ima®

The Association of
Accountants and
Financial Professionals
in Business

Managing Organizational Change
in Operational Change Initiatives

Statement on Management Accounting

About IMA®

IMA, the association of accountants and financial professionals in business, is one of the largest and most respected associations focused exclusively on advancing the management accounting profession.

Globally, IMA supports the profession through research, the CMA® (Certified Management Accountant) program, continuing education, networking, and advocacy of the highest ethical business practices. IMA has a global network of more than 70,000 members in 120 countries and 300 professional and student chapters. Headquartered in Montvale, N.J., USA, IMA provides localized services through its four global regions: The Americas, Asia/ Pacific, Europe, and Middle East/Africa. For more information about IMA, please visit visit www.imanet.org.
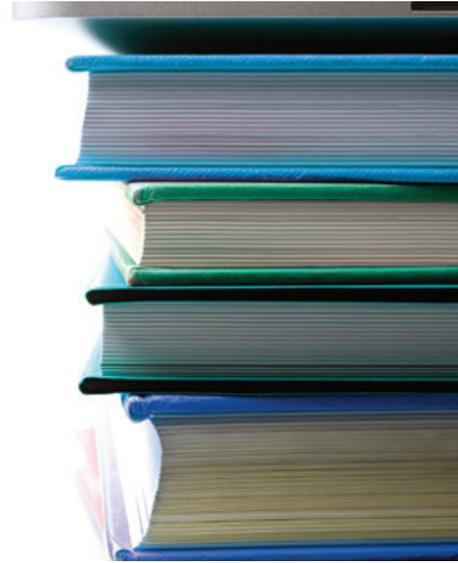
About the Author

Katie Terrell

Instructor, University of Arkansas, Walton College Accounting Department

She teaches full time at the University of Arkansas after five years with Tyson Foods, where she held various Information Systems roles focusing on business analysis and organizational change management. Terrell's main teaching and research areas are accounting information systems and the impact on human behavior.

You can reach her at kterrell@walton.uark.edu.

IMA Research

Statements on Management Accounting

SMAs present IMA's position on best practices in management accounting. These authoritative monographs cover the broad range of issues encountered in practice.

Management Control Systems

Table of Contents

Table of Contents - Cont'd

Executive Summary/Abstract

While organizational change management is not a new topic to the business world, it remains consistently overlooked in system implementation projects. This oversight often results in implementations that are doomed to fail regardless of how well the system may be designed from a technical standpoint. This Statement on Management Accounting (SMA) considers the human perspective and reaction to change, particularly with projects focused on the implementation of new systems: How and why do individuals typically respond to change in the work environment, and what can be done to ease the impact when negative reactions occur?

A structured approach to organizational change management will help identify and minimize issues and risks associated with the implementation of a new system or process. This SMA defines and describes organizational change management as it relates to any branch of business and how it applies to management accounting in particular. It details the typical phases of emotional reactions when change is occurring in the workplace and ties these phases to the stages of a typical project management methodology. Ultimately, activities and tools to deliver and control the organizational change management process are presented in actionable terms that may be immediately applied to a workplace environment. The SMA concludes with a description of the methods for assessing the success of change initiatives.

Keywords

- Assessment
- Business analyst
- Change curve
- Communication
- COBIT Framework
- Implementation
- Iterative methodology
- Operational change
- Organizational change resource
- Organizational change management
- Planning
- Project manager
- Strategic change
- Subject matter expert
- Training
- Waterfall methodology

Introduction

There are two major categories of change initiatives for businesses: strategic and operational changes. This SMA focuses on operational change initiatives in which systems and business processes are upgraded or implemented. Project management methodologies to ensure technical success are briefly introduced before the focus turns to organizational change management activities that must occur to ensure success in the human dimension. Through the description of these pertinent activities, it is revealed that without focusing on the human reaction to change, projects are susceptible to failure, often resulting in inefficient business practices and expensive workarounds. This SMA provides considerations and tools that can be applied to avoid failure due to human actions and reactions.

Sample templates that can be used (or modified) to support the organizational change management activities can be found in the appendix of this document.

Scope

This SMA is primarily addressed to financial and management accounting professionals involved in any aspect of system or process changes, from implementer to change recipient. Because change is not isolated to the financial and accounting space, however, the concepts are universal and are easily transferable to professionals working in any functional area of business. The focus of the SMA is on operational change (e.g., system and process change), and the implementation of enterprise resource planning (ERP) is used as the primary example. But the tools and activities may be applied to any operational or strategic change initiative with only a few modifications. Similarly, different project management methodologies are briefly introduced in order to place organizational change management activities in context. Sample tools are provided that can be used to support organizational change management activities, but no attempt has been made to provide tools used to ensure the technical success of a project.

Organizational Change Management

The goal of organizational change management (OCM) is to identify and minimize issues and risks associated with the implementation of a new system or process. During the introduction of any new system or process, a series of OCM activities are executed so that changes are communicated effectively and users are trained appropriately. OCM has proven to be essential for any new system or process to become successfully integrated into day-to-day operations.

Change initiatives that occur in business—those that affect any functional area, including management accounting—can be divided into two high-level categories: strategic change and operational change. Strategic change initiatives involve shifts in the culture, thought, or mission of the business. Operational change initiatives involve the way employees work and lead to changes in systems, processes, or both. Operational change can invoke strategic change if the change in operations results in transforming the mission and/or culture of the business as well.

Strategic change initiatives tend to consider organizational change management activities as an integral part of the project. In these initiatives, it is the organization itself and the way workers think about the organization that are affected. When the purpose of the initiative is changing the firm's people and their mind-set, the entire goal is to shift the current mind-set to a future one.

Operational change initiatives, on the other hand, are taken on to change a process or a system. OCM activities may be easily overlooked when the focus is not on changing the workers themselves, as it is with strategic change, but on changes within the system in which the workers operate. This SMA focuses on why and how to include OCM activities when the business is introducing operational change through system implementation projects. Although it presents the concepts in the context of a system implementation methodology, the techniques can be applied to other types of operational change initiatives.

In system implementation projects, the traditional project team roles include project manager, business analyst, programmer, and other subject matter experts.[1] The project team works together to ensure the project is delivered to meet business requirements and that the technical requirements of the solution are met for a successful implementation. The OCM activities may be pushed aside because the technical responsibilities of the project team do not allow for enough time to ensure the project is delivered effectively from the human perspective. Ironically, when unsuccessful operational change projects are assessed, seven out of the top 10 reasons for failure are due to missed organizational change management opportunities.[2]

---

[1] The subject matter experts should be representatives from the business whose role is to provide technical or industry expertise to help guide the project along the right track.
[2] John S. Reel, "Critical Success Factors in Software Projects," *IEEE Software*, May 1999, pp. 18-23.

More specifically, when project managers don't understand workers' needs, project changes are poorly managed and users are resistant. It doesn't matter how high-functioning the system is once it's implemented—the project is still at risk for failure because of overlooked human factors.[3] In operational change initiatives, the goal of OCM is to ensure that users will embrace the change, understand why the new system was put into place, and know how to work in the new system.

An expanded project team may be necessary to manage and facilitate the OCM activities to their full extent. This should include at least one dedicated individual who is responsible for ensuring that the project team and each part of the organization affected by the operational change understands the human aspect of the system and process changes and who puts a plan in place for that reaction. Where appropriate and available, the change resource role can exist within the company, or it can be filled as needed in the form of external consultants. Even if a dedicated individual isn't added to the project team, OCM activities need to be a responsibility of every project leader.

As with all facets of business, there are potential advantages and disadvantages to hiring external consultants to oversee the change management activities vs. keeping the work "in-house." One of the distinct advantages of hiring external consultants is the focused energy they can put into the work. Often, an external consultant's only priority is the project. This kind of dedicated focus is nearly impossible to obtain from internal employees who often have to perform their regular duties while also trying to support the operational change initiatives. External consultants can also provide a wide breadth of knowledge and experience that do not exist within the company. This helps in two ways. The consultant's prior experience can provide important lessons learned that the business may not be able to identify on its own—helping avoid pitfalls as well as lending knowledge to the early phases of the project that can reduce project time. The consultant can also provide a link among the different components of the project, helping the company gain an advantage from allowing the project team members to focus on their areas of strength in completing the project and not fall into the risky area that often accompanies siloed work. The consultant should ensure that all of the pieces of the project link together seamlessly, allowing individuals to focus on their strengths while still optimizing the final product. Finally, consultants also provide an objectivity that can be very useful, especially in companies where emotions and politics run high and biases and alliances can have a negative impact on decision making.

---

[3] John S. Reel, "Critical Success Factors in Software Projects," *IEEE Software*, May 1999, pp. 18-23.

Of course, there are potential disadvantages to using external consultants. The most frequent concern is the cost. Also, for each stated advantage, there is an accompanying disadvantage. The consultant's insights often result in time savings, but there is a risk that this knowledge may not be transferred to internal employees—when the project is over and the consultant is gone, so is the skill and the knowledge. This could lead to unnecessary future costs when that knowledge is needed to address an unanticipated change, upgrade, or support issue. Additionally, the accumulated knowledge that the consultant provides rarely fits perfectly into the mold of every company's requirements. This presents a need for extensive communication between the consultant and the company to ensure that the consultant isn't applying a one-size-fits-all approach to the project. Finally, the objectivity provided by the consultant can also represent a disadvantage. Being unaware of internal politics or company culture could lead to unanticipated decisions that aren't aligned with the company's cultural norms. The questions provided in Checklist 1 can help identify whether an external consultant is a good fit for a particular organization and project.

Checklist 1. Five Questions to Ask Before Hiring a Consultant

1. Do you already have the knowledge in-house to implement the project?

2. Do you have the funds to hire a new full-time employee?

3. Do you need to be able to repeat the project? Does the knowledge and expertise need to be retained in-house?

4. Does a cultural assessment of your company produce barriers to external help?

If you answer "yes" to more than one of these questions, an external consultant may not be an ideal fit for your project.

If not, then answer the following question:

5. Is a shorter timeline more important than keeping a smaller budget?

If you would prefer a shorter timeline and did not answer "yes" to more than one of the first four questions, then hiring an external consultant may be an ideal fit for your project.

An effective method for including external consultants in the implementation of a large operational change is to have an internal employee assume the role of a dedicated change resource. This employee can act as a liaison between the consultant and the project, helping the consultant navigate the culture and politics of the company while the employee acquires new skills from the external consultant that he or she will be able to apply to the company in the future. Candidates for this internal change resource role are traditionally found in the Human Resources department, the Project Management Office, or in the Training department, but in the current world of an increasingly integrated business environment, this role can be assumed by an individual from any functional area that will be impacted by the change.

Although there should be an individual or small team of individuals who are dedicated to managing OCM activities, the key to the success of organizational change management is that the work of OCM is never confined to a small group. Every person on the project team must be trained on OCM and appreciate that proper communication, audience assessment, and training contribute to the success of a project.

The management accountant's role in system implementation activities should be one of the most important contributing roles of OCM. A management accountant should provide insight and expertise as a subject matter expert in addition to guidance and leadership as a project sponsor and/or champion. Throughout each phase, the management accountant should be espousing the change and actively participating in the communication to ensure that appropriate channels are aligned with the new direction of the company and that it's clear how the change will affect each individual, ensuring that everyone will embrace the change once it is implemented. Additionally, while outside of the realm of OCM activities, it's important to note that a management accountant's role in the project extends to ensuring that adequate internal controls will remain in place after the new system is implemented. Monitoring the control issues of a project is a direct responsibility of the management accountant, and it's imperative in order to mitigate significant risks to any operational change implementation.

Technology development is growing faster than ever. As workplaces increasingly adopt new systems to transform and automate their business processes, the need for dedicated change management not only increases, but so does the need for the entire business to understand the necessity of change management and how it works.

Why OCM Matters to Management Accounting

Advancing technology is contributing to the desire for operational change in many organizations. The introduction of enterprise resource planning (ERP) systems, in particular, has exposed the need for procedural changes across all functional areas. These systems streamline business processes through an offering of various modules that integrate functional areas of the business—extending from simply an accounting system to provide common support across a broad range of business functions. ERP systems allow businesses to integrate their processes so that managers in different functional areas can improve decision making through a more centralized view of where their process fits into the overall strategy.[4] As early as 2002, it was seen that 67% of mid-size and large companies were already using ERP systems, and 21% were considering implementing an ERP system, while expenditures for ERP in 2004 were $30 billion and expected to continue growing by approximately 150% per year.[5]

---

[4] Mary C. Jones and Randall Young, "ERP Usage in Practice: An Empirical Investigation," *Information Resources Management Journal*, 2006, pp. 23-42.
[5] Fenella Scott and Jim Shepherd, *The Steady Stream of ERP Investments*, AMR Research, 2002; and William R. King, "Ensuring ERP Implementation Success," *Information Systems Management*, Summer 2005, pp. 83-84.

Moving from a siloed business environment to using an integrated system, as well as the increasing capacity for storing more data and relationships across the functional areas of business, has opened the door for a more recent trend: Big Data.

While the term Big Data is rather subjective at surface level, the core of Big Data is captured by three terms first identified by Doug Laney in 2001: volume, velocity, and variety. For a dataset to be considered "big" depends on the system storing the data—but as soon as a given dataset becomes too voluminous for its current system, and the processing speed slows down below its useful velocity, then two of the prerequisites have been met to deem it to be Big Data. Finally, the data must come from a variety of sources, which also contributes to the magnitude of volume.[6] ERP technology and the resulting integration among functional areas—both across communication channels and data points—opens up greater possibilities for the variety and volume of data that can be stored and analyzed by companies. In 2012, 15 out of the 17 business sectors in the United States had more data stored per company than the U.S. Library of Congress.[7] This data is being used to make connections for predictive analysis to drive business decisions rather than basing business decisions solely on intuition and experience.

The possibilities introduced by collecting Big Data have proven appealing to mid-size and large companies across multiple sectors in the United States and internationally. According to a survey of *Fortune* 1,000 companies conducted by *The Harvard Business Review* in 2012, 85% of organizations either had Big Data initiatives planned or already in progress.[8] Further contributing to the evidence that projects to implement Big Data will continue to grow is research conducted by the McKinsey Global Institute, which found that the increase in Big Data projects will lead to a need for 140,000 to 190,000 new hires with deep analytical skills coupled with a need of 1.5 million managers skilled in turning Big Data into effective analytical decision making.[9]

More organizations are introducing new systems and procedures to benefit from Big Data while at the same time attempting to preserve the integrity of data sourced from legacy accounting systems. Management accountants are ideally positioned to help their organizations accomplish these goals. For decades, accountants have maintained that their work goes beyond keeping financial records and preparing financial statements. This extends back as early as the 1850s, when mathematics professor Dionysius Lardner anticipated the impact of railway rate changes based on the volume of traffic, and on through the 1920s when, as Chatfield asserts in *A History of Accounting Thought*, internal management decisions (rather than only external financial reporting) became accepted as accountants' responsibility.

---

[6]Doug Laney, "3D Data Management: Controlling Data Volume, Velocity, and Variety," *Application Delivery Strategies*, META Group, February 6, 2001.
[7]James Manyika, Michael Chui, Brad Brown, Jacques Bughin, Richard Dobbs, Charles Roxburgh, and Angela Hung Byers, "Big Data: The Next Frontier for Innovation, Competition, and Productivity," McKinsey Report, May 2011.
[8] Paul Barth, and Randy Bean, "Who's Really Using Big Data," HBR Blog Network, *Harvard Business Review*, September 12, 2012.
[9] James Manyika, et al., 2011. Michael Chui, Brad Brown, Jacques Bughin, Richard Dobbs, Charles Roxburgh, and Angela Hung Byers, "Big Data: The Next Frontier

The widespread adoption of ERP systems and the use of Big Data represent an opportunity to continue a long-established tradition where management accountants provide higher value to the organization's ability to make decisions. Management accountants need to be fully immersed in the project. They are more than a resource that's occasionally called upon—but a full business partner with the skills and knowledge to contribute to the operational change initiatives. Management accountants must adopt OCM methods to guide the success of projects involving system and process change for their departments.

The Effect that Change in the Workplace Has on Workers

The need to update operational systems results in inevitable change at the organizational level. When people are faced with change, whether positive or negative, there is an immediate emotional response as they assess their receptivity to the change. Depending on an individual's emotional intelligence and adaptability, one's willingness to accept change can be hindered by varying levels of resistance. Regardless of the timeline, individual response to change can be summarized by mirroring the stages of Elizabeth Kübler-Ross's Grieving Cycle. This summary of responses to change is depicted in Figure 1, the Change Curve.[10]

Figure 1. Change Curve

---
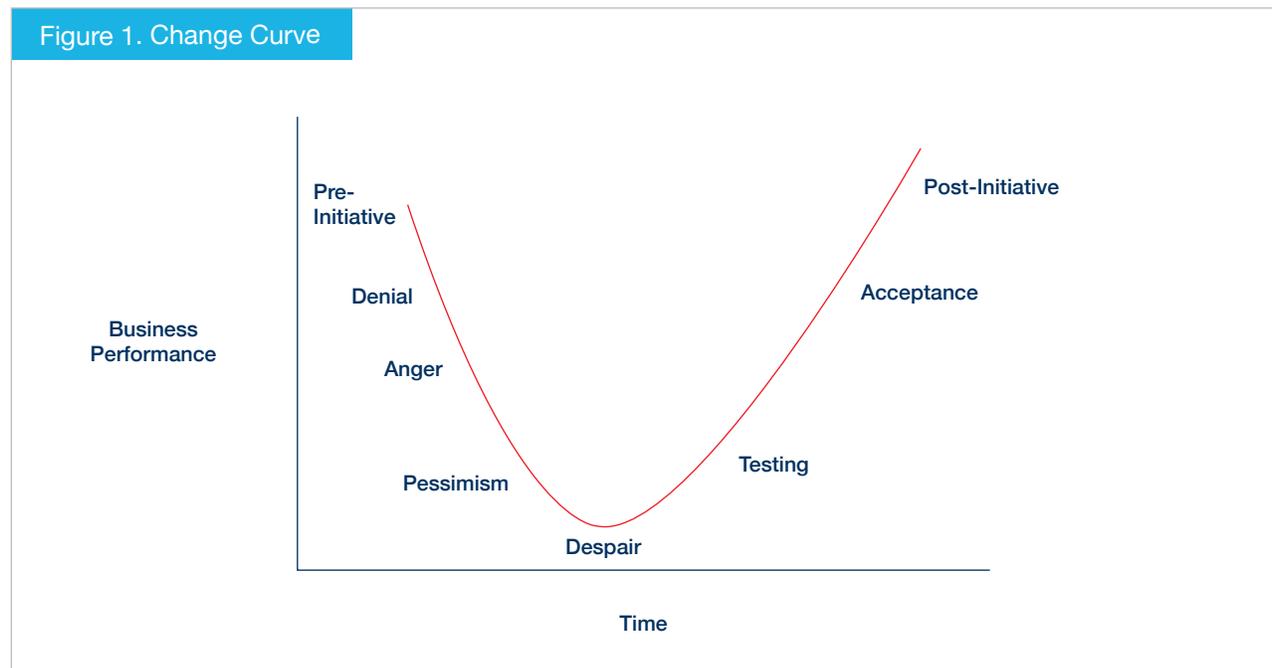
[10] Quy Nguyen Huy, "Emotional Capability, Emotional Intelligence, and Radical Change," *Academy of Management Review*, April 1999, pp. 325-345.

The change curve, adapted from John Fisher's Transition Curve originally presented in 1999 at the Tenth International Personal Construct Congress in Berlin, Germany, describes the emotional response to change over time and how it impacts business performance. It demonstrates an initial increasing severity of emotional response to change, causing business performance to dip incrementally over time. This continues until the curve eventually turns upward, with performance creeping back toward its optimal level. This phenomenon can be applied to any type of change within the workplace, notably when systems and/or processes are being improved or replaced. A project can be deemed successful when business performance has improved beyond where it was before the change was introduced. If business performance never improves to that level, but instead remains below where it was initially, the initiative can't be deemed successful.

The emotional responses illustrated on the Change Curve include six stages: pre-initiative; denial; anger, pessimism, despair; testing; acceptance; post-initiative.

STAGE 1: PRE-INITIATIVE

Before the change has been introduced, workers are performing in the pre-initiative stage. Whether or not this stage finds workers in a positive work environment depends on the cultural environment of the organization.

Before work begins on a new project that will impact the organization, it's critical to perform a cultural assessment of the organization. This will provide key insight into the level of resistance to change that may surface and how loyal workers are to their work environment (and how loyal they may remain in the face of change). Regardless of what the cultural assessment yields, if the project team decides to go forward with the change initiative, then workers will begin the change initiative from the pre-initiative stage in which they are unaware of any impending changes and are used to the status quo. In a positive work environment, these workers will be found to be generally confident in performing their job tasks. They come to work on time, perform well, and get along with their coworkers.

A later section of this SMA explores what the cultural assessment measures and how the results will impact the future organizational change management work and activities.

STAGE 2: DENIAL

The initial introduction to the change will often result in denial. Perhaps similar implementations have been introduced and subsequently failed before, so workers don't believe it will stick this time either. Perhaps they don't believe that their skill can be replaced with increased automation. Whatever the case, the tendency is for workers to reject the idea that the change will be implemented. Business performance does not dip too drastically during this stage because they don't believe the change is going to happen.

STAGE 3: ANGER, PESSIMISM, DESPAIR

As the project team gathers requirements and interviews the workers to assess the current process or system, workers can no longer remain in denial. Faced with the knowledge that they may need to leave behind what is comfortable to learn a new system or process, many are likely to experience feelings of anger and pessimism. As the project continues, negative emotions may grow with rising levels of irritation toward contributing to a project they didn't request. On top of that, their participation in project work takes away from fulfilling their existing job description, so they are forced to let their business performance slip or work overtime to keep business running as usual.

At the lowest point of the change curve, workers can experience emotions so negative they approach despair. The despair is heightened by the fear of a potential job loss through no fault of their own. The number one concern of American workers is fear of job loss.[11] This fear surfaces during organizational changes as workers consider the possibility of being automated out of a job or being unable to learn the new system or process.

When workers reach this level of negativity, they can approach the phenomenon of "quitting in place"—workers continue coming to work but are disengaged and have moved on from the workplace in their minds. When this occurs, it isn't surprising that their business performance levels are at their lowest. At this low point in business performance, there are three possible outcomes: The workers will recognize that this situation is not ideal for them, and they will quit; they will get on board with the initiative, and an improvement in business performance will begin; or they may need to be let go. If the worker remains in place and still refuses to embrace the change, that individual will need to be let go or moved to a different area of the business. While the decision-making process associated with firing and displacing employees is outside of the scope of this SMA, it's important to realize that cost savings via job elimination can be a reality, especially in a world of increasing technology and automation. The change management discussed in this SMA focuses on the workers who will remain employed throughout the course of the implementation and will need to be trained on the new system, but it is worth noting that for those employees who will be laid off or redeployed to other areas of the business, transparency and open communication about new positions and changed job mappings are vital.

STAGE 4: TESTING

The first sign of improvement in business performance usually occurs when the project team provides an environment for the workers to test the new system or process. As workers are given the opportunity to experience the new environment and how they will perform in it, they have a renewed and more accurate sense of what their learning curve will be and how it will impact their ability to do their jobs. If this is a positive experience, workers' negative feelings will begin to dissipate. On the other hand, the testing could also yield a negative experience.

---

[11] Paul M. Muchinsky, "Emotions in the Workplace: The Neglect of Organizational Behavior," *Journal of Organizational Behavior*, November 2000, pp. 801-805.

A negative testing experience could result from a poorly designed or poorly built system, poorly trained testers, or a combination of these scenarios. If a negative experience occurs, workers may slide farther down the change curve until finally the results of the tests are positive—that is, until the problems encountered have been corrected and the workers adequately trained. (It's important that the testing stage of a project be set for success, otherwise negative experiences might drive the workers to an unrecoverable point on the change curve.)

STAGE 5: ACCEPTANCE

As the project nears a positive end, a majority of workers are likely to accept the change and reach a level of business performance similar to the level before the change initiative began. They have either been trained enough to perform their job in the new system or are confident that their jobs will remain secure throughout the changes.

If training fails or if the initiative begins to miss deadlines, workers could begin to slide back down the change curve until the missteps are corrected.

STAGE 6: INITIATIVE COMPLETE—POST-INITIATIVE SUCCESS

Post-initiative success has not been reached until the workers are performing at a higher level than they were prior to the beginning of the project. If the workers are still struggling to maintain the pace of performance they could deliver prior to the change, there's still work to be done to ensure a successful change—even if the system changes have been fully implemented. When steps aren't taken to reach this stage, workers may not understand their new job roles or how to operate in the new system. They may then create workarounds instead of adopting the new system or process, which is inefficient, expensive, and bad for morale.[12]

The goal of OCM is not to rid the workplace of the impacts from the change curve; rather, it is to diminish the impacts of the curve. Expecting OCM activities to erase all negative emotional response to change is unreasonable or impossible, but it is reasonable to use OCM techniques to reduce the depth of the curve in order to create a minimal impact on business performance and to help workers reach acceptance within a quicker timeframe. The diminished impacts to business performance over time as a result of using OCM techniques are depicted in Figure 2, the Improved Change Curve.


[12] Huigang Liang, Nilesh Saraf, Qing Hu, and Yajiong Xue, "Assimilation of Enterprise Systems: The Effect of Institutional Pressures and the Mediating Role of Top Management," *Management Information Systems Quarterly,* March 2007, pp. 59-87.

Figure 2. Improved Change Curve
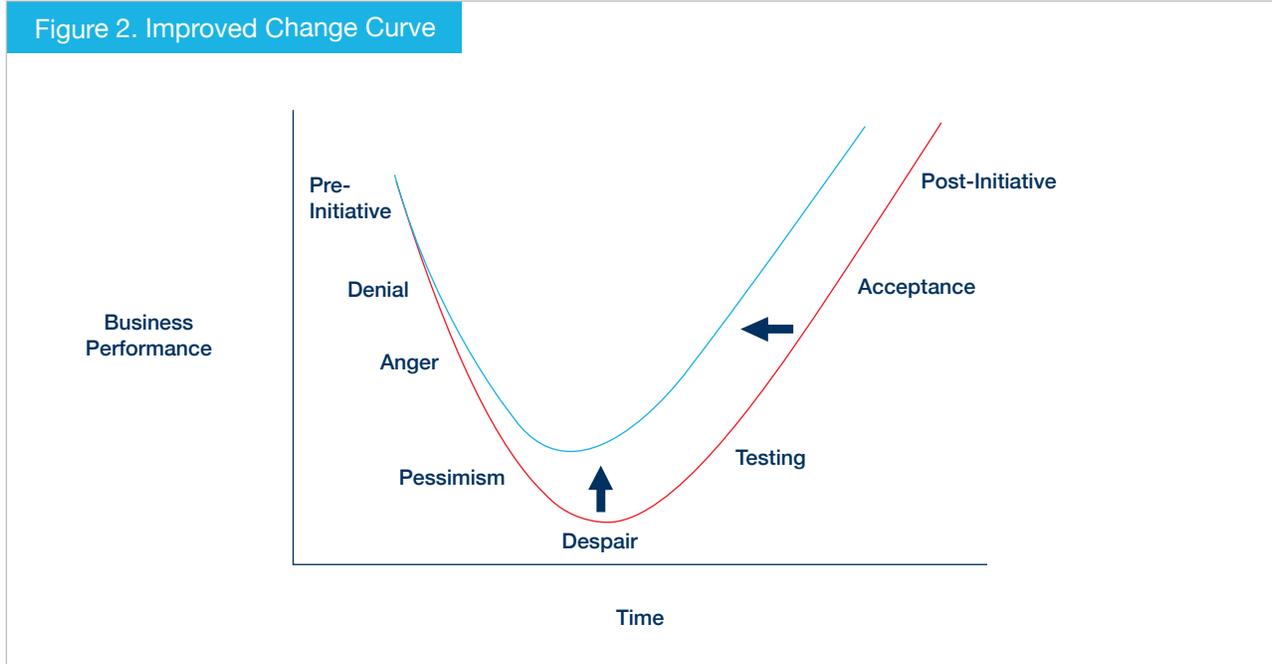
Helping individuals overcome a negative response to change requires planning. A methodology helps with this planning process, further explaining why it is imperative for everyone associated with the change initiative to be well versed in OCM to ensure success.

Project Management Methodologies

Before introducing the techniques used to reduce the impact of the change curve, a project management methodology must be in place. Traditionally, the term "methodology" refers to theoretical analysis of methods. In the project management field, however, it refers to a framework that plans and controls the system development process. There are many different project management methodologies, and the appropriate methodology varies for each project. It's important to assess the different methodologies before committing to one.

Methodologies can be defined across a spectrum, from iterative to pure waterfall. Iterative methodologies are defined by short release cycles in which the change initiative is delivered piecemeal with small impacts occurring over time. At the other end of the spectrum is a more traditional development process, the waterfall model, in which the entire change initiative is designed and built in order to be released all at once. The extremes on each side of the spectrum hold advantages and disadvantages, and many options exist between the two. In any case, a well-defined methodology with a project team educated in the methodology's different phases helps ensure that the project will be successful from the technical standpoint.

This SMA illustrates a four-phased systems lifecycle methodology that tends toward the waterfall side of the spectrum. This methodology is based on the Information Systems Audit and Control Association's COBIT 5 framework, which represents a globally accepted framework for managing projects and ensuring controls are met as systems change.[13] The phases and their tasks are:

1. **Project Planning**—Assign project team, estimate time and financial resources necessary to complete the project, and prioritize the work associated with the business problem or opportunity.

2. **Systems and Process Analysis and Conceptual Design**—Analyze the current state of the system or process, gather the requirements for creating a new or upgraded system or process to ensure functionality will not be lost with the change, and design the new system or process that will address the objective defined in the Planning phase while maintaining the functionality defined by the requirements.

3. **Systems and Process Development and Test**—Build the system or process based on the design, test it to ensure the problem or opportunity is addressed and functionality has not been lost, and design a support and maintenance structure to ensure there is a course of action if workers have problems operating in the new system.

4. **Implementation and Support**—Implement the change as well as the support and maintenance structure. While the support and maintenance structure is defined in the preceding phase, it goes into place in phase four, and this plan should be modified in this phase if necessary.

Organizational Change Management Activities

A project management methodology helps protect the project from failing due to technical errors, but, as previously discussed, a project can fail for reasons other than technical problems. According to Carol Kinsey Goman of Kinsey Consulting Services, 60%-75% of change initiatives fail due to the "human dimension."[14] Matching the OCM activities with the timeline of the project management methodology helps protect the project from failing due to human errors. It minimizes the impact of the change curve on business performance and aids in keeping workers bought into the change initiative. For the change effort to be successful—the technical effort or the organizational change effort—the two methodologies must be aligned. It is equally as important to plan the work to address human resistance to change as it is to plan the work to build an adequate system or process.

---

[13] Information Systems Audit and Control Association (ISACA), "COBIT 5: A Business Framework for the Governance and Management of Enterprise IT," 2012.
[14] Carol Kinsey Goman, "The Biggest Mistakes in Managing Change," *Innovative Leader*, December 2000, pp. 500-506.

To visualize what effective organizational change practices look like when aligned with the systems lifecycle, the emotions of the workers faced with the biggest impacts due to the change initiative should be managed such that they reach the pit of the curve at the beginning of the Systems and Process Development and Test phase and begin to climb out of it as that same phase is ending. Figure 3 depicts the systems lifecycle phases as they should be aligned with the change curve.

Figure 3. Change Curve Aligned with Systems Lifecycle Phases

| Project Planning | Analysis and Design | Development and Test | Implementation and Support |
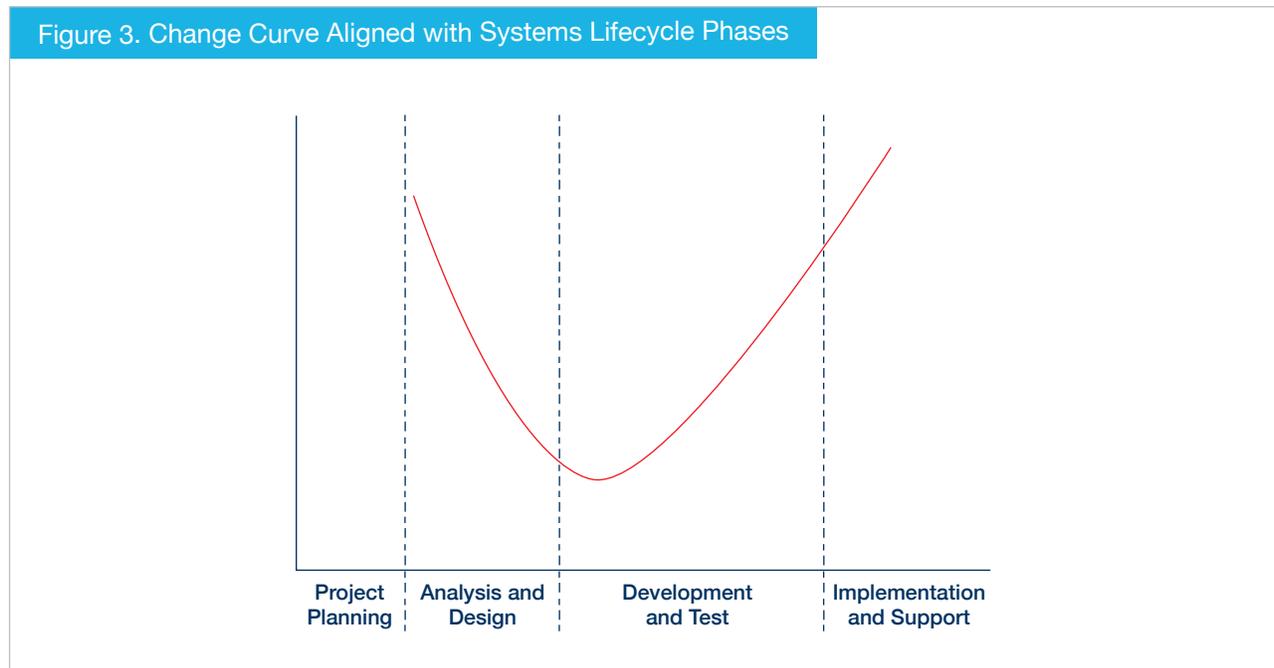
The OCM activities should also be planned and managed for audiences beyond those faced with the biggest impacts. These audiences also need to reach the pit of the curve in order to provide them ample time to reach post-initiative success. For example, an audience who isn't impacted severely may be well-suited to reach the pit of the curve rather late in the project because their pit will not be as deep, and it will not take them as long to reach post-initiative success. One of the primary goals of OCM is identifying which audiences need the most time to reach post-initiative success, how to communicate with them, and how to train them so that the initiative is successful within the timeframe required by the project management methodology.

Lessening the Impact of the Change Curve

Without OCM practices in place, the stages of the change curve could fall anywhere in the systems lifecycle. For example, if there are impacted individuals who were never notified of the change, their denial stage will not begin until implementation.

To minimize the impact of the change curve, a variety of communications must occur. While communication occurs throughout the entire lifecycle of the project—from conception through post-implementation support—there are three major types of communication activities that move the organizational change management along throughout the project:

1. Assessment activities,
2. Analysis activities, and
3. Adoption activities.

The assessment activities should align with the Project Planning and the Systems and Process Analysis phases. The analysis activities should align with the Systems and Process Analysis and Conceptual Design phase. And the adoption activities should begin in the Systems and Process Development and Test phase and end after Implementation. Figure 4 depicts the Change Curve aligned with the three main OCM activities and the project management phases.

Figure 4. Change Curve Aligned with OCM Activities
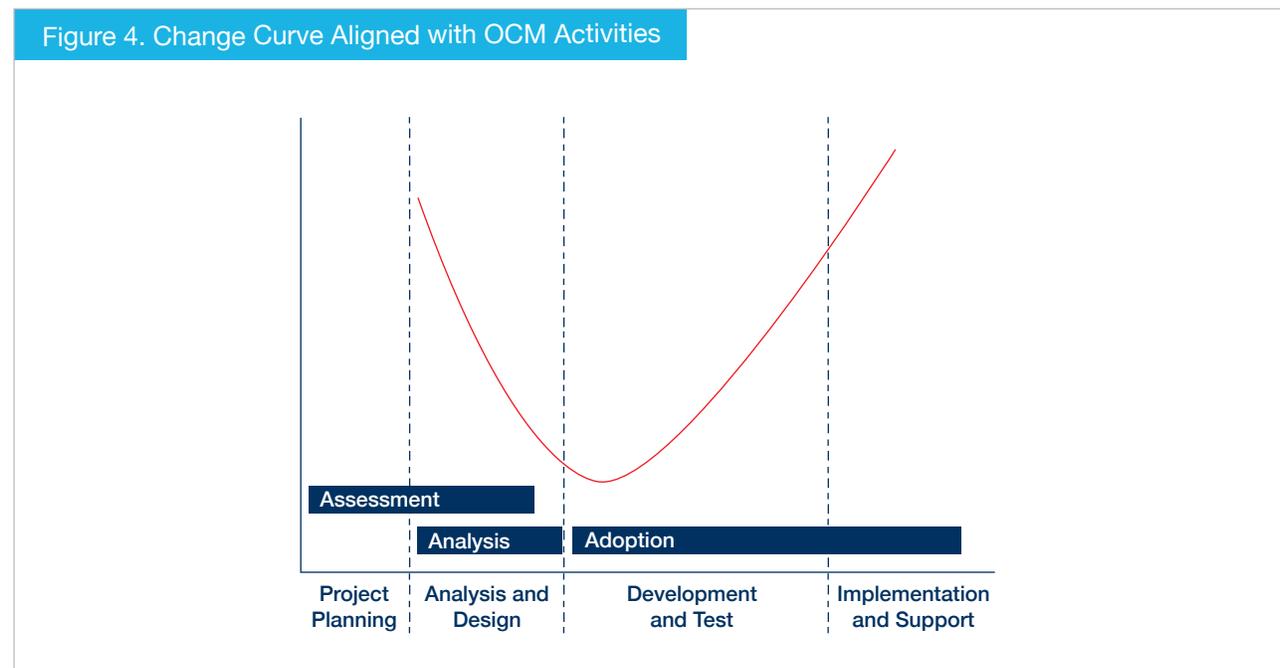
These three sets of activities support the overarching goal of OCM: ensuring that people are talking to each other and that audiences are integrating with one another early and often. Figure 5 illustrates a flowchart that summarizes all of the OCM communication activities and the order in which they should be done.

Figure 5. Flowchart of Organizational Change and Communication Activities
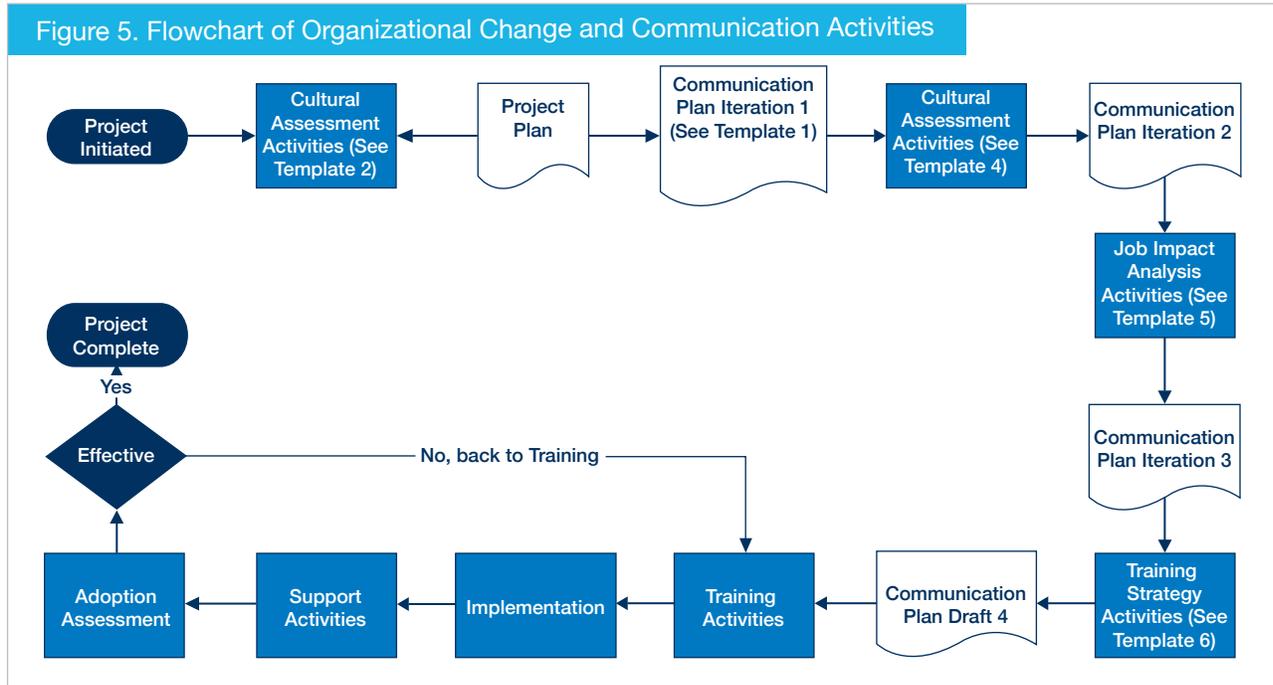
CRAFTING THE DELIVERABLE: THE COMMUNICATION PLAN

A communication plan should be used to document the OCM communication activities. The communication plan starts with determining how early each audience must be engaged and how often they need to be communicated with after they have been introduced to the change. It continues by providing a tool for execution, including determining that the right person is delivering each message in the right medium to each audience. Template 1 (see Appendix) can be used to help guide the communication schedule and methods throughout the project.

Answering the questions associated with filling out the communication plan is an iterative activity occurring throughout the entire project lifecycle. A minimum of four iterations of the communication plan is recommended.

Before detailing how each column of the plan is determined and how each iteration should be completed, it is imperative to note that, even between iterations, the communication plan must be a living, responsive document—the culture and audiences must continually be assessed, and the communication plan should be modified as necessary when the timeline of the project or the culture of each audience changes or shifts.

Assessment Activities

Assessment deliverables include a cultural assessment, a common message, and an audience assessment.

CRAFTING THE DELIVERABLE: THE CULTURAL ASSESSMENT

Even before beginning the project, the culture, impacted audiences, and project itself must be assessed to set the foundation for the work to come, and an initial cost/benefit analysis must be conducted to ensure that it is financially responsible to undertake the project. The management accountant should provide leadership in the analysis and oversight of the cost/benefit control throughout the project lifecycle. (A comprehensive discussion of this topic is outside the scope of this SMA.) Prior to affecting any substantial organizational change, a cultural assessment should be executed to ensure that the organization is prepared to sustain the impact of the change. Many cultural assessment instruments are available online and for purchase. Some are free for personal use while others are rather expensive. The more well-respected ones can be costly and time consuming to undertake. Instead of making a hefty initial investment, begin with a simple assessment aimed at comparing the existing culture to the preferred culture of different teams and key stakeholders.

Template 2 (see Appendix) provides an example of a basic survey that could be used to assess an organizational culture. It's recommended that this be done initially as an anonymous survey and then followed with a facilitated focus group to discuss the areas of concern that have been found through a careful analysis of the survey results. The ideal results are up for interpretation, but, after performing this assessment, the organizational change resource and the project team must come to an agreement on how much variance is allowed between today's culture and the preferred culture.

After the cultural assessment has been completed, a determination of whether the culture is prepared to undertake an organizational change initiative is required. If the cultural assessment does not offer favorable results, the project should be placed on hold and efforts should focus on improving the preparedness of the organization. At this point, it may be beneficial to invest in external consultants with expertise in a more robust cultural assessment instrument to aid in preparing the organization for change.

If the project team decides to continue with the project in the face of poor results from the cultural assessment and doesn't invest in the time to prepare the organization, it isn't advisable to hire external consultants to perform the OCM work. A poor cultural assessment indicates that the organization is very resistant to change, and the organization will typically respond more favorably to an internal stakeholder introducing and managing the change initiative.

On the other hand, if the cultural assessment indicates a prepared culture, the project should proceed. The remaining assessment activities take place at the beginning of the project and are done concurrently with the activities of the Project Planning phase in the systems lifecycle. During this phase, the estimated timeline of the project is established. The project plan is most likely created by the project manager or the business analyst. The OCM resource will use the key audiences identified in the project plan and the estimated dates for each systems lifecycle phase to construct the first iteration of the communication plan, identifying phase announcements by general audience and date.

In addition to the project plan, two deliverables must be completed to set the stage for creating the second iteration of the communication plan: the common message and the audience assessment.

CRAFTING THE DELIVERABLE: THE COMMON MESSAGE
The common message is imperative to ensure all impacted workers understand and accept the benefits of the project. Without a scripted message from key stakeholders (the people with the most influence over the impacted audiences), the benefits can get lost, and it will become natural for the impacted workers to focus on the negative parts of the change.

Crafting the common message involves answering these questions:

1. What is the scope of the project?
2. What is the timeline of the project?
3. What are the benefits of the project?

The responses to each of these questions help create the common message. Template 3 (see Appendix) provides an example block of text for a common message. It includes fill-in [bracketed] regions for the actual scope, timeline, and benefits of any project.

CRAFTING THE DELIVERABLE: THE AUDIENCE ASSESSMENT
Once the common message is created, begin to identify the specific audiences that need to receive the message. This work is captured in the audience assessment deliverable.

Creating the audience assessment takes place at the beginning of the Systems and Process Analysis and Conceptual Design phase, so it follows that much more information is available regarding the change initiative and who will be affected than was available when the project plan was created. The goal of this deliverable is to identify every worker group that is affected by the project. Each group is identified as a unique audience, and each audience is then assigned a level of resistance to change based on their history with change, current capacity for change, and work environment. This can largely be derived from the cultural assessment.

Crafting this deliverable involves answering these questions:

1. What are the audiences impacted, and where are they located?
2. What is the preferred medium of communication for each audience?
3. Who is the key influencer for each audience?
4. What is the level of resistance for each audience?

The first two questions can be answered fairly easily by interviewing members of the various impacted audiences, but the final two take a bit more care in answering. It's important to recognize that a team's key influencer may not be their boss—it's the individual who influences the team in the most impactful way. On many corporate teams, this will follow the chain of command. Yet on other occasions, especially for teams outside of the corporate environment or teams that are scattered geographically, the key influencer could be a fellow team member who is known for speaking up for the team. Uncovering a key influencer who is outside of the chain of command can be a difficult (although not impossible) detail for an external consultant. In cases where an external consultant is used, the consultant should be aided by the help of an internal worker with substantial experience within the organization.

The final question should be answered fairly easily from the cultural assessment. Each audience can be assigned one of three levels of resistance: low (assigned to a team that is already supportive of the project), medium (a team with a neutral stance), or high (a team that represents a risk to the project based on its high levels of resistance). These resistance levels will help inform the frequency of communication and the type of training that should be delivered.

Template 4 (see Appendix) provides an example of an audience assessment form. The template is just a guide, and columns can be omitted or added to suit the project. If the column indicating resistance level is maintained, however, the document's security should be handled carefully to protect high-risk teams from seeing its ranking—a high-risk team may become an even higher risk if its members see that they have been ranked that way.

Once the audience assessment is completed, the communication plan should be revised. The "Audience" and "Medium" fields should be updated with the accurate audiences and their preferred mediums of communication, respectively, while the "Sender" field should be updated to reference the key influencer for each audience. The audience assessment will not be complete at the end of the assessment activities. Throughout the remaining analysis and adoption activities, the audience assessment should be continually revisited. This deliverable is what feeds the "Audience" section of the communication plan. If an audience remains missing, it won't receive any communication or training, resulting in an increased risk of resistance and plummeting business performance once the change initiative is implemented.

Analysis Activities

Once a timeline has been established and the main audiences have been identified and communicated with, it is time to determine the ways and magnitude of which each audience will be impacted. This analysis will result in the job impact analysis deliverable.

CRAFTING THE DELIVERABLE: THE JOB IMPACT ANALYSIS

The job impact analysis describes each audience's current process compared to its expected post-implementation process and then captures the gap between the two processes. By analyzing the various job impacts for each identified audience, additional audiences may be identified. To ensure every audience is included in the audience assessment, it's essential to fully document the current and expected processes in order to extract additional teams or individuals involved.

Crafting the job impact analysis deliverable involves answering these questions:

1. How is each audience's job responsibility impacted?
2. What is impacted: the audience's system interaction, process, or both?
3. What level of testing will be required for each audience?

These questions may be answered using techniques like job shadowing and observations, interviews, and focus groups. This information is compared with what the expected process will be in the post-implementation world, and the two scenarios are assessed to determine whether the changes will occur only within the system or if the change will also impact the audience's current process. The type of impact helps inform the training methods that will be identified in the adoption activities.

The first two questions provide the information needed to complete the job impact analysis—an example of this deliverable is provided in Template 5 (see Appendix). After the analysis is completed, the gaps identified for each audience can be coupled with the resistance level assigned in the audience assessment. These can then be used to update the communication plan by expanding upon the frequency and purpose of each communication. Table 1 shows the job impact and resistance assessments as well as the associated response the OCM resource should take for each.

Table 1. Action Plan Based on Impact and Resistance Levels			
		Impact Level	
		Low	Medium	High
Resistance	Low (Supportive)	Even though these groups are supportive, their impact isn't high. They do not need much training, but their level of influence could help spread support and buy-in.		Influencers—their combination of high impact and high levels of supportiveness makes these workers the best evangelizers.
	Medium (Neutral)	Minimal communication and training necessary.	With their level of influence and impact, effort should be put into not only train them on the changes, but to move them into the Supportive level of resistance.	
	High (Risk)	Everyone in the high-risk category can add risk to the project regardless of how minimal their impact is. It is critical to communicate regularly with them to improve their buy-in level.		

Finally, the third question informs the communication and training strategies (built in the adoption activities) from a practical level. Regardless of the level of resistance assessed, if an audience is expected to participate in testing the new system or process prior to implementation, they need to be communicated with and trained early.

Adoption Activities

The adoption activities represent the culmination of the assessment and analysis activities. Once all of the audiences have been identified and fully analyzed for resistance levels and job impacts, the next step is to plan how to train each audience so its members are prepared for implementation. Adoption activities also help ensure that each audience knows how to receive help and support after implementation.

There are three deliverables associated with adoption: the support plan, the training strategy, and the adoption assessment. Similar to the project plan used during the assessment activities, the support plan is generally created by the project manager or the business analyst. It has important value for managing the organizational change, however, because it is imperative to let every impacted worker know where to turn and who to call if a problem is encountered after implementation. Without an effective support plan in place, even the best training could be for naught. The team responsible for supporting the new system or process must not only be fully trained on all of the changes but also well-versed in all of the training documentation and where to find it so that frustrated workers can be directed appropriately.

While the previous deliverables of the project plan, audience assessment, and the job impact analysis are simply tools for providing information, the deliverables that are created through the adoption activities, like the communication plan, are all actionable. Each of the actionable deliverables is built from the information-providing deliverables.

CRAFTING THE DELIVERABLE: TRAINING STRATEGY

The training strategy details the amount of training necessary for each audience, how it will be delivered, by whom, and when. The project timeline and the testing schedule will drive when training should begin for each audience and how early they need to be prepared for interaction with the new system.

The training strategy is crafted by answering these questions:

1. Based on levels of resistance and levels of testing required, what is the training timeline?
2. How much training is required for each audience? What are the learning objectives of the training?
3. What are the appropriate methods of training for each audience?
4. Who will develop the training material and facilitate the training classes?

The first two questions can be answered based on the project timeline and the job impact analysis for each audience. They also serve as the basis for the answers to the remaining questions.

The third question, which addresses the appropriate training methods, determines whether the training should be conceptual, technical, or a blend.

The focus of conceptual training is to ensure that individuals within an audience have complete buy-in to the project and that they fully realize the benefits of the project. This is necessary in two scenarios:

- The impact to an audience is minimal. In this case, conceptual training may be all of the training necessary.

- The job impact is high. This training prepares the audience for the technical training by setting the stage for what is to come and allowing the audience to ask questions and build confidence. When job impact is high, it's likely that a combination of conceptual and technical training will be necessary.

The focus of technical training is hands-on training in which the workers recreate their job roles within the new system and/or process. This is necessary for workers who will be working directly in the new system or process. It's critical to give workers the opportunity to train in the new environment before the change is implemented. This prevents unnecessary decreases in business performance after implementation.

The fourth question determines how the training information will be disseminated. This could be in an instructor-led classroom setting, through independent learning, or via a blend of both. Because time and financial resources are rarely unlimited, it is often necessary to have at least a mix of instructor-led and independent training. The level of resistance associated with an audience and the complexity of the change influence this determination. The higher the level of resistance or complexity, the likelier that more instructor-led training would be beneficial. Unfortunately in some situations, such as when workers are dispersed over a large geographic area, in-person instructor-led training may not feasible. Alternatives could include live remote delivery (e.g., using webcast technology) or prerecorded independent training that could be enhanced by conference calls and a clearly communicated support plan.

The training strategy should be detailed and clear enough that invitations to training sessions and the meetings themselves can be easily transferred to the communication plan. An example of a training strategy is provided in Template 6 (see Appendix). This template assumes that you will use a separate training strategy for each audience.

Inviting workers to training and working with them so they can perform their job responsibility is not the only requirement. It is also necessary to assess the adoption of the new systems and processes.

Assessing Success of the Organizational Change Management Effort

Once the core OCM activities are completed and the operational change has been implemented, two final questions remain: how is success defined, and when is the project successfully complete? While these questions can't be answered until after implementation, the metrics that measure success need to be determined during the Systems and Process Development and Test phase.

The first step in assessing success is to measure how well teams are trained conceptually. Without an understanding and acceptance of the benefits of the project, workers would likely put minimal effort into learning how to work in the new system, rendering their training useless when the workers find ways to return to performing their roles the old way or develop workarounds. Assessing the success of conceptual training can occur through surveys, focus groups, and post-project reviews. Post-project reviews are facilitated meetings in which the lessons that could have been learned through the project (both positive and negative) are brought into formal discussion and documented to benefit future projects. These may also be accompanied by a pre-meeting survey in which project team members can anonymously rate the varying levels of success and failure of different project components.[15] The pros and cons associated with each assessment method for conceptual training are described in Table 2.

---

[15] Maximilian von Zedtwitz, "Organizational Learning through Post–Project Reviews in R&D," *R&D Management*, June 2002, pp. 255-268.

Table 2. Assessment of Conceptual Training Activities

Type of Activity	Pros	Cons
Survey	Anonymity allows workers to share freely about their experience and their support of the project as well as what they understand about the benefits.	Nonresponse bias is a risk. It is typical for only the workers who feel very strongly about the change in either direction to opt in to taking an anonymous survey.
Focus Groups	Participation is heightened. Through open discussion with an affected group, you can be certain about who is participating.	Lack of anonymity may cause some workers to withhold their honest opinions or choose not to speak up because they do not fully understand the benefits of the project.
Facilitated Post-Project Reviews	Provides an opportunity for anonymity through an initial survey as well as the benefit of participation through the facilitated meeting that follows the survey.	Time consuming and, if not facilitated appropriately, can turn aggressive.

In addition to assessing conceptual training, it's essential to measure the success of the technical training. This can be done through monitoring support tickets, observing workers in their new roles, and by computer-based training with required tests. The pros and cons of each assessment method for technical training are described in Table 3.

Table 3. Assessment of Technical Training Activities

Type of Activity	Pros	Cons
Monitor Support Tickets	Provides quantitative data on how well the workers understand the new system or process. If tickets decline steadily over time after the change has been implemented, this can be taken as a positive sign.	The quantitative data is not definitive because it does not take into account workers who are not using the support plan.
Observe Workers in New Roles	Provides a straightforward assessment of how a worker is interacting with the change. This is immediately actionable feedback.	Observations are difficult to quantify, and it can be time-consuming to perform enough observations to have a representative sample.
Require Tests via Computer-Based Training	Provides the benefit of quantifiable data without having to use assumptions about whether workers are following the system or not.	Not as straightforward as observing workers in real time, can be time consuming to parse through the results, and may not result in a straightforward assessment.

If the assessment results of either the conceptual or the technical training are less than the pre-determined success level, then the training activities need to continue, and the project can't be marked as complete. If teams aren't adequately bought-in and trained on the effort, the project must remain in the state of "in progress" even if the technical activities have been completed.

Conclusion

Aligning effective OCM activities with a well-defined project management methodology enhances the probability of project success. Projects that focus solely on technical and procedural enhancements run a high risk of failure, as do those where care is given only to the human dimension. Even when perfect technical solutions are delivered, a project is risking failure if human reactions are ignored.

Depending on your type of role in the project, there are important actions you can take to increase the likelihood of success:

- If you are a leader, engage your direct reports and ensure that the common message and the benefits are told to everyone you influence.

- If you are a subject matter expert, participate in early training to ensure that the new system and processes meet the requirements of your team and use your influence and skills to train and on-board other impacted audiences.

- If your role is a hybrid that falls somewhere in between a leader and a subject matter expert, understand the roles and recognize that correctly applying the methodologies of OCM to complement a well-developed project methodology reduces the risk of project failure due to human and technical oversights.

This SMA presents an organizational change management methodology that can be attached to a standard project management methodology. Using the tools it proposes will keep a workforce motivated and contributing in the midst of a changing environment.

References

Carol Kinsey Goman, "The Biggest Mistakes in Managing Change," *Innovative Leader*, December 2000, pp. 500-506.

Doug Laney, "3D Data Management: Controlling Data Volume, Velocity, and Variety," *Application Delivery Strategies*, META Group, February 6, 2001.

Elisabeth Kubler-Ross, *On Death and Dying: What the Dying Have to Teach Doctors, Nurses, Clergy and Their Own Families*, Taylor & Francis, 2009.

Fenella Scott, and Jim Shepherd, "The Steady Stream of ERP Investments," *AMR Research*, 2002.

Huigang Liang, Nilesh Saraf, Qing Hu, and Yajiong Xueet, "Assimilation of Enterprise Systems: The Effect of Institutional Pressures and the Mediating Role of Top Management," *Management Information Systems Quarterly*, 2007, pp. 59-87.

Information Systems Audit and Control Association (ISACA), "COBIT 5: A Business Framework for the Governance and Management of Enterprise IT," 2012.

James Manyika, Michael Chui, Brad Brown, Jacques Bughin, Richard Dobbs, Charles Roxburgh, and Angela Hung Byers, "Big Data: The Next Frontier for Innovation, Competition, and Productivity," *McKinsey Report*, 2011.

John S. Reel, "Critical Success Factors in Software Projects," *IEEE Software*, May 1999, pp. 18-23.
Mary C. Jones, and Randall Young, "ERP Usage in Practice: An Empirical Investigation," *Information Resources Management Journal*, 2006, pp. 23-42.

Maximilian Von Zedtwitz, "Organizational Learning through Post–project Reviews in R&D," *R&D Management*, June 2002, pp. 255-268.

Michael Chatfield, *A History of Accounting Thought*, RE Krieger Publishing Company, 1977.

Paul Barth, and Randy Bean, "Who's Really Using Big Data?" HBR Blog Network, *Harvard Business Review*, September 12, 2012.

Paul M.Muchinsky, "Emotions in the Workplace: The Neglect of Organizational Behavior," *Journal of Organizational Behavior,* November 2000, pp. 801-805.

Quy Nguyen Huy, "Emotional Capability, Emotional Intelligence, and Radical Change," *Academy of Management Review*, April 1999, pp. 325-345.

William R. King, "Ensuring ERP Implementation Success," *Information Systems Management*, Summer 2005, pp. 83-84.

Appendix

TEMPLATE AND CHECKLISTS:

Template 1. Communication Plan

Date	Frequency	Purpose	Audience	Medium	Sender	Responsibility/Status

Template 2. Cultural Assessment Survey

Answer each of the following questions for **how our organizational culture exists today**, using a scale of 0 to 10, with 0 representing an absence of the trait mentioned and 10 representing a high presence of the trait.

- • How innovative is your culture?

- • How comfortable with risk is your culture?

- • How family-like would you describe your culture?

- • How traditional is the chain of command/leadership style of your culture?

- • How would you rate your confidence in job stability within your organization?

- • How would you rate the work ethic within your organization?

Now answer each of the six questions again, this time considering how you would respond if our **organizational culture operated in an ideal world**. You do not have to change your answers, but please change every answer that represents an inconsistency with what exists today and what you would like to experience within our organizational culture.

Template 3. The Common Message

We are excited to introduce the new project, [Title of Project], to you. We are expecting work to begin [Month, Day] and are planning to complete the project by [Quarter # of year]. The goal of the project is to [state the problem or opportunity that spurred this project]. This particular project will not address [if it is important to list something that is out of scope so as to manage expectations, this is the place to do so]. This project will improve [list benefits, e.g., the user interaction with SAP FSCM, response time, the readability of your reports, the bottleneck that occurs between marketing and accounting, etc.] Don't hesitate to let us know if you have any questions by contacting [name and at least two methods of contact, e.g., e-mail and phone number].

Template 4. Audience Assessment

#	Audience	Approximate number of audience members	Location	Preferred medium of communication	Key Influencer	Resistance Level	Other Notes
Ex. 1	Clerks	50	Corporate	E-mail	Boss	Medium	(link to distribution list)
Ex. 2	Line Workers	200	~47 locations nationwide	• Flyer—posted in break room and mailed to homes • Bound training manuals	Sharon (line worker in Kansas City)	High	Minimal access to PCs

Template 5. Job Impact Analysis

Audience	Current Process	Post-Impl. Process	Type of Change (System vs. Process)

Template 6. Training Strategy

Audience Name:

Module #	Change Topic	Method	Date	Location	Notes
Ex. 1	Conceptual: Introduce the Change	Instructor-led in a classroom	1/15/15	Corporate	Provide CBT to prep for next lesson after this class via e-mail
Ex. 2	Conceptual: Introduce the New System	Blend	Complete prep-CBT prior to meeting on 1/22/15 (instructor-led meeting)	Desk and corporate	