Selecting an ERP Software Package for Small and Midsize Manufacturers.

Choosing the right ERP software package for your company can be a daunting task. The ERP software as well as its vendor can make the difference between years of suffering and major expenses, or a smooth implementation and immediate ROI. Failed ERP implementations can lead to overrun costs and complete chaos.

For a small or midsize manufacturer, the problems are often compounded by a lack of resources: people, time and money. While there has been much written on best practices for choosing ERP software, the methods used for selecting software vary depending on the size of your company and how many resources are available to take on this arduous task.

While the established methodologies for choosing software focus on finding the right functional fit, for small and midsize companies, what's more important is the relationship between your company and your software vendor. Choosing the right software vendor for an ERP implementation and its support down the line can often determine whether an implementation succeeds or fails. Smaller companies need to maintain a closer relationship and depend on the ERP vendor to take a much larger role in an ERP implementation than in larger companies with more in-house resources.

The following discussion will focus on finding the right functional fit for the software requirements as well as finding the right software vendor to help through implementation and beyond.

Background

ERP systems have evolved over the past decades from their origins as MRP systems to MRP II then finally to ERP. ERP vendors range in size from Fortune 100 companies to small independently owned companies. The software packages and their vendors are typically classified in three categories: Tier I, II and III.

Tier I. These are the most well known of the software packages: SAP, BAAN, ORACLE, and PeopleSoft, to name a few. These software packages handle everything from process manufacturing to discrete manufacturers. Many of these larger companies are starting to market their products to small or mid-size manufacturers. Small and midsize companies should be cautious. These larger companies do not have a proven track record of success in this market. In some cases, these larger software vendors sell software purchased from other vendors since their own core products might not address the needs of smaller manufacturers. Other vendors offer a subset of their own software under the assumption that smaller companies don't need as much functionality. This is a

major misunderstanding of the needs of small business, which often need very advanced functionality in a particular area, but simplified functionality in others.

Tier III. These vendors offer what is often referred to as "canned" packages. If across the board, standard business and manufacturing practices are used throughout the company or if all that is required is accounting and light inventory control, these packages will probably be a good fit. When dealing with vendors in this category, expect varying degrees of implementation and continuing support services.

Tier II. These vendors are a good fit for most small and midsize manufacturers. These vendors' software provides rich functionality and run on a variety of technologies. Expect higher involvement from these vendors or their representatives (see below) in implementations. In companies with any type of complexity in manufacturing, sales or engineering processes, Tier II vendors might be a good choice. These are the types of software packages that will be addressed in this paper.

Value-Added Resellers: An important note that must be understood is that many software vendors in all three categories use Value-Added Resellers (VARs). A VAR will sell one or more ERP packages offered from various vendors. The VARs will typically not only sell the software but offer implementation services as well. Be aware when you are dealing with a VAR there are a few more things to keep in mind. Though the software might be a good fit, the VAR may not be up to the task of assisting in implementation. The VAR must be as carefully evaluated as the software. Another factor to consider is what type of relationship the VAR has with the software vendor. Are there certifications required to become a VAR of that particular software? If a change is needed in the software, how does the VAR work with the vendor to get it done? If you like the software but don't like the VAR, don't count on being able to change the VAR. Many have exclusive contracts to represent the vendor within a particular region.

Getting Started

Start off by assessing the company's needs in the broadest sense. Is it just an accounting package that is needed? Are there complex manufacturing requirements or is just something to keep track of inventory needed? Assess whether the manufacturing and engineering requirements are straightforward or unique.

Put together a realistic budget and get the budget approved. Expect to pay between $2,000 and 4,000 per user in licensing fees and one and a half to two times the license fees on implementation costs. The cost of the implementation varies widely depending on the amount of data to be converted and how many changes are involved to make the software fit your needs. Don't underestimate how much implementing ERP software can cost. Consider other costs such computer hardware and network considerations including upgrades to PC's.

Get a commitment from whoever controls the checkbook. The people who ultimately will have to pay for the implementation of an ERP package must understand not only the potential benefits of implementing ERP but the costs as well. Middle managers often think that once they do the "leg work," they can convince their bosses to spend the money. In many instances the decision-maker is off-site and not involved unless the decision involves a significant amount of money. Sometimes these off-site owners will have prejudice one way or another about particular software packages or whether there is a perceived need for it. Before making the decision to investigate new ERP software systems, make sure there is a sufficient budget for the project and that the decision-makers are in agreement that there is a real need for such a system.

At larger corporations, check with your corporate headquarters to make sure it doesn't have a set policy of using a particular ERP software package. Small divisions of larger companies might be required to install an expensive ERP package (not necessarily license fees, but expensive to implement).

Determine if now is the right time to purchase software. In many cases, in a down economy, companies will shy away from major expenditures. Other companies look at this down time as a chance to prepare themselves to be more competitive when the business starts to pick up. If the business has seasonal fluctuations, establish a deadline to choose the software that will allow it to be implemented during the slower season.

It used to be that technology would limit the software that you were able to buy. A company might have been limited to buying software by hardware requirements. Today this is rarely an issue. Most packages will run on a variety of different hardware platforms and operating systems. Even if a package runs on different hardware or a different operating system, it is usually not a large roadblock to change hardware and operating systems in today's technology environment. It should be noted, however, whether there exists a strong preference for particular hardware or operation system, and to a lesser extent, a particular database.

Finding the Right Relationship

Finding the right ERP vendor or VAR is as important or perhaps more important than selecting the right software functionality. Small and midsize manufacturers do not have the resources to devote a full-time team to the implementation. Given this and other resource constraints, smaller manufacturers have to rely much more on the software vendor and/or VAR to carry the load during the implementation and for continued support of the system.

Each ERP vendor has different methodologies and philosophies on how to handle the relationship between themselves and their customers. It is a very important step in the process to find out what the philosophy of the ERP vendor is and how that fits within your own corporate environment. The software is only a part of the puzzle; even the best software if not implemented correctly, will rapidly loose value and negatively affect your company's bottom line.

Compare the corporate culture of your company to that of the software vendor. If your corporate culture is rigid and conservative, find a vendor with similar attributes. If your company is aggressive and constantly seizing opportunities to edge out competitors, find a vendor who is not only flexible but also ready and able to modify the software quickly to fit your needs.

Determine what type of relationship you will have with the software vendor and/or VAR. Checking references is an excellent way to accomplish this. When talking to references, have a set list of questions to ask about how their implementation was handled. How closely did the software vendor work with them during the implementation? Ask them to describe their implementation process. When requesting references from a vendor, ask for not only customers that have similar manufacturing processes but those that have recently installed the software. In this way you can evaluate the implementation methodology and how well the vendor worked with the company during the implementation.

When interviewing people within the software company, get past the salesman and talk to the people who implement and support the product. Salesmen will say just about anything to make a sale, so it is important to talk to the people who are working directly with customers. Take note whenever talking to the vendor of how many questions they are asking about your company; what type of manufacturing processes are in place, what are your basic needs, etc. In these discussions see how well the people who implement and support the software understand your industry and your business requirements.

What to Look for in a Vendor

If your company has unique requirements or has an environment in which changes are constantly being made to improve processes, the software vendor and/or VAR might need to customize or modify the software to meet the needs of the company. There is a general rule of thumb that says that most software will fulfill 80 percent of a company's needs. What about the other 20 percent? How are these needs satisfied? Find out what the software vendor and/or VAR's approach is to making modifications to the package. If changes do need to be made, are they upgraded when new versions are released? Are these changes supported through normal support channels?

The cost of implementation: larger organizations have the time and resources to devote to a long or resource-intensive implementation, and many software vendors have implementation methodologies that support this paradigm. For smaller companies, it's important to look for a vendor that not only has experience installing its package in small and midsize manufacturers, but also one that can take a more active role in implementing and supporting the package.

If there is no existing IT department or a small IT department in the company, find out what capabilities the vendor has of helping support the IT infrastructure. Does the vendor require an on-site DBA to maintain the database? Find out whether they would

normally help with setting up routine back-ups and maintenance jobs. Do they perform the installation or is the buying customer expected to perform the installation?

Many companies don't want to be burned by selecting a software package from a company that goes out of business a few years later. Don't make the mistake of seeing the size of the company or what "Tier" they fall under as being an indication of stability. Companies in all three categories are going out of business and being bought and sold with more and more frequency. The ERP market place is consolidating which is not a good thing for companies that have purchased software from a company that is bought out. What is going to happen to the software they are running today? Is it going to be replaced with the software from the new company which will mean a new implementation and possibly different or loss of functionality? Small and midsize companies cannot afford the time and expense to re-implement and learn new software.

Rounding up the Right Vendors

There are different web sites dedicated to help match up ERP vendors and potential customers. The way this works is the company looking for software answers detailed questions (several hundred) about their requirements. The answers are then compared to the questions the ERP vendor previously answered about their capabilities. These services, which initially may be free, usually result in some payment for the service. While this might be appealing to some companies, it is expensive, time-consuming, and does nothing to rate the other important intangibles such as the relationship the vendor will maintain with the customer. Very often the best candidates may be eliminated because of the way the questions were asked or answered and the built-in bias of the formula used to calculate the score.

Visiting trade shows is another way to start to gather the names of possible ERP vendors. Although trade shows are currently on the decline, they represent a good way to talk to and compare different software vendors.

The Web is a good way to start to a search of ERP vendors, though this surprisingly may be an arduous task. Depending on the search criteria used, a search may return hundreds of hits. When using the web, be sure to allow yourself enough time to go through the entire list before you are finished. Don't be tempted to look at only those companies that have paid to get their names to be at the top of the list.

As with any endeavor of this type, those vendors with more marketing dollars will be easier to find. At a trade show they will have bigger booths; on the Web they will have paid to have their URLS come up first in various search engines. A good fit may be among those with the bigger marketing dollars, but if your preference is for a closer relationship with a company that is willing to work with you, look deeper and you will find many vendors who would be a better fit. Try to look beyond the larger vendors' slick marketing. Remember larger vendors usually mean more bureaucracy and possibly

a less than personal approach to dealing with customers. Smaller vendors tend to be more flexible and responsive to small and midsize manufacturers.

Finding the Right Functional Fit

There are many ways to find out if software can meet a company's functional requirements. There are many web sites and consultants who assist a company in making this determination. Both, however, have built-in flaws that can rule out qualified vendors that are a better fit than the ones they find. As mentioned above, Web sites that match your company's needs against the functionality of their software are inherently too detailed and do not have the logic necessary to provide proper weighting to determine a match. Also, software vendors who provide the Web site with the capabilities of their software often are lenient with their answers. Consultants have built-in bias and tend to look at software vendors they have worked with in the past and may even have contractual arrangements with software vendors to implement and even sell their software.

A company looking for software is usually best served by investing its own time to find the right fit. Nobody understands the company as well as the people who work for it. Following are some tools to help determine the functional fit of the software to the needs of the company.

The Requirements Document

The requirements document is one of the most useful tools used to determine the functional fit between the company's needs and a software package's functionality. Take time to gather input from many different sources. This will not only outline the requirements of the system but will help to start the "buy in" of a new system by the people supplying the requirements. Avoid listing requirements in the final document that use company-specific language. Keep the requirements as specific as necessary to define what is needed but not so specific as to become confusing. For example, "Purchasing and Receiving functions" may be too general. A better requirement would read, "Purchasing including purchase requisitions, purchase quotations and purchase orders including blanket PO's." Pay more attention to whether the information you need is gathered in the system rather than displayed on a specific report or inquiry screen. *Ad-hoc* reporting tools and Business Intelligence software is usually available to extract any data from the system.

Assign rankings to the requirements. A nice-to-have versus a need-to-have should be weighted in the decision. State upfront if a specific need is not met whether an integrated third-party package would be acceptable. For example, many packages do not contain a payroll module. This is usually because payroll modules are always changing and require constant vigilance. Tying into a third-party payroll package may actually be an advantage, as the payroll software will almost certainly do a better job at handling payroll than a generic ERP package. Other third party add-ons may not be as well received. An

example is Customer Relations Management module. If this is separate from the ERP system there are many different interfaces to be maintained in order to work effectively.

The Demo

Don't settle for a canned demo. Instead ask for demos targeted at the business needs of the company. If there is a specific need that is either very important to the business or an unusual one, do not be afraid to ask be shown specifically how this would be handled in their software. The closer the demo fits to the business needs, the more likely that vendor will be responsive to needs in the future.

Many companies have specific areas in which they are concerned, whether they are unique or complex requirements or processes that provide competitive advantages. Ask the software's representative to show a demo that addresses these specific issues. In some instances the vendor will not be able to specifically demonstrate the required functionality, in which case a discussion should be held to determine the software vendor's and/or VAR's approach to filling this gap.

Making the Final Determination

A good way to compare the various software vendors and /or VAR's vying for your business is to perform a "S.W.O.T" analysis. S.W.O.T. stands for Strengths, Weaknesses, Opportunities and Threats. Strengths and Weaknesses tend to be factual in nature and readily apparent. Opportunities and Threats are more intangible but are equally if not more important. An example of a threat is: "We were not able to talk to the implementers and support people," or "there is some question as to how we will handle the scheduling of the shop floor". An example of an opportunity is: "The people implementing and supporting seemed to understand our industry and our specific requirements."

This analysis should be done immediately upon the first significant contact with the software vendor and/or VAR and continue to be updated as talks and demos are presented. Don't be afraid to allow the vendor to know perceived weaknesses and threats so they can address them.

Going through this exercise by itself should give you a good idea of who the front runners are in the competition to win your business. If there still is some question, weight the S.W.O.T, and then compare the totals for strengths and opportunities versus the totals for weaknesses and threats.

About the author:
Allan Ikeda has been working for Metasystems Inc. for over seven years. He has participated in many implementations of Metasystems' ERP Software ICIM. Prior to being with Metasystems he was involved with other implementations of ERP software as

an in-house project leader and also as a consultant. He can be reached at allan.ikeda@metasystems.com, 800-788-5253 x3221