STRATEGY RESEARCH PROJECT

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BUSINESS REENGINEERING – GOVERNMENT VIABILITY

BY

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Business Reengineering – Government Viability

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ABSTRACT

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In the past decade, US businesses have regained their preeminence within the world economy through reengineering process improvements. Corporations have outsourced, downsized, improved logistic ordering and delivery methods, moved decision making down, and improved information management. The results have dramatically improved customer service and increased profits. Unfortunately, these improvements have not made the same in-roads within the government. This paper will familiarize the reader with how the management reengineering process works, some of its benefits, general pitfalls to avoid, and its viability for America's government.

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BUSINESS REENGINEERING – GOVERNMENT VIABILITY

Cast the term reengineering into a pool of government bureaucrats and you may hook a piranha. To many, while reengineering has done a world of good, it has become a euphemism for mindless downsizing. However, on closer examination, it has enabled companies to operate faster and more efficiently, and to use information technology to further its core businesses. Reengineering has actually improved the jobs of many employees, giving them more authority and a clearer view of how their work fits into the operation of the enterprise as a whole. Customers have been rewarded with higher-quality products and more responsive service. Finally, it has paid big returns for the Stockholder, providing a greater return on their investment or in the case of the American Citizen, better services for less tax dollars.[1]

Most military leaders should readily identify with reengineering since it begins with a strategic planning imperative: "Anticipate - better yet, initiate-the currents and cross currents of customer demands, needs, and wants."[2] History has often proven this mandate difficult since customers, being only human, often do not know what they demand, need, or want, unless and until they see it.

Reengineering requires change managers, those managers at all levels who must get out from their command posts, support group desks, or headquarters; out of the boxes of their vertical driven organizational chart. They must move out to where the real business is happening, the front line, aerial port warehouse, tank repair point, - the marketplace. With this outward movement, everything in the business or organization must change.

Why? Because markets and customers are not static, but ever changing. Humans are constantly seeking further gratification, constantly racketing up demands on every front: price, quality, service, novelty, delivery. At the same time, to remain competitive, or live within restricting budgets, managers must respond to and take advantage of improvements made in technology, and directives taken from political, economic, and social sources. To accomplish this requires the mobilization of the entire organization and it is this mobilization that begins the radical change in the organization.[3]

Reengineering taxes management simply because it is predicated upon total change, in its purest form nothing is sacrosanct. All operations must be submitted to a thorough critique of their usefulness-of their very existence-in relation to how each operation contributes to satisfying customer needs. Reengineering is not one painful trip to the doctor. All employees, and especially upper management must constantly put themselves through continuous questioning of how their work adds to the value not of the company, but of the process providing the customer a product, service, or deed.[4] Finally, reengineering is upsetting to the "Dilbert" type boss who might say that he is comfortable with his nonproductively since he is used to it.

Why should management endeavor to change an organization that is already profitable or delivering its desired services? Simply, because in government like business, to remain effective it must change. Recognizing the need to change, American business set about to reengineer in the 1980s and

early 90s. The results have been dramatic, unlike the Europeans; America created millions of new jobs in the 90s, partly because of its reengineering efforts. It is past time to carry over this successful effort to the government.

This paper is not designed to be an exhaustive study of Reeingeering management. Instead, it will argue why business reengineering is the right course of action for the government. It will also layout a framework for performing reengineering management within the government and in particular the Department of Defense (DoD). After this, the paper will discuss some impediments to reengineering within the government. Finally, it concludes with a short discussion on general barriers to reengineering and how some companies overcame them. To help understand this business concept, a glossary is included at appendix A.

DOD FRAMEWORK FOR MANAGING PROCESS IMPROVEMENT

A student of business process improvement only has to read a couple of books about business engineering to realize that there are almost as many methodologies as authors. Since this paper is written primarily for governmental and in particular, DoD users, I will describe the business reengineering process using the DoD Framework for Managing Process Improvement (hereafter called Framework).[5] The framework has several advantages for uses beyond the obvious one of establishing a common form of reference. It supports three levels of improvement efforts that are included under the Framework definition:

a. Continuous Process Improvement reduces variation in the quality of output products and services through incrementally improving the flow of work, normally within a functional activity.

b. Business Process Redesign lowers process costs by removing non-value-added activities from processes that improve cycle-time.

c. Business Process Reengineering radically transforms processes through employing Business Process Redesign and application of enabling technology to gain dramatic improvements in process efficiency, effectiveness, productivity, and quality.[6]

Most readers by now have concluded that the Framework is just another name for Total Quality Management (TQM). However, this conclusion is not entirely correct. While both techniques seek the same objective (improvement), they approach the problem from very different perspectives. TQM works within the framework of existing procedures and seeks to enhance them by means of "Kaizen" or continuous incremental improvement. In short, the aim is to continue do what we already do, but to do it better. Reengineering is much more pervasive and radical. It seeks not to enhance existing processes, but discard them and replace them with entirely new ones.[7] Therefore, before initiating change, management should determine which business process improvement technique is most appropriate. Where performance gaps are large, reengineering is most likely the correct approach. Where small, TQM may be more appropriate. TQM uses past performance as a guide without the driving force of the leader.

Reengineering is strategic, depending upon the vision of the leader, a pull to the future direction of the company.[8]

REENGINEERING FRAMEWORK PRINCIPALS

Every business has core processes: new product development, customer service, tax preparation, and the like.[9] Unfortunately, the word "process" seems to give managers difficulty. Most managers are not process-oriented; instead they are focused on tasks, on jobs, on people, on Congress, or the Public. A business process is a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer. A simple process example is the ordering of a part from a manufacturer.[10]

When examining processes for improvement, companies should examine the entire process and cut across organizational boundaries. Normally, this does not involve minor improvements, it requires a breakthrough. Companies must look to break with old traditions as they reengineer their processes. Assumptions on specialization, sequentially, and timing are deliberately ignored. Finally, the agent that has enabled those companies to break with old rules and create new models is information technology. Information technology acts as an enabler that allows organizations to do work in radically different ways.[11]

Processes are not functions, or a specified type of work applied to a product as it moves through a process. As the following figure shows **(Figure 1)**, functions are described in the typically hierarchical organizational chart, where work is broken down through the various layers of management within an organization.

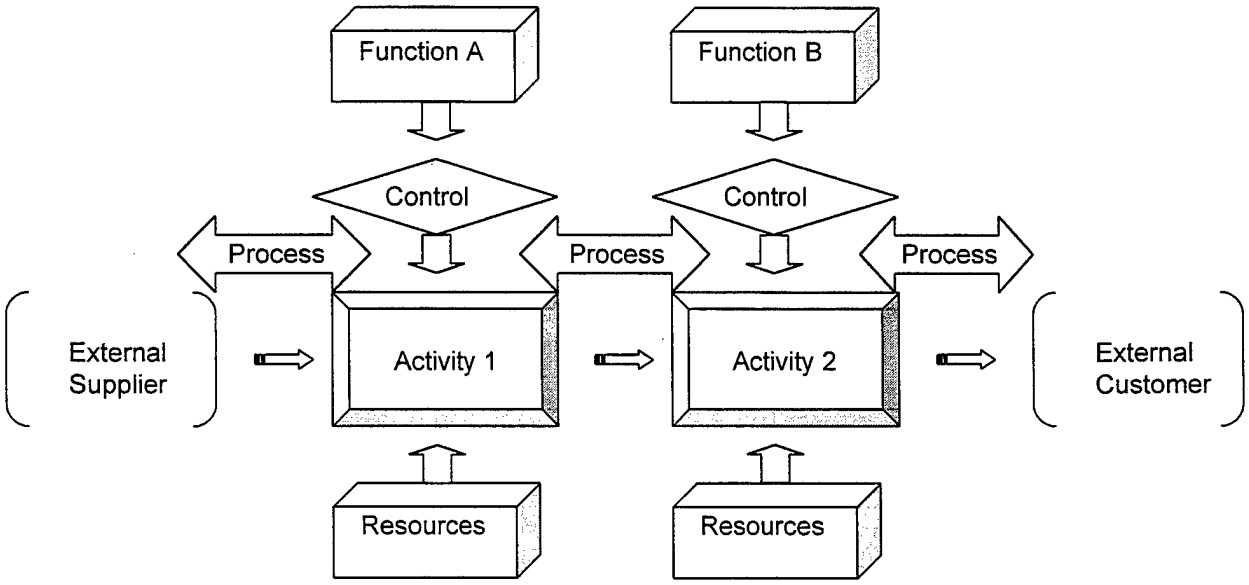

FIGURE 1- TYPICAL ORGANIZATIONAL DIAGRAM

When work is managed by function, managers naturally emphasize resource consumption by unit of work and rigid application of controls or rules. The customer is not optimized. When processes (horizontal orientation) define work, managers emphasize working with suppliers and serving customers within the context of controls and resources. In this situation, employees are motivated to focus on product and service quality, customer service, and fast response to exceptional situations.[12]

Without clear process performance measures, an organization cannot establish where it is or where it wants to go. The first step establishing such measures is to have customers identify the aspects of a process they need the most (e.g., cycle time, accuracy, cost). The second step is to come up with baselines: how your process is currently performing in perspective to these measures. This is no easy task. Next through competitive benchmarking, customer input, and self-assessment, establishes "stretch goals" for each process. These goals should be high enough to rule out doing business as usual without being so high as to be intimidating.[13]

There is no set formula for examining reengineering, except possibly: processes + improvement = greater customer satisfaction (or increased profits). Reengineering by its very nature is highly situational and creative. However, to help the DoD manager and especially the strategic leader understand reengineering, it is helpful to define the DoD Framework model as illustrated below **(Figure 2)**.[14]

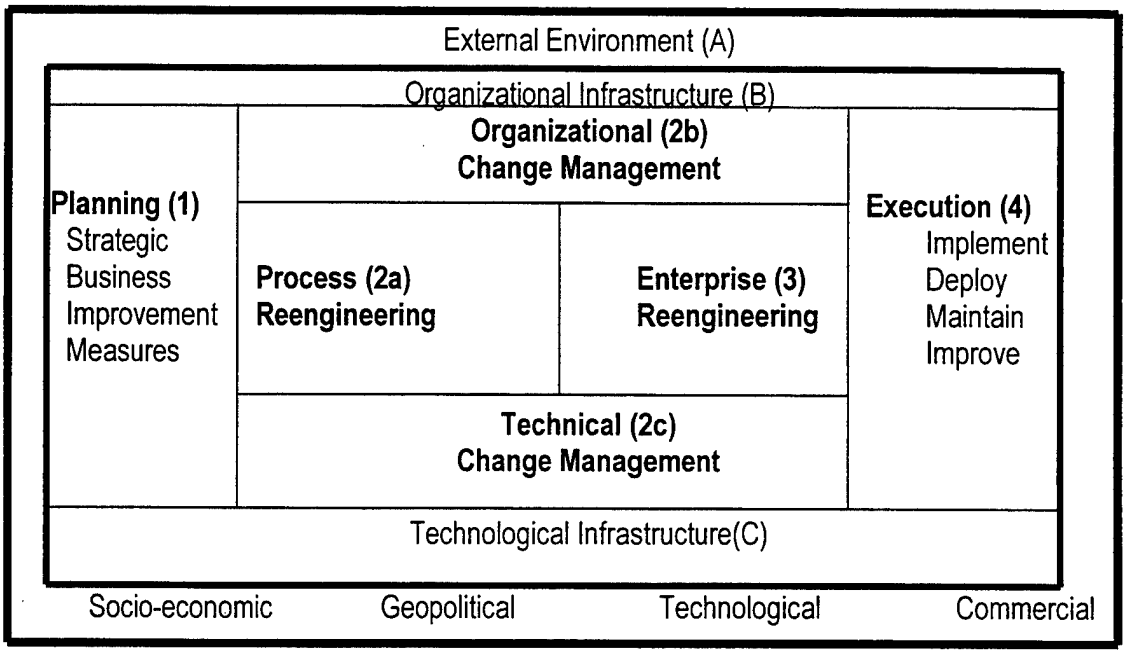

FIGURE 2 – FRAMEWORK MODEL

Some explaining comments about the above chart:

· The External Environment (A) includes processes under consideration and represents factors outside of the direct control of processes that can influence or constrain process improvement efforts.

· The current Organization Infrastructure (B) supports the existing process. The relationship of the process to the existing organization structure must be well understood so that appropriate organizational

changes can be made in light of planned process improvements. Past TQM efforts, mapping organization hierarchies, and process flows can provide an excellent starting point in understanding organization infrastructure.

· Reengineering success is often dependent upon a strong information technology base. The Technological Infrastructure (C) provides a platform of information management and communication services for existing processes. Trying to make reengineering changes without a thorough understanding of the relationship between processes and their supporting information platforms spells doom for reengineering efforts.

· Blocks 1 through 4 show the major phases performed in the process improvement methodology. These activities lead to a reengineering process and the necessary changes in the organizational and technological infrastructure needed to support the reengineered process. [15] An alternate phased approach to reengineering is at attachment 3. Finally, at appendix B, are assessment questions put together by the GAO. These questions will provide reengineering teams with an excellent tool to evaluate their progress and make necessary course corrections.

EXPLANATION OF THE DOD FRAMEWORK FOR MANAGING PROCESS IMPROVEMENT

STRATEGIC AND BUSINESS PLANNING PHASE (1):

Planning activities analyze the current process baseline benchmarking the current external environment and the organizational and technological infrastructure. Strategic leaders use this information to develop a vision for a future state that defines where the organization should be to satisfy its customers' demands, needs, and wants. This vision is expressed in a series of models and architectures that define the organization, processes, information resources, and technology enablers and is consistent with the DoD Enterprise Model.[16]

Most importantly, in this phase managers and especially senior managers must change their perspective. No longer should executives see their organization hierarchically, with sets of discrete units and well-defined boundaries. Instead, they should take a horizontal view, seeing flexible groupings of intertwined work and information flows that cut sideways across the business, ending when contact is made with the customer.[17]

The adage that significant change will not occur without total executive leadership buy-in to the idea is true for any major improvement, and is especially important for reengineering. Only top executives have the authority to direct and facilitate major organizational changes, such as redefining goals, policies, work responsibilities, reporting relationships, and resource allocations. From the beginning, executives must work to develop and implement a strategy for overcoming internal and external barriers to change.[18]

PROCESS REENGINEERING PHASE (2a):

Process reengineering activities consider planning outputs, technology enablers, and customer needs to design improved processes that advance the organization toward its planned future state. Reengineering takes apart the organization, initially accepting nothing as sacred, and seeks to redesign processes around the needs of the customer. These activities also provide inputs to the change management program, which conditions the organization for the coming enhanced processes.

Understanding the needs and expectations of the consumer helps an organization or company achieve significant improvements in performance.[19] Unfortunately, understanding the consumer within the government is complicated. Generally, consumers within the government are called customers or stakeholders. In an effort to understand the complex relationship between stakeholders and the government, stakeholders are broken down into four classes:[20]

a. Customers - are the recipients and clients of programs, services, and products. Other organizations can also be customers. In a federal setting, state and local governments can be the customers of federal programs.[21] In DoD, customers can be the F-15 pilots receiving a fully operational aircraft, patrons eating at the local community club, or users at the end of a post computer network.

Customers ultimately define values and determine an organization's success. In corporations, customers buy products and services, and satisfaction is measured in terms of market share and penetration. In government enterprises, customers receive products and services for a fee (such as entrance to a National Park) or entitlement (National Defense). Unfortunately, measuring customer satisfaction in the government must be done indirectly, such as degree of support, surveys, opinion polls, relocation from one jurisdiction to another, and special interest group activity.[22]

b. Suppliers - provide the data, material, and services to enable a process to move forward. As many organizations have discovered in employing just in time logistics (where the supplier works with the company to determine when to deliver parts), suppliers generally desire strong relationships, exclusivity, 100% acceptance of inputs, more business, and timely payments.[23]

c. Higher Authority - Different from most business environments, governments are highly regulated. Higher authority sets the rules, requirements, standards, constraints, and budgets. Their interest, influenced by taxpayer input, includes conformity to goals, low-risk operations, satisfaction of functional and business objectives and goals, and process stability.[24]

d. Resource Providers - The resource providers fund process operations with facilities, equipment, machines, and labor. Resource providers are interested in conserving resources and return on investment. They also expect inherent benefits from the process itself, apart from the output. A common name is taxpayer, who speaks through their representative.[25]

ORGANIZATIONAL CHANGE MANAGEMENT PHASE (2b):

Organizational Change Management program activities define the cultural, organizational, and personnel-related changes necessary to remove barriers to change and maximize the potential of improved or reengineered processes.[26]

TECHNICAL CHANGE MANAGEMENT PHASE (2c):

Technical change management program activities ensure that the technology changes needed to support reengineering processes are consistent with corporate business models and are technically achievable. For DoD, technology platforms should be designed around the DoD Enterprise Model. Technological changes should not be overly restricted by, but should make note of such issues as legacy systems, migration systems, and systems integration.[27]

ENTERPRISE REENGINEERING PHASE (3)

After a plan is laid out, where customer needs are identified, new organizational processes are defined, and technical support slated; the organization starts rebuilding. Activities provide the hardware, communications, software, and data base structures needed to support the reengineering process. Since reengineering is a constant process, these activities also provide feedback to both change management phases (2b and 2c) to help ensure that all elements of the process improvement-process, people, and technology are designed to be mutually supporting. Enterprise engineering activities end with pilot implementation or modeling to test the redesigned process.[28]

PROJECT EXECUTION PHASE (4)

Project Execution activities bring together the planned process, organizational, and technological changes under a project management concept to provide a coherent and manageable means of incorporating design changes into the business environment.[29]

REENGINEERING WITHIN THE GOVERNMENT

Government naysayers have good reason to believe that reengineering efforts will go the way numerous other management initiates have (Management by Objectives, Focused Logistics, etc). Surely if a non-democrat wins the next Presidential election, the efforts behind the National Performance Review (NPR) and Gore's Hammer Awards will end.

However, a change in administration seems to only sharpen the need for continued government reform. The political stakes for change are small, only a small percentage of American Citizens polled had heard of reinventing government.[30] Changes in government can be made with most citizens remaining neutral or non-interested. While the stakes are small, the benefits are numerous. For example, President Clinton with Congressional concurrence downsized government by over 350,000 people without as much as a whimper from the American Public.[31]

Congress has entrenched many reengineering tools within the government bureaucratic machine that once implemented will bring inefficient tasks and organizations to light. Some of the most prominent are the Government Performance and Results Act, Activity Base Costing, and the Certified Financial Officers Act.

And finally, as stated earlier in this paper, reengineering is highly dependent upon top leadership. Many of the most successful American Corporations have crafted or maintained their competitive position through innovative management techniques. Historically, CEO and senior business management provides the government with a ready pool of political appointees. Turn these top-notch leaders loose on some of the most dysfunctional bureaucratic debris and watch for significant business improvements.[32]

PROBLEMS WITH REENGINEERING WITHIN THE GOVERNMENT

The Government Accounting office (GAO) has found that the federal government lags far behind leading organizations in using reengineering to improve products, services, and deeds. For example, they found that complex computer modernization efforts are focused on automating existing, inefficient ways of doing business. Most government employees can identify with the GAO when they said that they found billions of dollars spent on federal information technologies that yielded unsatisfactory returns on investment because of lost opportunities to reduce operating costs, increased productivity, and improve delivery of services to the public.[33]

BARRIERS TO REENGINEERING

After deciding on a method for reengineering an organization, the process manager should be aware of typical barriers to reengineering. Typically, barriers fall into either organizational, cultural, or regulatory impediments.

ORGANIZATIONAL

These barriers are related to the hierarchical structure of the enterprise in which employees focus more on serving management than on providing what the customer wants.[34] For reengineering to work effectively, the perspective of business leaders must change. While many companies have integrated their core processes, combining related activities and cutting out ones that don't add value, only a few have fundamentally changed the way they manage their organizations. The power in most companies still resides in vertical units. Companies must make the jump from process redesign to process management. The best managers must be appointed as process owners, and give them real authority over work and budgets. They must shift the focus of their measurement systems from unit goals to process goals.

IBM went through an organizational change several years ago that saved the company. Seeing that its large corporate customers were increasingly operating on a global basis, IBM knew it would have to standardize its operations worldwide. However, IBM's existing management systems prevented this. Power was concentrated in the hands of country and product managers, and they were reluctant to

sacrifice their own idiosyncratic ways of working. Protecting their fiefdoms like mother bears; they simply refused to allocate the human and technical resources required to design and roll out standardized processes.

In response, IBM undertook the drastic task of changing its management structure. Each process was assigned to a member of its most senior- executive body, the Corporate Executive Committee, making committee members accountable for the process. All members were required to report back regularly to the Executive Committee on the status of the design, deployment, and implementation of the processes, including the benefits realized. Should a disagreement arise between the process manager and the unit executive, they were expected to resolve it together. By shifting organizational power away from units and toward processes, it has achieved its goal of standardizing processes around the world. The benefits have been dramatic, a 75% reduction in the average time to market new products, a sharp upturn in on-time deliveries and customer satisfaction, and cost savings exceeding $9 billion.

Traditional organizations, especially the government, are naturally hostile to integrated processes, seeing them as threats to power (which they are!!). So organizational and managerial structures have to be changed in fundamental ways. That doesn't mean, though, that existing vertical units are simply disbanded – even in the most process-focused businesses, vertical units continue to play essential roles. Rather it means that horizontal and vertical management structures have to coexist, not just in peace but in partnership. Not only does a company have to redistribute management responsibility, it has to change basic management systems and as the next section discusses, its culture, to support a new balance of power.[35]

CULTURAL

Habits and work practices over time fight against decentralized decision making and worker employment.[36] A process owner cannot serve just as a interim project manager, active only while a new process design is being developed and put into place. Process ownership must be permanent and requires a change in the cultural attitude of a company. Process designs need to evolve as business conditions change, and process owners need to guide the evolution. Also, when a company or organization does not have strong process owners, the old organizational structures soon will reassert themselves.

The advent of process owners is a dramatic change for most organizations because it separates the control over work from the management of people who perform the work. Most modern managers involved in reengineering do not talk about the old management adages of planning, organizing, controlling, and directing. Instead, in a process enterprise, the process owner has responsibility for the design of the process, but various people who perform the process will still report to different unit heads. That kind of split in authority may be hard for many executives to imagine, but there are companies that make it work today.

One example is Duke Power, a true pioneer in the process enterprise arena (good news for those of us that pay inflated power bills). A North and South Carolina power company, in 1995 with deregulation looming, the company realized that it needed to do a better job in customer service or get gobbled up when competition was allowed. The management structure was very hierarchical and convoluted. In short, no one was responsible for how the company was delivering value to the customer.

Duke Power knew that to become a process enterprise, it needed to do more than just establish new management posts and rejigger responsibility. As lines of authority became less clear-cut, the way managers interact must also change. Duke Power set about to establish process managers in much the same way as IBM had. However, it quickly became apparent that style was as important as structure. Process owners, for example, just could not ask process workers to do their bidding. They had to get the permission of unit heads (the remaining parts of the hierarchical organization).

Process owners soon came to realize that they had to develop three new management adages: influence, influence, and influence. Unit heads, had to negotiate with process owners to ensure that the process designs were sound, the process goals were sound, the process goals reasonable, and resource allocations fair. The split in authority between traditional unit heads and the process owners made cooperation unavoidable. Refuse to get along, and you fail!

Duke's Power managers, like most companies and especially the government, were not accustomed to such a collaborative style. At first, process owners and regional VPs tended to act more as rivals than as partners. To resolve the problem, they had to sit down together and develop a document they called the "decision rights matrix." The decision matrix specified the roles each of the different managers made in the organization, such as changing the process design, hiring people, setting the budget, etc. It detailed which manager actually made the decision, who had to be consulted, and who needed to be back briefed.[37]

Another culture aspect that needs to be addressed early on in the reengineering process was "management of workers." In a traditional company, employees are expected to follow the rules. In companies that have reengineered, they don't want employees that follow rules; they want people who will make their own rules. As management invests process teams with the responsibility of completing entire processes, it must also give them the authority to make the decisions needed to get the job done. This authority is often referred to as empowerment, a scary word for traditional managers. A process team member is permitted and required to think, interact, use judgement, and make decisions.

Fortunately, for managers, teams are naturally self-directing. Within the boundaries of the organization, agreed upon deadlines, productivity goals, quality standards, etc. they decide how and when work is going to be done. If they are constantly waiting for supervisory approval, they are not process teams and the work will not be done.[38]

Since teams take over the majority of the management responsibilities, what is left for employers to do? Supervisors, in turn, become more like coaches, teaching the workers how to perform the process, assessing their skills, overseeing their development, and providing assistance when requested.[39]

Traditional companies typically stress employee training – teaching workers how to perform a particular job or how to handle one specific situation or another. In companies that have reengineered, the emphasis shifts from training to education. While the change is subtle, nevertheless, its effect is dramatic. Training increases skills and competence and teaches the employees the "how" of the job. Education increases their insight and understanding and teaches the "why."[40]

Because the coordinator coaches (influences) rather than controls the people, the supervisor's span of control expands dramatically. In our example of Duke Power company, the traditional span of control of 1 supervisor to 10 employees widened four fold. A process coordinator (old term – supervisor) typically now controls 30 to 40 people. To sum up this cultural transformation, traditional styles of management must change in a reengineered corporation. Management can't command and control; they must negotiate and collaborate. They can't wield authority; they have to exert influence.[41]

REGULATORY

As mentioned earlier, "higher authority" customers greatly influence what the desired output of governmental organizations should be. Often these regulations become barriers, and prevent the redesign of work flow commensurate with process management, effective utilization of work teams, and innovative changes to recognize and award workers that promote effective teamwork.[42]

The most obvious restriction to reengineering within the government is the prevalence of regulations and political restrictions. Vice President Gore's Reinventing Government effort, equipped with hammer awards, has done much to jump-start the government along the reengineering trail. Gore pledged to create a government that puts people first by cutting unnecessary spending, serving its customers, empowering its employees, helping communities to solve their own problems, and the like. Over a five year period, the report envisioned saving over $108 billion. Generally, the National Performance Review has been receptively received – however the jury is still out if it achieved all of its touted successes.[43]

There are limits to reengineering government. Fortunately, several organizations have achieved reengineering success and for our benefit, identified success characteristics. Reinvention stands a better chance of success within the government if public servants perceive a threat to their survival. However, it still remains that as the reengineering road gets clogged with roadblocks and stumbling points, people begin to withdraw their support and involvement. It is vital, especially for political appointees, Senior Executive Service managers, and General Officers to carry the ball in the reinvention effort. Missions must be defined and the agency must clearly identify where it would like to see itself in the foreseeable future. In addition, because reengineering involves salesmanship, the more people involved in the process of change, the greater the chance of failure. While in the commercial world, reengineering usually involves all effected members of a company, in the government, reengineering efforts seem to work best with a small reengineering team, separated from the general populous.

The environmental context within which federal, state, and county agencies resist change has filled numerous scholarly books. There have been no less than 13 major change efforts imposed upon the federal government since our country was formed (Gore's NPR review is the latest). Reengineering attempts to overcome this government employee inertia, with some success. Besides the obvious need for senior management involvement, any reengineering team should keep the following two thoughts in mind when overcoming this inertia. The greater the variety of resources represented in the reinventing effort, the more difficulty there will be in developing a shared understanding and shared solution to common problems. The more the ideas for change cross organizational boundaries within an agency, the more difficult it will be.[44]

While it is true that threatened organizations are the ones most likely to change, healthy ones seem the most likely to survive the trauma involved in reengineering. Normally, it is political, instead of professional considerations that drive changes and usually prevail and guide the decision to reengineer. Elected officials that are concerned about criticism for tampering with a success story will not likely pursue a chance for improvement. Politicians shun decisions that may awaken sleeping interests in which there is uncertainty in expected outcomes. Further, in the U.S., well-performing public agencies may have a hard time convincing legislators that they deserve additional money to chance a reengineering effort. However, as strange as it may sound, agencies may need to perform badly to become better. Politicians seem to find it easier to throw additional money at those organizations that are failing in an attempt to get rid of a liability.[45]

Within a private organization, ownership of any process is likely to be within the organization. Not so with the government. Many agencies have multiple groups of clients and customers, all which may claim some ownership of organizational processes. In the public sector, some process owners are outsiders who may be the legal de-facto owners of the process. Welfare recipients in receipt of food stamps and lawmakers setting standards bring to mind an example.[46]

In addition to the regulatory restrictions, companies also need to decide the degree of standardization they will implement. Should all units do things the same way, or should units be allowed to tailor process to their own needs. The question is no longer centralization vs. decentralization, but process standardization vs. process diversity. To this question, there is no right answer. Standardization offers the obvious benefits of lower overhead, consolidation, and organization flexibility (making it easier to reassign personnel). Process diversity offers one big advantage; it allows different customers to be served in different ways. For example, chip manufacturers can set up different process designs to service customers that require fast product redesign and another process to quickly replenish standard products.[47]

Finally, government organizations are generally not conducive to radical change, nor do they allow for forgetting the past. It may be best for government organizations to take a number of small steps in succession, ultimately resulting in large aggregate changes.[48] In summary, keep in mind the following suggestions for implementing reengineering projects within the Government:

a. Be aggressive about your ambitions. While incrementalism may be the only way to go, recognize that it may not be the only way to go.

b. Most effective work can be accomplished through cross-department integration of effort. Get out of your comfort zone, your department, and agency.

c. Get the policy, which in private industry equals strategy, cleared at the top. Quantifiable goals, like harbors, are not vaguely out there someplace to be discovered.

d. Keep in mind, always the hidden reefs of politics. Unlike industry, government reengineering efforts require a wider sphere of cooperation.[49]

CONCLUSION

Bob Stone, the top career official at Vice President's Gore's NPR concluded in 1999 that the great unfinished task of the government was they had only begun to tap the ability, creativity, and enthusiasm of workers. He also said that DoD has the furthest to go in developing an empowerment culture. However, in certain aspects the military is way ahead of the civilian culture because there are some fundamental military principals about empowering leaders at all levels.[50] Within the government, Stone said: "The fires haven't grown and spread as much as I want."[51]

Experts both in and out of the government said that there is much to be done. The challenge is ours to continue down the reengineering path, especially in light of projected budget surpluses. It has been the purpose of this paper not to be an exhaustive study of reengineering, but to familiarize the reader with how this management reengineering process works, some of its benefits, general pitfalls to avoid, and its viability for America's government. Hopefully, the reader will be encouraged to read some of the experts referenced in the Bibliography and set about to start a reengineering effort within their organization.

Word Count = 5,418.

GLOSSARY

Activity Analysis: the analysis and measurement (in terms of time, cost, and throughput) of distinct units of work that make up a process.

Activity-Based Costing: a set of accounting methods used to identify and describe costs and required resources for activities within processes.

Alignment: the degree of agreement, conformance, and consistency among organizational purpose, vision, and values; structures, systems, and processes; and individual skills and behaviors.

Baselining: obtaining data on the current process that provide the metrics against which to compare improvements and to use in benchmarking.

Benchmarking: a structured approach for identifying the best practices from industry and government, and comparing and adapting them to the organization's operations. Such an approach is aimed at identifying more efficient and effective processes for achieving intended results, and suggesting ambitious goals for program output, product/service quality, and process improvement.

Business Process: a collection of related, structured activities, a chain of events, that produces a specific service or product for a particular customer or customers.

Business Process Redesign: changing activities or subprocesses within a process, most often removing steps which do not add value or combining similar activities to simplify the process and make it more efficient.

Business Process Reengineering: in government, a systematic disciplined improvement approach that critically examines, rethinks, and redesigns mission-delivery processes and subprocesses within a process management approach. In a political environment, the approach achieves radical mission performance gains in meeting customer and stakeholder needs and expectations.

Continuous Process Improvement: an ongoing method to improve how products and services are provided and internal operations are conducted.

Core or Key Process: a customer facing, management, or support process considered vital to the organization's success and survival.

Customer: groups or individuals, who have a business relationship with the organization, those who receive and use or are directly affected by the products and services of the organization. Customers include direct recipients of products or services, internal customers who produce services and products for final recipients, and other organizations and entities, which interact with an organization to produce products and services.

Cycle Time: the time that elapses from the beginning to the end of a process or subprocess and inputs are converted into outputs.

Decomposition: breaking down a process into subprocesses and activities.

Executive Steering Committee: the top management team responsible for developing and sustaining the process management approach in the organization, including selecting and evaluating reengineering projects.

Function: a set of related activities that are part of a process; often known as a subprocess within a process. Organizations often divide themselves into functional units, such as purchasing, product development, order fulfillment etc.

Government Performance and Result Act (GPRA): legislation enacted by Congress in 1993 that seeks to focus federal government attention on program outcomes. The GPRA requires agencies to develop strategic plans prior to FY 1998, agree upon desired annual performance goals beginning in FY 1999, and to report annually on actual performance compared to goals starting in FY 2000.

Input: the financial and non-financial resources the organization obtained or received to produce its outputs.

Information Engineering: an approach to planning, analyzing, designing, and developing an information system with an enterprise-wide perspective and an emphasis on data and architectures.

Integrated Definition for Function Modeling (IDEF): modeling techniques designed to capture the processes and structure of information in an organization.

Modeling or Flowcharting: a graphic representation of the activities and subprocesses within a process and inter-relationships.

Outcome: the ultimate, long-term, resulting effects, both expected and unexpected, of the customer's use or application of the organization's output.

Performance Gap: the gap between what customers and stakeholders expect and what each process and related subprocesses produces in terms of quality, quantity, time, and cost of services and products.

Performance Measurement: the process of developing measurable indicators that can be systematically tracked to assess progress made in achieving predetermined goals and using such indicators to assess progress in achieving these goals.

Process Management Approach: approaches such as incremental business process improvement, business process redesign, and reengineering which can be used together or separately to improve processes and subprocesses.

Process Owner: an individual held accountable and responsible for the working and improvement of one of the organization's defined processes and its related subprocesses.

Stakeholder: an individual or group with an interest in the success of an organization in delivering intended results and maintaining the viability of the organization's products and services. Stakeholders influence programs, products, and services. Examples for the government include Congressional Members and staff

of relevant appropriations, authorization, and oversight committees; representatives of central management and oversight entities such as OMB and GAO; and representatives of key interest groups, including those groups that represent the organization's customers and interested members of the public.

"Stretch" Goal: a goal that requires a significant change in the performance (quality, quantity, time, cost) of a process. Also called stretch goals, the targets are normally 50 percent of more.

Subprocess: a collection of related activities and tasks within a process.

Total Quality Management: an approach that motivates, supports, and enables quality management in all activities of the organization, focusing on the needs and expectations of internal and external customers.

Value-added: those activities or steps which add to or change a product of service as it goes through a process; these are the activities or steps that customers view as important and necessary.

World Class ("Leading") Organizations: organizations that are recognized as best for at least one critical business process and are held as models for other organizations.

Workflow: a graphical representation of the flow of work in a process and its related subprocesses, including specific activities, information dependencies, and the sequence of decisions and activities.[52]

APPENDIX

Use these questions to access the status of your organization and its need for reorganization change.

Strategic Business Planning

- What, if any, change management strategy does the organization have to foster acceptance of the need to improve the performance of key business practices? Is there a formal improvement program in place?
- Is the strategy comprehensive, covering change management from the start of improvement efforts through their full deployment?
- How does the organization identify key individuals and groups who should be involved in change management, such as unions? Are they being involved in the change process?
- Who is responsible for implementing the change management strategy?
- Have executives and senior managers communicated to the staff a clear commitment and urgency to make improvements in agency operations? How has this been done? Has the communication been ongoing to build momentum for change?
- Are executives realigning organizational values to focus sharply on achieving outcomes important to customers?
- Are executives realigning their incentive and reward systems to encourage efforts to improve performance?
- Is the organization's basic mission stable or does it appear to be headed for major changes redefining the roles and restructuring of the organization?[53]
- Does the organization have an overall strategy to guide its improvement efforts, prioritize them and allocate resources to support them?
- Is the strategy actually being used as a means to coordinate and integrate all of its improvement efforts?
- Does the reengineering effort appear to be in harmony with the other ongoing or planned improvement efforts?

Process Reengineering

- Has the organization adopted a customer-focused outlook when defining its mission and business priorities?[54]
- Has the organization identified the external customer base for each of its major products and related services?
- For each major product and service, what are the external customers' current and anticipated needs and their related priorities? Did the agency use the proper means to identify and validate the customer's needs, values, and priorities (e.g., interviews, focus groups, and surveys?)
- For each major product and service, who are the organization stakeholders? Has the organization identified and documented the needs, concerns, and priorities?
- Has the organization identified its internal customers and third party providers and their needs? What are their expectations insofar as they affect the key processes that provide products and services to external customers?
- Are external and internal customer requirements used in making major decisions about strategic goals, budgeting, and resource allocations? Is the organization focusing more attention on satisfying internal or external customers?[55]

Organizational Change Management

- What are the key areas of agreement and disagreement among the customers and the stakeholders, especially in the areas of strategic goals, products, services, and performance? How well has the organization been able to broker trade-offs in these areas of disagreement?[56]
- Are the goals based on careful, fact-based analysis of the organization's performance and environment and a sound understanding of mission, customer needs, and current performance?[57]
- Are the goals stated in measurable terms, such as cost, quality, and timeliness?
- Do the goals challenge the organization to achieve performance improvements comparable to those achieved by industry leaders?[58]
- Has the organization assessed what reengineering skills and tools it has available internally? Is it relying on consults or help from other organizations to fill the gap?
- Are the skills, tools, and experience adequate for meeting the demands of a major reengineering project? What plan does the organization have to develop any additional reengineering skills and acquire tools for future reengineering?
- Has the organization identified potential internal barriers to reengineering? Is the culture norm ready for the changes typically brought about by reengineering?[59]
- Does the business plan include a high-level economic analysis of the cost of current performance problems and the potential for cost savings and other benefits? Is the plan based on benchmark data and best practices from leading, similar organizations?
- Has the business case been communicated to customers and stakeholders alike? What is their take on this - do they agree or disagree?

Technical Change Management Phase

- Were customer interfaces of the processes benchmarked?
- Do team members have access to tools useful in supporting their work (groupware, process modeling software, and new process design software)? Have they been trained in the operation of this software or do they have access to technical experts?
- Has the process information flow been mapped? Have the supporting information systems been mapped?
- Have the organizational components involved in the process as internal suppliers or customers been identified?
- Have all the external customers and supplier interfaces been identified?
- Have the regulations, policies, laws, and assumptions underlying the process been identified?
- Does each proposed process design alternative include a detailed workflow and a thorough description of impacts on other processes and the overall work environment?
- Is the new workflow documented, with all the interfaces and dependencies noted?
- Is the new information flow documented?
- Has the impact of the proposed process on the organization's information and system architectures been examined and documented, along with the needed changes?[60]

Enterprise Reengineering Phase

- What are the core business processes for each major product and service? Have the processes been mapped out? Does the mapping show the connections and inter-relationships between core processes?[61]
- Were the customers and stakeholders involved in developing the performance indicators?
- How did the organization select its benchmarking partners? Were dissimilar organizations included? Were state and local governments known for excellence in innovation included?
- Has the agency develop a formal, fact-based business case for reengineering? Does the business case include a high-level economic analysis of the cost of current performance problems and the potential for cost savings and other benefits, based on benchmark data and best practices from leading organizations?
- Has the business case been communicated? Does it appear as though employees, customers, and stakeholders understand the business case?
- How does the organization provide executive level oversight and support to the reengineering effort? Does the organization have an executive steering committee (or its equivalent) to initiate, oversee, and support its reengineering projects?
- What are the steering committee's roles and responsibilities? What is its membership? Does it include executives from the process under reengineering? How often does it meet and what have been its major discussion items and decisions?
- Does the executive steering committee coordinate the work of process teams working on related processes or major subprocesses to prevent duplication or the development of solutions that work at cross-purposes?

Enterprise Reengineering Phase (Continued)

- Does the reengineering project team have an executive committee sponsor? What is the sponsor's involvement?
- Has the organization assigned a process owner for the process to be reengineered?
- Do the project team members represent all of the functional disciplines affected by the project and can they represent the viewpoints of their respected teams?
- Are most of the team members senior enough in status to mobilize support for the project?
- Are team members primarily dedicated to working on the project (i.e., more than 75 percent of their time)?
- What is the reengineering team's charter? Does the team have the adequate authority to deal with people within the organization, as well as those outside who may be affected by reengineering, such as suppliers or third party providers?
- What has the organization defined as "sacred cows?" Are these constraints upon the reengineering effort based on assumptions or have they been freshly reviewed and discussed with stakeholders and customers?
- Is there a formal plan for reengineering?
- Is the reengineering team using current methodology to guide their work?
- Has the project team developed an accurate model of the existing process/subprocess to be reengineered?
- Was the process workflow mapped down to the activity or task level, so that all the key elements that drive the process's performance have been identified and understood?
- What inputs and techniques did the organization use to design the new process?
  - Value added?
  - Results of benchmarking?
  - Assumption-breaking activities?
  - Innovative use of technology?
- Has the team identified changes needed to:
  - Organizational structures?
  - Management systems?
  - Job descriptions and skill requirements?
  - Personnel compensation and reward systems?
  - Human resource policies (training, hiring, incentives)?
  - Facilities?
- What changes to legislation, regulations, policies, and rules would be required to implement the alternative process?
- Did the reengineering team conduct a preliminary reasonability test of the alternatives through simulation or other means?
- Did the team develop a performance-based economic analysis for each design alternative?
- Was a relative ranking of the alternatives established that took into consideration the various pluses and minuses of each alternative?
- Have all the major change management issues associated with the preferred alternative been identified and discussed? Do there appear to be any insurmountable barriers?

Enterprise Reengineering Phase (Continued)

- Does the preferred alternative represent the best balance of feasibility versus return on investment for the organization, or is it simply the choice that seems easiest to implement?

- Did the executive steering committee make its final selection in consultation with its other executives and line managers, was well as stakeholders and customers? How does the organization intend to address the concerns expressed by these groups and secure buy-in for the final solution selected?[62]

Project Execution

- Does the organization use performance measurement data to determine how well it is meeting desired outcome and to identify and assess any performance problems?

- Are customers and stakeholders satisfied?

- Were performance goals met?

- Is the project achieving its expected return on investment?

- What indicators (quality, cost, time) are used for each core process? Are these indicators adequate for measuring current and future performance requirements?[63]

- How well is the organization performing in relation to customer expectations?

- How satisfied are customers and stakeholders with the current performance levels of the organization?
  - Does the organization have a pilot-testing plan?
  - What are the operational objectives of the testing plan?
  - How did the agency select the pilots?
  - How robust is the pilot testing?
  - Is the pilot testing program representative of the real world?
  - Are appropriate personnel involved in the pilot (i.e., personnel that will actually performing the work}?
  - What were the results of the test and how did they compare to the pilot's objective?
  - What changes were made to the process design as a result of the test? What problems remain to be resolved prior to full implementation?

- Is the transition plan comprehensive and feasible?

- Does the transition plan address how to implement changes to:
  - Supporting processes?
  - Management and measurement systems?
  - Organizational structure and culture?
  - Roles and responsibilities?
  - Facilities?

- Does the transition plan include communications efforts to ready the organization, customers, and stakeholders for the new process?

- Does the transition plan provide for the necessary training and resources (i.e., facilities, technology, infrastructure) at the right times as the new process is deployed?

Project Execution (Continued)

- Does the transition plan include changes to the performance measurement system to incorporate appropriate measures for the new process?
- Has the Project Team developed an assessment of deployment risks based on the results of pilot tests? How are the risks going to be managed? What contingencies have been planned in case of serious problems?
- Is the Project Team working on a close and continuing basis with the information resources group regarding information systems changes that are needed to support the new process? Are the process requirements accurately translated into system requirements?
- How does the organization plan to migrate to the new process or major subprocesses while maintaining current workload?
- What difficulties is the agency experiencing in deploying the new process? What action is the agency taking to address these difficulties?
- Does the organization regularly review how well the redesigned processes are meeting customer and stakeholder needs?
- Does the organization periodically revise the performance goals for the process to met new demands for improvements?
- Does the organization have a process management approach in place that encourages the staff to look for ways to continually improve their work?[64]

ENDNOTES

[1] Michael Hammer and Steven A. Stanton, "How Process Enterprises Really Works," Harvard Business Review (November – December 1999): 108.

[2] James Champy, Reengineering Management, The Mandate for New Leadership (New York, NY: HarperBusiness, 1995), 39.

[3] Ibid., 40.

[4] Ibid.

[5] Department of Defense, "Framework for Managing Process Improvement," 15 December 1994; available from http://www.dtic.mil/c3i/bprcd/3003s1.htm; Internet; accessed 19 January 2000, 1.4.

[6] Ibid.

[7] Michael Hammer and James Champy, Reengineering the Corporation (New York, NY: HarperBusiness, 1993), 49.

[8] Department of Defense; "Framework for Managing Process Improvement," 1.4.

[9] Champy, 112.

[10] Michael Hammer and James Champy, 35.

[11] Ibid., 46-47.

[12] Department of Defense, "Framework for Managing Process Improvement," 2.1.1.

[13] Michael Hammer and Steven A. Stanton, The Reengineering Revolution (New York, NY: HarperBusiness, 1995), 99.

[14] Department of Defense, "Framework for Managing Process Improvement," 3.1.

[15] Ibid.

[16] Ibid., 3.1.1.

[17] Michael Hammer and Steven A. Stanton, "How Process Enterprises Really Works," 108.

[18] U.S. General Accounting Office, "Business Process Reengineering Assessment Guide," 1995; available from http://www.dtic.mil/c3i/bprcd/5536.htm; Internet; accessed 19 January 2000, 1.1.

[19] Ibid., Section 1.

[20] Department of Defense, "Framework for Managing Process Improvement," 2.1.2.

[21] U.S. General Accounting Office, Section 1.

[22] Department of Defense, "Framework for Managing Process Improvement," 2.1.2.

[23] Ibid.

[24] Ibid.

[25] Ibid.

[26] Ibid., 3.1.3.

[27] Ibid., 3.1.4.

[28] Ibid., 3.1.5.

[29] Ibid., 3.1.6.

[30] Donald Ketti, "Relentless Reinvention," Government Executive (January 2000): 25.

[31] William J. Clinton, "Remarks to the Global Forum for Reinventing Government," Federal Register (15 January 1999): 56.

[32] Steven Kelman, "Making Change," Government Executive (January 2000): 30.

[33] U.S. General Accounting Office, Preface.

[34] Department of Defense, "Framework for Managing Process Improvement," 2.2.3.

[35] Michael Hammer and Steven A. Stanton, "How Process Enterprises Really Works," 108 – 111.

[36] Department of Defense, "Framework for Managing Process Improvement," 2.2.3.

[37] Michael Hammer and Steven A. Stanton, "How Process Enterprises Really Works," 111 – 113.

[38] Michael Hammer and James Champy, 70-71.

[39] Michael Hammer and Steven A. Stanton, "How Process Enterprises Really Works," 113.

[40] Michael Hammer and James Champy, 72.

[41] Michael Hammer and Steven A. Stanton, "How Process Enterprises Really Works," 113 – 114.

[42] Department of Defense, "Framework for Managing Process Improvement," 2.2.3.

[43] Ronald R. Sims, ed., Accountability and Radical Change in Public Organizations (West Port CN: Quorum Books, 1998), 75 – 76.

[44] Ibid., 91 – 94.

[45] Ibid., 127 – 130.

[46] Ibid., 132 – 133.

[47] Ibid., 114 – 115.

[48] Ibid., 139 – 140.

[49] Sharon L. Caudle, "Reengineering for Results: Keys to Success from Government Experience," available from http://www.dtic.mil/c3i/bprcd/3002sb.htm; Internet; accessed 13 January 2000, Forward.

[50] "The Chief Energizer," Government Executive. (May 1999): 65.

[51] James R. Thompson, "Experiments in Excellence," Government Executive (July 1999): 81.

[52] U.S. General Accounting Office, Appendix B, 40 – 42.

[53] Ibid., 2.0 – 2.1.

[54] Ibid., 2.1.

[55] Ibid., 2.2.

[56] Ibid.

[57] Ibid., 3.3.

[58] Ibid., 3.4.

[59] Ibid., 4.3.

[60] Ibid., 3.3.

[61] Ibid., 3.1.

[62] Ibid., 3.2

[63] Ibid., 3.2.

[64] Ibid., 3.2.

BIBLIOGRAPHY

Caudle, Sharon L. "Reengineering for Results: Keys to Success from Government Experience." Available from http://www.dtic.mil/c3i/bprcd/3002sb.htm. Internet. Accessed 13 January 2000.

Champy, James. Reengineering Management, The Mandate for New Leadership. New York, NY: HarperBusiness, 1995.

Clinton, William J. "Remarks to the Global Forum for Reinventing Government." Federal Register (15 January 1999): 55 – 58.

Department of Defense. "Framework for Managing Process Improvement." Available from http://www.dtic.mil/c3i/bprcd/3003s1.htm. Internet. Accessed 19 January 2000.

Fogg, C. Davis. Implementing Your Strategic Plan. New York, NY: AMACOM – American Management Association, 1999.

Hammer, Michael and James Champy. Reengineering the Corporation. New York, NY: HarperBusiness, 1993.

Hammer, Michael and Steven A. Stanton. The Reengineering Revolution. New York, NY: HarperBusiness, 1995.

Hammer, Michael and Steven Stanton. "How Process Enterprises Really Work." Harvard Business Review (November-December 1999): 108 – 118.

Kelman, Steven. "Making Change." Government Executive (January 2000): 28 – 30.

Ketti, Donald. "Relentless Reinvention." Government Executive (January 2000): 25 - 27.

Sims, Ronald R. ed. Accountability and Radical Change in Public Organizations. West Port CN: Quorum Books, 1998.

"The Chief Energizer." Government Executive (May 1999): 65.

Thompson, James R. "Experiments in Excellence." Government Executive (July 1999): 81 – 86.

U.S. General Accounting Office. "Business Process Reengineering Assessment Guide." 1995. Available from http://www.dtic.mil/c3i/bprcd/5536.htm. Internet. Accessed 19 January 2000.