BEST PRACTICES FOR AN EFFECTIVE ERP IMPLEMENTATION

Paper Summary

An ERP implementation touches every area of a manufacturing company, cutting across functional boundaries and departments as well as impacting the extended enterprise. How can an organization ensure that an ERP project results in full utilization of the new system’s functionality and benefits? Assembled here are key strategies for effective ERP implementation. Special attention is placed on the six phases of a typical ERP project. Each phase describes the best practices proven to speed the rate of adoption, along with an implementation to-do list that gets a manufacturer up and running faster and with fewer disruptions to operations. The paper concludes with key considerations for the ERP implementation team.
Successful ERP Implementations: A Matter of Time

The most successful and seamless ERP implementations occur when a manufacturer is fully engaged in the process and in full alignment with the ERP vendor and other implementation resources.

This level of engagement doesn’t just begin at the go-live stage.

Successful ERP implementations happen when the team takes the time at the outset to determine who within the organization will participate, locates appropriate vendor and external resources and builds solid plans.

Success also follows when there is careful management of the extensive phases of implementation.

Best Practices at Each Implementation Phase

The duration of a specific ERP implementation depends on the complexity of the system being implemented, production environment, number of facilities and processes, level of automation within the organization, existing IT infrastructure and many other considerations.

Given this level of complexity, it’s a best practice to work through the following seven stages of a typical timeline of an ERP implementation.

In the following sections of the paper, we summarize the key tasks and activities.
Level 0: Pre-Implementation Phase

Tasks that are part of pre-implementation form a solid foundation for the ERP project. We advise that manufacturing companies carefully manage this phase, because success at this early stage increases the likelihood of success at go-live.

Typical best practices take place in the following areas:

**Vendor Due Diligence:** Level 0 pre-implementation activities are those tasks found at the end of the technology evaluation cycle, involving vendor due diligence, site visits, ERP vendor customer references and other evaluation activities with the preferred vendor. This phase is also marked by contract review, negotiation and finalization.

**The Team and Charter:** Other tasks include development of the ERP Project Team – the key stakeholders who will lead the charge, and the ERP Project Charter – the ERP team’s concise statement of core goals, objectives and scope. In essence, a charter serves as the roadmap for everything that comes next. We’ve found that an effective project charter becomes a daily reference point for avoiding “scope creep” and keeping the ERP team focused on the end result.

**Additional Pre-Implementation Tasks**

- Pre-implementation tasks also include the following:
- The ERP team needs to stipulate the IT project governance process such as roles and responsibilities during implementation.
- Preferred vendors under consideration should provide a detailed Statement of Work (SOW) for the implementation including services, a proposed timeline, a set budget and other project details from the vendor point of view. The SOW should be developed in tandem with the ERP Project Charter process at the manufacturer.
- The vendors should also provide a list of the vendor team members, complete with profiles, to be sure they fit the manufacturer’s culture and offer the appropriate qualifications and certifications for the implementation.
- Vendors should provide implementation references of projects that have taken place within the last year, in a similar industry. This is the time for the manufacturer to reach out to the implementation reference as use them as a critical resource for “lessons learned.”
- Once ERP selection takes place, the ERP vendor needs to provide a detailed Master Service Agreement which lays out the terms of the contract. This agreement must be fully reviewed by the manufacturer’s legal team, IT leadership, company management and other groups, as needed.

Outputs: The outputs of the Level 0 phase include an agreed upon final contract with the vendor, consensus on service agreement and other areas, a consensus on the vendor Statement of Work, the ERP Project Charter, team make-up, agreed upon start date for planning and other documents that prepare for the next phase.

**To Do:** It’s critical to ensure that the culture and credentials of the vendor team mesh with the manufacturing team.
Level 1: Project Planning Phase

Tasks that are part of the project planning stage build upon the foundation set in Level 0. We advise manufacturing companies to carefully confirm all final aspects of the vendor contract including the Statement of Work. Special care is taken during this phase to understand vendor deliverables.

Main activities that should take place in the project planning phase are in three main areas:

Interactive Team Workshops: Workshops help process owners further their understanding of the capabilities of the product as it is being configured for specific business requirements. The vendor or IT consultant leads the effort in loading master data and driving the conference room pilot, which puts the ERP system through its paces in a test setting for further configuration and customizations as needed.

Conference Room Pilot: The pilot is a chance to see the system in action and to identify gaps and data integration tasks and issues. Design and configuration follows, to include data conversion, business process mapping and assignment of data to relevant process owners.

Level 2: Product Education Phase

With the elements in place from the previous phases, Level 2 is all about education. It’s been our experience that ERP implementations go more smoothly when there is an emphasis on educating the team about the capabilities of the new ERP system features and functions. All parties must have a solid foundation of how the system works and what the new system will mean for their departments and the entire organization. Practical, hands-on training must address the new capabilities, new processes and the expected value after implementation.

Main activities in the education phase fall in these three main areas:

Vendor-Based Education: The ERP vendor should have a robust and proven training program available to the manufacturer. The first round of training is typically delivered to the ERP project team made up of the core team members related to the implementation. This includes in-person and online training exercises targeted to key process owners.

Certification, Training Assessment: Assessment vehicles must test and certify the capabilities of the user so that key process owners have the information they need to configure and use the system. This is a lengthy process that could last months, depending on the depth of the new product, technology infrastructure and data integration. Formal certification programs should be considered as needed.

Enterprise-Wide Education Roll-Out Plan: Once the ERP project team has completed system training, a roll out plan brings training to the enterprise. We’ve found that the best approach to training involves short, targeted training sessions. This allows the team members time to try out what they have learned and to develop ideas for process modifications and system optimization.

Outputs: The outputs of the Level 2 product education stage include a formalized education curriculum and roll-out plan, along with vehicles to test the knowledge of the team members as related to ERP features, functions, reporting and user interface familiarity. Ongoing training and support programs will also come out of this phase.

To Do: It’s a best practice for configuration to follow directly after product testing to leverage the most recent findings. Avoid combining education, design and configuration in one step.

To Do: Be sure the ERP vendor provides training that “sticks” so process owners are better able to absorb and retain the key information about new features and functions.
**Level 3: Design/Configuration Phase**

The core tasks making up the Level 3 phase typically include system set-up, design, configuration and data conversion. Usually, an application consultant from the vendor engages with the company’s process owners for system configuration, reporting, dashboard configuration and so on, as well as identifying any gaps between the new solution and business requirements.

In general, best practices in the design/configuration phase fall in these main areas:

**Interactive Team Workshops:** Workshops help process owners further their understanding of the capabilities of the product as it is being configured for specific business requirements. The vendor or IT consultant leads the effort in loading master data and driving the conference room pilot, which puts the ERP system through its paces in a test setting for further configuration and customizations as needed.

**Conference Room Pilot:** The pilot is a chance to see the system in action and to identify gaps and data integration tasks and issues. Design and configuration follows, to include data conversion, business process mapping and assignment of data to relevant process owners.

**Outputs:** The outputs of the Level 3 design/configuration stage include successful completion of the pilot, seamless data conversion and technology integration. The goal is for the new ERP system to meet the needs of business process owners in all functional areas, as well as setting a plan for any additions or customizations.

**To Do:** It’s a best practice for configuration to follow directly after product testing to leverage the most recent findings. Avoid combining education, design and configuration in one step.
Level 4: Development/Test Phase

This is typically the lengthiest, most involved phase of ERP implementation. It’s a critical time for the ERP team to conduct extensive testing and make further configurations, start data conversion and set up the system in various pilot and test scenarios that simulate real life within the enterprise.

Main activities that should take place in the project planning phase are:

Test Simulation Scenarios: Here the team prepares several test scenarios that simulate running the entire business in the new system. For instance one scenario might involve creating a PO. Another test scenario might be more involved, tracking the process to create a purchase order, route it to the vendor, confirm vendor acceptance, receive the product and so on. The tests should confirm that the team and the system are ready for the final go-live phase.

Continued Interactive Workshops: ERP implementation workshops become more detailed as the entire enterprise accesses the new system and tests for data integration and usage in multiple user scenarios. The vendor addresses any functions or features still needing configuration to meet business requirements.

Process Owner Involvement: This phase signals a shift in project ownership. Testing is a major responsibility of the manufacturer’s team since it is the process owners that ultimately must be satisfied with the results of the continuous iterations of the testing cycle, fixes, retests and configuration.

Outputs: In preparation for the go-live, the team completes all tests, adjustments and configurations that might still be needed to optimize the system in running the business.

Level 5: Go-Live and Post-Implementation Phase

With successful conclusion of pilots, tests, fixes and system fine-tuning, attention now turns to user instruction, final documentation and training, and a timeline for cut-over activities.

Typical activities include:

Establish the “Cut-off” Strategy: Once the team has confidence in the new system and user training through thorough testing, the team develops a comprehensive cut-off strategy. Depending upon the unique business setting, implementation might take place in a single instance, with all users moving to the new system on a given date. Other options include a phased roll-out, or “parallel adoption” when both the legacy and new ERP system run in tandem for a set amount of time.

Manage the Shake-Out Period: The ERP vendor team should be on-site through the cut-off and go-live, and stay on to help manage issues with reporting, data, customizations or other surprises. A final assessment of all the processes might reveal continued gaps or performance issues which need addressing.

Post-Implementation Audit: A post-implementation audit helps organizations determine whether the “to-be state” is a reality – along with measuring any Key Performance Indicators which were set down during ERP selection. KPIs should then be translated into individual and departmental metrics, along with target levels of performance to be used as the basis for the post-implementation audit.

Outputs: Once the switch-over from legacy ERP to the new system takes place, typical outputs of the shake-out phase include a schedule of post-implementation audits and metrics tracking to optimize system usage.

To Do: The final simulation just prior to go-live must successfully simulate running the complete business.

To Do: The go-live date isn’t the end of the road. Post-implementation shake-out activities are critical to increase the ROI of the new system.
CONSIDERATIONS FOR THE ERP IMPLEMENTATION TEAM

Most while familiarity with the phases of ERP implementation is important, special attention must be given to the ERP implementation team.

Over the years, we’ve noted key success factors when it comes to the ERP implementation team.

An Emphasis on Project Management: Due to the complex nature of an ERP implementation, the team must be led by a person experienced in project management. A dedicated, experienced project manager can make the difference between success and failure. More than a part-time task master, the project manager provides leadership for accountability, transparency and decisiveness.

A Commitment to Apply the Appropriate Resources: Manufacturing companies must apply significant internal and external resources for ERP implementation. We see many companies underestimate the required resources especially during critical phases of the project. We advise our clients to never trivialize the scope and scale of an ERP implementation. Success follows when a company allocates the proper amount of time and resources.

Collaboration with IT: An ERP implementation affects the whole enterprise, including the extended supply chain. However, the IT team needs to be at the center of it all. The project team must build-in collaboration, communication and coordination with the IT department.

A Focus on Change Management: An ERP implementation brings with it drastic change for the entire enterprise. It is important for the ERP implementation team to know how the work force will react to a new ERP system, how to gain consensus from all team members, and how sponsors can lead their people to success.

A Focus on Education: This point can’t be stressed enough. An ERP implementation is only as good as an end-user’s ability to operate it. The team must design workshops and instruction to teach all business users how to utilize the system to its full potential.

Final Thoughts

A complex project of this magnitude deserves careful planning and execution. We’ve shared these best practices in the hopes that they provide needed insight for an effective ERP implementation.

Experienced ERP resources can be tapped to implement a new ERP system much faster and more effectively than the business user unfamiliar with the rigors of an ERP implementation.

About Ultra Consultants, Inc.

Ultra Consultants is an independent consulting firm serving the manufacturing and distribution industries. Organizations turn to the Ultra team for ROI-driven ERP technology expertise and business process management that improves revenue and customer satisfaction, enhances financial management and real-time decision making, improves productivity and reduces time to market. The world’s middle market companies make up the Ultra Consulting client roster including aerospace and defense; automotive; chemical; consumer goods; electronics; food and beverage; industrial equipment; medical device; metal fabrication and plastics manufacturers. Ultra Consultants offer deep experience in manufacturing process optimization. The team averages over 20 years manufacturing and process experience with professional certifications in APICS, Lean manufacturing, Six Sigma Green and Black Belt, and Project Management.

www.ultraconsultants.com