

Building the Information Infrastructure for a Global Enterprise

How to help your ERP system keep up
with an expanding business

White Paper

sponsored by

EPICOR[®]



V E N T A N A
R E S E A R C H

Aligning Business and IT to Improve Performance

Ventana Research Headquarters
1900 South Norfolk Street, Suite 280
San Mateo, CA 94403
info@ventanaresearch.com
(650) 931-0880

Table of Contents

The Challenge of Globalization	3
When Uniformity Disappears.....	3
ERP and International Operations	4
International Sourcing and Distribution.....	4
A Distributed Architecture	5
International Capabilities	5
Implementation Strategy	6
About Ventana Research	7

The Challenge of Globalization

Globalization has become ubiquitous. In the last few years, more and more manufacturing and service companies have entered international markets and globalized their supply chains. Costs and margin pressures have driven them to seek lower-cost suppliers of components, materials and services around the world. On the sales side, competitive markets today are independent of local economic conditions and increasingly are defined on a global basis. Markets for most products today are pervasive, which leaves few companies immune to the pull of globalization.

As a result, the traditional concept of a domestic company – that is, a single company operating within a single country, even though it may export some products – no longer fits today's midsize or large businesses. The business processes and IT systems companies use to manage their operations need to reflect this fact.

Most companies have an enterprise resource planning (ERP) system in place to handle their transactional processes, but such a system often is not enough to address critical global issues involving supply sources, manufacturing plants, service centers and markets. This is especially true for companies that installed their ERP systems before going global. Globalization can have serious impacts on key business processes, and ERP systems must evolve to address the needs of an international company.

When Uniformity Disappears

ERP systems typically are designed to deliver support for complex business processes that occur in a uniform, integrated environment. Historically ERP has worked best for traditional domestic companies that operate in a single country and have substantial uniformity of physical measures, currency, transportation modes and costs, locations, currency and other key business metrics. Such companies normally operate a single ERP system and manage their data from a single location connected by a common data network that links and provides information access to all business units.

Adding even one additional country to the operations of such a business is likely to disrupt, if not destroy, the commonality that enables its ERP system to operate as an integrated environment. In that case, the ERP system loses uniformity of geography, of currency and of measurements, and often loses the singularity of systems. That is because the company will likely also gain at least one network and one distant data location. More to the point, the company now is likely to be operating using an additional ERP system, and perhaps one from a different vendor.

With the company's data housed in more than one place and likely on different systems, its unity is no longer a foregone conclusion, and the

simplicity of measurements critical to established business processes becomes not so simple. More fundamentally, the data formats used by ERP systems from different vendors often are incompatible, making data interchange challenging and potentially inefficient and costly.

Without changes to its ERP strategy, an organization expanding globally will not be able to manage its operations efficiently. For example, it may well be forced to transfer information between systems and networks manually. Data transformations carried out by hand are more than clumsy; they're dangerous. They inevitably introduce errors and impede the timely delivery of information to the people who need it. Recurring obstacles such as these eventually interfere with the company's productivity and profitability, and they may undercut the ability of the company to meet regulatory and other compliance requirements. If this continues, the company may fail to realize the cost reductions and other business advantages that were its reasons for adding overseas partners to the supply chain in the first place.

Successfully managing an international supply chain is essential if an organization is to foster and maintain the benefits of globalization. Such an effective management strategy must include some form of central control of financial data. That means companies need to implement a structure that enables business units or partners to handle their business issues locally while at the same time maintaining a single, centralized ERP system that manages the operation of the overall supply chain network.

ERP and International Operations

To effectively manage international operations, an ERP system must have some special characteristics. A system already in place may have them but the company may not be using these characteristics, or the company may need an entirely new system that meets the special needs of its international supply chain. Here is a look at those characteristics and their importance to ERP's ability to function well in a global enterprise.

International Sourcing and Distribution

An international supply chain is a global network of partners that links supply resources, components, manufacturing facilities and markets for finished products around the world into an integrated environment. A standard ERP system, designed for a single company within a single country, may not support divisions, business units and partners in diverse locations, some of which may be separate companies.

A properly designed global ERP system should enable information to flow transparently to and from all partners. It should also be able to use that information and integrate it with the other data it acquires to support the organization's operations and financial processes. Without such a transparent information flow, an international company will find it difficult to control costs, to manage the supply chain properly and to roll up data

into consolidated financial results. It will also be difficult to see promptly how its business partners are handling its interests.

A Distributed Architecture

Incorporating international suppliers and distributors in the supply chain requires that an ERP system have a distributed architecture capable of communicating with multiple globally dispersed sites. ERP is a natural for distributed functioning because its operation involves many components. However, specialized design and tuning may be necessary to optimize performance in a distributed environment.

An ERP system built on a distributed architecture can create production and sourcing schedules that take advantage of the cost and time efficiencies specific to each location. In addition, distributed ERP can synchronize information between manufacturing plants and product management groups, and it can aggregate financial results into consolidated financial and management reports in a timely fashion. Having a system that can manage production schedules and costs at the supplier and plant levels makes it possible to control costs while operating globally. Without such distributed coordination, though, a company may lose the financial advantages that remote suppliers and international markets provide.

Other advantages of a distributed architecture enhance the operation of ERP as an IT system. A fully synchronized, distributed system maintains data redundantly because it replicates the information on every server no matter where it is located. This capability ensures the very high reliability that today's fast-moving markets and production systems demand, a feature that is especially important if plants are located in remote areas where power supplies and communications facilities are spotty.

International Capabilities

The first barrier to international commerce and communications is language, and that is no less true for ERP systems. English may be the lingua franca of both business and computer systems today, but as a user interface and reporting language, it may hamper communications at remote locations. An internationalized ERP system should provide a default language for each company or partner location as well as automatic translation capabilities that can handle localization efficiently. This facility will accommodate the various language needs of the permanent staffs at remote locations as well as those of visiting staff from other countries and the various IT personnel that support the ERP system.

Physical measurements are also an issue when dealing with global suppliers. Not only must an ERP system transform metric measurements into the British Imperial system (such as yards, feet and inches), but it must also account for local differences in unit definitions.

ERP systems also must provide financial measurements that are relevant to local supply chain units around the world. They also must perform currency translations. And they must accommodate different tax rates,

tax laws, interest rates and calculation methods, and other financial metrics.

It's a given that every country in an international supply chain has its own regulatory requirements and legal requirements for reporting financial results. Less obvious is the fact that these requirements change frequently. The frequency, magnitude and financial impact of these changes are not at all predictable, both because of how international governments operate and because these governments may change more frequently than expected.

Implementation Strategy

Evaluating an ERP system requires a project team that represents the interests of all business units involved in the company's operations. It also must include representatives of the IT group that supports the ERP initiative and the financial unit that provides the local operation's financial and reporting infrastructure. The team has to be thoroughly versed on the scope of the globalization that exists in the company's operations, including what systems are in place at the various component locations and how they are currently used. During this critical transition planning stage, team members must account for and assess every information source and flow and every resource and process.

The team's first task is to decide how it wants to allocate management responsibility to achieve an optimal balance between local and central control of the supply chain and the ERP system that supports it. While a centralized control system may theoretically be optimal, it may not be a practical solution for the company. Thus, a company might decide to have the central system may do much of the financial consolidation work while leaving local financial transaction processing to be done more efficiently by local ERP or other financial systems.

The team participants then must assess the current or candidate ERP system's ability to deal with these management issues cited above, as well as other concerns specific to the company or to regions operating in its supply chain.

Part of that assessment is an evaluation of systems already in place at remote sites. Although the cost of maintaining incompatible systems can be high, there may be both time and cost advantages that argue for leaving systems in place, especially if automated information transfer mechanisms can make their integration smooth and information transfers timely and accurate. It may also be that smaller ERP systems in remote locations that are more flexible than the centralized system will help local managers do their best work.

ERP software options abound; a team evaluating them should not take any capability for granted nor assume that the currently installed ERP solution or the one to be selected will have the necessary capabilities

some day. That is not good enough. One very efficient way to assess ERP capabilities is to create a pilot project for one supply chain component that tests the systems and yields an implementation template that then can be applied to all components. The pilot will establish and test system processes and data structures, integration strategies, training, documentation and management structures.

The pilot also can test the ability of the vendor and its responsiveness in addressing the company's international operations requirements. The vendor must not only provide local support where and when needed; it also must manage the entire implementation process from both the central and localized perspectives. Be wary and maintain sharp scrutiny: Inadequate vendor support is a certain cause of failure in this generally difficult environment.

A transition strategy has to achieve two apparently conflicting goals simultaneously: It must maintain the smoothest possible operation of the business worldwide, and it must implement the new internationally focused ERP system as quickly as possible. That will require implementation on a region-by-region or functional basis, and each step should be treated as a learning platform so that mistakes are not repeated in the next phase. IT staff must take a lead role right from the start in order to ensure that a structure and strategy develop that allow both the old and new systems to operate and report simultaneously. This will provide the ability to stop the transition process if major problems emerge, correct them, then resume the transition.

At the end of the implementation phase, a company will have an international ERP system that runs continuously and smoothly and reacts more quickly to changes in product demand, supplier costs and international opportunities. Most importantly, it will have a more cost-effective international operations and a more profitable business.

About Ventana Research

Ventana Research is the leading Performance Management research and advisory services firm. By providing expert insight and detailed guidance, Ventana Research helps clients operate their companies more efficiently and effectively. We deliver these business improvements through a top-down approach that connects people, processes, information and technology. What makes Ventana Research different from other analyst firms is our focus on Performance Management for finance, operations and IT. This focus, plus research as a foundation and reach into a community of more than 2 million corporate executives through extensive media partnerships, allows Ventana Research to deliver a high-value, low-risk method for achieving optimal business performance. To learn how Ventana Research Performance Management workshops, assessments and advisory services can impact your bottom line, visit www.ventanaresearch.com.