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Integrated Change Management

by

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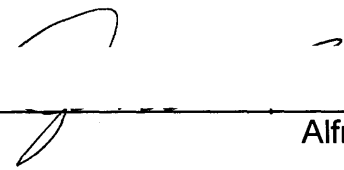
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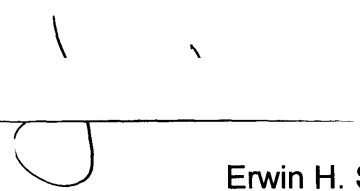
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Janie L. Mines

Submitted to the Alfred P. Sloan School of Management on May 6, 1998, in partial fulfillment of the requirements for the degree of Masters of Business Administration

ABSTRACT

Most businesses are actively searching for competitive advantage. It is that illusive unique trait that will allow them to outperform their competitors in the marketplace. Many businesses depend upon new products, advanced technology, secret formulations, patents, copyrights and / or novel processes to give them that competitive edge. But with the rapid flow of information, lack of copyright and patent protection in many countries, and ability to quickly copy technology and backwards engineer formulations, these advantages are both short lived and expensive. Business is becoming increasingly aware that the primary source of sustainable competitive advantage lies in the capability to manage change effectively, efficiently, and flexibly.

Many techniques are advanced attempting to successfully manage change including Restructuring, Reengineering, Total Quality, etc. The success of these techniques has been limited primarily due to the limited scope of the methodology. They focus on the change subsystems of processes, organization, people, and technology as their primary mediums for change. The specific term Change Management typically refers to only the human transition activities related to the change. Seldom are all of these subsystems accounted for or, even more rarely, integrated into a comprehensive plan.

The objective of my thesis is to provide a practical methodology that integrates all subsystems of change management to accomplish business objectives. This thesis proposes that these subsystems cannot be managed as separate project subteams with separate project plans but must be part of an integrated comprehensive effort that has its roots in the strategic plan of the organization. The methodology proposed begins with the approval of a change project and allocation of resources and ends with implementation and monitoring of a project. This document uses common business language. It is focused on the needs of practitioners within the company attempting to successfully manage change. The research includes a literature search, a review of several questionnaires, surveys and interviews with managers discussing their change methodology and management efforts. This thesis addresses the following questions:

- Why manage change?
- What subsystems must be included in an integrated change management approach?
- What are the repercussions for excluding a subsystem(s)?
- What would an integrated methodology look like?

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INTEGRATED CHANGE MANAGEMENT (ICM)

TABLE OF CONTENTS

	<u>Page</u>	
Chapter 1	Introduction	
	A. Why Manage Change	5
	B. The Integrated Change Management (ICM) concept	6
	C. Purpose of the Thesis	8
Chapter 2	Research Methodology	
	A. Surveys	10
	B. Literature Search	12
	C. Case Study	13
Chapter 3	Change Management in Perspective	
	A. Current State of Change Management	16
	B. Comparison to ICM	26
	C. Summary	30
Chapter 4	CMS Case Analysis	
	A. Company Profile	31
	B. Project Description	32
	C. Team	34
	D. Methodology Employed	37
	E. Results	47
	H. Summary	51
Chapter 5	ICM Methodology Guide	
	A. Introduction	52
	B. ICM Methodology	56
Chapter 6	Conclusion	
	A. Summary of Key Concepts	77
	B. Future Implications	80
Appendix	A. Tools and Techniques	84
	B. References	106

CHAPTER 1

INTRODUCTION

WHY MANAGE CHANGE

Most businesses are actively searching for competitive advantage. It is that illusive unique trait that will allow them to outperform their competitors in the marketplace. Many businesses have depended upon new products, advanced technology, secret formulations, patents, copyrights and / or novel processes to give them that competitive edge. But with the rapid flow of information, lack of copyright and patent protection in many countries, and ability to quickly copy technology and backwards engineer formulations these advantages are both short lived and expensive.

Customers have become more sophisticated and demanding (Coopers & Lybrand, 1995). Market leaders are those companies that not only respond quickly to changing customer requirements but those that can predict them and behave proactively. These companies are value added to their customers because they possess the knowledge to assist them in defining improved processes and the capability to quickly enable implementation. Business is becoming increasingly aware that the primary source of sustainable competitive advantage lies in the ability to manage change effectively, efficiently, and flexibly (Hammer, 1994).

One of the few inevitabilities is change. It will occur. Whether change manages the company or whether the company can manage it for competitive advantage is contingent upon change management capabilities. Change Management is the capability of an organization to successfully transition from the current state to the desired state.

Businesses that are managed by change are constantly fighting fires. They are seldom category leaders and are usually playing catch up. They often display traits that place them at a

performance disadvantage GMA (1996) provides a list of twelve dysfunctional characteristics of firms that are “managed by change!” They are:

- Lack of focus Significant activity with few accomplishments
- Marginal to unsatisfactory financial performance
- Low employee morale
- Inadequately skilled labor
- Poor communication
- Outdated fragmented technology solutions
- Lack of information accessibility and timeliness
- Inefficient, unfocused, costly organization
- Frequent organizational changes
- Customer service failures (products, delivery, value-added, etc.)
- Inefficient procedures
- Poorly documented and communicated procedures

So why have all companies with these characteristics not gone out of business? Many of their competitors face the same issues. The company that is able to develop a comprehensive change management capability first will emerge as the leader and will be difficult to overtake. Sam Walton of Wal-Mart stated that his key to success was his ability to change to address customer and business needs more quickly and efficiently than his competition (Hammer, 1995).

INTEGRATED CHANGE MANAGEMENT (ICM) CONCEPT

Many techniques are advanced attempting to successfully manage change including Restructuring, Reengineering, Total Quality, etc. The success of these techniques has been limited primarily due to the limited scope of the methodologies used to implement the change. They focus on change subsystems - processes, organization, people, and technology - as their primary mediums for change. The specific term Change Management traditionally refers to only the people transition activities related to the change. Seldom are all of these subsystems accounted for or even more rarely integrated into a comprehensive plan. Some management consulting agencies are attempting to accomplish this task with combinations of subsystems with

differing levels of success.

Webster (9th edition, 1988) defines a system as a “regularly interactive or independent group of items forming a unified whole”. The same reference defines a methodology as “a particular procedure or set of procedures”. In this thesis change management is detailed as a complex system of intertwined activities that must be orchestrated to occur at the appropriate times. This orchestration effort is detailed in the ICM methodology. These activities are driven by the strategy / financial objectives of the business as set by senior management. Strategy is critical when dealing with change (Hax and Majluf, 1996). This system is composed of four major subsystems focused on implementing a strategic initiative.

This thesis proposes that the organizational capacity for successful change relate directly to the ability of the change subsystems to enable the adjustment. The greater the ability to manage change, the faster and more effective are the resulting business solutions while minimizing the inevitable disruption caused by the change (CSC Index, 1995). Although there is obvious overlap among subsystems, my research and experience show that change projects are often divided into subteams that cover some or all of the subsystems detailed below. Each subsystem is categorized by the goals of the individual activities within a subsystem, whether it be to prepare people, change the way work is done (processes), acquire appropriate tools (technology), or align the business structure (organization). To understand the Integrated Change Management (ICM) concept it is critical that each subsystem be well defined. Five subsystems are at issue:

- Strategy / Financial Objectives – Business objectives and performance measures integrated in a plan to achieved the desired outcomes
- Processes – Policies and procedures for accomplishing work encompassing inputs, value-adding activity and outputs
- Technology – Information systems, control systems, software, machines and other tools necessary to optimally implement the change

- People – the capabilities, resources and motivations of employees to enable change including compensation, communication, change readiness, and training and development
- Organization – staffing and business structure that allows groups of people to achieve a common purpose via division of labor.

When these subsystems are not synergistically managed, significant difficulties emerge. They may range from a brief disruption that temporarily diverts attention away from work, to violence and sabotage (GMA, 1995). Each subsystem should be addressed across the phases of change. The methodology proposed in this thesis involves five phases:

- Definition of the objective and encompassing business processes
- Collection of inputs, data, benchmarks, and performance measures relating to the objective and processes
- Analysis of the collected input to determine the “root causes” of obstacles to achieving the objective
- Design new business process that address the obstacles to achieving the objective
- Implementation and continuous improvement of the redesigned process to meet current and future business requirements

PURPOSE OF THE THESIS

The objective of this work is to provide a practical methodology that integrates the subsystems of change management to accomplish business objectives. This thesis proposes that these subsystems cannot be managed as separate project subteams with separate project plans but must be part of an integrated comprehensive effort that is linked to the strategic plan of the organization. This thesis expands the generally accepted concept of change management as pertaining only to people issues to the broader concept of all activities required to implement successful change (change management subsystems).

The methodology resulting from this thesis begins at the approval of a change project and

allocation of resources and ends with implementation and monitoring of the change management effort. This document uses common business language. It is focused on the needs of practitioners within a company attempting to successfully manage change.

In particular, I address several questions:

- Why manage change?
- What subsystems must be included in an integrated change management approach?
- What are the repercussions for excluding a subsystem(s)?
- What would an integrated methodology look like?

The remainder of the thesis is organized as follows:

Chapter Two describes the research activities for this thesis including selection criteria for companies, survey format, literature search and other information sources. Chapter Three defines the current state of change management based upon surveys, the literature search and interviews. It compares the ICM methodology and subsystems to the best practices identified in the survey studied. Chapter Four details the case of a company implementing major change efforts. It includes the methodology, subsystems, and results and compares them to the ICM approach. Chapter Five defines a proposed integrated ICM methodology with five phases including definition, collection, analyses, design, and implementation and continuous improvement. Each phase addresses the necessary activities for each subsystem (processes, technology, people, and organization) focused on the strategy/financial objectives of the organization. Chapter Six summarizes the key concepts of the thesis and future implications for change management. Appendix A contains instructions on using the tools and techniques outlined in the thesis text.

CHAPTER 2

RESEARCH METHODOLOGY

This chapter describes the research methodology used to gather data for this thesis. This chapter contains three sections. The first section describes the surveys I reviewed. The second section describes my literature search. The third section describes a case of a company implementing a significant change effort.

SURVEYS

Two large published surveys were used as part of the research. These surveys were used because they were recent, specifically address change methodologies and results, and, as a respondent to these surveys, I was satisfied with information collection process.

The survey topics were “Best Practices in Managing Change” and “Best Practices in Business Process Reengineering and Process Redesign”. Both surveys were used in order to gain a broader perspective on change efforts. Since neither survey defined the terms change management or business process reengineering explicitly, the results were perhaps skewed toward the prevalent definitions of those terms. For my purpose of developing a comprehensive approach it is important to review both studies.

The surveys were completed in 1997 by almost 160 companies implementing significant change. ProSci conducted the surveys on line using the Business Process Redesign (BPR) Network to produce the resulting study. The BPR Network is composed of business professionals within businesses, consulting firms, governments and universities involved in change management work. The respondents were individuals involved in specific change projects usually as facilitators or consultants.

ProSci is a research, training, and consulting company with offices in New Jersey and Colorado. ProSci serves businesses around the world with current information on business process reengineering and process redesign improvement tools and innovative practices (ProSci, 1996).

Best Practices in Managing Change

The objective of the Best Practices in Managing Change study was to uncover best practices for managing the human side of change and for creating executive sponsorship of change initiatives. The study involved more than 100 organizations from 22 countries on 6 continents. Participant revenues were fairly evenly distributed over the range from less than 10 million dollars to over 5 billion dollars.

Most change projects in this study involved business processes, systems and organizational structure. The primary business processes being changed were:

- Information (computer) services
- Manufacturing
- Health care services
- Product development
- Finance / banking
- Human Resources

More than 50% of the respondents implemented significant process changes. More than 90% of the participants implemented changes across departmental boundaries. Almost 50% expect the change to impact their entire enterprise. The size of the staffs impacted by the change average several hundred. Over 30% of the projects impacted more than 500 employees.

Best Practices in Business Process Reengineering and Process Redesign

The Best Practices in Business Process reengineering and Process Redesign study was conducted in the fall of 1996 and early winter of 1997. The goal of the study was to uncover important actual experiences from project teams that would be helpful to other teams. The study used the Internet to reach 57 organizations from 27 countries on 6 continents.

Companies participating in the study ranged from automobile manufacturers to health care firms. There was nearly an equal split between both US and foreign participants. Company

revenues range from 25 million to in excess of 5 billion. Several universities, government, military, consultants, and large corporations were that are part of the BPR Internet network were included in the study. Their common focus was introducing radical change in the way they worked.

The findings of the study are grouped into seven categories (ProSci, 1997):

- Choosing a change methodology
- Applying change management techniques
- Understanding the role of consultants
- Forming an effective team
- Engaging top management
- Knowing the “must do’s” and “must not do’s” of managing change
- Understanding the benefits and results of the change management projects

For this thesis all aspects of the two studies are not relevant. Information pertaining to methodologies, techniques, benefits, and results are incorporated as part of this thesis.

LITERATURE SEARCH

A search of several databases including Lexis/Nexis, Dow Jones, and Data Search provided over 50 articles that were reviewed of which 15 were included in the thesis. Additionally, 25 books were reviewed.

The research material obtained was divided into five groups including:

- Change Management theory and methodologies
- Process management theories and methodologies
- Business process reengineering
- Information Systems design and implementation
- Strategy
- Financial Analysis
- Organizational alignment

Within these groups were academic articles, business press articles, business seminar material, and business press books and articles. Business practitioners, business school professors, consultants, or methodology “gurus” wrote most of these materials.

CASE STUDY

The Company

The case study is about a major change effort in a food manufacturing company. The company agreed to serve as a case if their identity was not revealed. They will be referred to as CMS for the purposes of this thesis.

CMS has annual revenues in excess of 4 billion dollars and employs over 15,000 people worldwide. This case focuses on part of the headquarters and field sales organizations including approximately 2,000 people. Although CMS has wide distribution of their products, most of their operations are confined to North America.

CMS has been active in systematic change management efforts for over 5 years. During this period they have developed an internal methodology for implementing change called Process Management. A small permanent staff of five people facilitates strategic change efforts and has trained about 100 people across the corporation to work on smaller change efforts. The process management concept has been introduced to almost all employees in the company and these employees have been involved to differing degrees in projects.

The Project

The specific change effort covered in the case is called Promotion Granting and Execution (PG&E). PG&E is the process of internally and externally communicating trade promotions, granting trade promotion deal monies to customers, invoicing and applying cash from customers, and making payments to customers for performance oriented promotional programs. The executive staff chose this process because it was identified as a “root cause” issue undermining most of the previous smaller change efforts. These earlier efforts focused on

managing symptoms related to the inefficiencies of the larger process. The change effort lasted from the fall of 1994 to spring of 1998. It had the following general objectives:

- To increase revenues through enhanced selling tools and information to better focus strategy development with individual customers, classes of trade (retailers, distributors, wholesalers, etc.) and / or markets (fund raisers, age groups, gender, impulse buyers, etc.)
- To increase cash flow through deduction avoidance and/or timely resolution of deductions
- To reduce costs associated with transaction errors
- To reallocate of non-value added work resources to activities that directly supported customer and business objectives

The research consisted primarily of interviews I conducted in the spring of 1997 and/or 1998 using a combination of surveys and meetings with:

- Executive Improvement Team (EIT) members (the entire executive staff)
- Process coach (an executive staff member)
- Process Improvement Team (PIT) members (design team selected by the EIT)
- Other members of the effected workforce

The EIT and PIT interviews were focused directly on the change methodology and attributed results. Interviews with employees focused indirectly on the methodology and more directly on the business results realized from the redesigned processes. Additionally printed materials reviewing the team, methodology, techniques and results were reviewed as part of the research.

Interviews

A list of questions was used to focus discussions that occurred in meetings and focus groups I conducted. The list was developed addressing the main areas of research interest including:

- The change methodology definition (including change management subsystems)
- Satisfaction with the change methodology
- Application of the change methodology
- Results

The questionnaire details are included in the case in Chapter Four.

These gatherings included all the interviewees at separate forums. The questionnaires were administered at six meetings or forums to supplement the interviews. The list of questions focused the group interviews, provided written documentation, provided suggestions for improving the change methodology, and served to assess the results of the project (as well as the application of the methodology).

All meetings were scheduled well in advance and EIT and PIT member attendance was mandatory. Other employees were scheduled for six meetings held throughout the day and participation exceeded 70% of effected headquarters personnel (approximately 1400 respondents). The employee meetings were in open house format during which a status report was provided on the project with current process redesign and a hands-on opportunity to try the new computer system. Door prizes were awarded based on names pulled from the group of completed questionnaires and snacks were provided.

The data resulting from the questionnaires and the simultaneous interview discussions were input into spreadsheets and average responses were calculated for each question. Additionally general comments were captured for each question. This interview information resulting from the discussions served to clarify the comments written on the questionnaires and provide additional input.

SUMMARY

The research materials allow me to describe the change management methodology and results from a broad perspective. The CMS case provides a specific perspective through which to view a change management methodology. The combination of the broad and specific perspectives is used in this thesis to substantiate the concept of Integrated Change Management (ICM).

CHAPTER 3

CHANGE MANAGEMENT IN PERSPECTIVE

Current State of Change Management

Defining the current state of change management is as illusive as obtaining a consistent definition of the concept of change management. The current state is detailed in this section by using literature to provide general definitions, methodologies, and concepts. Additionally, the results of the two surveys are used to outline current methodologies and provide perspective on the success rate of these methodologies.

Definitions, Methodologies, and Concepts

The prevailing definition of change management focuses on managing the employee's personal transition as the business is being transformed. Most definitions of change management focus on communication, training, development, staffing, rewards / recognition, and change readiness. Business transformation efforts apply this definition of change management and include activities for process redesign and technology development in an attempt to define and implement change (IBM, CSC Consulting, and KPMG, 1997). This thesis proposes that these activities are rarely synergistically integrated and, as a result, less than optimal results are achieved.

Various definitions, methodologies and concepts are associated with implementing change as exemplified by the following:

Definitions

- Change is the process of aligning people, resources and culture with a shift in organizational focus (Coopers & Lybrand, 1995).

- Reengineering is the fundamental rethinking and radical redesign of business processes for dramatic improvements in critical measures of performance such as cost, quality, service and speed. Information technology is an essential enabler (Hammer and Champy, 1993).

Concepts

- The core dilemma for executives and leaders is how to maintain stability while simultaneously creatively adapting to outside forces; stimulating innovation; changing assumptions, technology, working methods, roles and relationships, and the organizational culture. The change process involves defining the future state of the business, assessing the present and managing the transition to achieve the desired results (Beckard and Harris, 1987).
- Change is based on the organization's learning capability and ability to quickly manage major transformations (Schein, 1992).
- Reengineering should be focused on implementing a particular strategy (Porter, 1995).
- The installation of SAP (a process focused, enterprise-wide information system) in conjunction with process reengineering is part of a company's strategy to succeed in an industry that has undergone radical changes in recent years (Miller Freeman Publications, 1996).
- The essential points for responding to change are understanding the changes taking place in the world, understanding the effect on the organization, making the organizational transition, and learning new technologies and new skills in response to changes in the job (Ozeki and Asaka, 1990).

Change Methodologies

- Kurt Lewin's basic change model of unfreezing, changing, and refreezing is a conceptual foundation upon which change theory could be solidly built (Schein, 1995).

- The Balance Scorecard can be used to guide current performance and target future performance by using four categories of measures – financial performance, customer knowledge, internal business processes, and learning and growth – to align all activity and identify new processes to meet customer and shareholder objectives (Kaplan and Norton, 1996).
- The effective and successful management of change requires the efficient use of project control methods including updating status, analyzing the impact, acting on variances, publishing the revisions, and informing management (Knutson and Bitz 1991).
- To make the transition toward improving quality and productivity while reducing cycle time and cost the organization must understand customer requirements; define the driving business processes; create, train and support teams; streamline and simplify; measure and provide feedback; benchmark, use tools; and continuously improve (Harrington, 1991).
- The Malcolm Baldrige criteria are used by organizations to evaluate their progress toward becoming the best in their fields. This criterion consists of leadership; strategic planning; customer and market focus; information and analysis; human resource development and management; process management; and business results (Brown, 1997).
- Any organization that hopes to thrive in the 21st century must become process centered. Although this is not a structural change it has deep structural implications. Process centering facilitates change. It has four steps – identify company processes; make everyone aware of the importance of these processes, measure process performance; and manage the processes (Hammer, 1997).

The synopsis references above suggest the wide range of interests change theorists and practitioners follow. Hundreds of different definitions, concepts and methodologies exist. I have chosen to group change programs into four areas or subsystems focused on the specific change effort and aligned with the strategy of the organization. They are labeled process, technology, people, and organization. The synergistic integration of the four subsystems is the problem I address and it is one I found missing from the literature.

Current Change Methodologies

This section reviews the results of the two surveys described in Chapter 2. This review substantiates my claim at the beginning of this work that all the change subsystems are not included in many efforts and/or not being synergistically managed to optimize the effectiveness, efficiency, and final results of change efforts.

“Best Practices in Managing Change”

The results of the Best Practices in Managing Change survey indicate that most change efforts have three major phases – planning, designing, and implementing. The survey also detailed the major activities that occurred in each stage. Change Management activities during the planning stage included:

- Interviewing sponsors to understand project goals and scope
- Educating the team on change management and change strategies
- Educating top management project sponsorship; established a steering committee
- Developing a communication plan
- Beginning communications to employees regarding the need for change
- Identifying potential obstacles to the change and started activities to address them
- Chartering a change management team and developed a plan for managing change

Change Management activities during the design phase included:

- Implementing of the communication plan including sharing the change justification; project goals and timeline; and providing frequent status reports to the organization
- Collecting input from all levels and areas of the organization and created feedback channels for employees and managers
- Identifying obstacles to change and their root causes and administered a change readiness assessment
- Sharing elements of the redesign with the organization
- Maintaining top management sponsors involvement in the process and helped them understand the sponsorship role

Change management activities in the implementation phase included:

- Communicating to all employees at all levels, customizing the communication method to the audience, and repeated the message
- Providing training and education to all impacted employees and maintained enthusiasm through a rapid pace of learning and activity
- Establishing channels for employee feedback to the implementation team
- Using the change management team as a knowledge sharing infrastructure across the divisions
- Helping top management execute their sponsorship activities, encouraging them to remain visible, and maximizing direct interaction with employees
- Developing success measures and posted progress charts where they could be seen by everyone

Certain change management activities within the phases had a greater impact on the success of the efforts than other activities. The results fell into four categories and held true across phases:

1. Communication

- Open and consistent communication
- Candid dialogue with all participants
- Openness to feedback
- Written communication updates
- Interaction with all levels of the organization
- Face to face communication of the vision to employees by the CEO or top management sponsors

2. Personnel management

- Personnel changes to support the new organization
- Proactive personnel management (personnel changes when needed)
- Coaching for and if necessary removal of problem managers

3. Sponsor involvement

- Senior management directives
- Stakeholder involvement (involving managers in the areas being changed)

- Communicating constantly with stakeholders so change never took anyone by surprise
- Support from all levels of management
- Coaching provided by sponsors

4. Training

- Training workshops on new processes, job roles and skill development
- Pre-implementation training of employees focusing on change management

The majority of participants suggested two opportunities for improvement:

- Have more training and access to change management experts
- Increase the involvement of managers and project stakeholders

65% of the participants felt they were sufficiently far enough along in their change to judge its effectiveness. Almost half of this group reported marginal to unsatisfactory results. 40% felt their effort was moderately successful in achieving the objectives. This thesis proposes that this high level of dissatisfaction is attributable to the lack of a comprehensive ICM approach.

“Best Practices in Business Process Reengineering and Process Redesign”

This study showed that change methodologies varied across organizations. Most of the differences occurred in the start-up and design phases. The following list shows the most frequently applied steps in the design phase and the percentile of the respondents that completed each step:

- Gained a detailed understanding of the current process – 87%
- Conducted customer needs assessment – 76%
- Assessed new technologies and tools – 76%
- Identified required organizational changes – 66%
- Developed enabling technologies – 67%
- Developed measures to assess the reengineering process – 61%
- Created high level concepts and guiding principals as the foundation – 57%
- Benchmarked other companies – 57%
- Conducted employee needs assessment – 54%

- Designed the new process off site – 35%

Each company participating in the survey described their reengineering / redesign methodologies. Fifteen representative methodologies were detailed in the study. No companies are identified with their particular methodology, however, two of the methodologies are provided below. The first displays the least detailed methodology. It describes the change activities in terms of general stages (with amplifying activities in parentheses). The second displays the most detailed methodology provided in the study. This methodology includes the activities completed during the change effort and the organizational structure of the project that included a concept team (Level 1 Team), a design team (Level 2 team), and an implementation team (Level 3 Team).

Least-detailed Methodology

1. Stage 1 – Discovery (benchmark, best practices, competition, voice of customer, document “as-is”)
2. Stage 2 – Redesign (vision, high level design)
3. Stage 3 – Implement (detailed design, pilot, implementation)
4. Stage 4 – Continuous improvement

Most-detailed Methodology

Form Level 1 Team (full time)

1. Understand customer needs both domestic and international
2. Identify “key factors success” in business performance
3. Prioritize key factors success
4. Conceptualize an ideal process to take us there
5. Flow chart the process activities at a broad level
6. Communicate to management and gain acceptance

Level 2 Team

1. Flowchart of the current activities by the team
2. Map with respect to process envisaged (Function vs. Process Matrix)

3. Depict the gap between ideal and current processes
4. List constraints that prevent reaching the ideal process
5. Question the assumptions behind constraints and resolve
6. List constraints that could not be resolved
7. Flowchart the process with unresolved constraint
8. Quantify the gap with respect to existing process (use Industrial Engineering symbols)
9. Propose process to management and get approval
10. Form level 3 team and dissolve level 2 team

Level 3 Team

11. Carryout job design, structure, documents, design of meeting, measures of performance for each process, presentation templates, and audit system design
12. Present to management with cost benefits
13. Resolve the constraints

These two change methodologies were essentially quite similar. There is a significant process focus to these methodologies with minimal or no reference to the other change subsystems (people, technology, and organization).

The following activities were reported by the respondents in the survey as being the most important to achieving project success:

1. Management support / change management – 44%
2. Project Planning – 18%
3. Process and technology design – 18%
4. Documenting current process – 10%
5. Other – 10%

These activities address the inclusion of the people, process, and technology subsystems with some reference to planning although not necessarily strategic planning. The respondents recognized these subsystems as important to the success of their change projects.

Respondents indicated the activities most likely to be added in their next project. These are listed below:

“Change management” steps to add:

- More focus on change management
- More personnel oriented change management (training, compensation, etc.)
- Better communication
- More steps to ensure buy-in at operational levels
- More change management efforts
- Design, training, and development programs to prepare employees for the changes before cutover
- Better change management strategy
- Have experienced Business Process Reengineering (BPR) consultants to work directly with change management
- Broader involvement of tangentially related elements of the organization
- Additional representation from cross functional organization and use of more sophisticated tools
- More process work groups and meetings

“Management Involvement” Steps to Add

- Bring more senior management into the process
- Closer contact with top management
- More stakeholder involvement
- Solid and total commitment of top CEO
- More checkpoints with senior management

When asked what steps they would eliminate from the change methodologies, respondents indicated the following:

- Do not define all the processes at once
- Do not have a long, drawn out analysis of the current process, analyze the “as-is” process at a high level and do it quickly

Respondents said they spent their time during the reengineering process in the following activities:

- Process / systems design – 23%

- Deployment implementation – 20%
- Process / Systems development – 19%
- Data gathering and learning – 18%
- Project planning / team selection – 12%
- Approvals – 8%

The average project lasted 19.7 months, with a mean time of 18 months.

The feedback from this study focuses primarily on the people subsystem as lacking from their methodologies. Perhaps this occurred because the traditional definition of reengineering has a process and/or technology subsystem focus. Limited definitions of change management and reengineering require that the results of the two surveys be combined to obtain a more complete picture of what is occurring in change efforts.

When respondents were specifically asked how they divided their time between process design, system change, organizational change and job role change, they answered as follows:

- Process change – 39%
- Systems change – 27%
- Job role change 18%
- Organizational change – 16%

Although this question revealed that participants felt they spent time on all four of the major subsystems, this is not evident by reviewing the representative change methodologies provided in the study. Little mention is made of these subsystems until the respondents were specifically asked for the percentage of time spent performing those tasks. Perhaps this implies that all these subsystems were not managed as integrated activities in the change efforts.

Most projects (about two-thirds) were not prepared to declare success or correlate that success to a specific methodology. Even completed projects were still evaluating their results. 33% of the participants were far enough along to evaluate the impact of their projects. Of this group 33% said they suffered a drop in operational efficiency from 10-30%. The remaining 66% of this group indicated improvements in time, cost, quality, and customer satisfaction.

There is significant overlap in the change management and reengineering methodologies. This confirms the idea that the general method for implementing change (“what to do”) is fairly standard and accepted. This thesis proposes that the challenge lies in how the change subsystems– people, process, technology, and organization focused on strategy/financial objectives – are managed (“how to do it’). These efforts cannot be managed as separate project subteams with separate project plans but must be part of an integrated comprehensive effort that has its roots in the strategic plan of the organization.

COMPARISON TO ICM

Each study resulted in a recommended methodology with specific recommended activities based upon the efforts of the successful respondents. This section compares the recommended phases and activities of the studies with an integrated change management (ICM) methodology focused on implementing the strategy of the organization. ICM consists of five phases with four change subsystems (process, people, technology and organization) applied across the phases. The five ICM phases include:

- Definition of objectives and processes that achieves the objectives
- Collection of data applicable to the objectives and processes
- Analysis of data collected to determine obstacles to achieving the desired objectives
- Design of a process that eliminates the obstacles and achieves the objectives
- Implementation and continuous improvement of the redesigned processes

This methodology is the result of almost 20 years of experience and research as a change management practitioner and the research discussed in this thesis.

A comparison reveals a direct correlation between the phases of the ICM methodology the phases of the methodologies provided in the two studies. This substantiates the general format if the ICM methodology as being consistent with the current best-demonstrated practices. The table on the following page shows how the phases of ICM relate to the phases of the recommended methodologies outlined in the table.

Table 3-1 Phase Comparison Table

Change Management Phases	Reengineering Phases	ICM Phases
<ul style="list-style-type: none"> • Planning 	<ul style="list-style-type: none"> • Planning/team selection • Approvals 	<ul style="list-style-type: none"> • Definition of objective and process
<ul style="list-style-type: none"> • Design 	<ul style="list-style-type: none"> • Data gathering and learning • Process/system design 	<ul style="list-style-type: none"> • Collection of data • Analysis of data • Design of process
<ul style="list-style-type: none"> • Implementation 	<ul style="list-style-type: none"> • Deployment / Implementation 	<ul style="list-style-type: none"> • Implementation / continuous improvement

Subsystem Comparison

The activities in each phase of the two methodologies recommended in the two studies also demonstrate which ICM subsystems should be applied and when they should be used. To understand the Integrated Change Management (ICM) concept it is critical that each subsystem be defined. Five subsystems are at issue:

- Strategic Plan – Business objectives that are long term and structural in nature that define the fundamental way in which business will be conducted. The tactics are the implementation tools of the strategy. Change efforts are often synonymous with strategic tactics.
- Processes – Any activity or group of activities encompassing inputs, value-adding activity and outputs to an internal or external customer. Business processes are service processes and all processes that support manufacturing processes (e.g., order fulfillment process, payroll process, and demand generation process). They consist of a group of logically related tasks that use the organization’s resources to provide definitive results in support of the organizations objectives.
- Technology – The information systems, control systems, software, machines and other tools used to optimize employee performance. It increases speed, quality and flexibility and creates new, different and effective process operations. Information technology facilitates

the coordination of autonomous units linked together through information. Technology is critical to optimal implementation of many change initiatives.

- People – The capabilities, resources and motivations of employees that create a resilient organization capable of constant and positive organizational change in response to constantly changing environment. The primary enablers include compensation, communication, change readiness, and training and development.
- Organization – The administrative and functional structure that allow people to achieve a common purpose via division of labor. Although organization alone is seldom a change driver it can be an enabler. After processes are optimized and the appropriate technology is employed the organization must be evaluated to ensure that it is supportive of the new processes.

Based on the limited scope of the definition of the concepts “change management” and “reengineering” the results of the two surveys must be combined to get a comprehensive picture of what is actually occurring as organizations attempting to manage change. Table 3-2 combines the primary activities of both of the methodologies presented in the surveys and compares the ICM subsystems (including the strategy component) to these activities. In the ICM methodology these activities would be synergistically managed to produce results. The table does not indicate the timing of subsystem activities within the five phases.

Table 3-2 ICM Subsystem Comparison

ICM Subsystems	Activities of Combined Change Management and BPR Methods
Strategy/Financial Objectives	<ul style="list-style-type: none"> • Define business direction • Identify critical business issues • Develop vision and values • Develop a business case • Understand customer needs • Identify key factors of success in business performance • Identify and communicate business reason for change • Interview sponsors to understand scope and goals • Charter a team and develop a plan
People	<ul style="list-style-type: none"> • Educate the team and management • Develop and execute a communication plan • Maximize input from entire organization • Implement feedback mechanisms • Maintain management involvement • Share status • Develop training workshops (new processes, job roles, skill development) • Pre-implementation training on change management
Process	<ul style="list-style-type: none"> • Define processes that are critical to organizational performance • Define project scope inclusive of critical process(es) • Document high level critical activities within the chosen process • Define more detailed “as-is” process • Define desired process to achieve business goals • Identify the gap between the as-is and the desired process (obstacles) • Redesign process removing the gap by eliminating the root cause of obstacles • Pilot the redesigned process • Implement process • Continuously improve
Technology	<ul style="list-style-type: none"> • Implement new hardware and architectural technologies • Implement new information management technologies
Organization	<ul style="list-style-type: none"> • Assess current organizational structure • Redesign position descriptions and reward systems in line with the process redesign • Implement organizational and cultural changes • Implement personnel changes to support the new organization

SUMMARY

The comparisons outlined in this chapter demonstrate that there are similarities between my proposed ICM methodology and subsystems and what is currently being done in organizational change efforts. “What should be done” is not the issue. The issue is how and when it should be done. The subsystems, which are crucial to the ICM approach cannot be managed as separate project subteams with separate project plans but must be part of an integrated comprehensive effort that is rooted in the strategic plan of the organization. The ICM methodology outlined in detail in Chapter 5 integrates the subsystems within the phases and activities to achieve successful change.

The materials in this chapter serve to substantiate the basic methodology phases and activities to be included in the proposed ICM approach outlined in Chapter 5. They also emphasize the point that this is not enough to ensure success. The business case presented in Chapter 4 will further demonstrate the need for integrated change management.

CHAPTER 4

CMS CASE ANALYSIS

COMPANY PROFILE

CMS is the leading North American manufacturer of quality branded dry pasta products, and has a variety of international operations. The published mission of CMS is “to be a focused food company in North America and selected international markets and a leader in every aspect of our business”. In North America, the goal is to enhance their number one position in pasta and expand to other food products”.

CMS’s strategy is focused on a process of change that began four years ago. The objective of this process is to enhance stockholders investment by improving efficiencies and accelerating profitable growth through a process approach with a concentrated focus on:

- What the company knows and does best
- Quality products
- First class service to customers
- Reducing costs and improving efficiency in their operations
- Adding value to everything they do

Key to this value-adding strategy is evaluating all operations to ensure people, resources and effort is appropriately focused on profitability and continuing to add value to the stockholder’s investment. Product and manufacturing lines are facing detailed scrutiny as part of this evaluation.

Critical to adding value is the overall organizational structure. In order for the structure to support the strategy it must support:

- Profitable growth
- Quality products

- Efficient operations
- Flexible responses to customer needs
- Seamless operations across the entire corporation

The company has a traditional functional structure. CMS has a president with seven direct reports with the title of vice president. This group is called the Executive Staff. The organization is hierarchical. The level of cooperation across functions is marginal but cross-functional task teams have been in place for the last few years in an attempt to improve this situation. The results have been disappointing.

PROJECT DESCRIPTION

The specific change effort covered in the case is called “Promotion Granting and Execution (PG&E)” as defined in Chapter Two. The following abbreviated charter for the PG&E effort was written by the Executive Staff and provided to an appointed design team. The charter reads:

- Objective: Optimize the effectiveness of the information and funds flows associated with the Promotion Granting and Execution process. Use Process Management to identify and implement approved recommendations focused on faster, more flexible, efficient, and responsive transactions that are error free and exception free. The Promotion Granting and Execution process must achieve both improved business results and enhanced customer satisfaction.
- Boundary Conditions: The Company must be capable of effectively granting all terms of Trade Promotion monies in a means that meets customer expectations and complies with Company policies. This Project will not include assessing the effectiveness of various promotional programs.
- Process Measures: The Process Improvement Team will use numerous measurements to evaluate the effectiveness of the Promotion Granting & Execution process redesign. The

measurements will evaluate customer satisfaction, deductions, operational transactions, and process complexity.

In addition, the Executive Staff provided a list of specific outcomes the change effort was to deliver. The expected outcomes included:

1. Ability to understand and communicate promotional programs
2. Improve lengthy, slow, frustrating reconciliation of purchase orders and deductions
3. Free up sales force from the resolution of customer deductions from invoices
4. More accurate and timely information for evaluation of programs
5. Ability to pay customer in the manner desired
6. Deliver on sales commitment
7. More timely and accurate communication of programs to customers
8. Fact gathering to determine the amount of non-value added work
9. Determine the ability to reallocate resources
10. Determine how seasonality effects the process and propose recommendations to cope with seasonality
11. Increase invoice accuracy
12. Determine whether the organization wants to proceed with Process Management
13. Recommend proper organization structure to support the process
14. Simplification/elimination of paperwork
15. Timely and accurate reporting of promotion spending
16. More timely payment of funds to and from customers
17. Reduce the number of deductions relating to promotion granting and invoicing
18. Faster/effective deduction resolution
19. Concurrence between the purchase order and the program requirements at the point of the order
20. Know what the customer expects and satisfy the expectation
21. Improve timing between sales release of information and EDI transfer of information to the customer

TEAMS

The design team was to utilize Process Management Principles in the evaluation of the Promotion Granting and Execution process to enhance customer satisfaction and business results by significantly improving quality, speed, flexibility, and responsiveness. Two initial teams were selected to meet these goals. The Executive Staff became the Executive Improvement Team (EIT). The EIT identified and assigned individuals to the Process Improvement Team (PIT) and provided the charter. They also provided a Process Management Facilitator. The Executive Improvement Team (EIT) included:

- President
- Vice President of Sales (VPS)
- Vice Present of Marketing (VPM)
- Vice President of Logistics (VPL) –also the process coach
- Vice President of Manufacturing (VPMf)
- Vice President of Finance and Information Services (VPFIS)
- Director of Human Resources
- Vice President of Procurement

Although the vice presidents of manufacturing and procurement were not directly involved in this effort, they remained a part of the leadership because PG&E was viewed as a developmental and training effort as well as a process redesign. The VPL was assigned as the process coach. He was responsible for serving as a liaison to the EIT and providing general guidance.

The Process Improvement Team (PIT) was directly responsible for the redesign of the process to achieve specific tasks, outcomes, and measures as previously defined in this chapter. The PIT consisted of:

- Facilitator
- Director of Sales Planning
- Director of Field Sales
- Director of Marketing

- Director of Information Services
- Director of Customer Services
- Manager of Logistics Planning
- Manager of Human Resources

It was critical in an effort of this size that specific tasks were defined for both teams. Those tasks are outlined below.

The EIT tasks were defined as follows:

- Change own thinking to get a total process perspective
- Define appropriate process measures to be used in assessing performance
- Provide resources
- Develop common objectives supporting the proposed process changes
- Break down organizational walls
- Search out improvement opportunities and perform as process owners
- Set up department improvement teams to support pit(s)
- Provide training and education to support new processes
- Anticipate impact of process changes and make preparations
- Monitor to prevent process degradation
- Reward process contribution
- Show ongoing interest via reviews of status and results
- Attempt to find equivalent jobs for people whose jobs were eliminated solely by Process Management

The PIT tasks were:

- Participate in PIT activities (training, meetings, etc.)
- Conduct Process Management (PM) activities within their departments
- Obtain appropriate resources for the activities to be performed within their departments
- Accomplish process objectives
- Solve process-related problems
- Implement changes in departments
- Lead subprocess teams as appropriate

- Facilitate change
- Train and involve department members
- Provide process understanding to departments
- Keep process coach informed

The role of the Process Management Facilitator (PMF) was critical to the success of the effort. This role required the PMF to:

- Facilitate change (systems, behavior, people, and technology).
- Provide perspective to the individual team members and the team as a whole.
- Identify problems/opportunities for effective ongoing improvement.
- Diagnose what is going on inside the team and why the problems/opportunities for improvement exist.
- Help the team maintain mission focus by establishing their development objectives, and creating measurements to track progress.
- Give impartial feedback on the team's performance.
- Help the teamwork through sensitive or difficult issues.
- Help the team review progress at intervals.
- Observe what is happening between team members as the team works.
- Serve as a mirror to the team, so that the members have a clear view of their behavior.
- Select and suggest activities/improvement techniques that are appropriate in helping the team improve its performance.
- Help the team make its own decisions - provide decision-making techniques.
- Do not make the team dependent on the facilitator's continued presence, but will work to make the team independent on external help.
- Provide expertise in utilizing the Process Control and various Quality Improvement Tools/Techniques.
- Encourage the team to use management by fact and data.
- Provide project management skills.
- Provide scheduling, time management expertise

CHANGE METHODOLOGY EMPLOYED

The methodology used by the PIT was called Process Management. Process Management was an internally developed methodology defined as a “customer focused process improvement methodology that eliminates, streamlines, integrates, and aligns work to achieve optimal business results while producing minimal workforce dysfunction”. The obvious foci of this methodology are on process and people.

The next section outlines the methodology as well as specific activities. This also serves to show the specific activities carried out by the team. The methodology has five phases and a total of twelve steps.

Process Management Methodology

- Definition
 1. Define the mission
 2. Identify the critical activities
 3. Map the actual process
- Collection
 4. Document customer/supplier expectations
 5. Obtain other relevant input, data, and expectations
 6. Benchmark the process
- Analysis
 7. Review/revise performance goals/measures
 8. Analyze process performance
- Solution
 9. Map the proposed process
 10. Check and revise the proposed process
- Implementation
 11. Implement the new process
 12. Monitor and continuously improve

Process Management Objectives and Activities

The following outline details the goals and tasks associated with the Process Management Methodology. The italicized activities denote people subsystem activities. The other activities primarily reflect process subsystem activities.

Step 1. Define the Mission

Objective:

- Determine what is to be accomplished
- Provide clear consistent scope
- Provide the focus for project plans
- *Establish a common understanding of the mission and desired outcomes*

Activities:

1. Discuss the mission statement guidelines
2. Review any applicable mandates, mission statements, or strategic plans
3. Complete Team Member Alignment Questionnaire (individual)
 - *Compile responses*
 - *Resolve issues or conflicts*
4. Complete the mission definition questionnaire (individually), if necessary
 - Collect the questionnaires and post each response under each question. Discuss the responses for clarity only.
 - Open the meeting for discussion of the responses and generation of new ideas.
5. Perform a consensus exercise designed to bring about agreement on the mission statement and desired outcomes.
6. Create and implement a preliminary communication plan using the Communication Worksheets including:
 - *Stakeholders -- any one who can affect or will be affected by changes*
 - *Process owner*
 - *Process Improvement Team/Executive Sponsors*

Step 2. Identify the Critical Activities

Objective:

- Define what Major Process Activities must be investigated to accomplish the Mission
- *Prepare employees and gain support for the process documentation efforts*

Activities:

1. Post/distribute the mission or charter -- scope of the overall process.
2. Use a cross functional group to determine what activities in their respective functions' impact on accomplishing the mission statement.
3. Review the list to ensure that all activities are captured. All activities must relate to accomplishing the mission statement.
4. Continue to refine the list until only the portion of the process that is required to accomplish the mission is captured as a critical activity.
5. *Review the team composition to ensure the team members represent all critical activity areas.*
6. *Communicate the mission, scope, expectations, and documentation procedures to all involved employees.*

Step 3. Map the Actual Process

Objective:

- Document the work steps and support systems for the major activities that must be investigated to accomplish the mission
- Support a process vs. functional orientation
- Assist in defining the scope of the work flow to be analyzed
- *Assess the ability of the current environment to support process change*
- *Communicate information about the project to all involved employees*

Activities:

1. Determine the inputs and required outputs. (The output requirement may have been identified while defining the mission.)
2. Follow the procedure for flow charting to graphically display the workflow that supports the mission.
3. Simultaneously document any available information on cost, cycle time, goals/measures,

issues and recommendations.

4. *Perform baseline assessment of the current Change Support Systems:*

- *Training*
- *Development*
- *Staffing*
- *Communication*
- *Measurement and Reward*
- *Culture/Change Readiness*
- *Information Systems*

Step 4. Document Customer/Supplier Expectations

Objective:

- Determine what internal/external customers and suppliers expect from the process.
- *Establish a mutual understanding of the mission, desired outcomes, and mutual benefits of participation.*

Activities: Customer

1. *Communicate the mission, desired outcomes, benefits, and gain agreement.*
2. Collect information on customer requirements in relation to accomplishing the mission.
3. Determine which requirements the customer considers value-added (e.g., results in sales maintenance or increases) and why.
4. Collect information on customer perception of our performance against their requirements.
5. Determine how the customers measure performance.

Supplier

1. *Communicate the mission, desired outcomes, benefits, and gain agreement.*
2. Review Supplier Specifications in relation to accomplishing the mission.
3. Revise specifications, if required.
4. Review supplier performance.
5. Determine any customer activities that would enhance supplier performance. These are supplier expectations.

Step 5. Obtain Other Relevant Input, Data and Expectations

Objective:

- Obtain additional information relevant to accomplishing the mission.
- *Allow for maximum input from the work force to increase ownership and thereby facilitate implementation of the revised process.*

Activities:

1. *Publicize the activities of the team and solicit input from any interested parties. Sort through input for useable data.*
2. Obtain copies of reports and files related to the process.
3. Periodically share status with management and solicit their input.
4. Continue to capture input, data and expectations from all available sources.
5. *Perform Process Walk Thrus (PIT visits to the actual work areas to observe process flows, and obtain direct input from employees performing the tasks.*

Step 6. Benchmark Process

Objective:

- Determine what Best Demonstrated Practices (BDPs) are utilized by other organizations to accomplish the mission.
- Integrate useful process BDPs
- *Broaden the perspective of the process team and affected employees to include information about external and internal Best Demonstrated Practices.*
- *Communicate the Benchmarking Plan and mutual benefits to candidate organizations.*

Activities:

- Benchmarking activities should be conducted according to the Corporate Code of Conduct.
- Determine whether the effort will be a site visit, survey, or interview. The following steps apply primarily to site visits but may also be applicable to surveys and interviews.
- Determine who will be the facilitator for the discussions and who is assigned to take notes. Opening comments should include why the benchmarking subject was selected and the advantages to both parties as a result of this endeavor.

- Introduce the team members. Each member should explain their functional roles and responsibilities and their objectives in the benchmarking effort (providing specific information about your operations allows attendants to focus on your area of interest). Asking the benchmarking partner to do the same will ensure that the correct people are in attendance before starting the session.
- *Spend some time socially to develop a rapport with the attendants and relax and enhance comfort levels that may promote a more open exchange of information.*
- Explain the objectives of the session and the process to be followed (i.e. facilitator, note taker, etc.). Make sure there are enough handouts for everyone in attendance. If using overheads, or other audio/visual presentation medium, make sure that the proper equipment is available.
- Questions should be asked by the benchmarking team members in their respective area of expertise, since it will be their responsibility to understand and effectively evaluate the data gathered and apply it in the final analysis. Repeat their answers to ensure proper understanding and interpretation.
- Do not ask questions to solicit information that we would not be willing to share as benchmarking partners. Since benchmarking is a reciprocal process, offer to share only the findings/ comparison of the company being benchmarked. Do not disclose data gathered from other benchmarked companies.
- Before the final recap session with the benchmarking subject, the visiting team should caucus to ensure that questions have been answered thoroughly. Develop any additional questions that should be addressed before the session ends.
- Close the session with a review of the information presented. List any follow-up issues to be completed/clarified. Express sincere appreciation for their time, effort and cooperation

Step 7. Review/Revise Performance Goals/ Measures

Objective:

- Determine whether the current goals/measures are relevant and accurate and if additional goals/measures are required.
- *Obtain consensus on the appropriate goals/measures to measure/monitor process*

performance.

- *Assign appropriate process goals/measures to every employee with a significant impact on achieving them.*

Activities:

1. List current internal measurements.
2. List why these measurements are used.
3. Document how the measurements are calculated internally and by external customers/suppliers.
4. List all other measurements used by external customers/suppliers.
5. Document how these customer/supplier measurements are calculated.
6. Document the purpose of these customer/supplier measurements.
7. Determine if any additional measurements are required to determine process performance and accomplish the mission.
8. Develop consistent measurement calculations.
9. *Obtain agreement from the stakeholders that these goals accurately reflect process performance and will be shared by all applicable employees.*

Step 8. Analyze Process Performance (Effectiveness, Efficiency, and Flexibility)

Objective:

- Identify the Deficiencies in the current process *and the Change Management support systems* that impact.
- Meeting internal/external customer expectations.
- Utilizing best demonstrated practices.
- Meeting goals/measurement requirements.
- Addressing any other identified issues.
- Accomplishing the mission.
- *Ensuring a smooth transition from the current process with minimal negative disruption of the workforce and culture.*

Activities:

- A. Determine process deficiencies (actual process performance versus requirements identified in steps 4-7) in the following areas:

- Customer/Supplier expectations?
 - Best demonstrated practices?
 - Goals/Measures?
 - Other relevant data?
 - Mission accomplished?
- B. Determine the root cause of the deficiencies.
- C. *Finalize Change Support Systems status: (Complete baseline assessments)*
- *Training*
 - *Development*
 - *Staffing*
 - *Communication*
 - *Measurement and Reward*
 - *Culture/Change Readiness*
 - *Information Systems*
- D. *Communicate and gain agreement on current process performance and the root causes*
- E. *Communicate and gain agreement on current Change Support Systems status.*

Step 9. Map the Proposed Process

Objective:

- Document the proposed revisions to the current processes that are required to accomplish the mission.
- *Communicate the proposed process changes and their rationale to gain final input on effectiveness and feasibility before drafting the recommendation.*
- *Define and communicate the Change Management Support System deficiencies.*

Activities:

1. Review the current process mapped in step 3 -- “Map the Actual Process”.
2. Incorporate the process revisions that address the root cause of the deficiencies detailed in step 8 -- “Analyze Process Performance”.
3. Map the proposed process using the flowcharting tool from the Quality Improvement Tools and Techniques section.
4. Review the flowchart to ensure it addresses all critical internal and external

customer/supplier requirements and effectively/efficiently accomplishes the mission.

5. Develop a new Standard Operating Procedure.
6. *Perform Gap Analysis to determine the change requirements for:*
 - *Training*
 - *Development*
 - *Staffing*
 - *Communication*
 - *Measurement and Reward*
 - *Culture/Change Readiness*
 - *Information Systems*
7. Develop a Business Plan detailing the savings, benefits and costs associated with the proposed process and *accompanying Change Management Support Systems' revisions.*
8. *Communicate the proposed process and change support system revisions to the appropriate affected employees along with the business case to solicit input, assess feasibility, and assess the potential organizational response.*

Step 10. Check and Revise the Proposed Process

Objective:

- Check the revised work steps and support systems through a representative limited application.
- Assess accuracy on the business plan.
- *Test Recommended Change Support System revisions to ensure that they are adequate to enable the recommended process changes.*

Activities:

1. Develop a pilot plan or limited application, including both Process and *Change Management components.*
2. *Communicate the plans in terms of the objective, activities, expectations and next steps. Finalize roles, responsibilities, timelines, goals, and measurements.*
3. Implement Pilot Plan.
4. Collect new data on the outcome or output.
5. Compare “before” and “after” data to demonstrate whether the improvement matches the

desired outcome *and the results of the Gap Analysis for changes that have been addressed.*

6. Discuss problems and define resolution and development contingency plans for the potential process exceptions.
7. If outcome is acceptable, complete the Business Case and go to step 11 “Implement the Proposed Process”.
8. If outcome is unacceptable, ensure the implementation process was correctly performed. If it was correctly performed, then test another potential solution/improvement in the process.

Step 11. Implement the New Process

Objective:

- Achieve full integration of the new process in all applicable business areas.
- *Implement identified revisions in the Change Support Systems that are required to enable the process change.*

Activities:

1. Complete and *Communicate* the Implementation Plan for Process *and Change Management Activities*
 - List required process *and Change Support System revisions.*
 - List activities required to accomplish the revisions.
 - List associated cost, advantages and disadvantages.
 - Determine timeline to completion of the individual activities and full implementation.
 - Assign responsibilities for the activity accomplishment.
2. Develop Contingency plans based on historical or potential problem areas.
3. Perform periodic status reviews until full implementation is achieved.
4. Review general methodology for implementation and upgrade the final process flow.
5. Ensure Standard Operating Procedures are complete.
6. *Communicate the status of the implementation often and openly.*

Step 12. Monitor and Continuously Improve

Objective:

- Ensure the continued accomplishment of the mission.
- *Communicate Process Performance so that adjustments can be made as needed to address changes in the business environment.*

Activities:

1. Use the defined goals/measurements and develop a monitoring plan for the process and *the Change Support Systems.*
2. *Communicate the plan and ongoing results.*
3. Document your work.
4. *Continuously improve the process and Change Support Systems to ensure that customer requirements and business objectives continue to be met.*

RESULTS

This project was to be completed in 18 – 24 months. It took over four years. The actual redesign of the process was completed in less than 12 months with a high level of team and employee satisfaction with the results. Survey results showed that respondents were quite happy with the redesigned process and the Process Management methodology. Process Management is heavily focused on process, people and organization and served these three subsystems well.

The problems arose in the implementation of the redesigned process. The redesign was primarily focused on four integrated systems applications and although the systems people participated on the EIT, PIT, and subsequent implementation teams, their progress in actually implementing the systems was painfully slow. Two causes were at work here: (1) lack of integration of the systems plan and; (2) failure to align the change effort with the strategic plan of the company.

Although systems people were on the teams, no specific systems plan was integrated into the project plan managed by the EIT and PIT. The project plan included people subsystem activities (i.e. training, development, etc.) and organizational activities (staffing, etc.). The

systems were developed and controlled solely within the Information Services department with input from the teams. Initially, only general information about the systems component of the effort was provided to the teams. Because the plan was not integrated to include the systems component, skills and capabilities that were needed in the Information Services department were not included in the project plan. As a result, when implementation was required the capabilities to develop and implement the systems were not readily available.

Additionally, the redesign requirements were quite different than the capabilities of the old systems hardware technology. A reevaluation process began that resulted in a modernization of the company's hardware infrastructure to meet future business needs. This took three years and had to be completed prior to implementation of PG&E. At the end of the three years the redesign was no longer current. The systems infrastructure issue makes it difficult to assess the methodology separate from the systems considerations. PIT was successful in developing a redesign that met all the EIT expected outcomes. But it did not meet the budgetary (1 million dollars) or time goals.

The root of the implementation problems lies in the failure to synergistically manage all the change subsystems relative to the company's strategy. Specifically the technology subsystem was not integrated into the change project plan and resulted in failure to promptly identify capability limitations. Additionally the project was not well budgeted and resources were not maintained since it was not tied to the strategic plan. Table 4-1 provides a step by step review of the methodology and improvement opportunities associated with this case.

Table 4-1 Methodology Opportunities

Process Management Methodology	Improvement Opportunities
1. Define the mission	Failure to align objectives with the strategic plan Failure to ensure adequate and ongoing management support Failure to develop an integrated project plan including systems
2. Identify the critical activities	No issues
3. Map the actual process	Failure to assess system's employees capabilities to support process change
4. Document customer/supplier expectations	No issues
5. Obtain other relevant input, data, and expectations	Failure to include the Information Systems department in the walk thrus to understand their processes and capabilities
6. Benchmark the process	Failure to perform more thorough assessments of systems used by benchmarked companies and compare them to CMS architecture and capabilities
7. Review/revise performance goals/measures	Failure to align performance goals and measures to the strategic plan
8. Analyze process performance	Failure to identify the deficiencies in the change support systems affecting the systems area
9. Map the proposed process	Failure to capture detailed systems problems in the "gap analysis" and address the issues
10. Check and revise the proposed process	Failure to implement a representative pilot Failure to complete a capital project plan which would have required specific cost estimates surfacing technology limitations
11. Implement the new process	Failure to implement all four systems resulting in minimal benefit
12. Monitor and continuously improve	Not applicable

In group discussions with EIT members responsible for providing resources, it is apparent that they did not ensure that the necessary quantity or quality of human resources were available through the Information Services department to do the job. Other important business initiatives were added to the strategic plan (primarily a financial, short tem focused document) and PG&E became subordinate to them in terms of resource support. If the change methodology had required a link to the strategic plan necessary resources may have been provided. Such a link may also have pointed to the serious technical limitations of the company

before the project was too far along. Three of four required integrated systems were implemented providing minimal benefit. All four systems were required to realize the benefits.

Survey / Interview Discussion Results

As mentioned earlier, the interview and survey results from the EIT, PIT, and effected employees were favorable. There was one hundred percent participation from the PIT and EIT. There were approximately 1,400 respondents out of about 2000 effected employees. They were asked the following questions during the implementation before the project came to a temporary standstill. The highest rating was 5:

- How well does the process management methodology serve the needs of the organization? - 4.7/5
- How well do you understand the PG&E project? – 4.5/5
- How would you rate the importance the PG& E project to the success of the company? – 4.6/5
- How well does the redesign achieve the EIT expected outcomes? 5/5
- How would you rate the performance of the facilitator? 4.8/5
- How prepared are you for PG&E? 4.3/5
- What would you like to see done differently? – More training preparation

The survey results indicate that the organization believed the project and the methodology to be sound and saw the implementation problem as simply a systems limitation.

In follow up discussions with the EIT, as it became evident that only 3 of the 4 information subsystems could be effectively implemented without major systems architectural changes. The EIT perceived the complications as being beyond the control of the PIT or the methodology. Additionally they maintained their support for the Process Management methodology and decided to implement SAP, a large process focused integrated information system, that they believed would enhance the use of Process Management to facilitate change.

SUMMARY

Although the issues in the project may be beyond the control of the PIT, I believe most of the problems would have been anticipated by a more comprehensive change methodology. The Process Management methodology did not require the project to be included in the company's strategic plan. If a project is not incorporated into the strategic plan it must struggle for resources. Incorporating it would have raised the resource question earlier.

Additionally Process Management allowed the formation of a separate systems plan. Had Process Management included the four subsystems of the ICM methodology in an integrated plan, I believe many frustrating hours of PIT and implementation team time could have been avoided.

Chapter 5 provides the details of the ICM methodology. It is similar to Process Management except that it is revised to incorporate the missing subsystem – technology and is focused on the strategic fit. Additionally more details are included under the other subsystems (people, process, and organization). Helpful questions and tools and techniques are also included.

CHAPTER 5

ICM METHODOLOGY GUIDE

Introduction

No single step by step methodology will apply in all situations and they must be adapted to meet the specific needs of the organization and project. This chapter provides a generic checklist for synergistically managing the four change management subsystems (process, people, technology, and organization) within a practical methodology. It is an outline for an integrated project plan focused on successfully implementing change. Adapted to meet individual needs, it provides a structure for any change effort. The ICM methodology begins at the moment a team receives an assignment to accomplish a specific business change.

The ICM approach was conceived in 1991 as a change approach called "Statistical Methods for Quality Through Excellence (SMQTE)" and is an ongoing effort of continuous improvement. I developed the approach based on almost twenty years of serving in numerous change capacities ranging from a change agent to a developer and trainer for change tools and methodologies. Many of the fundamentals of ICM have their roots in total quality management, manufacturing process design and statistical process control. Over the years the other subsystems were defined and integrated with the process focus to produce the ICM methodology. It is implemented such that the combined effect of the subsystems is greater than the sum of the individual subsystems. I consider it a practical method based on the needs of practitioners. The ICM methodology outlined in this chapter is presented at a moderate level of detail. It basically serves as a checklist for an integrated project plan.

The next step in the development of this methodology is to provide more detailed guidance on how to perform the activities in each step providing specific quantitative and qualitative tools and techniques for each activity. The result will be a detailed methodology based on the needs of anyone implementing change. It should serve as a guideline to be flexibly

applied to meet the needs of the organization. It will focus on ensuring that any logical change activities were at least considered and a cognizant decision is made to omit or alter the activities with full knowledge of the potential consequences.

This chapter provides the general outline of the methodology as well as a more detailed definition of specific steps and activities. The pages detailing the ICM steps are meant to stand alone as a guide that can be duplicated in part or whole and used in training and communication as the practitioner progresses through the change effort. Additionally Table 5-1 serves as a useful handout in explaining and providing an overview of the objectives of the methodology.

The Integrated Change Management methodology has five phases and twelve steps. Each step has objectives that relate to some or all of the change management subsystems. Additionally, suggestions for helpful diagnostic questions and change-aiding tools and techniques are provided. The helpful questions are intended to stimulate thought about the aforementioned activities so they will be strongly correlated with the activities within each step. The tools and techniques serve to identify some of the resources and practices that can be applied to accomplish the activities within the step. Appendix A provides instructions on using the qualitative tools and techniques.

Table 5 – 1 Objectives of the ICM Steps

ICM Methodology	Objectives
Definition	
1. Define the mission	<p>Determine what is to be accomplished</p> <p>Provide clear consistent scope</p> <p>Provide the focus for project plans</p> <p>Ensure alignment with the strategic plan</p> <p>Confirm senior management support</p> <p>Establish a common understanding of the mission and desired outcomes</p>
2. Identify the critical activities	<p>Define what major process activities must be investigated to accomplish the mission</p> <p>Prepare employees and gain support for the process documentation efforts</p>
3. Map the actual process	<p>Document the work steps and support area requirements for the major activities that must be investigated to accomplish the mission</p> <p>Support a process vs. functional orientation</p> <p>Assist in defining and understanding the scope of the project</p> <p>Assess the ability of the current environment to support process change</p> <p>Communicate information about the project to all involved employees</p> <p>Ensure alignment with the Strategic Plan</p>
Collection	
4. Document customer/supplier expectations	<p>Determine what internal/external customers and suppliers expect from the process.</p> <p>Establish a mutual understanding of the mission, desired outcomes, and mutual benefits</p> <p>Confirm senior management support</p> <p>Ensure compliance with expectations of support areas to obtain required support</p>
5. Obtain other relevant input, data, and expectations	<p>Obtain additional information relevant to accomplishing the mission.</p> <p>Allow for maximum input from the work force</p>
6. Benchmark the process	<p>Determine what Best Demonstrated Practices (BDPs) are utilized by other organizations and integrate them</p> <p>Broaden the perspective to include information about external and internal Best Demonstrated Practices.</p> <p>Communicate the Benchmarking Plan and mutual benefits to candidate organizations.</p>

Table 5 – 1 Objectives of the ICM Steps (continued)

ICM Methodology	Objectives
Analysis	
7. Review/revise performance goals/measures	<p>Determine whether the current goals/measures are relevant and accurate and if additional goals/measures are required.</p> <p>Obtain consensus on the appropriate goals/measures to measure/monitor process performance.</p> <p>Assign appropriate process goals/measures to every employee with a significant impact on achieving them.</p> <p>Reconfirm alignment with the strategic goals</p>
8. Analyze process performance	Identify the Deficiencies in the current process and the Change Management subsystems
Redesign	
9. Map the proposed process	<p>Document the proposed revisions to the current processes that are required to accomplish the mission</p> <p>Communicate the redesigned process changes and their rationale to gain final input on effectiveness and feasibility before drafting the recommendation</p> <p>Communicate and resolve baseline assessment deficiencies</p> <p>Communicate and resolve support area deficiencies</p> <p>Define required organizational structure</p>
10. Check and revise the proposed process	<p>Check the revised work steps and support area preparedness through a representative limited application</p> <p>Assess accuracy of the business plan</p> <p>Assess technological capabilities</p>
Implementation	
11. Implement the new process	Achieve full implementation of the new process in all applicable business areas with minimal business disruption
12. Monitor and continuously improve	<p>Ensure the continued accomplishment of the mission.</p> <p>Communicate process performance so that adjustments can be made as needed to address changes in the business environment.</p>

INTEGRATED CHANGE MANAGEMENT (ICM) METHODOLOGY

Step 1. Define the Mission

Objectives:

- Determine what is to be accomplished
- Provide clear consistent scope
- Provide the focus for project plans
- Ensure alignment with the strategic plan
- Establish a common understanding of the mission and desired outcomes
- Confirm senior management support

Activities:

1. Review any applicable mandates, mission statements, or strategic plans.
2. Ensure alignment between individual and team expectations.
3. Perform a consensus exercise among the team designed to bring about agreement on the mission statement and desired outcomes.
4. Ensure significant projects are included in the strategic plan of the organization with necessary allocation of resources.
5. Develop an integrated ICM project with a timeline and assignments including the following change management subsystems in each step:
 - Processes – Any activity or group of activities encompassing inputs, value-adding activity and outputs to an internal or external customer. Business processes are service processes and all processes that support manufacturing processes (e.g., order fulfillment process, payroll process, and demand generation process). They consist of a group of logically related tasks that use the organization's resources to provide definitive results in support of the organizations objectives.
 - Technology – The information systems, control systems, software, machines and other tools used to optimize employee performance. It increases speed, quality and flexibility and creates new, different and effective process operations. Information technology facilitates the coordination of autonomous units linked together through information. Technology is critical to optimal implementation of many change initiatives.

- People – The capabilities, resources and motivations of employees that create a resilient organization capable of constant and positive organizational change in response to constantly changing environment. The primary enablers include compensation, communication, change readiness, and training and development.
 - Organization – The administrative and functional structure that allow people to achieve a common purpose via division of labor. Although organization alone is seldom a change driver it can be an enabler. After processes are optimized and the appropriate technology is employed the organization must be evaluated to ensure that it is supportive of the new processes.
6. Document major financial measures related to the processes covered by the project and specifically ensure alignment with the financial goals in the strategic plan and determine how the project will support these goals.
 7. Create and implement a preliminary communication plan including the:
 - Stakeholders -- any one who can affect or will be affected by changes
 - Process owner
 - Process Improvement Team/Executive Sponsors

Helpful Questions:

- What is the mission of the core team/steering committee?
- What is the task of this team? Why does the team exist? What is the unique purpose?
- What are the success criteria (to be successful what must be accomplished?)
- Who are the customers/suppliers?
- What are the customer/supplier expectations?
- What are the specific deliverables of this team (products/services)?
- Is the team required to provide a recommendation and/or to implement the change?
- What is the limit of the empowerment?
- What is the “root process” to which this effort is related?
- Are there specific performance measurements and goals associated with the change effort (10% reductions, etc.)?
- How much time is needed to accomplish the task

Helpful Tools:

- Communication Plan

- Strategic Plan / Financial Goals
- Consensus Building
- Why-Why Diagram

Step 2. Identify the Critical Activities

Objectives:

- Define what major process activities must be investigated to accomplish the mission
 - Activities of the specific process being evaluated and redesigned by the project
 - Activities of support areas needed to enable the implementation of the process
- Prepare employees and gain support for the process documentation efforts

Activities:

1. Post/distribute the mission and scope of the overall process being changed to employees.
2. Use a cross functional group to determine what activities in their respective functions' impact on accomplishing the mission statement.
3. Review the list to ensure that all activities are captured. All activities must relate to accomplishing the mission statement.
4. Continue to refine the list until only the portion of the process that is required to accomplish the mission is listed as a critical activity.
5. Understand activities of support areas needed to enable the implementation of the process including:
 - Information Services
 - Human Resources
 - Finance and Accounting
 - Strategic Planning
6. Review the team composition to ensure the team members represent all critical activity areas.
7. Communicate the mission, scope, expectations, and documentation procedures to all involved employees.

Helpful Questions:

- What must occur in each function to accomplish the mission?
- What functions will provide support to the process and what key services must they provide?
- What are the boundaries and key activities of the processes covered by the project?
- Are there additional activities that are not functionally defined that must be

accomplished?

- What must be communicated to the involved employees to prepare them to participate in process documentation efforts of Step 3?

Helpful Tools:

- Brainstorming
- Nominal Group Techniques
- Multivoting
- Cause and Effect Diagrams
- Bulletin Board Flow Chart
- Communication Plan
- Organizational Charts

Step 3. Map the Actual Process

Objectives:

- Document the work steps and support area requirements for the major activities that must be investigated to accomplish the mission
- Support a process vs. functional orientation
- Assist in defining and understanding the scope of the project
- Assess the ability of the current environment to support process change
- Communicate information about the project to all involved employees
- Ensure alignment with the Strategic Plan

Activities:

1. Determine the inputs and required outputs. (The output requirement may have been identified while defining the mission.)
2. Flow chart the process to graphically display the workflow required to accomplish the mission
3. Identify and document the organization that supports the process on the flow chart
4. Simultaneously collect any available information on cost, cycle time, goals/measures, issues and recommendations.
5. Perform a baseline assessment of the current status of the organization in following areas:
 - Training / Development
 - Communication
 - Measurement and Reward
 - Culture/Change Readiness
 - Technology
5. Perform a baseline assessment of the capabilities of support areas implement the change process including:
 - Information Services
 - Human Resources
 - Finance and Accounting
6. Confirm that the change fits the strategic plan and has high priority with top executives. Ensure financial goal links are in place by:
 - Documenting financial measures associated with the detailed process

- Mapping these financial measures back to the strategic financial goals to ensure alignment

Helpful Questions:

- Do the employees involved understand the process documentation procedures?
- What are the individual work steps required to accomplish the critical activities defined in Step 2?
- What are the problems with the process?
- What are the recommendations for improving the process?
- What are the cycle time, cost, and output measures of the process?
- Is there process alignment with a major process covered in the Strategic Plan and what is the priority level of the project within the plan?
- What are the financial measures associated with the detailed process?
- Are these financial measures aligned with a strategic financial goal?
- What organizational structure supports the current process?
- What is the current status of the technology that enables the process?

Helpful Tools:

- Process Flow Chart
- Communication Plan
- Strategic Plan
- Organizational Charts
- Staffing Data

Step 4. Document Customer/Supplier Expectations

Objectives:

- Determine what internal/external customers and suppliers expect from the process.
- Establish a mutual understanding of the mission, desired outcomes, and mutual benefits
- Confirm senior management support
- Ensure compliance with expectations of support areas to obtain required support

Activities:

Customer Related

1. Communicate the mission, desired outcomes, benefits, and gain customer support
2. Collect information on customer requirements in relation to accomplishing the mission.
3. Determine which requirements customers consider value-added (e.g., results in on time delivery, order fill) and why.
4. Collect information on customer perception of your performance against their requirements.
5. Determine how the customers measure performance.

Supplier Related

1. Communicate the mission, desired outcomes, benefits, and gain supplier support.
2. Review Supplier Specifications in relation to accomplishing the mission.
3. Revise specifications, if required.
4. Review supplier performance.
5. Determine any customer activities that would enhance supplier performance. These are supplier expectations.
6. Document expectations of internal support areas to ensure required support is available?

Helpful Questions:

- What are the customer/supplier expectations of the process?
- Is the project in compliance with expectations of support areas to ensure required support is available?
- What expectations are value-added?
- Are the supplier specifications current and designed to accomplish the mission?
- What type of relationship exists with key customers and suppliers (Adversarial, friendly, partners, ally)?

- How would a change in the relationship be beneficial?

Helpful Tools:

- Surveys
- Interviews
- Brainstorming
- Force Field Analysis
- Communication Plan

Step 5. Obtain Other Relevant Input, Data and Expectations

Objectives:

- Obtain additional information relevant to accomplishing the mission.
- Allow for maximum input from the work force to increase ownership and thereby facilitate implementation of the revised process.

Activities:

1. Publicize the activities of the team and solicit input from any interested parties. Sort through input for useable data that is applicable to the change effort.
2. Obtain copies of reports and files related to the process.
3. Periodically share status with management and solicit their input.
4. Continue to capture input, data and expectations from all available sources.
5. Perform “Process Walk Thrus” (team visit to the actual work areas to observe process flows, and obtain direct input from employees performing the tasks).

Helpful Questions:

- Is there any other source of information about this process?
- Have all systems been reviewed to capture process data?
- Is there a method for employees to provide input and receive status?

Helpful Tools:

- Brainstorming
- Interviews
- Surveys
- Communication Plan
- Force Field Analysis
- Strategic Plan

Step 6. Benchmark Process

Objectives:

- Determine what Best Demonstrated Practices (BDPs) are utilized by other organizations to accomplish the mission.
- Integrate useful process BDPs
- Broaden the perspective of the process team and affected employees to include information about external and internal Best Demonstrated Practices.
- Communicate the Benchmarking Plan and mutual benefits to candidate organizations.

Activities:

- See the benchmarking check lists in the appendix

Helpful Questions:

- What is the best-demonstrated practice?
- What entity best demonstrates this practice?
- What process produces this result?
- Can this process be incorporated into our process?
- What are the technological requirements?
- To whom should benchmarking results be communicated?
- How did the benchmarking candidate manage the change subsystems?

Helpful Tools:

- Communication Plan
- Benchmarking Checklists
- Meeting management guides

Step 7. Review/Revise Performance Goals/ Measures

Objectives:

- Determine whether the current goals/measures are relevant and accurate and if additional goals/measures are required.
- Obtain consensus on the appropriate goals/measures to measure/monitor process performance.
- Assign appropriate process goals/measures to every employee with a significant impact on achieving them.
- Reconfirm alignment with the strategic goals

Activities:

1. List current internal performance measurements and financial goals.
2. List why these measurements / goals are important.
3. Document how the measurements are calculated internally and by external customers/suppliers.
4. List all other measurements defined by external customers/suppliers to assess the performance of the process.
5. Document how these customer/supplier measurements are calculated.
6. Document the purpose of these customer/supplier measurements and financial goals.
7. Determine if any additional measurements are required to determine process performance and accomplish the mission.
8. Develop consistent measurement calculations.
9. Obtain agreement from the stakeholders that these goals accurately reflect process performance, alignment with strategic goals and will be shared by all responsible employees.
10. Complete baseline assessments
 - Training/Development
 - Staffing
 - Communication
 - Measurement and Reward
 - Culture/Change Readiness
11. Complete assessment of support area preparedness and comply with their expectations to

ensure required support is available

Helpful Questions:

- What are the applicable measurements?
- What are the internal and external customers/suppliers measurements?
- Why are these measurements relevant? Is there a better way to measure performance?
- How are these measurements calculated?
- Are the financial goals aligned with strategic financial goals
- What process area should share these goals/measurements?
- What is the status of the current technological capabilities?

Helpful Tools:

- Why-Why Diagram
- Surveys
- Interviews
- Communication Plan

Step 8. Analyze Process Performance (Effectiveness, Efficiency, and Flexibility)

Objectives:

- Identify the Deficiencies in the current process and the Change Management subsystems that impact:
 - Strategic fit
 - Meeting internal/external customer expectations
 - Utilizing best demonstrated practices
 - Meeting financial goals / performance measurement requirements
 - Addressing any other identified issues
 - Accomplishing the mission
 - Technology
 - Ensuring a smooth transition from the current process with minimal workforce disruption

Activities:

1. Determine “process deficiencies” (i.e., actual process performance versus the requirements identified as a result of steps 4-7) in the following areas:
 - Strategic fit
 - Customer/Supplier expectations
 - Best demonstrated practices
 - Goals/Measures
 - Other relevant data
 - Mission accomplishment
2. Document deficiencies surfaced in the baseline assessments
3. Document deficiencies in support area preparedness
4. Determine the “root cause” of the deficiencies
5. Communicate and gain agreement on current performance status and the root causes of deficiencies
6. Begin developing a project plan for implementing this specific effort using standard project planning procedures covering all the change management subsystems
7. Begin the basic design / acquisition planning for any new technological requirements

Helpful Questions:

- Does the current process meet internal and external customer/supplier expectations based upon strategic fit, goals and measurements?
- What are the root causes of any deficiencies that prevent the current process from accomplishing the mission and achieving the goals?
- What is the status of the preparedness based upon the results of the baseline assessments?
- What appear to be the new technological requirements and how will these requirements be met?

Helpful Tools:

- Why-Why Diagram
- Project Management software
- Nominal Group Technique
- Communication Worksheet
- Statistical or Spreadsheet Software
 - Pareto Charts
 - Histograms
 - Control Charts
 - Run Charts
 - Scatter Diagrams

Step 9. Map the Redesigned Process

Objectives:

- Document the proposed revisions to the current processes that are required to accomplish the mission
- Communicate the redesigned process changes and their rationale to gain final input on effectiveness and feasibility before drafting the recommendation
- Communicate and resolve baseline assessment deficiencies
- Communicate and resolve support area deficiencies
- Define required organizational structure

Activities:

1. Review the current process mapped in step 3 -- “Map the Actual Process”.
2. Incorporate the process revisions that address the root cause of the deficiencies detailed in step 8 -- “Analyze Process Performance”.
3. Map the redesigned process using the flowcharting tool in the appendix
4. Review the flowchart to ensure it addresses strategic goals, critical internal and external customer/supplier requirements and effectively/efficiently accomplishes the mission.
5. Define organizational structure changes required to optimally enable the redesigned process.
6. Develop a new Standard Operating Procedure.
7. Address deficiencies in:
 - Training / Development
 - Communication
 - Measurement and Reward
 - Culture/Change Readiness
8. Complete a project plan using standard project planning procedures covering all the change management subsystems
9. Develop a Business Plan detailing the savings, benefits and costs associated with the redesigned process
10. Communicate the redesigned process and business case revisions to the appropriate effected employees to solicit input, assess feasibility, and assess the potential organizational response.

11. Complete technological designs and begin development and/or acquisition of required technology.

Helpful Questions:

- How must the current flowchart change to incorporate the required revisions?
- Have the deficiencies identified in Step 8 been addressed?
- Is this new process feasible?
- If not feasible, how can it be adjusted without compromising mission accomplishments?
- Does the redesigned process accomplish the mission?
- What are the costs versus the benefits of the proposed process, people and system changes that are required to accomplish the mission?
- What is the probable organizational response to these changes?
- What can be done to minimize any negative response?

Helpful Tools:

- How-How Diagram
- Project Management Software
- Flowchart
- Brainstorming/Multivoting/Nominal Group Technique
- Consensus Building
- Communication Plan

Step 10. Check and Revise the Redesigned Process

Objectives:

- Check the revised work steps and support area preparedness through a representative limited application
- Assess accuracy of the business plan
- Assess technological capabilities

Activities:

1. Develop a pilot plan or limited application
2. Communicate the plans in terms of the objective, activities, expectations and next steps.
3. Finalize roles, responsibilities, timelines, goals, and measurements.
4. Implement Pilot Plan.
5. Collect new data on the outcome or output.
6. Compare “before” and “after” data to demonstrate whether the improvement matches the desired outcome and the results of the Gap Analysis for changes that have been addressed.
7. Discuss problems and define resolution and development contingency plans for the potential process exceptions.
8. If outcome is acceptable, complete the Business Case and go to step 11 “Implement the Proposed Process”.
9. If outcome is unacceptable, ensure the implementation process was correctly performed. If it was correctly performed, alter the required subsystem to achieve acceptability.

Helpful Questions:

- What was the organizational response?
- Does the business case achieve financial hurdle rates for the project?
- Does the redesigned process meet strategic requirements?
- How do the “before” and “after” results compare?
- Does the redesign accomplish the required mission, goals/measurements?
- Does the technology support the redesign?
- Is further investigation of another solution required?

Helpful Tools:

- Why-Why Diagram

- How-How Diagram
- Project Plan
- Simulation
- Cause and Effect Diagram
- Implementation Worksheet
- Nominal Group Technique
- Communication Plan
- Statistical or Spreadsheet Software
 - Check Sheets
 - Histograms
 - Run Charts
 - Control Charts

Step 11. Implement the New Process

Objectives:

- Achieve full implementation of the new process in all applicable business areas with minimal business disruption

Activities:

1. Complete and communicate the Implementation Plan to stakeholders:
 - List activities required to implement the process revisions
 - List technology implementation plan
 - List budgetary requirements
 - Determine timeline for completion of the individual activities and full implementation
 - Assign responsibilities for the activity accomplishment
 - Establish a tracking and reporting process
 - Continue to foster senior management support
2. Develop Contingency plans based on historical or potential problem areas
3. Perform periodic status reviews until full implementation is achieved
4. Upgrade the final process flow
5. Ensure Standard Operating Procedures are complete
6. Communicate the status of the implementation often and openly

Helpful Questions:

- Who is responsible for the implementation activities?
- Is the implementation progressing within the required timeframe?
- Is the implementation staying within the budget provided in the Business Case?
- Are customer needs and business objectives continuing to be satisfied?
- What is the impact of the change effort on the work force?
- How are the support areas performing to enable the change?
- Are technology requirements being delivered?

Helpful Tools:

- How-How Diagram
- Project Management Software
- Communication Plan

Step 12. Monitor and Continuously Improve

Objectives:

- Ensure the continued accomplishment of the mission.
- Communicate process performance so that adjustments can be made as needed to address changes in the business environment.

Activities:

1. Use the defined goals/measurements and develop a monitoring plan.
2. Communicate the plan and ongoing results to stakeholders.
3. Document any ongoing process revisions.
4. Continuously improve the process to ensure that customer requirements and business objectives are met.

Helpful Questions:

- Does the process continue to achieve the mission?
- Has the mission changed?
- Have customer/supplier expectations changed?
- Are the performance measurements still relevant?
- What are others doing?
- Do support areas continue to enable the process?

Helpful Tools:

- Interviews/Surveys
- Communication Plan

CHAPTER 6

CONCLUSIONS

Summary of Key Concepts

Change is happening faster than it can be tracked. It threatens to shake the foundations of the most secure American businesses. No industry will escape. No one is safe (Kriegel and Patler, 1991). The current global business environment is characterized by unprecedented competitive pressures and sophisticated customers that demand speedy solutions (Curran, Keller and Ladd , 1998). This turbulent environment requires that organizations manage change or they will be managed by the change in a reactive and unproductive mode.

The objective of my thesis was to provide a practical methodology to assist organizations in managing change (ICM). ICM integrates all subsystems of change management to accomplish business objectives. These subsystems cannot be managed as separate project subteams with separate project plans but must be part of an integrated comprehensive effort that has its roots in the strategic plan of the organization. I believe the ICM methodology provides an approach that accomplishes this objective.

ICM contains several critical concepts that are central to managing any organization. These concepts include:

1. Leadership – leaders must constantly challenge themselves, systems, and others to act (Frigon and Jackson, 1996). Failure to anticipate challenges and lead the organization to conquer them can be a fatal error in this era of change.
2. Strategic planning – the overall success of ICM will be no better than the strategic plan. If the strategic plan is merely a financial document without key initiatives that will produce the financial goals, it has minimal use in guiding the organization. A business must be viewed as

an integrated whole and effective financial management is possible only within the context of a company's broader operating characteristics and strategies (Higgins, 1992).

3. Total Quality Management – the total quality framework includes:
 - Management leadership, personal involvement and visibility
 - Plan for quality, continuous improvement
 - Focus on prevention rather than inspection or correction
 - Encourage and reward participation, teamwork and innovation
 - Provide education and training
 - Measure satisfaction and translate to quality improvement
 - Extend the concept to suppliers, customers and community
 - Ensure the productive use of resources

These principles are fundamental to ICM.

4. Project Management – is a discipline that cultivates the expertise to plan, monitor, track and manage people, time, budget, and quality of work on projects (Knutson and Bitz, 1991). This discipline is critical to managing change since many of the efforts are conducted as projects.
5. Process Management – the key to error free performance lies in the business and manufacturing processes of an organization (Harrington, 1991). Processes that run across functions satisfy customers and deliver business results. The persistent problems that face companies are process problems and, in order to solve them, organizations must make processes the center of their attention. Business process reengineering and redesign are practices used to produce change within a process-focused organization.
6. Change Management – the traditional definition refers to actions related to the people subsystem. It is the process of aligning people, resources and culture with a shift in organizational direction (Carr, Hard, and Trahan, 1994). Although processes provide the medium for change, people are the change implementers. If the people needs are not addressed during a transition, the failure rates increase significantly (Hammer, 1995). These

needs include training and development; rewards and recognition/compensation; and communication.

7. Performance Measurement – true integration requires a complete shift in traditional management thinking, including a reevaluation of the organization’s goals, how decisions are made, why actions are taken, and how organizational success is measured (Lockamy and Cox, 1994). Organizations not only measure business performance but also employee and team performance to reward and provide incentives for those who have performed. Managers who explicitly understand the performance expected of them, and whose performance is regularly evaluated, will focus their activities and accomplish their objectives (Bruns, 1992). This is a key to defining and implementing required changes in an organization.
8. Benchmarking – is the search for industry best practices that lead to superior performance (Camp, 1989). It requires the organization to look to other sources to identify opportunities to gain competitive advantage. It allows the organization to learn from the efforts of others and use this information to produce faster more effective change.
9. Technology - the benefit of new systems holistically implemented with process changes and people readiness is work consistency across all areas of the organization. This integration of technology, people, and processes provides the following benefits (IBM, 1997).
 - Addresses common customer requirements
 - Employs best practices
 - Improves operating efficiency and effectiveness
 - Reduces redundancies
 - Improves access, accuracy, and timeliness of information and reporting
 - Leverages human resources
 - Controls information technology costs
 - Facilitates acquisitions

Technology is a key enabler to effective and efficient management. As such, it is critical to managing change.

10. **Organizational Structure** – is critical to the successful implementation of the strategies of an organization. It must provide an alignment between the environment, organizational resource, culture and strategy). It must facilitate the use of necessary resources to execute assigned tasks (Hax, 1996). Reorganization or restructuring alone seldom produces significant sustainable advantage but integrating it with the other concepts and ensuring that the organization enables efficiency, effectiveness, and flexibility in achieving business objectives is important to implementing and sustaining change.

ICM includes components of all the concepts outlined in this chapter. The better the practitioner understands these individual concepts and how to integrate them, the more successful the change effort will be. The change subsystems – process, people, technology, and organization - are intertwined with these concepts to produce the ICM.

Future Implications

As this century comes to an end managers are facing challenges of enormous dimensions. Globalization and technology are demanding a new form of leadership. It is critical that executives feel comfortable with managing changes in a highly dynamic environment and have the capacity to provide a sense of strategic direction to guide their organizations constructively into the future.

Different authors have proposed models that depict the consequences of not effectively managing change. They include:

- SOURCE model (Walt, 1995)
- Dysfunction model (GMA, 1995)
- Losses Model (GMA, 1995)

A brief review of these models followed by the ICM model provides insight into the implications of not successfully managing change.

The SOURCE model states that the key enablers to successful change are strategy/vision; ownership; understanding; rewards/incentives; capabilities (skills and resources); and execution. The model presents definite consequences for omission of any of these enablers.

Table 6-1 SOURCE Model

S O U R C E

STRATEGY & VISION	OWNERSHIP	UNDER- STANDING	REWARDS INCENTIVES	CAPABILITIES (SKILLS & RESOURCES)	EXECUTION	SUCCESSFUL CHANGE
	OWNERSHIP	UNDER- STANDING	REWARDS INCENTIVES	CAPABILITIES (SKILLS & RESOURCES)	EXECUTION	CONFUSION
STRATEGY & VISION		UNDER- STANDING	REWARDS INCENTIVES	CAPABILITIES (SKILLS & RESOURCES)	EXECUTION	RESISTANCE
STRATEGY & VISION	OWNERSHIP		REWARDS INCENTIVES	CAPABILITIES (SKILLS & RESOURCES)	EXECUTION	ANXIETY
STRATEGY & VISION	OWNERSHIP	UNDER- STANDING		CAPABILITIES (SKILLS & RESOURCES)	EXECUTION	GRADUAL OR NO CHANGE
STRATEGY & VISION	OWNERSHIP	UNDER- STANDING	REWARDS INCENTIVES		EXECUTION	FRUSTRATION
STRATEGY & VISION	OWNERSHIP	UNDER- STANDING	REWARDS INCENTIVES	CAPABILITIES (SKILLS & RESOURCES)		FALSE STARTS

The Dysfunction Model refers to the feelings or activities that divert people from achieving productivity and quality goals required to accomplish objectives. It states that the more effective the organization is in managing change, the fewer dysfunction complications will arise and the organization will be more successful.

Table 6-2 Dysfunction Outcomes

ORGANIZATIONAL REACTION AND RESULTS

CHANGE MANAGEMENT CAPABILITY	High	Response	Outcome
		People initiate, absorb, and integrate change	Comprehensive long-term results
	Low	People resist / sabotage the change	No implementation or superficial / short term results

The “Losses Model” looks at the tangible and intangible costs of change. It focuses on what people give up in change programs. These intangible losses must also be anticipated and addressed. These losses include:

- Power – groups losing power typically resist such shifts because the implications on influence, careers and status in the organization.
- Competence – change often requires new competencies and makes old ones obsolete. Fear of no longer possessing the competencies required for success is threatening. It reduces the sense of control over one’s identity
- Relationships – security and comfort in a job comes from a network of dependable relationships. Change often requires developing new relationships and makes obsolete the old ones.
- Rewards – most major changes threaten the tangible or intangible rewards of some individuals. Changes involving reassignment, job titles, prerequisites, pay grade, or compensation, typically evoke strong resistance.
- Identity – Changes in the workplace often translate into a crisis in personal identity. If work is central to the concept of self, loss of self-esteem may occur.

Rewards and competence are tangible items that many organizations possess policies and procedures to address. The other losses are less concrete. If the individual is not satisfied with the organizational competency and reward policies there will probably be a negative response. This is an area where leadership is critical. There is no guaranteed prescription for addressing these losses. The organization must anticipate them and address them in a manner that fits its policies and culture and still enables change.

The fourth model is my ICM model. Table 6-3 displays the major components of ICM and the consequences for omitting any one.

Table 6-3 Integrated Change Management

					Consequences
Strategy / Financial Goals	Process	Technology	People	Organization	Success Optimal achievement of business objectives
	Process	Technology	People	Organization	Confusion Change without focus Activity with minimal results Inefficient/ineffective use of resources
Strategy / Financial Goals		Technology	People	Organization	Reaction Lack of business understanding People, policy and procedures driven by technology Reduced creativity
Strategy / Financial Goals	Process		People	Organization	Inefficiency/Ineffectiveness Lack of proper tools to implement change Inefficient/ineffective use of human resources
Strategy / Financial Goals	Process	Technology		Organization	Incapability Lack of skills Lack of ownership Lack of optimal staffing Misalignment of measurement /reward Disruptive behavior
Strategy / Financial Goals	Process	Technology	People		Obstacle Inefficiency Misalignment of labor

As the table displays, failure to incorporate a single subsystem has significant consequences. Ignoring multiple subsystems is fatal to the change effort.

In conclusion change is inevitable. Today's solutions will be tomorrow's problems. These solutions are becoming more sophisticated and less durable. The speed of change means that being reactive is not satisfactory. There is less time to react and success requires anticipation and proactive measures. Sustainable success lies in the capability to manage change efficiently, effectively and flexibly.

APPENDIX A – TOOLS AND TECHNIQUES

TABLE OF CONTENTS

	Page
1. Buletin Board Flow Chart	85
2. Process Flow Chart	87
3. Brainstorming	90
4. Multivoting	92
5. Nominal Group Technique	93
6. Consensus	94
7. Force Field Analysis	95
8. Why – Why Diagram	97
9. How – How Diagram	98
10. Cause and Effect Diagram	99
11. Benchmarking Checklists	102

Bulletin Board Flow Charts

What is it?

Bulletin board flow charts graphically display the “Big Picture” of a process. Bulletin board flow charts assist in identifying critical activities that must be addressed to accomplish the mission. The flow chart is useful in organizing the overall process and determining the critical activities on which to focus.

What does it look like?

(See next page)

How do I use it?

1. Horizontally list the critical activities in order of occurrence and enclose them in boxes.
2. Vertically list the major activities under each box.
3. These lists are not detailed flow descriptions. If the immediate object is improving process effectiveness and efficiency, use the basic process flow chart.

Why is it useful?

1. Graphically displaying the “Big Picture” of a process.
2. Determining what critical activities affect accomplishing the mission. (Critical activities are the major functional units of operation.)
3. Ensuring proper team membership to address the critical activities.

Bulletin Board Flow Chart

Identify Work Requirement

- Manager identifies additional work requirements

- Manager develops position description

- Manager submits manpower requisition to functional management for approval/ disapproval

Manpower Requisition

- Manpower requisition is approved by functional management

- Manpower requisition is submitted to V.P. of Human Resources for approval/ disapproval

- Assuming approval, requisition submitted to division President for approval/ disapproval

Position Communication

- Position description and weighted job questionnaire are submitted to compensation

- Position is rated

- Position is posted

Employee Selection

- Candidates contact Human Resources

- Human Resources screens candidates

- Interviewes scheduled

- Use targeted selection process

- Candidate selected

Communication

- Notify all candidates of the decision

- Provide feedback to candidates

Process Flow Diagrams

What is it?

Flowcharting is defined as a method of pictorially describing an existing process or a proposed new process by using symbols, lines, and words to display the activities and sequence in the process.

Flowcharts graphically represent the activities that make up a process in much the same way that a map represents a particular area: it illustrates how the different elements fit together.

The construction of a flowchart helps to discipline our way of thinking. Comparing a flowchart to the actual process activities will highlight the areas in which rules or policies are unclear or are even being violated.

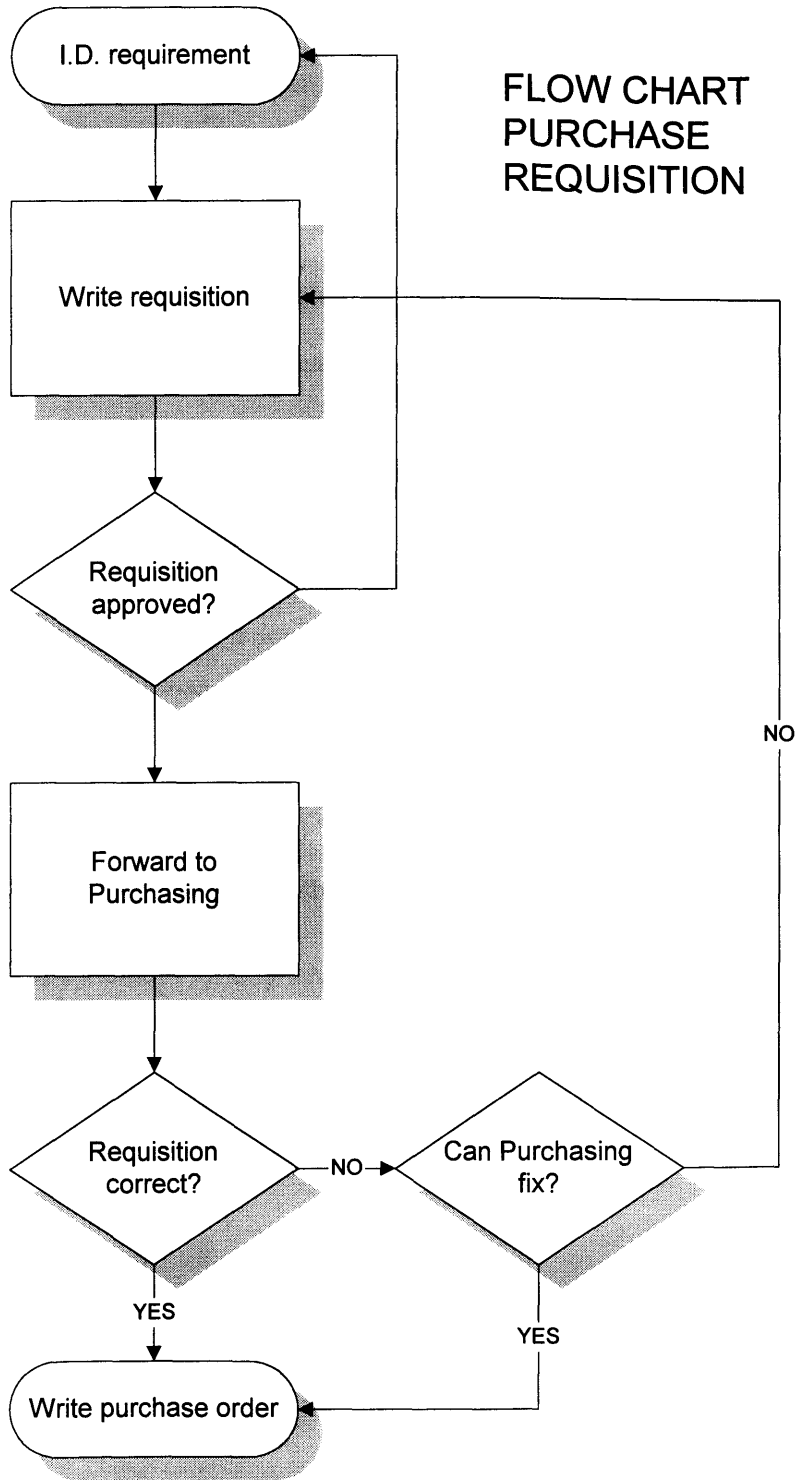
What are the symbols in flowcharting?

The basic flow chart visual vocabulary is as follows:

- A rectangle stands for an activity within a process
- A circle is the start or end of a process
- ◇ A diamond indicates a decision. Two arrows leave a diamond. One is for a “yes” decision, and one is for a “no” decision.
- ↵ Arrows and lines indicate what activity is done next.

What does it look like?

The following example provides a flow chart of a purchase requisition process:



How do I use it?

1. Start with the first step.
2. Determine the steps required to carry out this action.
3. Use the flow chart visual vocabulary to represent these steps in a flow chart.

Why is it useful?

Analyzing a process. By studying a process flow diagram, we can see if there are better ways to make a part or product. When analyzing a process flow diagram, we should look at each step in detail and decide if it can be simplified or clarified to make the overall process more efficient.

The following questions can be helpful when analyzing a step in a process.

- What is happening?
- Why is it happening?
- Where is it happening?
- Why is it happening there?
- When was it done?
- Why was it done then?
- Who did it?
- Why was it done by that particular person?
- How was it done?
- Why was it done that way?

If opportunities for improvement are identified, a new process flow diagram that reflects these changes should be made. Note that process flow diagrams show not only the steps of a process, but also how the steps relate to each other. When a step is changed, the effects of the change on other steps can easily be seen.

Brainstorming

What is it?

Brainstorming is a team activity in which all members focus on a specific topic and try to come up with as many ideas, no matter how crazy or irrelevant they may seem. No judging of ideas is allowed during brainstorming.

The technique of brainstorming has many uses in quality and productivity improvement. It helps identify problems, pinpoint reasons for the problems, develop potential improvements, and plan improvement actions. Simply put, brainstorming is a technique for generating a large quantity of ideas in a group setting.

How do I use it?

1. Decide on a topic and then review it with the team members to ensure that it is understood.
2. Review the rules for brainstorming:
 - Freewheeling is encouraged.
 - No discussion is allowed during the brainstorm.
 - No judgments or criticisms are allowed
 - Hitchhike on each other's ideas
3. Give everyone a minute or two in silence to think about ideas.
4. There are several techniques for carrying out brainstorming. Some are highly structured (each participant takes a turn contributing an idea in sequence) while others are unstructured, and participants simply call out ideas as they occur. Brainstorming can be used to warm up a team, or to generate a volume of ideas to work on.

Typical Steps in Brainstorming

1. Display the objective to assist in maintaining focus
2. Idea generation
 - Freewheeling is encouraged.
 - No discussion is allowed during the brainstorm except for clarification.
 - No judgments or criticisms are allowed
 - Hitchhike on each other's ideas
- Short phrases
3. Idea categorizing
 - Common themes are grouped together
4. Prioritization of categories
 - Rank categories based on importance (for example, rank them from 1 to 5 with 5 being the most important. Add the rankings. The one with the highest number has the highest priority.
5. Category development

- Expand on ideas
- Be sure they are easily understood
- Document results

Multivoting

What is it?

Multivoting is a process use to reduce a large volume of items from a list to a more manageable list.

How do I use it?

1. Ensure the list of items is visible to and understood by all participants.
2. Ask each team member to reduce the list by 50% by identifying the items he/she sees as a priority.
3. Compile the summary of the team members' decisions and indicate what items remain on the list.
4. Continue steps two and three until a manageable list of items has been reached.
5. If a tie results before reducing the list to a manageable number, team members should rank the remaining items and total the rankings

Why is it useful?

Multivoting is useful in quickly reducing a large list of items to a workable size. It can be useful after an activity like brainstorming.

Nominal Group Technique

What is it?

Nominal group technique is a structured process for generating and prioritizing ideas.

How do I use it?

1. Decide on a topic and then review it with the team members to ensure it is understood.
2. Explain how the nominal group technique process works.
3. Give everyone a minute or two in silence to think about ideas.
4. Ask each member to volunteer one idea in turn and write the idea on a flip chart as it is stated.
5. Continue getting one idea from each person in turn until all ideas are on the list. No discussion, except for clarification.
6. Have the originator of an idea clarify and respond to any questions. If people who originate ideas think that their ideas are the same, these ideas can be combined
7. Hand out five 3" x 5" cards to each team member. Determine how many of the most important ideas should be listed. Ask them to write one idea on each card.
8. Ask them to rank their ideas, assigning points to the most important idea, down to the least important in descending order.
9. Collect the cards and calculate the team ranking for each idea. Write the figure next to the idea. Highlight the top five ideas.
10. Discuss the results and indicate that these may not be any individual's priorities, they are the team's priorities.

Why is it useful?

Nominal group technique allows for ideas to be prioritized without pressure on individual members to go along with the other members. It is therefore particularly effective when some team members are new to a team, when highly controversial issues are being addressed or when a team is stuck in disagreement.

Consensus Building

What is it?

Consensus is a process of team decision making that finds an outcome that all members can support and no member opposes. To support a decision means the team member is prepared to champion and implement the decision in their area.

How do I use it?

1. Since all decisions do not require consensus, the team should agree on when to operate in this mode. Decisions that have a major impact on the direction of the project or conduct of the team (what problem to study, what ground rules to establish) should belong to the whole team and be supported by consensus.
2. When a team member indicates that he/she cannot support the team, determine what the person's reasons are and ask them what would be necessary to get their support. Discussion in the team should then focus on how things could change to resolve this gap. Team members should try to understand the dissenting member's concerns and the team works actively to resolve the issue by problem solving, listening, open-mindedness, creative thinking and conflict resolution. Arguing the merits of a position is not part of the consensus process.
3. It can be helpful to point out that consensus means that the decision may not be any one person's ideal decision, but the decision is in the best interest of the total team.

Why is it useful?

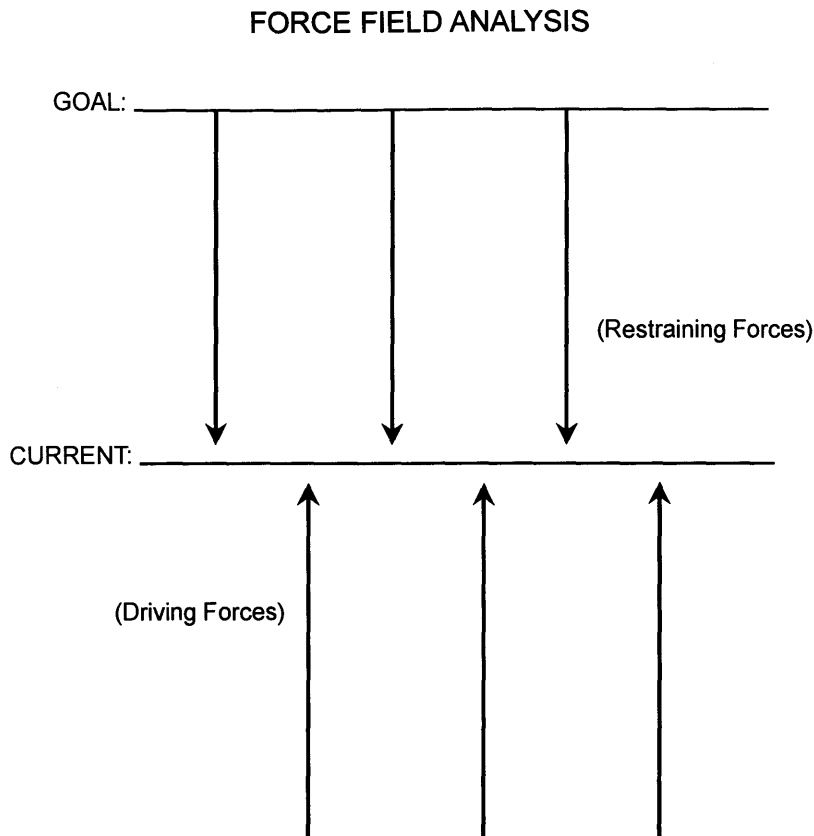
Consensus, although time consuming, usually results in greater ownership of a decision by all team members and thereby greater commitment to implementation of any action that results from the decision.

Force Field Analysis

What is it?

Force Field analysis allows the problem, the goal, and the forces influencing progress towards the goal, to be graphically displayed.

What does it look like?



How do I use it?

1. Decide what the goal is. Be specific.
2. Draw a solid line across the top
3. Define the current situation.
4. Draw a line across the middle of the chart to represent the current situation.
5. List forces that are moving you toward your goal (driving) write these with arrows pointing up toward the present situation.
6. List forces that are keeping you from achieving the goal (restraining) with arrows pointing down from the goal to the current situation.
7. Decide which forces, if any, are substantially more powerful than others and give them bigger arrows.

8. Decide on an action plan to:

- Reduce restraining forces
- Increase driving forces. "If we do this, what will be the response?"
- Do a combination of both.

Why is it useful?

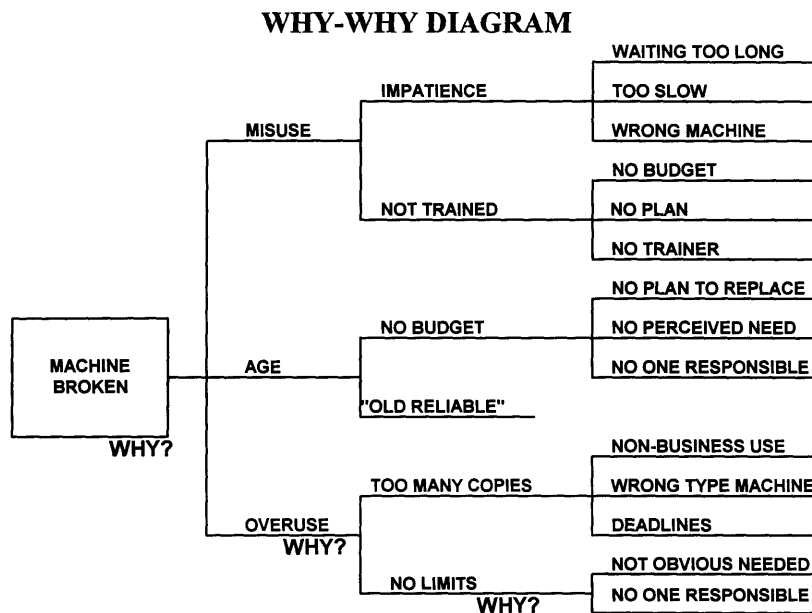
A force field analysis helps to display the larger picture of forces that impact on a problem. It can also help provide clarity on what should be the immediate focus (priority).

Why-Why Diagram

What is it?

Similar to a cause and effect diagram, a why-why diagram is a pictorial display of the reasons why a problem exists.

The following example illustrates the use of a why-why diagram in determining the reasons a machine is broken:



How do I use it?

1. Gain agreement on what problem will be analyzed and write it in a box to the left of a page.
2. By asking the question "Why does this situation exist?", determine what causes contribute to the outcome and write them on lines to the right of the problem statement.
3. Again ask the question "Why does this situation exist?", for each cause and write them on lines to the right of the list of causes.
4. Repeat step three if necessary to determine the root cause.

Why is it useful?

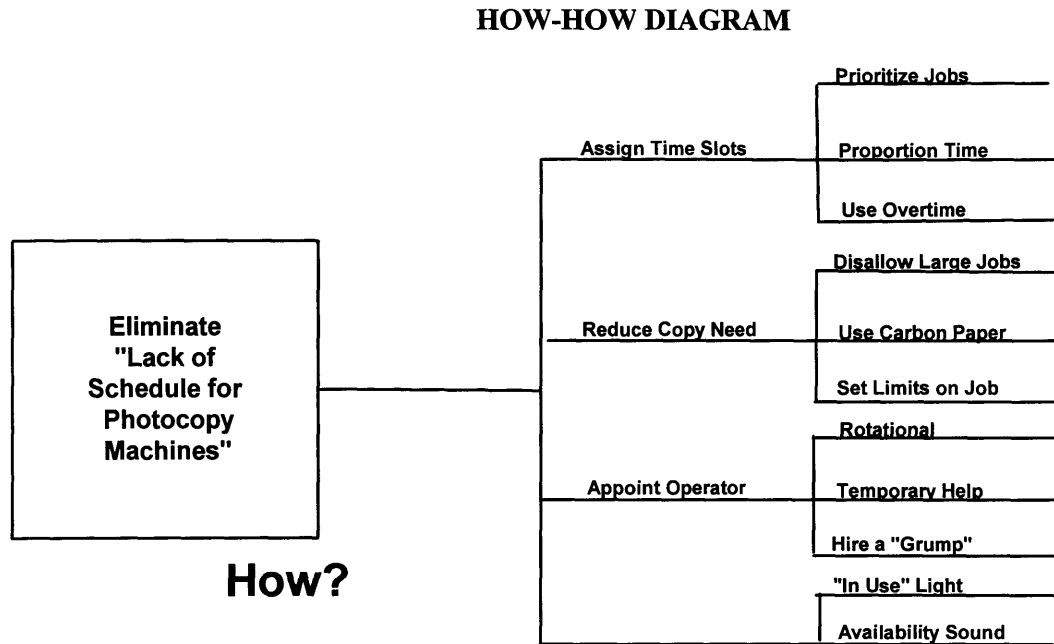
By continually breaking down the list of causes into smaller parts, root causes may be more clearly identified for potential analysis and action. A Pareto analysis can be a worthwhile tool in prioritizing the root causes.

How-How Diagram

What is it?

A how-how diagram is a visual presentation of specific actions that can be taken to eliminate root causes. The how-how diagram below illustrates the problem encountered due to the lack of scheduling for photocopying.

What does it look like?



How do I use it?

1. Clearly define the root cause of a problem and write it on the left of a sheet. (A why-why diagram may help.)
2. Identify ideas on how the cause could be addressed to eliminate the problem. (Brainstorming, multivoting, or nominal group technique may help.)
3. For each idea, identify how the idea could be implemented.
4. Decide on idea(s) to implement.

Why is it useful?

It can help identify the best ways to eliminate root causes and provides a good visual Presentation of how different ideas and more than one solution may be needed to fully Resolve the root cause.

Cause-and-Effect Diagrams

What is it?

Tracing a problem to its causes can be a complicated process. Sometimes, we do not know where to begin looking.

Cause-and-effect analysis is a method that groups/teams can use to help identify the possible causes of problems. In addition, it can help employees identify the factors that contribute to a quality characteristic. (A quality characteristic is something in the workplace that we want to describe in terms of quality or the lack of quality.)

Cause-and-effect diagrams illustrate the relationship of potential causes (reasons that a situation occurs), to an existing effect (the situation being analyzed). Input typically comes from brainstorming sessions. The cause and effect diagram is sometimes called the fishbone diagram because of its shape, or the Ishikawa diagram, named after the Japanese quality expert who popularized it. The causes of the effect being examined are clustered together along a specific branch of the diagram (category of causes).

There are at least three general ways of categorizing the causes:

- Environment, machines, materials, measurements, methods, people
- Man, methods, machines, materials
- Equipment, policies, procedures, people

These categories offer a general starting point for developing a cause and effect diagram.

When using cause and effect diagrams, use short, direct phrases in order not to confuse the diagram. The detail of longer phrases and descriptions is better suited to working papers that support the diagram.

Steps in Cause-And-Effect Analysis

- Define the effect
- Identify the major categories
- Generate ideas
- Evaluate ideas
- Vote for the most likely causes
- Rank the causes
- Verify the results
- Recommend solutions

Step 1

Define the effect. Sometimes the effect is a problem, like damaged terminations. Other times, it's something you want to describe in terms of quality, like effective use of SPC on-the-job. The effect is always boxed at the far right side of the diagram with a horizontal line running to it.

Step 2

Identify the major categories. To organize ideas, decide on five major categories, or branches. The categories used most often are: manpower, materials, methods, machines and environment.

Step 3

Generate ideas. Brainstorming is a way for a group to generate many ideas in a short period of time. Each person gives one idea per turn, and no judging is allowed. Brainstorming ends when all ideas have been given.

Step 4

Evaluate ideas. Evaluation can involve clarifying ideas, combining ideas that are closely related, and removing ideas that do not belong. The evaluation is not aimed at those who made the suggestion because the ideas now belong to the group.

Step 5

Vote for the most likely causes. The group votes on all of the ideas on the cause-and-effect diagrams. Each person can cast a vote for as many ideas as he or she wants. The purpose of voting is to narrow down the list to those ideas that the group thinks are the most likely causes.

Step 6

Rank the causes. The ideas that get the most votes are ranked in order of importance. Having the group vote again does this. This time, however, each person can vote for only one idea. After the voting, the ideas are ranked by the number of votes received. The idea that got the most votes is listed first. Often, a group will do a Pareto chart to show the results.

Step 7

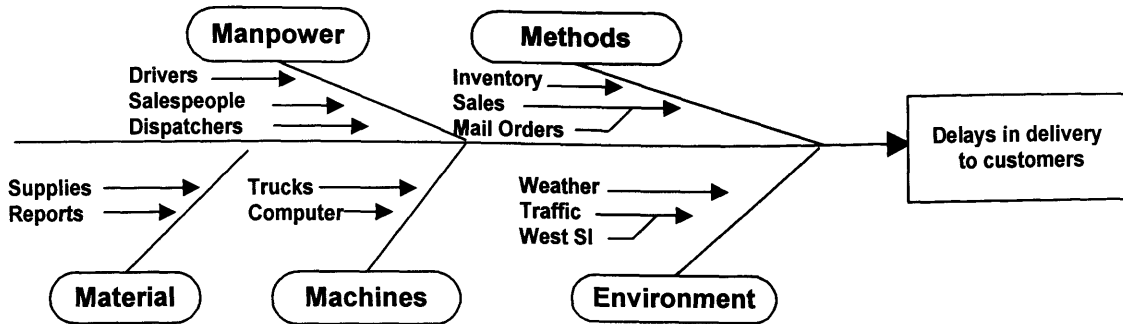
Verify the results. The group selects two or three of the highest-ranked causes and collects data on them. This helps to verify that the highest-ranked cause is indeed the one in need of correction. If not, a new leading cause should be voted on and verified.

Step 8

Recommend solutions. The cause-and-effect analysis would not be complete if nothing were done about the findings. So the final step in the analysis is to recommend solutions. After implementing the solutions, the group gathers data again to compare the before and after results. This verifies that the solutions implemented actually solved or reduced the problem.

What does it look like?

Example of Cause-and-Effect Diagram:



How do I use it?

1. Write a summary of the problem in a box on the right of the chart with a large vertical arrow across the chart pointing to it.
2. By drawing arrows, add main categories of causes. Common categories are materials, people, environment, equipment, methods, and procedures.
3. Break down each main category into smaller components. List the components under each category and draw an arrow to the larger arrow to show a cause and effect relationship.
4. Look at each component and ask how it could contribute to the problem. List the responses next to the item.

Why is it useful?

Once a process has been described and a problem well defined, arranging lists of main categories of potential causes (or solutions) can lead to a greater understanding of a problem and possible contributing factors. It focuses attention on a desired result. This tool, in addition to all supporting data and information, allows the determination of root causes. It deters the group from focusing on symptoms. When items begin to show repetitive entries on the chart, these entries are most probably the root causes.

BENCHMARKING CHECKLIST FOR A DIRECT VISIT

- As a Representative of the organization., benchmarking activities should be conducted according to the Corporate Code of Conduct.
- Determine who will be the facilitator for the discussions and who is assigned to take notes. Opening comments should include why the benchmarking subject was selected and the advantages to both parties as a result of this endeavor.
- Introduce the team members. Each member should explain their functional roles and responsibilities and their objectives in the benchmarking effort (providing specific information about your operations allows attendants to focus on your area of interest). Asking the benchmarking partner to do the same will ensure that the correct people are in attendance before starting the session.
- Spend some time socially to develop a rapport with the attendants and relax and enhance comfort levels that may promote a more open exchange of information.
- Explain the objectives of the session and the process to be followed (i.e. facilitator, note taker, etc.). Make sure there are enough handouts for everyone in attendance. If using overheads, or other audio/visual presentation medium, make sure that the proper equipment is available.
- Questions should be asked by the benchmarking team members in their respective area of expertise, since it will be their responsibility to understand and effectively evaluate the data gathered and apply it in the final analysis. Repeat their answers to ensure proper understanding and interpretation.
- Do not ask questions to solicit information that you would not be willing to share as benchmarking partners. Since benchmarking is a reciprocal process, offer to share only the findings/ comparison of the company being benchmarked. Do not disclose data gathered from other benchmarked companies.

- Before the final recap session with the benchmarking subject, the visiting team should caucus to ensure that questions have been answered thoroughly. Develop any additional questions that should be addressed before the session ends.
- Close the session with a review of the information presented. List any follow-up issues to be completed/clarified. Express sincere appreciation for their time, effort and cooperation.

Pre-Benchmarking Checklist

- Determine if the same or similar processes have already been benchmarked by other internal functions.
- The required resources to successfully complete the benchmarking project have been committed.
- The planned benchmarking activity has been entered into a database so others do not duplicate your benchmarking efforts.
- A benchmarking team capable of planning and executing the project, and implementing changes resulting from the benchmarking recommendations has been assembled.
- The benchmarking team leader has been identified and all members of the team have been trained in the benchmarking process.
- Analysis and measurements of the existing process, product or service to be benchmarked has been completed. (Performance measures have been studied; methods and practices used to achieve present performance have been identified; methodology of calculations has been reviewed).
- A thorough investigation (internal and external) has determined the best in class companies/organizations to be benchmarked.
- If applicable, sales, marketing, purchasing, and/or legal have been notified and have given approval for the benchmarking exchange.
- The list of questions, and the answers to them regarding the current HCNA process, has been developed. Organize questions logically and sequentially to maximize the information flow and target objectives.
- Forward a list of questions to benchmarking subject in advance.
- Agree on agenda with benchmarking subject in advance.

CHECKLIST FOR VISITING BENCHMARKING COMPANIES

- If the benchmarking company is a customer or supplier the appropriate sales and marketing, or purchasing department should be notified of the visit (invitation to attend is optional).
- Request a written list of the questions to be addressed; general information on the visiting organization (i.e. annual report, 10K, etc.); visitors' names, titles and responsibilities.
- After receiving the questions, assemble the appropriate people to answer and host the benchmarking visit. The requesting company should come prepared to answer the same questions on their current process.
- Everyone should clearly understand the objectives of the benchmarking project. The specific questions to be discussed have been agreed to, researched and answered, and the information to be shared is documented for discussion.
- Roles and responsibilities have been clearly defined. Publish an agenda to ensure that the necessary time to learn from this information sharing process has been committed.
- As introductions are made, each member should provide their name, title, role, responsibility and potential contribution to the benchmarking effort.
- If feasible, tours may enhance understanding and perspective of the operation being benchmarked.
- After the session, establish any follow-up issues/questions that need to be addressed and assign action terms to the appropriate people. Clarify who, what and when these issues will be answered. Request visitation feedback from the visiting company.

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