Repair or Replace ERP? Contents

Introduction | Section 1

Many CEO's feel frustrated or constrained by their business software systems and are looking for better ways to get the information they need to measure and manage their businesses. ERP, or enterprise resource planning systems, manage sales, inventory, production, distribution, accounting, sales and more. Many also include some customer relations management (CRM) abilities as well and some have project tracking and job costing abilities. A correctly implemented ERP syste is a strategic asset supporting the growth of your business not a distraction holding it back.

Company-wide Software Frustrations

Executives often directly experience the issues caused by ineffective ERP systems when product isn't delivered to customers on time, inventory levels are too high, margins too low and so on. They may also hear from employees about how frustrating the system is to use, how much time it takes to get things done or get information out of the system.

The IT group often experiences high levels of frustration with systems when they are burdened with the additional effort and cost of supporting multiple systems, home-grown workarounds and users who are spending too much time doing tasks on the system.

Sales teams pushing to meet quotas get frustrated when they can't quickly get information about what customers are buying and not buying.

Accountants can spend inordinate amounts of time sorting through the inadequate data collected and generated by the systems. They become burdened by managing many spreadsheets and constantly entering and re-entering data manually. And all of these concerns can be exacerbated when a company experiences significant growth.

Moving Your Business Software Forward

Based on prior bad experiences with ERP systems some CEO's may also be afraid that selecting and implementing a new ERP system will yield similar frustrations. They can fall into the trap of not knowing what to do and end up doing nothing, which can cost time, money and customers.

To help mitigate these risks:

- Select a project team and project manager who can take the company through a deliberate process that will determine whether to Repair or Replace the current system
- Then, make sure the team understands what the objectives of an ERP system are and how those objectives fit with the company's strategic plan.
- Next, have the team collect the concerns and frustrations with the system and document the costs associated with addressing the key concerns.

Once the project team knows what the objectives and issues are, they should investigate what internal and external resources would be required to make the system work for the company such as additional training or report development (the Repair approach) and compare that to the ongoing costs of doing nothing. If that approach doesn't resolve the issues with a reasonable return on that investment or the issues cannot be resolved via the Repair approach, then have the project team work on selecting a new system (the Replace approach).

The team should create a process that compares systems on the market to the business needs and select a handful of vendors as finalists. Have those finalists demonstrate how their system can be adapted to your business needs and get the project team to do a detailed assessment of how the solutions fit. Then select a finalist, check references and get a final quote including software, services and support costs. Do your final return on investment analysis and negotiate a purchase if the ROI is sufficient.

Often CEO's will bring in consultants experienced in ERP systems to get an outside opinion about the effectiveness of their current systems and assist with improving processes and the performance of their systems. These consultants can add additional information based on their past experiences in the role of advisor or project manager. By the end of either approach, your goal should be for your system to be a strategic asset that provides the right information in an efficient manner to decision makers when they need it.

What is ERP? | Section 2

Enterprise Resource Planning (ERP) systems are software tools that enable communication across all departments within a company and potentially with other stakeholders like suppliers and customers with the objective of helping to manage the business. These systems manage the order to cash cycle including customer order entry, purchasing, production, inventory control and shipping. They track product costs in manufacturing and track project costs in a services-based company. In either case they communicate operational information to accounting and often include sales and order management. A key part of that communication is providing decision makers with the information needed to make the decisions necessary to drive their businesses forward.

What did it come from?

In the 1980's software companies came out with MRP systems that ran on mainframe systems initially. MRP at that time was an acronym for "Materials Requirements Planning". These systems were focused on reducing material shortages and excesses on the manufacturing floor.

At that time, and still today, MRP calculations generally look at demands and supplies of inventory items. Demands include forecasts, sales orders and manufacturing orders. Supplies are inventory, purchase orders and manufacturing orders, which both consume inventory and produce it. The final factor was a bill of materials, which in complex products can be multiple levels deep. When MRP runs it looks at demands, supplies, bills of material and other planning parameters and then suggests that buyers and planners take actions to place, adjust or cancel purchase orders and manufacturing orders.

Next software companies and manufacturing companies moved to include resources, such as production workers and equipment in the planning process to help manage capacity and production levels. They also linked inventory related activity to the accounting systems so that there was a closed loop, integrated system which enabled manufacturers to better manage and account for the business.

In the 1990's Customer Relationship Management, or CRM, systems started to catch on. These systems allowed companies to manage the sales process and track activity with customers. They started as standalone products but eventually MRP companies and CRM companies merged, or MRP companies developed their own CRM systems. That left the marketing with a challenge of what to call the combined systems so they ended up with Enterprise Resource Planning, or ERP as a label for the combination of MRP and ERP systems.

Software companies that did not have a manufacturing option picked up on the ERP label as well (and don't necessarily have the "P" or planning component). These days the ERP term is used to label accounting and operations software no matter the industry.

What does ERP do?

Lead to Cash

Lead to cash starts with the process of acquiring new customers, securing orders, delivering products and services and finally invoicing for and collecting for those products and services. Typical software components include but are not limited to:

Lead management	**Project costing**	**Invoicing**
Cash receipts	**Sales order entry**	**Customer management**

Procure to Pay

Procure to pay starts with ordering things like services, inventory, expense items and assets and then receiving them followed by recording the invoices and paying for those items.

Purchase requisitions	**Receiving**	**Services delivery**
Purchas order management	**Cash disbursements**	**Invoice entry**

Reporting

The lead to cash cycle and procure to pay cycle both generate financial transactions that end up in the "books" or general ledger, which is the foundation of financial reporting. In addition the other cycles can also provide information for reporting and analysis of business performance. Some systems include report generation tools that are used to define and produce financial statements such as income statements and balance sheets. But some systems require an additional external tool to design and produce those reports. Most systems have a query tool that allows users to create their own views of the data. And most of ERP systems support exporting data to Excel for further analysis and some allow for the automatic refreshing of the Excel data without logging into the ERP system.

In the end, the primary objective of ERP systems is to enable companies to better manage their operations and provide better information to decision makers at all levels. So if you are looking for a system make sure the systems you consider meet your information needs and company objectives.

Challenges | Section 3

Deciding to work with your current system and address deficiencies (the Repair approach) or to invest in a new system (the Replace approach) should be done through a deliberate process to help ensure you get the desired outcome. This is the first in a series of six blog posts that describe that process.

Common ERP Challenges

CEO's have to balance a variety of priorities as they manage their businesses. Common challenges include:

- The company doesn't have the product or services customers want when they want it
- The company is expediting material and jobs to meet customer needs
- Customers are placing smaller orders more frequently resulting in shorter production runs
- Inventory levels are too high, which ties up cash
- Accounts receivable are too high, which also ties up cash
- Margins are too low, but determining which products or customers are driving those lower margins is a challenge

When CEO's turn to their team for information to address these and other problems they may find:

- It takes too long to get information to support decision-making
- Staff spend too much time working in the system
- The team has the perception that the ERP system doesn't work so they have developed workarounds in spreadsheets and auxiliary databases
- The team constantly complains about the system

Whatever the reasons, once you determine that your ERP system has become a constraint instead of an asset, it is time to craft a plan to fix the root cause of poor or late business information needed to manage the business. Begin by selecting a team and a project manager to take the company through a process that will determine whether to invest in the current system or invest in a new system.

What sort of software issues have you noticed in your organization?

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Preparation | Section 4

Step 1: Form a Project Team

As mentioned in the previous post, assembling a team with a manager is the first step in this discovery process. ERP systems touch all parts of a company and you'll want team participation from each major area of the company.

- Select a team of people from key departments that work with the system day-to-day and who also have a good understanding of the business.
- From this group, select a project manager to drive the project. Ideally, this person knows the business, understands in general how the ERP system works, and can facilitate a project that will involve the project team for at least several months. If you don't have someone in-house with those skills then bring in an outside consultant with experience selecting and implementing systems.

Step 2: Define Software Objectives

Discuss the objectives for the system with the project team. Properly implemented ERP systems should support your strategic plan and may include:

- Hitting your sales and profit targets
- Shipping product or delivering service to customers on time
- Generating sufficient cash to grow your business
- Provide the infrastructure necessary to grow your business and its value
- Support compliance with external requirements like the need to trace serial numbers or lot numbers
- Reduce the risks of upsetting customers by missed shipments or poor quality due to rushed production
- Minimize the risk of ordering too much inventory

The project team should be charged with managing the project, while keeping top management up-to-date on its progress and apprised of any roadblocks they encounter.

> "In one of my ERP implementation projects, the president selected her team and appointed the CFO as the project manager. At the kickoff meeting she told the group that they had been selected because they represented the best from each part of the company and explained the objectives of the project along with how it fit with the company's strategic plan. She asked to be kept informed of the progress of the project and of any roadblocks the team encountered and then left them to get started. It was one of the most complicated implementations I worked on and the team did one of the best jobs implementing the system that I have seen."

Step 3: Define the Issues with the Current System

Next, gather the issues that you and the users have with the current system and drill down to causes. For example, missing shipments to customers can be caused by stocking the wrong inventory items. This in turn can cause lower sales and lower profit margins thereby impacting cash levels. Inventory turns that are lower than the averages for your industry can indicate poor forecasting, inaccurate physical counts, inaccurate bills of material and so on. Identifying the issues and causes can help define the costs and focus the efforts on the most important areas.

Step 4: Identify the Costs Caused by the Issues

Each of the issues will have costs. It may be missed opportunities as with missed shipments. Or it may be reduced productivity resulting from the inefficiencies in how the staff is using the system. Whatever the issue, work to quantify the costs involved.

As soon as the project team has a clear idea of what the objectives and issues are, they should have a good foundation to continue on in the decision making process. The next post will cover which questions to ask as you consider investing in improving your current ERP system or looking for a new ERP solution.

Dealing with a Broken ERP System

At this point in the article series you've identified the problems or issues faced by the users, you know what your objectives are for your system, and you've determined the costs of continuing to struggle with the system. With this in mind consider the level of the problems:

- *Does the system generally meet your needs in terms of running daily operations?*
- *Do the issues seem to be focused around a particular function or group of users?*
- *Would the concerns be addressed if some automation were introduced in a particular area allowing users to be more productive?*
- *Is it primarily a matter of getting the right information out of the system?*

Repairing Your ERP System

If the answer to questions like those above is yes, then you are probably headed toward repairing the system, not replacing it. Often your existing systems can be optimized by retraining new users in how the system was designed to be used and eliminating external workarounds that have not been formalized as part of the managed system.

Sometimes automating existing manual tasks can address some issues. For example, many shipping departments have invested in linking the parcel shipment activity with their ERP system thereby reducing or eliminating extra data entry as part of the shipping steps. This helps reduce errors and increases the productivity of members of the shipping team.

In some cases, the system seems adequate to the users but **decision makers struggle with existing reports or spend too much time manipulating data in spreadsheets to get the information needed for decisions.** To address reporting issues, first look for existing reports in the system to see if any of them provide the information you are looking for. If none of the reports fit the needs, then consider doing some custom report writing or extracting data to a third-party reporting tool which can better meet the information needs of the decision makers.

Compare the costs of continuing to use the system as it is to the amount of investment required to improve the productivity of the system. If the potential savings exceed the investment amount then it is time to look at the payback period in relation to your other investment needs and decide how to proceed. Often companies look for a relatively short payback period on these types of project of less than a year.

"I've been brought into many situations where the CEO has heard about so many issues with the ERP system that they call the CEO of the software company and have a conversation that goes something like 'either get someone in to fix this thing or we'll …' You can fill in the blanks. In most cases the issues arose because there was not enough internal documentation of how the system was implemented. New users who did not understand how the system should be used developed external workarounds or used the system incorrectly which resulted in inaccurate information or extra effort outside the core system. Usually some training and some new reports were sufficient to address the problems."

Replacing Your ERP System

If, however, you find the answers to the above questions tend to be "no" or there have been some significant changes to the business and the system no longer supports the growth of the company, then it is probably time to Replace the system. Replacing the system involves looking at the market, evaluating prospective systems by comparing them to your needs and objectives, then implementing it once a new system is selected.

Doing Nothing

In a previous section we discussed the costs caused by the issues the team identified. These are the costs of doing nothing and sadly, too often CEO's decide to take this approach even when those costs could be offset with investing in the current system or selecting a new one.

> *"I worked with a company who inquired about having some custom reports developed to give them a clearer picture of when their products' shelf-life would expire, a fairly straightforward reporting option. Even though the materials manager identified that they would save the equivalent of a quarter to half an employee's time, the CEO elected to not proceed with the project due to the initial cost. Consequently the company continued to manually look for product on-hand that is nearing the end of its shelf-life and updating it."*

For more information please contact sales@pcbennett.com

Replace | Section 6

If you have decided it's time to replace your system, the next step is to create a plan for this project. Have the project team develop a plan to evaluate, select and implement the new system. Here is an outline of an approach to do the selection.

Phase 1 | Develop a Short-list of Potential ERP Vendors

Step 1: Review your current processes

One of the reasons to invest in a new ERP system is to support a significant change in your business, such as acquiring another company, opening a new division or plant and so on. Another reason is that implementing a new system provides the opportunity to improve your business processes. For example, if you have purchased a company that adds to your product lines, you will want to design how the products from both divisions get ordered and shipped to customers. Re-engineering your business will help you evaluate potential replacement systems and enable you to compare your current and future needs to the capabilities of the new systems.

Step 2: Design an updated process

Design a new approach by creating a process flow that traces orders to cash. Document each step, noting how users interact with the system and what information is required at each step to support decision makers. Then, review the process and look for ways to shorten and simplify processes. Sometimes companies end up re-organizing the production floor or warehouse to reduce wasted steps and improve the process flow which can support concepts like lean manufacturing and lean office. Experienced consultants can be very valuable during this phase.

"I was part of a team that worked with a small manufacturing company with production on one floor of a building and sales and accounting on another floor. We worked with the company to do a value stream map in preparation for some lean initiatives as well as for the selection of a new system. The company traced all of the steps and processes required to receive raw material, produce product, process a customer order and ship the finished item to the customer. They discovered that they walked a total of 2.5 miles for this process. By planning to re-arrange the floor and implement a new system, that distance was reduced to a few hundred feet and they were positioned to implement a new system."

Step 3: Create a list of key ERP features

ERP systems are complex and focusing on features that are important to your business helps the team to narrow the list of prospective vendors. Using your redesigned process flow, make a list by function of the key capabilities a system should have in your business. Set priorities for these features from essential to nice-to-have. Pay particular attention to things that are unique to your industry, such as the need for lot-tracing items in biotech companies or serial number tracking at multiple levels for electronics manufacturers.

You will do well to find an ERP system that meets 90% of your needs, so the remaining 10% will have to be met by adapting your business to the software, purchasing additional area-specific software or developing custom applications or integration. Normally adaptation of your business to the software you select is the least expensive approach. Knowing where the missing pieces are before you implement will make that process go smoother.

Step 4: Select a Short-list of Vendors

Armed with your prioritized list of features, survey the market for potential vendors that meet your needs and budget. There are various websites that provide summarized information and general cost information. Also, talk to others in your industry to find out who is happy with their systems.

Then talk to five or so vendors who seem to be a fit for your company. Send them your features list and ask them to describe how their tools meet the needs of your company. Ask them to tell you what the system will do "out of the box" and what workarounds or add-on tools may be required to meet your needs.

Get a preliminary budget from the vendors. Be sure to ask for both software and services costs. They are often close to about the same amount. Then select three potential vendors that will go to the next phase.

Phase 2 | Final Selection

The goal of the Final Selection Project is to find the vendor who best meets the company's overall requirements and budget. Selection of an ERP system requires careful analysis to ensure that vendors can meet your company's expectations. Continuing on from the previous post, here are the steps to make the final decision:

Step 1: Create a Demonstration Script

Software vendors love to talk about what their systems can do and show off the more visually appealing features. Those may be helpful to your company but you also need to know how it will work in day-to-day operations. To put you in control of the demo process, have the selection team create a demo script based on the process design and required features defined above. Send those scripts to the vendors several weeks in advance of the demos and ask that they work through those scripts at demo time. This helps you discover what works for your company and what doesn't. It also provides a structured approach to compare how the systems meet your needs and facilitates the decision process.

I have worked on both sides of the ERP sales process. As a 'sales engineer' on the selling side we would show how the systems we represented fit the business but would make sure the CEO saw the more visual features like performance dashboards, as that is what often closed the deal. On the buying side of the exercise I like vendors to show these features but also make sure they cover how those features get deployed as part of the implementation process.

Step 2: Demo Sessions

Have the team prepare for the demo sessions by setting up a scoring mechanism for each area so the selection team members can rate each vendor on how their solution meets the needs of the company by area. The system demos will tend to blend together in peoples' minds so having a score for each area and a section for observations will be useful in the final selection discussion.

The team should spend time with each vendor to make sure the vendors understand your business and the context of your company's needs. If they do an onsite demo, plan time to give the vendor team a tour so they can better visualize how to best fit the software to the company.

Schedule the demo sessions close together to enable the team to be able to compare the systems. Allow the vendor some flexibility so you see all of the features they think may apply to your business but make sure they cover all of the high-priority areas in the demo script.

After each demo sessions are complete, the selection team should evaluate and score each of the solutions. You may want to join them as they work through each function of the business using the demo script discussing what went well and what didn't. If work-arounds weren't sufficiently covered in the demo or the features presented weren't clear, schedule another time to review those particular areas with the vendors.

Also, at this point the vendors should have enough information to provide final proposals on their software and services. Ask for the preliminary proposals which should include software license costs, support costs, high-level implementation plans and implementation costs. Don't forget to factor in travel costs when you get to tallying the total costs.

Step 2: Final Selection

Once all demo sessions are complete and the project team has answered all open questions, it is time to review the results and do some follow up research:

- **Compare the ranking** of each demo by area comparing how the solutions will fit the business
- **Note any workarounds** and any noted deficiencies in the systems as they were presented
- **Compare the costs** to your expected benefits
- **Ask the vendors** for reference customers you can talk to and ideally visit onsite
- **Explore with the references** what they like about the software and support and what they don't like
- **Ask the reference customers** if there are other companies they can refer you to who also use the software
- **Check with those in your network** to see if anyone uses the system you are considering and if you can talk to them. It's useful to get references independent of the vendor as they will only supply you with references who are happy with the system

Once you have the demo session comparisons, proposals and reference customer input you are ready to make a decision. Select the final vendor and negotiate your best deal. Work to take advantage of discounts, as many ERP vendors are anxious for business and salespeople are anxious to make quota, particularly at the end of a month or quarter. Keep in mind also that they will be long-term partners in your business.

Phase 3 | Implementation

Now the hard work starts. Form a project team, most likely made up of members of the selection team. Provide the team with the proper resources to implement the system and refrain from introducing additional work like starting a new product line or acquiring another company until the system is implemented.

Work with the team to establish a reasonable implementation schedule, which often ranges from 3 to 12 months, depending on the complexity of your business and the available time of the project team. The quicker the system is implemented the sooner you'll see the return on your investment. The drivers of that return are often reduced inventory levels combined with higher levels of on-time delivery to customers, reduced inventory and labor costs as well as increased sales. In addition more timely and accurate information will help in making daily as well as strategic decisions.