# Tackling ERP Complexity

Digital business success increasingly depends on managing multiple ERP platforms and cloud-based services.

Decades of diverse IT innovations and advances have resulted in one universal constant: a steady acceleration in the pace of digital business. Arguably, the most critical IT element driving — and supporting — this acceleration is the collection of operational and management software components that constitute Enterprise Resource Planning (ERP) solutions.

Nowadays, ERP software handles financial planning and accounting, inventory and sales management, human capital management (HCM), customer care, and many other core business functions. One might say ERP-supported operations are the digital business. As such, ERP deployment, integration, and management choices can affect everything from tactical and strategic decision making to regulatory compliance, business agility, and even competitive advantage. At the same time, ERP platforms must accommodate parallel trends including ecommerce, big data analytics, and the fast-growing ranks of mobile workers and devices in today's digital business environment.

IDG Research Services recently surveyed IT and business executives to gain insight into the ERP landscape — most notably the growing complexity that characterizes it. The top revelation: "With an increasing number of platforms and delivery models, organizations are tapping the expertise of integration and deployment partners.

The IDG survey finds most respondents are hoping for some easing of ERP complexity going forward. Given the pace of evolution, however, establishing a simplified ERP landscape may prove elusive. Complicating matters, fewer than half of the respondents say their organizations have an overarching enterprise ERP strategy in place.

## The Growing Complexity of ERP Infrastructure

Nearly three-quarters of the IDG survey respondents say that the complexity of their organization's ERP ecosystems has increased during the past two years. A variety of factors have contributed to this trend, including the organic growth of the ERP category itself.

In the 1990s, ERP solutions from Oracle, SAP, and other vendors focused primarily on accounting, financial planning, inventory management, sales management, and other back-office functions. Today, other operations that were traditionally outside of ERP's purview — including HCM, customer relationship management (CRM), ecommerce, and other functions — are now often considered part of the ERP portfolio.

In its survey report, IDG takes this expansive view, defining ERP as:

*Business management software — usually a suite of integrated applications — that automates and supports a range of administrative and operational business processes, including line of business, customer-facing, administrative, and asset management.*
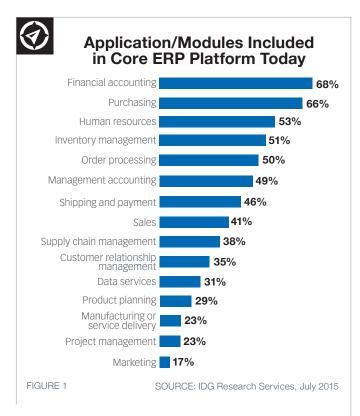
Using this definition, nearly one-third (32%) of the respondents report that their organizations have increased the number of ERP platforms and packages in the past two years. Another 18% expect to do so in the coming two years. This expansion in ERP functionality can occur in a number of ways — from powering up new application modules within an existing ERP platform to introducing entirely new platforms and cloud-based services.

Many organizations rely upon a core ERP platform for the bulk of their ERP functionality, while turning to different vendors' solutions for other pieces of the ERP puzzle. In fact, the IDG survey finds that just five applications/modules

## Application/Modules Included in Core ERP Platform Today

| Module | Percentage |
|---|---|
| Financial accounting | 68% |
| Purchasing | 66% |
| Human resources | 53% |
| Inventory management | 51% |
| Order processing | 50% |
| Management accounting | 49% |
| Shipping and payment | 46% |
| Sales | 41% |
| Supply chain management | 38% |
| Customer relationship management | 35% |
| Data services | 31% |
| Product planning | 29% |
| Manufacturing or service delivery | 23% |
| Project management | 23% |
| Marketing | 17% |

FIGURE 1                    SOURCE: IDG Research Services, July 2015

reside on the core ERP platform at 50% or more of the respondents' organizations.

The flip side of Figure 1 indicates which functions — led by marketing, project management, and manufacturing or service delivery — are most likely to currently reside on secondary ERP platforms. The use of secondary platforms isn't going to end anytime soon; a majority say they will deploy ERP applications on such platforms in the coming year.

The applications most likely to reside outside of the primary ERP platform, predictably, tend to be those that fell outside of ERP's reach a decade or two ago. Although the major ERP vendors are continually expanding the scope of their suites through internal development and acquisition, independent sources of some types of functionality, such as CRM, still hold significant market share.

While it may seem counterintuitive, this platform diversity isn't necessarily a bad thing. Ideally, it allows organizations to select best-in-class solutions for different functionality. But the potential benefits of a multi-platform approach like this can quickly be lost if the various elements aren't intelligently deployed and well integrated.

## The Shift Toward Cloud Deployments

ERP complexity isn't coming just from an increase in the scope of ERP itself or the existence of multiple ERP platforms within many organizations. The delivery model is shifting to include more cloud-based service deployments. As with other such services, cloud-based ERP can deliver a number of benefits to organizations. Those benefits include lower capital and operational costs, as well as faster time to deployment, open-ended scalability, and other advantages.

Still, given the critical business role that ERP solutions play, it isn't surprising that most organizations still deploy the software on premises. Only 13% are currently hosted off premises, with partners managing software that is purchased by their customers and running it either on their customers' offsite servers or on "rented" cloud-based infrastructure as a service. Another 12% run their ERP solutions on dedicated private clouds, which mirror many of the virtualization, flexibility, and scalability characteristics of public cloud solutions, but are deployed, operated, and secured in-house. At present, only 6% of ERP deployments are public cloud-based services.

Here, too, change is in the wind. When asked which deployment models their organization's ERP solutions will leverage two years from now, a slim majority (52%) say they will still be relying on on-premises software.

Complicating matters further is the fact that cloud services purchases and deployments are often made with little IT department involvement or oversight — a phenomenon typically labeled "shadow IT." "Increasingly business process owners and decision makers who can't wait 18–24 months for digital business solutions are choosing to go direct to the cloud marketplace for solutions that are easy to evaluate and incorporate into their operations," says Bhalchandra (Bhala) Bhosale, senior vice president at NTT DATA, Inc., a systems integration and consulting firm. "Once solutions are incorporated and adopted, business process owners will often partner with IT to fully integrate the solution and keep it secure."

## Strategic ERP Is Still the Exception

Given the shifting and challenging ERP environment, it may seem clear that organizations need comprehensive strategies to fully manage and exploit this critical IT resource. The IDG survey, however, suggests many organizations are more passive than aggressive in their approach to implementing holistic ERP strategies.

Just 45% of the respondents say they have enterprise strategies in place to govern ERP deployments, although another 32% say they are making it a priority to develop such a strategy. Similarly, 44% say they have strategies in place for integrating on-premises and cloud-based ERP environments, with 36% indicating they will develop such a strategy in the coming year.

These numbers aren't surprising to Bhosale at NTT DATA. He estimates that only about 30% of organizations proactively track their acquisitions of IT solutions — including new cloud services — and gear up in advance to ensure that they have the necessary integration strategies and technologies in place to quickly blend the new solutions with the old.

The lack of enterprise ERP strategies may be a reflection of the sanguine perspective many IT and business managers hold regarding ERP's future. Although 32% of the respondents report an increase in their ERP platforms and packages during the past two years, just 18% expect a further increase in the next two years. Slightly more than half expect no change in the number of ERP platforms or packages in use, while a significant number — 29% — actually anticipate a decrease in the number or ERP solutions within their organizations.

Is this optimism warranted? Given the history of the IT industry and the difficulty of predicting new technology developments and business requirements, betting on any simplification trend requires a lot of faith. It could also put an organization in serious risk if ERP complexity remains high, or increases, and the organization is unprepared to deal with this reality.

## Clearing Hurdles to Realize ERP Benefits

Although cost and budget concerns top the list, integration issues are close behind for IDG survey respondents — particularly application integration (49%) and business process integration (46%). Organizations that have standardized on a single, comprehensive ERP platform from one vendor gain the significant benefit of having fewer integration problems to solve. Still, even these organizations almost always need to modify the ERP solution to accommodate their specific business process and needs, not to mention integrating it with other IT systems and databases. For organizations with ERP platforms and services from multiple vendors, the integration challenge can escalate rapidly. All of the disparate modules must interoperate smoothly and efficiently if business processes that span them are to execute at optimal levels.

Among the other common concerns are change management, security and compliance requirements, and finding ERP solutions that meet the organization's specific needs.

If these challenges can be overcome, ERP deployments can deliver a range of business benefits. The benefits identified include cost savings (selected by 52% as the top benefit), best-of-breed functionality (52%), and customer care and intimacy (41%).

Underlying these and other high-level business benefits are a large variety of operational goals that drive ERP investment decisions, according to the survey results. The top goal, cited by 57% of the respondents, was to achieve better reporting. With tightly integrated ERP modules running on a common database, organizations easily get actionable financial and operational reports that can be difficult to produce when ERP environments are fragmented and drawing from multiple and often inconsistent data sources. This increased visibility can lead directly to the second-ranked ERP investment goal, better decision making (cited by 49%).

Meanwhile, having an integrated, end-to-end ERP environment delivers more than just better reporting and decision making in today's fast-paced digital business environment. It can also allow organizations to optimize, automate, and modify many business processes that would otherwise

be manually intensive and inflexible. Achieving an integrated process platform and increasing the speed and agility of business processes also rank highly on the list of ERP investment drivers, with more than 40% citing these two closely related objectives.

Helping organizations fully realize these operational goals, and the resulting business benefits, is where ERP partners often come into play.

## Evaluating ERP Partners

As illustrated by the IDG survey results, many organizations lack comprehensive, in-place strategies for tackling the integration and optimization challenges that ERP platforms pose. More fundamentally, organizations may also lack the in-house staff expertise to develop and execute such strategies. Under these circumstances, finding a good ERP partner isn't so much a luxury as it is a requirement.

When evaluating systems integrators, consultants, and other ERP partners, organizations consider a variety of attributes. It's little wonder that the top desired attribute cited by the survey respondents is integration expertise — ranked as a critical or very important capability by 85%. Also highly desired are partners with specific business process expertise, cost competitiveness, and industry/vertical sector expertise, among other traits.

Based on the survey results, however, existing ERP partners have room for improvement across the board. The ability of partners to deliver on performance expectations falls short of their importance ranking. Some of the most significant gaps between desired and delivered capabilities are in the areas of integration expertise (a 26% gap), business process expertise (also a 26% gap), and industry/vertical expertise (a 20% gap). Much of an organization's digital business success can ride on finding ERP partners with deep, proven capabilities that match their biggest needs.

## NTT DATA Offers Range of ERP Services for Digital Business

In an IT environment full of new and glitzy technologies, the critical importance of ERP solutions can sometimes be overlooked. However, ERP platforms are blurring, if not eliminating, the line between IT and business. Without comprehensive and well-integrated ERP solutions, many organizations simply couldn't function in today's digitally driven world.

Although ERP done well can deliver many business benefits, a complex and poorly managed ERP environment can end up hurting organizations more than helping them. To make sure they keep pace with the evolving ERP landscape — and cloudscape — and to maximize its potential, organizations will often need strong ERP partners to help define and support their goals. As illustrated by the survey results, many organizations have struggled to find competent partners able to address top priorities.

Growing numbers of organizations are turning to NTT DATA, which offers integration and innovation expertise to help clients address business issues across today's complex ERP environments. NTT DATA's offerings include ERP and Digital Business advisory services that encompass SAP, Oracle, Microsoft, Salesforce, Infor Lawson, and other popular platforms. The company is also at the forefront of innovative cloud solutions, whether public, private, or hybrid, and has developed a portfolio of integration accelerators and frameworks for speedy, cost-effective delivery and global consistency.

NTT DATA counts more than 10,000 ERP professionals among its employees. As such, the company is uniquely positioned to help organizations to optimize ERP solutions to achieve results that today's business environment demands. ∎

**For more information about NTT DATA's ERP services and how they are driving digital business today, see www.nttdata.com/americas**