies will adhere to standard product, customer, and account identification conventions, as well as standardized business processes that will support internal company collaboration and consolidation. This may be supported from a centralized or decentralized IT installation, each of which can present its own flavor of challenges. The second most often cited IT challenge was *providing service from a centralized IT installation* (54%), although 48% of companies also indicated they were challenged by *managing global, decentralized installations*. Both are options. Both present their own set of challenges.

One company in the apparel industry began their implementation in September 2003. “We began implementing it in all our operating companies outside the U.S. but are now in the midst of defining a global template to use not only in the U.S. but also in our continued global rollout. We plan to support the enterprise from a single instance. We originally chose the solution for its ability to support the fashion industry and because the provider had a presence everywhere our company does. Not only do we need matrix processing for our FootJoy brand of shoes and gloves, but it is also relevant to the various configurations of Titleist and Cobra golf clubs,” said the CIO.

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-CIO, apparel and fashion industry

Chapter Three: Implications & Analysis

Key Takeaways

- Those companies that automate and streamline workflows across multiple sites including suppliers, partners, and manufacturing sites produced a 66% greater improvement in reducing total time from order to delivery.
- More than 50% of companies that coordinate and collaborate between multiple sites (operating as a vertically integrated organization) have achieved over a 10% gain in global market share.
- Huge opportunities exist to apply technology to support globalization; few companies are “done” with implementations.

As shown in Table 3, survey respondents were classified into one of three categories — Laggard, Industry Average, or Best in Class — based on their ability to reap specific business benefits from global expansion, either in terms of significant cost reductions or growth of revenue, profits, and/or market share. These metrics were then correlated against characteristics in four key categories: (1) process (coordination and collaboration between suppliers, customers, and international locations); (2) organization (the ability to operate as a vertically integrated enterprise); (3) knowledge (visibility across sites); and (4) technology (scope of ERP implementation).

In each of these categories, survey results show that the firms exhibiting Best in Class customer service and financial performance also demonstrate Best in Class characteristics and make more extensive use of ERP and surrounding technology.

“We are using our ERP solution to improve our company logistics. We are still working with EDI, and when we have that running perfectly, we expect to see improvements in customer service delivery. Also, our financial analysis performance was immediately better after implementing the ERP solution. It’s not only better, but it’s easier, and deeper after just one month in production. We expect these performance gains to continue.”
-Rainer Goehringer, Assistant General Manager for Business and Finance, Formex in Mexico.



Table 3: Globalization Competitive Framework

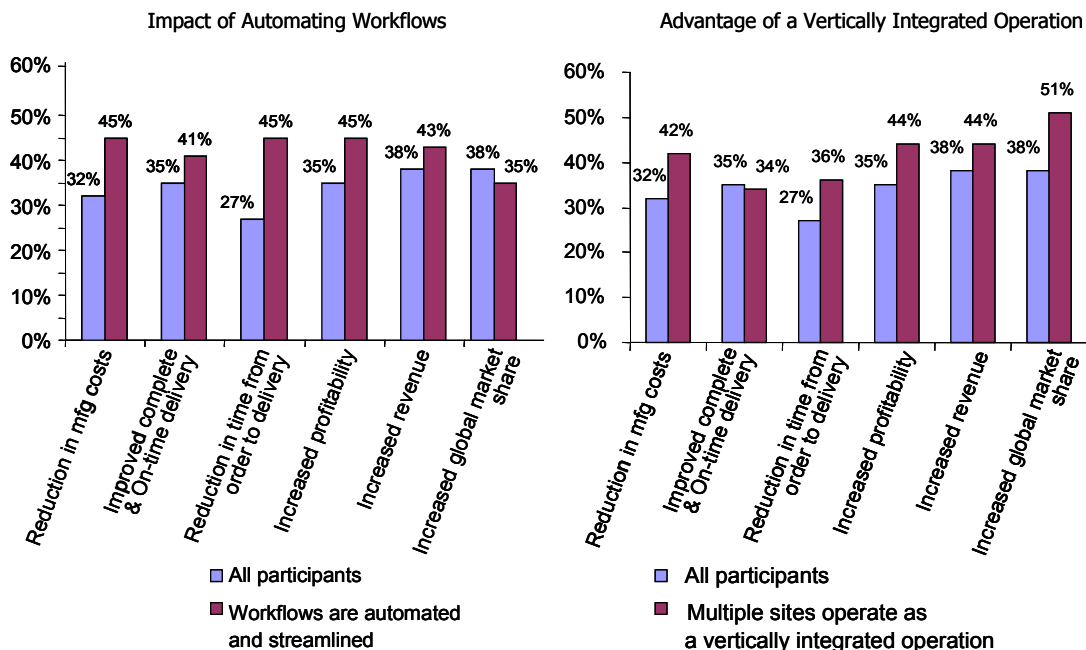
	Laggards	Industry Average	Best in Class
Process	Little or no coordination or collaboration between suppliers, partners, and manufacturing sites.	Work flows between suppliers, partners, and manufacturing sites, but manual intervention is required in order to coordinate processes.	Workflows are automated and streamlined across multiple sites (in support of collaborative processes) including suppliers, partners, manufacturing sites.
Organization	Sites operate independently. Relationships are managed much like a customer/supplier relationship with little or no coordination or collaboration.	Sites are relatively autonomous but coordinate and collaborate with each other.	Multiple sites operate as a vertically integrated manufacturing and delivery operation
Knowledge	No visibility between multiple sites.	Metrics and reporting is published and visible to partners and manufacturing sites on a periodic basis (i.e. weekly, monthly, or quarterly).	Data and metrics are shared between partners, manufacturing sites, and selected suppliers on a real-time or on-demand basis.
Technology	ERP is implemented at selected sites only. Manual journal entries and spreadsheets are used to consolidate financial reporting. Other legal reporting and compliance is governed on a manual basis	ERP is implemented at most sites worldwide. Basic data is captured from the installed application using basic reporting capabilities, supplemented with ad hoc report writer queries and reports. Legal reporting, governance, and risk management are managed with a combination of automated and manual processes.	ERP is implemented in all major operating sites worldwide; conforming to corporate standards. Reporting capabilities are being fully taken advantage of, along with advanced technologies such as event management and advanced analytics. Governance, risk and compliance are automated and well managed.

Source: Aberdeen Group, February 2007

Process and Organization

In the process category, firms that *automate and streamline workflows across multiple sites (including suppliers, partners, and manufacturing sites) in support of collaborative processes* produce better operating results in all but one of the benchmarked operating metrics (Figure 7). Such companies were able to beat the average reduction in manufacturing costs by almost 22%, improve complete and on-time delivery by 18%, and increase profitability by 28% over the average across all participants. ***The most impressive differentiation came from comparing reduction in total time from order to delivery, where Best in Class produced a 66% improvement.***

Figure 7: Percent of Companies Producing >10% Improvement



Source: Aberdeen Group, February 2007

From an organizational perspective, those companies that coordinate and collaborate between multiple sites, operating as a vertically integrated organization have achieved the increase in global market share we did not detect as a result of Best in Class process.

Another approach to process and organization is to introduce an organizational structure of a Shared Service Center (SSC). This approach centralizes - and shares - functions, the most likely being back office functions such as Finance (e.g. general ledger, accounts payable, accounts receivables) and Human Resource type functions like travel services, or those that combine the two, such as payroll processing or expense reimbursement. But it can also be applied to the middle or front office processes such as procurement or customer service. A key advantage of this convergence is that it enables economies of scale while standardizing business processes.

“We’ve implemented our ERP solution with a number of unique key performance indicators in mind. We’ve sought to gain detailed analytics in performance for parts, people, and financials in real time. This allows us to see the business globally, but to act, we have to take the information back to the local/micro level in order to make appropriate decisions, act, and understand the consequences of our decisions.”

-CEO, technology solutions, retail industry

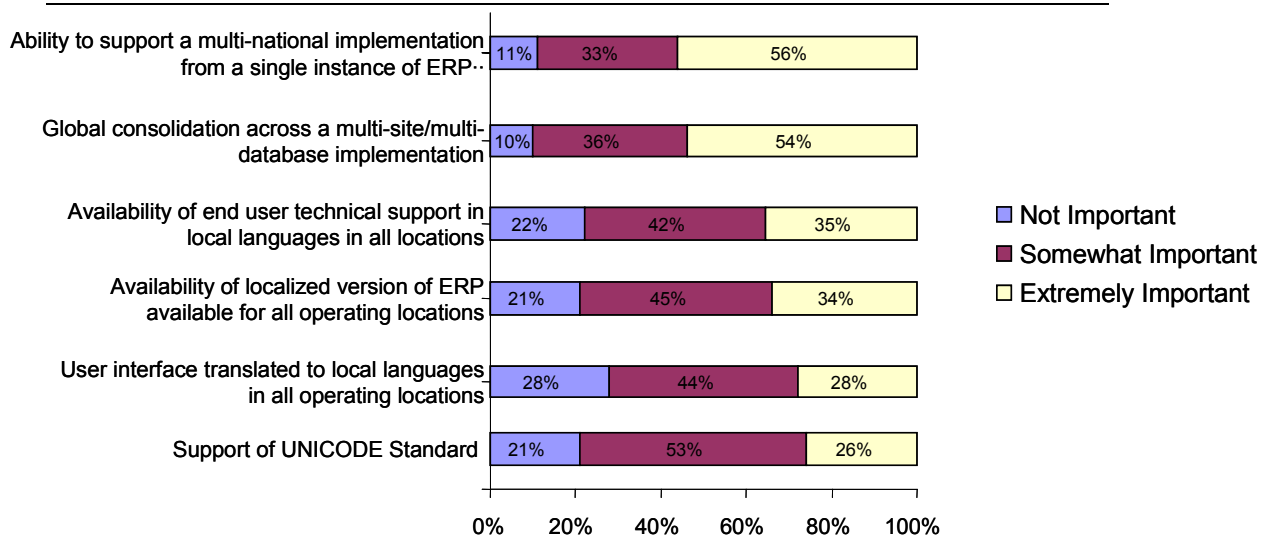


Technology Usage

ERP is a mission critical component of any globalization strategy. Yet, this is often overlooked while focus is concentrated on supply chain issues. As a result, the majority of companies today still rely on some element of manual effort and/or spreadsheets in order to consolidate financial reporting and fulfill global trade management, legal, and reporting requirements. **However, Best in Class performers consistently employ more technology in their globalization efforts.** This use of technology includes more extensive use of features and functions embedded within ERP, as well as a broader solution footprint including extensions such as Customer Relationship Management (CRM), Corporate Performance Management (CPM), and Global Trade Management applications. Best in Class companies were 12% to 60% more likely to implement features and extensions, but a significant level of planned activity in terms of purchase, upgrade, and enhancements were detected.

All major ERP vendors today offer versions of solutions that have been translated and localized to selected international markets. However, managing translations and localizations can be a daunting task for these solution providers, particularly those that play in many countries around the world. The manner in which they deliver this functionality varies as well, and can have a significant impact on their ability to adequately support customers' global operations.

Figure 8: Relative Priorities Across Global ERP Implementations



Source: Aberdeen Group, February 2007

The Importance of Technology Infrastructure

While operating from a single instance of ERP seems to be the preferred choice for all but 13% of participants, we saw in Chapter One that less than half (44%) actually operate in this singular environment (Figure 3). Therefore, it comes as no surprise that 89% of our survey pool indicated the *ability to consolidate across a multi-site/multi-database environment* was either somewhat or extremely important. In fact, even when operating

from a single instance of the software, most global ERP implementations require multiple databases thereby contributing to the relative importance of this feature/functionality.

Aberdeen’s research consistently finds that manufacturers pay little attention to integration capabilities and the underlying infrastructure needed to support the interoperability between applications used internally or with those of suppliers, partners and customers. Traditional point to point interfaces between applications can be expensive to develop and maintain, but the introduction of newer technologies, including Service Oriented Architectures (SOA), have made these integrations much easier by using a hub and spoke approach.

SOA also introduces the added potential benefit of composite applications – those engineered and built by combining multiple services, much the same way business processes can be shared in a Shared Service Center and with the same economies of scale. A composite application is comprised of functionality drawn from several different sources which may be individual web services, selected functions from within other applications, or entire systems whose outputs have been packaged as web services.

User Interface

There are several aspects to consider when presenting software to an international audience of end users. The two most common considerations are translation and presentation of date formats. Any residual issues of date formatting typically were addressed in Y2K (Year 2000) remediation, leaving only the issue of translation. Again, there are two issues: the user interface and presentation of data (such as account and product descriptions).

Approximately one-quarter of our respondents (26%) saw no need for *translated user interfaces*, presumably because of a common language across operating environments. Only 29% flagged this requirement as extremely important. Even where foreign languages are spoken in multiple operating locations, some US based companies require employees to speak English, somewhat reducing the need for translations in some instances.

Providing that the labels in the user interface have been externalized, this element of translation represents the “easy part.” The newer releases from all major vendors have taken this approach, making it relatively quick and easy to deliver translations into western languages. This certainly provides an additional incentive to ERP users to keep current on new releases of the application.

However, all ERP solution providers may not support the Unicode standard, or double-byte representation, often required for eastern languages such as Chinese, Japanese, or

What is Unicode?

“**Unicode** is an industry standard designed to allow text and symbols from all of the writing systems of the world to be consistently represented and manipulated by computers...

The [Unicode Consortium](#), the non-profit organization that coordinates Unicode's development, has the ambitious goal of eventually replacing existing character encoding schemes with Unicode and its standard Unicode Transformation Format (UTF) schemes, as many of the existing schemes are limited in size and scope and are incompatible with multilingual environments. Unicode's success at unifying character sets has led to its widespread and predominant use in the internationalization and localization of computer software. The standard has been implemented in many recent technologies, including XML, the Java programming language and modern operating systems.”

-Wikipedia, the free encyclopedia.



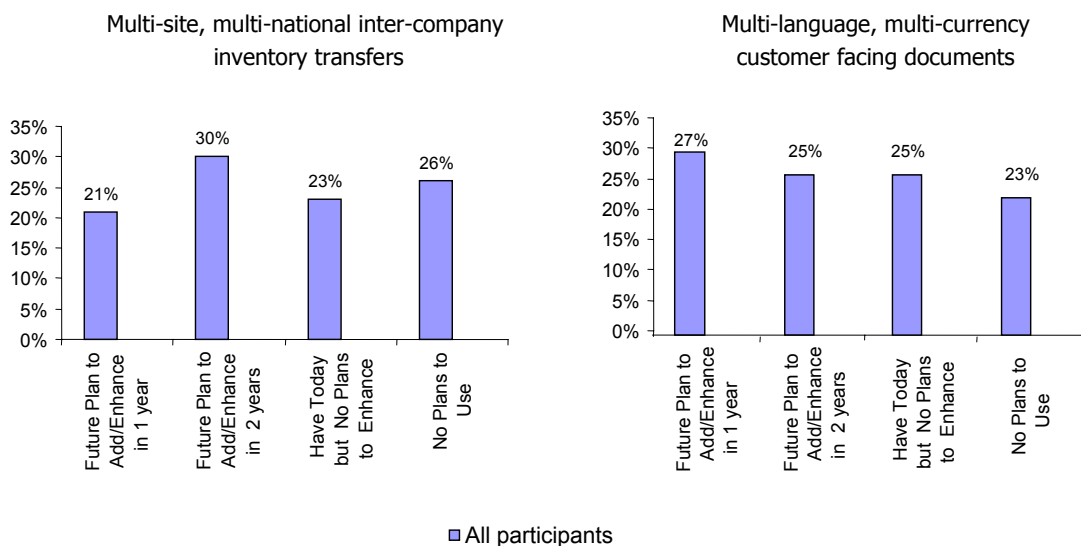
Hebrew. In evaluating software, technology buyers should ask what restrictions will be placed on users that speak different languages but share a common instance of ERP.

Translating Data

Translation of data represents a different kind of challenge. Presenting internal descriptive data (such as general ledger account descriptions) is still not a supported feature of many ERP systems. Translation of product and part descriptions to the language of the supplier or customer remains a “future” feature for many as well. ERP vendors will employ various strategies for dealing with these issues, including product aliases and mapping features. Only 25% of our respondents indicated this feature was implemented and satisfied their needs (Figure 9). Another 52% indicated they would add or enhance this functionality within the next one to two years, with only 23% indicating they had no plans to use this feature. This should signal an increased priority to those ERP vendors that have not yet delivered this feature.

“In order to get data into our system, translation is required. We work with vendors, standards, and suppliers to outsource the translation of data that needs to be done. It’s pretty transparent to me. Once the data is in the system, translation is not necessary. Web 2.0 services make translation of data less necessary, and our need for translation of data seems to be reducing.”
-CEO, technology solutions, retail industry

Figure 9: Plans for adoption and enhancement



Source: Aberdeen Group, February 2007

International Features

Globalization can also create the need for other types of functionality within ERP that are not specific to countries, but to the legal requirements of operating a multi-national enterprise. For example, simple inventory transfers between sister divisions can become more complicated if these divisions operate in foreign countries. Because divisions running in foreign countries must, by law, operate as separate legal entities, the movement of inventory must be treated as a purchase and sale. A full 75% of our respondents face this

issue but only 23% indicated this feature is implemented with no need for enhancement (Figure 9). More than 50% of respondents indicated they would be adding or enhancing this feature.

This operating environment then also presents its own set of challenges with regard to financial consolidation and reporting. Ninety percent of our respondents face this challenge and only 25% report their needs are fully met with their existing ERP implementation. A full 64% indicate plans to add or enhance this functionality in the coming years.

Localization

International functionality (such as localizations for country-specific legal, trade, and reporting requirements) might be embedded in the core ERP product or delivered separately in a country-specific layer or pack. The decision between these two approaches is often reflective of the trade-off between speed, upgradeability, and complexity. If all international features are embedded within the core ERP product, all countries can benefit immediately from new features and upgrades.

Eighty four percent of our respondents indicated the need for country-specific reporting requirements. Yet addressing country-specific requirements within the core product can add a level of complexity from which few customers will benefit. Therefore, some ERP vendors will consider factors such as whether the feature is required to fulfill a statutory requirement and the level of complexity it will add to the product.

There is risk associated with delivering features in a separate layer, however. Often upgrades to these add-on functions are staged incrementally and delivered well after the core release and there is a danger certain countries can be “left behind.” The risk is greater from smaller ERP players with limited development resources.

“Beyond our core ERP implementation, we have been working with a number of third-party companies that sit on top of the ERP to utilize their enabling technologies, or modules. We use their communications packages, with call service buttons, point of sale capabilities, and dashboard features, for example. This gives us the ability to run the business at a level of granularity that we need and at the pace we, our vendors and our customers require.”

-CEO, technology solutions, retail industry

Beyond Core ERP Functionality

As companies “go global” they often look to expand implementations beyond the functionality of core ERP. With added modules and extensions, ERP vendors are steadily encroaching on what used to be the exclusive domain of pure play or best-of-breed vendors offering point solutions with more comprehensive functionality. [*The ERP in Manufacturing Benchmark Report*](#) found the majority of ERP extensions today are purchased from ERP vendors, most specifically in the domain of SCM and CRM.

These types of applications, along with financial consolidation and reporting, play the largest role in globalization. Our findings confirm these priorities (Table 4); 42% of respondents have financial consolidation and reporting implemented and another 43% are planning to implement such functionality in one to two years. We see similar adoption rates and plans for supply chain and CRM applications. As supply chains become more complicated, enterprises require better tools to



provide visibility and control over supply chain planning and execution. Globalization heightens the need for a 360-degree view that can only be achieved through automating the process of servicing the customer.

For example, one company in the retail industry has coordinated their ERP system with modules supplied by third party vendors that cater to their specific business needs. “Beyond our core ERP implementation, we have been working with a number of third-party companies that sit on top of the ERP to utilize their enabling technologies, or modules. We use their communications packages, with call service buttons, point of sale capabilities, and dashboard features, for example. The information is extracted real-time and provides us with analytics that measure at the shelf, store, country, national, and global levels. This gives us the ability to run the business at a level of granularity that we need and at the pace we, our vendors and our customers require,” says the CEO of the retail company. “We wanted integrated real time functions, that are integrated demand side functions and not limited to supply side functions. We had to look beyond our ERP provider for that granularity and capability. We needed a solution with a different approach rather than improvements over the historic solutions. We don’t see the big players in the segment at this level of capability yet.”

Table 4: Technology Investments Supporting Globalization

Technology Solution Area	Implemented	Plan to Implement 12-24 Months
Financial Consolidation & Reporting	42%	43%
CRM (Customer Relationship Management)	40%	39%
Quality Management	37%	40%
Supply Chain Planning	32%	41%
Supply Chain Execution	28%	40%
Supplier Collaboration	21%	59%
International Human Capital Management	17%	45%
Global Trade Management	16%	62%
Corporate Performance Management	16%	56%
Lean Manufacturing Specialty Applications	14%	47%

Source: Aberdeen Group, February 2007

Chapter Four: Recommendations for Action

Key Takeaways

- Carefully weigh the pros and cons of establishing shared business processes
- Automate and streamline work flows between suppliers, customers, partners and (internal) manufacturing sites.
- Standardize ERP implementations across the global enterprise.

Cost, revenue, profitability, and customer satisfaction benefits await all firms that are committed to optimizing their ERP implementations for a global environment. Companies from all categories in our competitive framework should consider the following recommended actions.

- Carefully weigh the pros and cons of establishing shared business services
The level of autonomy and the actual transactional nature of the interoperation between multiple operating units will weigh heavily in these decisions. While this approach is not for everyone, the key advantages are the standardization of business processes and the ability to achieve economies of scale. Carefully evaluate your ERP vendor's ability to support these shared services.
- If you have not already done so, move to an SOA enabled version of ERP
Evaluate the technology infrastructure of ERP on the basis of ease of integration and adaptability to evolving business processes. The ability to interoperate throughout multiple operating units of a global enterprise, as well as with customers, suppliers and partners, is becoming a competitive requirement. Web services can provide a huge advantage.

Laggard Steps to Success

1. *Document the business processes and work flows between suppliers, partners, and manufacturing sites.*

The ultimate goal will be to streamline and automate, but the first step in the process is to map out the processes and understand the data that must flow between these different stakeholders. Manual intervention may be required at this stage.

2. *Understand which localizations, translations, and globalization features are needed and which are available from your current ERP provider.*

Also determine how these features and functions are delivered and what impact this will have on your overall strategy to roll out and maintain a global implementation.



3. *Prepare an ERP feature/function gap analysis for each country in which you operate.*

It is not advised to set up an operating location in a country without first understanding the local legal and financial reporting requirements. Map those requirements back to your current ERP implementation. If ERP is not operating at that site, the gap analysis should be followed by an ERP selection process. Determine whether ERP packages currently installed should be rolled out, or if a consolidation or replacements strategy is more cost effective.

Industry Norm Steps to Success

1. *Streamline and automate the business processes and work flows between suppliers, partners, and manufacturing sites.*

Implement workflow technology, preferably from your ERP solution provider. This will give you a jumpstart on establishing basic common workflows that can be modified as you streamline and automate the data communication and work flows.

2. *Establish common metrics and reporting standards across all operating sites.*

Supplement current functionality in the short term with manual efforts, usually in financial reporting and consolidation, but create a plan to automate this process with existing ERP or new modules or extensions.

Best in Class Next Steps

1. *Standardize ERP implementations across all operating sites.*

While operating from a single instance of ERP appears to be strongly favored, this is not a requirement for a standardized implementation of ERP. Even when confronted with disparate ERP implementations, best performing companies will adhere to standard product, customer, and account identification conventions, as well as standardized business processes that will support internal company collaboration and consolidation. This may be supported from a centralized or decentralized IT installation.

2. *Implement event management to further streamline and automate the work flows between operating units as well as suppliers and customers.*

Combine this with a structured implementation of alerts and supplement it with the use of advanced analytics in order to manage and automate governance, risk, and compliance.

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Appendix A: Research Methodology

Between December 2006 and January 2007, Aberdeen Group examined role ERP plays in globalization efforts of manufacturers worldwide. Responding manufacturing, supply chain, logistics, and operations executives completed an online survey that included questions designed to determine the following:

- How much enterprises are relying on ERP to effectively manage global operations, how much is still being done manually and with spreadsheets; or is global ERP not being effectively managed at all?
- If multi-national financial management and trade management features are available to companies, have they implemented these features?
- Do global companies centralize ERP or manage a globally distributed environment?
- What priorities do enterprises place on the various elements of global ERP?
- What plans do companies have in terms of extending or enhancing ERP in support of globalization?

Aberdeen supplemented this online survey effort with telephone interviews with select survey respondents, gathering additional information on ERP implementation strategies, experiences, and results. The study aimed to identify emerging best practices for ERP implementations supporting global operations and provide a framework by which readers could assess their own implementations. Responding enterprises included the following:

- **Job title:** The research sample included respondents with the following job titles: CIO or IT manager (11%); C-level officer or VP (14%), director (19%), manager (38%), consultant (11%), staff and other (8%)
- **Function:** 33% of respondents represented IT, 9% manufacturing, 15% supply chain, 11% business process management, 10% procurement; 23% other.
- **Industry:** The research sample included respondents predominantly from manufacturing industries. High-tech manufacturers represented 43% of the sample, followed by manufacturers of industrial equipment and machinery which totaled 17% of respondents. Automotive represented 11%, consumer product goods including food and beverage 15%, medical devices 10%, and aerospace and defense manufacturers accounted for 7% of the sample.
- **Geography:** 56% of study respondents were from the Americas, primarily from the United States but with a small sample from Canada and Central and South America, 30% were from EMEA (Europe, Middle East and Africa), and 13% were from the Asia-Pacific region.
- **Company size:** Approximately 32% of respondents were from large enterprises (annual revenues above US\$1 billion); 45% were from midsize enterprises (annual revenues between \$50 million and \$1 billion); and 23% of respondents were from small businesses (annual revenues of \$50 million or less).



Table 5: PACE Framework

PACE Key
<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><i>Pressures</i> — 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><i>Actions</i> — 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><i>Capabilities</i> — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products/services, ecosystem partners, financing)</p> <p><i>Enablers</i> — 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, February 2007

Table 6: Relationship between PACE and Competitive Framework

PACE and Competitive Framework How They Interact
<p>Aberdeen research indicates that companies that identify the most impactful 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.</p>

Source: Aberdeen Group, February 2007

Table 7: Competitive Framework

Competitive Framework Key
<p>The Aberdeen Competitive Framework defines enterprises as falling into one of the three following levels of FIELD SERVICES practices and performance:</p> <p><i>Laggards (30%)</i> — ERP practices that are significantly behind the average of the industry, and result in below average performance</p> <p><i>Industry norm (50%)</i> — ERP practices that represent the average or norm, and result in average industry performance.</p> <p><i>Best in class (20%)</i> — ERP practices that are the best currently being employed and significantly superior to the industry norm, and result in the top industry performance.</p>

Source: Aberdeen Group, February 2007

Appendix B: Related Aberdeen Research & Tools

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

- [The ERP in Manufacturing Benchmarking Report](#) (August 2006)
- [Basic Cost Elements of the Total Cost of ERP Ownership](#) (December 2006)
- [ERP in the Mid-Market](#) (October 2006)
- [Best Practices in Extending ERP](#) (November 2006)
- [Benchmarking ERP in SMB](#) (December 2006)
- [Realize the Returns from Enterprise Management Applications](#) (January 2007)

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