Change Management Underpins a Successful ERP Implementation at Marathon Oil

Enterprise Resource Planning (ERP) systems promise heaven, but the implementation is often just the opposite—cost overruns, exponentially expanding timelines, functionality shortfalls, even business failures. Yet ERP is as essential to the "new economy" as automation was to the old. Marathon Oil Corporation made this business-critical changeover in record time and within the constraints of an aggressive budget. Flawless execution on the technical side was essential, but managing change—the people side of the implementation—was a key ingredient for success.

Gregg Stapleton and Catherine J. Rezak

Enterprise Resource Planning could be described as a "terrifyingly beautiful" proposition: Replace separate information technology (IT) systems with one robust, enterprisewide system that handles all financial, planning, distribution, and tracking functions, updates in real time, and makes data available to decision makers as fast as it is processed. The concept is elegant but extraordinarily difficult to achieve.

Enterprisewide systems gained popularity in the 1990s as businesses looked for ways to reduce costs and streamline their processes. According to Gunson and de Blasis in their 2001 paper on the subject, ERP was seen by many as an integral and often defining step in process re-engineering. As concerns about Y2K, the Millennium bug, began to bubble to the surface in the mid-to-late part of that decade, American industry realized it had an even more fundamental problem. Assuming that the world did not end at the stroke of midnight on December 31, 1999, businesses needed to face the fact that the information systems they depended on so heavily were showing their age. Companies were often faced with a patchwork of legacy systems that operated on different platforms, with different conventions, making information sharing difficult. Instead of upgrading legacy systems to weather the Y2K storm, many organizations opted to invest their information technology (IT) dollars in ERP platforms, sometimes with such a sense of urgency that the new systems were poorly designed and implemented. For those who succeeded, speed and quality of information became strong competitive assets. As the e-business phenomenon hit

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 Published online in Wiley InterScience (www.interscience.wiley.com) DOI: 10.1002/npr.20022

its stride around the turn of the century, Enterprise Information Management became a lynchpin to doing business in "real time." Whether for strategic or structural reasons, ERP is now considered de facto table stakes in many industries.

BUILDING THE CASE FOR ERP AT MARATHON

Marathon Oil Corporation is a $41 billion (2003 revenues) integrated energy business engaged in the worldwide exploration and production of crude oil and natural gas, as well as the domestic refining, marketing, and transportation of petroleum products. Headquartered in Houston, Texas, Marathon is among the leading energy industry players, with more than 28,000 employees worldwide. The business functions range from exploring for hydrocarbons across the globe to supplying gasoline and heating oil domestically, and all have unique information handling needs.

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Marathon Oil had fewer worries in terms of information systems than many other companies of comparable size. Platforms were relatively standardized, with only a handful of disparate systems. In fact, Marathon's Y2K preparations seemed routine compared with those at many other companies. The drive to move to an enterprise solution, therefore, was not so much a fix as an opportunity to step up to a higher level. In 1999, Marathon began to evaluate the fit of an enterprise solution to its needs and business strategies. ERP was viewed as one pillar of an overall IT blueprint for the company. Enterprise technology would allow Marathon to bring major business processes—financial, human resources, procurement, and management reporting—into one powerful information management system while creating better linkage to oil and gas technical systems.

The company started the process by assembling a cross-functional team to undertake a rigorous internal assessment of business processes and current systems. At the time, only the vendor SAP offered readily usable software applications for oil and gas producers, as well as the financial and technical commitment to continue to develop software for the industry in the future. For these reasons, Marathon chose SAP to provide the core of its enterprise resource planning system. The Marathon team developed a business case that focused on software functionality and fitness for the company's purpose. The evaluation also wrestled with the implementation of best-practice business processes. Significantly for Marathon, the team also studied failed implementations and identified those factors critical to successful ERP implementation.

THE ROAD TO RUIN IS PAVED WITH GOOD TECHNOLOGY

News of spectacular failures of ERP projects had traveled along the IT grapevine. With uncanny timing, the front pages of the *Wall Street Journal* reported several of these debacles while Marathon's study was underway. Both Whirlpool and Hershey announced shipment snafus due to their recent SAP "go-lives," and the makers of Gore-Tex filed suit against PeopleSoft and their implementation consultants over a failed system start-up.

But even in companies where it all turned out well in the end, few projects could be considered truly successful. Marathon was confronted with some dismal statistics from a now famous study by the Standish Group, reported by Barry Calogero in the June 2000 *Serverworld* magazine. Of the ERP implementations tracked since 1994, only a fraction were completed on time, within budget, and to the original specifications. More than half exceeded budget, did not meet timelines, or sacrificed functionality. Nearly a third of all ERP implementations had been abandoned in progress. Few of the botched implementations were due to technology shortcomings. And while the root causes were many, a common theme ran through most of these failures: ERP changes the way people work, and many projects did not attend properly to managing organizational change. The technology and process parts of the ERP triad had historically been given all the attention, while the people side received short shrift, to the detriment of the overall implementation.

PROJECT RENAISSANCE: FOCUSING ON WHAT MATTERS

Marathon was determined to avoid the mistakes of flawed implementations. A carefully constructed business case and implementation plan helped manage the delicate balance needed to get technology, process, and people right.

The implementation got underway in earnest in late 2000 after approval of the project by Marathon's CEO. While lack of executive support was the bane of many ERP implementations, support from Marathon's top management was highly visible and unwavering and one of the primary ingredients of the implementation's eventual success at Marathon.

Marathon assembled a team of its best and brightest to build and manage its new technology and processes as well as to align the company's workforce with these changes. Dubbed "Renaissance," the implementation team soon took over an entire floor of Marathon's Houston headquarters and started the massive job of reshaping the way information comes in, goes out, is distributed, and is used throughout the company. In addition to the SAP system, which had been implemented successfully by some of Marathon's competitors, Marathon chose to pilot a new oil and gas revenue accounting solution as part of its ERP project. In addition to being a first-ever enterprisewide system for Marathon, it was also a first industry-specific revenue module for SAP—reason enough to send chills through any IT department.

The task ahead was daunting. Renaissance was scheduled to go live on January 1, 2002, a short 13 months in which to accomplish a companywide "brain transplant."

MANAGING THE CHANGE PROCESS

As Nestle Company's CIO, Jerri Dunn, noted in an article in *CIO* magazine in May 2002, no major software implementation is really about the software. It's about change management. Dunn said, "When you move to SAP, you are changing the way people work. You are challenging their principles, their beliefs, and the way they have done things for many, many years." Marathon took seriously the lessons learned from the successes and failures of other companies' ERP implementations and established a change management function as part of the Renaissance organization.

Identifying the tactical aspects of change management presented its own set of challenges. Change management is often viewed as a separate set of activities that take place during a project. In order to more fully integrate these activities into the fabric of an overall implementation plan, the change management team conceived of a more systemic view of change management. Drawing on expertise from both inside and outside the company, the team adopted a highly practical approach to change management that was organized around a simple unifying concept.

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In concept, the goal of change management in the Renaissance project was the transfer of ownership from the project team that designed and configured the new system and processes to the end users, the internal clients who would employ these tools and processes in their day-to-day operations. Practically, it meant deconstructing ownership transfer into three fundamental drivers:

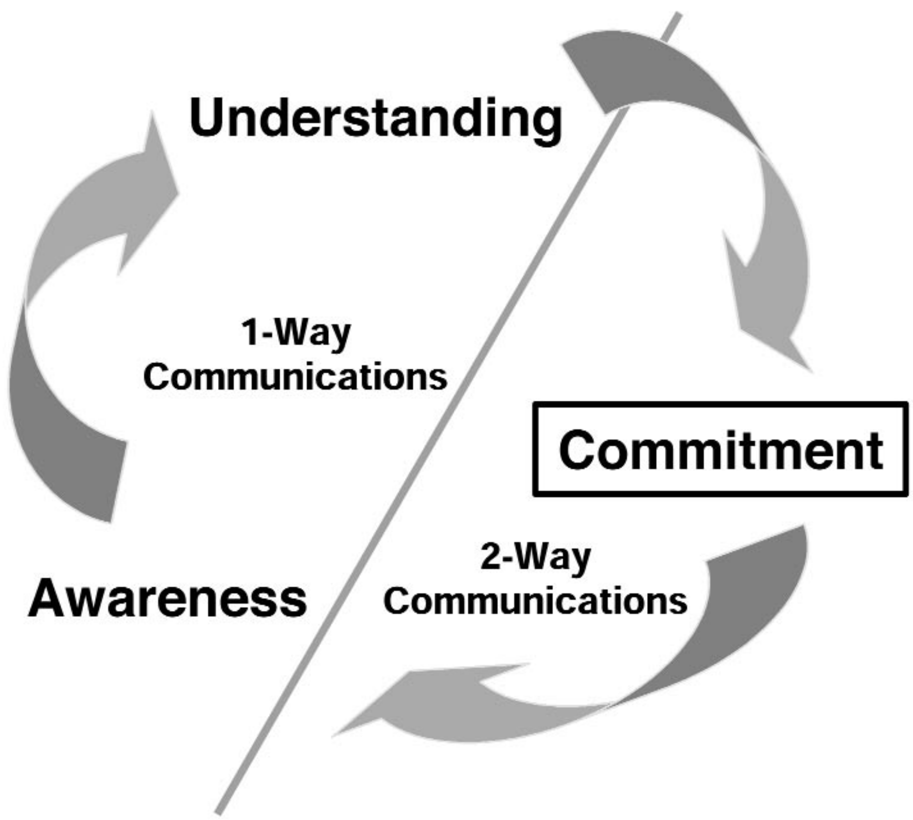
- ***Knowledge Transfer***—Ensure that employees know what to do.
- ***Responsibility Transfer***—Ensure that employees fully participate in the implementation.
- ***Vision Transfer***—Help employees translate new tools and processes into improved business results.

The change management team remained engaged throughout the Renaissance project, taking what they learned from the rest of the project team and adapting it to fit end user/client needs. They became the liaison between the project experts and those who needed to know in order to eventually use the system.

A COMMUNICATIONS MODEL

Communication is a critical mechanism for achieving transfer of ownership. The change man-

Exhibit 1. Renaissance Change Management Communications Model



agement effort was informed by the communications model illustrated in **Exhibit 1**, which reflects several fundamental realities:

- Communicating to gain commitment requires that people move through a predictable cycle:
  1. The initial focus of communicating change should be to raise awareness.
  2. The target can shift to helping people move to deeper levels of understanding only after awareness is reached.
  3. Commitment comes only after understanding is achieved.
- One-way communication is adequate to raise awareness and develop some degree of understanding, but two-way, interactive communication is required to move people beyond understanding to a real commitment to the change.
- It is not enough to complete this cycle once. For a variety of reasons, it must be repeated continuously in a long-duration ERP implementation.

Marathon's Renaissance team integrated clear and frequent communications into the implementation process. That meant using every tool the organization had available, and creating new ones where necessary:

- One-way communication channels such as newsletters, a web site, road shows, town meetings, and "personal appearances" by key players to let employees know what was happening
- More interactive communication methods, such as workshops, issue-tracking meetings, conference calls, and collaboration web sites
- Hands-on interaction, which included validation sessions to test concepts with subject matter experts, "sandbox" activities that let people "play" with the applications

as they were developed, and workshops to examine the rationale and impact of the ERP implementation

TRANSFERRING OWNERSHIP

Of the three critical components of ownership transfer—knowledge, responsibility, and vision—the Renaissance change management team placed an early emphasis on transferring responsibility.

Responsibility Transfer. Transferring responsibility from the project team to clients facilitated the ongoing transfer of vision and knowledge throughout the implementation. Simply stated, once everyone had some skin in the game, communications and training had much greater impact. Responsibility was focused largely on client readiness to implement. The change management team assembled a set of tasks that had to be completed by clients in order to go live successfully. Plans to achieve the tasks were developed by the client groups and actively tracked throughout the project. A go-live readiness assessment report to executive management near the end of the project was established as a critical milestone that clients, client management, and the project team focused on throughout the course of Renaissance.

Knowledge Transfer. Knowledge transfer in an ERP project is continuous and must be sustained. It also faces two specific challenges: (1) the project team is building processes and systems throughout much of an ERP implementation, thus there is only so much knowledge to be transferred at any point in time during a project; and (2) the experts most ideal for helping transfer the knowledge are fully occupied by the project and are in very short supply. Taking these challenges into account, the team employed traditional training methods and the various communication vehicles described above to facilitate knowledge transfer.

Vision Transfer. Vision transfer helps clients to see the possibilities of the implementation the same way project members do. It helps people anticipate how work will change after go-live. Referring back to the communications model, vision is transferred through two-way dialogue and, in particular, through interactive hands-on experiences. The workshops, validation sessions, and sandbox environment encouraged vision transfer. In addition to standard workshops and training, Marathon also launched a series of short sessions that let people discuss the issues and come to their own conclusions using a Discovery Map®, a tool developed by Paradigm Learning, Inc. of Tampa, Florida.

The interactive aspect of the communication is essential to truly reaching employees at the "belief" level—not just "I know what to do" and "I understand why it's important" but also "It matters to me." This was not training about clicks and data screens—it was about ownership and commitment.

ALIGNING THE VISION

The experience of countless change agents proves that people are fiercely resistant to changing the way they interact with their world, especially if that change is imposed on them. Traditional training was not likely to engage the hearts and minds of the more than 2,400 Marathon employees who would use the SAP system; if the Renaissance ownership transfer algorithm were true, then experiential, interactive learning would have the desired impact.

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It was important to get people onboard with the Renaissance project as early as possible. Based on information learned from studying a Delta Airlines SAP launch, Marathon opted for a unique learning solution from Paradigm Learning, Inc. Paradigm worked with the Renaissance team to develop a Discovery Map to help Marathon employees around the world begin to share a common vision and "own" the ERP implementation relatively early in the project's life.

Marathon's Discovery Map, shown in **Exhibit 2**, is a large visual tool containing images, data, and text that represent the three components of the change initiative:

- Marathon's current reality (including challenges)
- The vision for the future
- How to get from "here" on the map to "there"

Exhibit 2. The Renaissance Discovery Map

The map provides a focus for discussion and a metaphor for the change process. The graphics are visual shorthand for the issues and the transformation process. In the map, the SAP technology is the bridge that employees would "cross" during the workshop, the one-to-two-hour sessions in which Marathon employees talked with their peers about the change in very real and personal terms. The workshops encouraged discussion, argument, controversy, new ideas, and personal decisions. They also helped people see how SAP fit into the overall vision for success at Marathon. This wasn't just interesting background about a systems project—it was a dialogue about the future of Marathon.

EARLY CLIENT ENGAGEMENT

Despite all its planning, the Renaissance team was well aware that the tipping factor in any ERP implementation is the work done by people "in the business" to support the project and to be ready for go-live. High-caliber transition leaders were handpicked by business unit and support group management and charged with the rollout in their organizations. These leaders, called extended group managers, coordinated the activities of Renaissance's "extended team" and were some of the most instrumental players in the success of the project.

Each extended group manager completed a form to assess the readiness of the group's team on more than 25 critical factors, from having detailed transition plans in place to setting up the training infrastructure. This comprehensive approach served multiple purposes:

- It allowed the extended group managers to focus on closing any gaps that hampered their team's readiness.
- It facilitated communication within and across various groups by providing a lexicon, a common language, for discussing readiness and other aspects of the implementation as groups prepared to adopt new business processes.
- It gave the Renaissance team a snapshot of where there might be stumbling blocks to address. Regularly scanning the transition plan updates from business units allowed the Renaissance team to take action and correct any situations that could stall the rollout or cause problems down the road.

IMPLEMENTATION IN RECORD TIME

Marathon was able to go live with a worldwide implementation of eight major enterprise software modules in only 13 months—an industry record that owes much to the change management effort and its focus on people. Marathon employees were fully engaged in the process, aligned with the goals, and willing and able to put SAP to work at go-live.

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From beginning to end, what set the ERP implementation apart was that Marathon was able to leverage the skills and commitment of its employees as a key resource through an inclusive development process. Not limited to IT staff or software gurus, the process also involved business people and the business processes that are the lifeblood of the company.

LEARNING FROM SUCCESS

As other companies look to realizing the promise of ERP, there are a number of lessons that the Renaissance team offers as immutable rules of implementation:

- It is bigger than the technology. The IT function may get tunnel vision and believe that teams should be organized around the technology. Not so. To make the implementation work, organize around business functions and processes. The software is simply the tool.
- Strong project management is critical. Plan the work and work the plan. These are some of the most expensive and far-reaching initiatives a business embarks upon. Treat them like any large capital project and use sound project management techniques.

- It is about the people. What does the change mean to the people who work with your business processes every day? How will this affect them? Make sure they are involved in the project. Solicit their comments. Make changes as appropriate based on their feedback, and communicate with their needs in mind.
- Do not scrimp on talent. Staff adequately to make the change easier on the end user. And make sure that you staff with people who know your business and the process. Pick your third-party integrators carefully; they will make or break the technical piece of the triad.
- No change ever happened without executive support. Support has to include the CEO's sponsorship and visible involvement.
- Make change management an integral discipline in your project, and staff this function adequately. Make sure people in this group have the skills, experience, and organizational savvy to liaise with your clients effectively.
- Treat scope creep like a virus. Purge it from your process. After the blueprint is accepted, do not give in to the seductive lure of tweaking this and that. It will only add time and cost.
- Minimize customization of SAP code. It makes both implementation and future upgrades more costly and problematic.
- Reward individual and team success—and keep doing it. People will be excited at the start by the challenge and the energy it generates, but it is nice at the end to get the recognition as well. Include your extended client team in the reward scheme.
- Transfer the full spectrum of ownership. It is not an effective change process if the end user does not have the knowledge to use the new tools, does not feel the responsibility to make them work right, and does not have the vision to capitalize quickly on new capabilities. That takes more than a newsletter, PowerPoint lectures, or "lunch and learn" sessions.

Will these principles ensure a successful ERP implementation? Not by themselves. Organizations are so different that what works in one may not be right for another. What appears as a common theme in failed implementations, though, is that all the attention to systems, functions, processes, and data will not be worth a thing if you ignore the human factor. Build your implementation plan with the users in mind, and engage them throughout the process. Make sure that communications go beyond raising awareness and developing understanding. Build commitment through two-way, interactive exchange. Raise the employees' sights to match your organization's vision of the future. Share your success with your clients. After all, if you did things right, they now own the project in equal measure with your implementation team. ■

ADDITIONAL RESOURCES

Calogero, B. (2000). Who is to blame for ERP failure? Serverworld, June.

Fry, J. & Dorscher, M. (1999). Software glitches could multiply as firms revamp to compete. Wall Street Journal, November 5.

Gunson, J. & de Blasis, J.P. (2001). The place and key success factors of enterprise resource planning (ERP) in the new paradigms of business management. Geneva: University of Geneva.

Worthen, B. (2002). Nestle's ERP odyssey. CIO Magazine, May 15.