

# Senior Service College Fellowship Civilian Research Project

## ARMY EFFICIENCY INITIATIVES

BY

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# REPORT DOCUMENTATION PAGE

*Form Approved*  
*OMB No. 0704-0188*

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

<b>1. REPORT DATE (DD-MM-YYYY)</b> 28-04-2011		<b>2. REPORT TYPE</b> Civilian Research Paper		<b>3. DATES COVERED (From - To)</b>	
<b>4. TITLE AND SUBTITLE</b>  Army Efficiency Initiatives				<b>5a. CONTRACT NUMBER</b>	
				<b>5b. GRANT NUMBER</b>	
				<b>5c. PROGRAM ELEMENT NUMBER</b>	
<b>6. AUTHOR(S)</b>  LTC Dale B. Rivers				<b>5d. PROJECT NUMBER</b>	
				<b>5e. TASK NUMBER</b>	
				<b>5f. WORK UNIT NUMBER</b>	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b>  Senior Service College Fellowship Program The University of Texas 3925 W. Braker Lane, Suite 400 Austin, TX 78759				<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>  U.S. Army War College 122 Forbes Ave. Carlisle, PA 17013				<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>	
				<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>	
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b>  DISTRIBUTION A: Unlimited					
<b>13. SUPPLEMENTARY NOTES</b> NONE					
<b>14. ABSTRACT</b>  In 1988, the Secretary of Defense directed the military services to incorporate Total Quality Management (TQM) principles throughout their organizations. Beginning in 1992, Total Army Quality (TAQ) was the Army's new management philosophy, responding to the DOD TQM mandate. This was a significant change of the Army's culture. In response to a 2010 mandate to cut The Department of Defense spending by \$100 billion issued by The Secretary of Defense, The Department of the Army is still searching for ways to become more efficient. As a result, The Army Office of Business Transformation published a business transformation plan and developed the new Integrated Management System (IMS), both to be implemented in 2011. However, before making another significant change in business practices to meet the Army's current challenges, it must be determined if TQM is an effective management tool and more importantly if TAQ is an effective strategic management process to support an Army ready and able to accomplish its mission.					
<b>15. SUBJECT TERMS</b>  Total Quality Management, Total Army Quality					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>
<b>a. REPORT</b>	<b>b. ABSTRACT</b>	<b>c. THIS PAGE</b>			<b>19b. TELEPHONE NUMBER (include area code)</b>
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNLIMITED	40	LTG (R) Joe Yakovac  512-232-4566



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**ARMY EFFICIENCY INITIATIVES**

by

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## **ABSTRACT**

AUTHOR: Lieutenant Colonel Dale B. Rivers  
TITLE: Army Efficiency Initiatives  
FORMAT: Strategy Research Project  
DATE: 28 April 2010      WORD COUNT: 6,632      PAGES: 40  
KEY TERMS: Total Quality Management, Total Army Quality  
CLASSIFICATION: Unclassified

In 1988 the Secretary of Defense directed the military services to incorporate Total Quality Management (TQM) principles throughout their organizations. Beginning in 1992, Total Army Quality (TAQ) was the Army's new management philosophy, responding to the DOD TQM mandate. This was a significant change of the Army's culture. In response to a 2010 mandate to cut The Department of Defense spending by \$100 billion issued by The Secretary of Defense, The Department of the Army is still searching for ways to become more efficient. As a result, The Army Office of Business Transformation published a business transformation plan and developed the new Integrated Management System (IMS), both to be implemented in 2011. However, before making another significant change in business practices to meet the Army's current challenges, it must be determined if TQM is an effective management tool and more importantly if TAQ is an effective strategic management process to support an Army ready and able to accomplish its mission.



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## **ACKNOWLEDGMENTS**

This paper is the result of the author's Army War College Fellowship at the Institute for Advanced Technology at The University of Texas at Austin.

## **I. Background**

Secretary of Defense Gates mandated a reduction in spending in the Department of Defense (DOD) by \$100 billion over the next five years. Ten years of war has increased DOD's budget astronomically. A change of business practices and policies are being drafted to ensure this goal is met. However, this is nothing new. In 1988 the Secretary of Defense directed all the Services to incorporate Total Quality Management (TQM) principles throughout their organizations. Total Army Quality (TAQ) was the Army's new management philosophy in response to the DOD TQM mandate. It marked a significant change of the Army's culture. Unfortunately, with the cancellation of several programs such as the Future Combat Systems, it appears as though TAQ did not achieve its desired goals. To meet the Army's current challenges, it must be determined if TQM is an effective management tool for today and more importantly if TAQ is a strategic management process to support an Army ready and able to accomplish its mission. In order to achieve this, it must be determined where and if TAQ failed and what possible changes, if any, need to be made before implementing the new Integrated Management System.

## II. LITERATURE REVIEW

### *A. Introduction*

Total Quality Management is an approach to the art of management that originated in Japanese industry in the 1950s and has become steadily more popular in the West since the early 1980s. Total Quality is a description of the culture, attitude and organization of a company that aims to provide, and continue to provide, its customers with products and services that satisfy their needs. A total quality culture requires quality in all aspects of the company's operations, with things being done right the first time, with product defects and waste eradicated from operations.

Many companies have difficulty implementing TQM. As a result many managers are skeptical about the implementation of TQM. However, at successful companies it appears there is a higher percentage of those who successfully implemented TQM.<sup>1</sup> The concept or management practice of using Total Quality Management is taking hold in the public and private sectors throughout the United States. It is now practiced in many types of organizations, including manufacturing, government, service, research and development, and education. Yet in today's global economy of today, the quality of many American products and services does not always compare favorably with that of our foreign counterparts.<sup>2</sup>

## *B. Total Quality Management*

Total Quality Management is a method by which management and employees can become involved in the continuous improvement of the production of goods and services. It is a combination of quality and management tools aimed at increasing efficiencies in production and delivery while reducing losses due to wasteful practices.<sup>3</sup>

TQM is a management philosophy that seeks to integrate all organizational departments to focus on meeting customer needs and organizational objectives. TQM views an organization as a collection of processes. It maintains that organizations must strive to continuously improve these processes by incorporating the knowledge and experiences of workers. The simple objective of TQM is "Do the right things, right the first time, every time".<sup>4</sup>

TQM is infinitely variable and adaptable. Although originally applied to manufacturing operations, and for a number of years only used in that area, TQM is now becoming recognized as a generic management tool, just as applicable in service and public sector organizations.<sup>5</sup> Today there is no shortage of opinions on the usage of total quality management tools, philosophy and how they influence organizations. Supportive leadership must reinforce TQM, allowing organizations to reduce cost, increase flexibility, and improve customer responsiveness and the adaptation of new technologies in order to achieve competitive advantage.

Dr. W. Edwards Deming is considered the father of quality management. He worked extensively in post World-War II Japan, where he is revered for helping to revolutionize their business practices. The impact of Dr. Deming's teachings on American manufacturing and service organizations has also been profound. He led a sweeping

quality revolution that improved the competitive position of the United States. In his book: "Out of the Crisis", Dr. W. Edwards Deming shows these 14 steps toward an improved management:

- Create and communicate to all employees a statement of the aims and purposes of the company.
  - Adapt to the new philosophy of the day; industries and economics are always changing.
  - Build quality into a product throughout production.
  - End the practice of awarding business on the basis of price tag alone; instead, try a long-term relationship based on established loyalty and trust.
  - Work to constantly improve quality and productivity.
  - Institute on-the-job training.
  - Teach and institute leadership to improve all job functions.
  - Drive out fear; create trust.
  - Strive to reduce intradepartmental conflicts.
  - Eliminate exhortations for the work force; instead, focus on the system and morale.
- (a) Eliminate work standard quotas for production. Substitute leadership methods for improvement.
- (b) Eliminate Management By Objective. Avoid numerical goals. Alternatively, learn the capabilities of processes, and how to improve them.
- Remove barriers that rob people of pride of workmanship.
  - Educate with self-improvement programs.
  - Include everyone in the company to accomplish the transformation.<sup>6</sup>

These 14 tenets serve as the basis for any quality management program and are still in used worldwide today.

Organizational development requires effective leadership. Reduced budgets, changing needs and priorities, rapidly changing technology, increased pressures and restructuring are just some of the factors that cause confusion and turmoil in organizations. One survey revealed that as many as 70% of re-engineering efforts failed to achieve their goals, and 60% of over 900 executives who participated in restructuring efforts produced no productivity gains.<sup>7</sup> As quality improvement activities are intended to reduce an organization's problems and enhance organizational

performance, management must accept responsibility for the failure to effectively develop and implement TQM for their organizations.

One approach that increases staff accountability and responsibility is 'shared governance'. Shared governance as a concept developed in response to an identified need for staff nurses to have more control over their institutional working environment. Is shared governance TQM with a new name? Common to both TQM and shared governance is the involvement of staff in the organization to bring about change. Shared governance provides a method of increasing control over nursing practice by increasing and formalizing staff participation in the system. Common to all definitions is the tenet of individual professional accountability and interdependent collegial responsibility for decision-making. This is a fundamental shift that places real power in the hands of those upon which the majority of decisions impact.<sup>8</sup> Leaders must take responsibility for the definition, implementation, and continued activity of the quality process to ensure there is organizational change.

There are several steps for executive involvement. First, a series of in-house meetings featuring discussions on quality and its impact should be conducted. Once the decision is made to proceed, top management should establish a Quality Steering Committee with managers from each department to define a quality process that will formally engage every employee. Every employee must be included in improving quality with equal responsibility from the newest hire to the CEO. Informed, active commitment to quality is the responsibility of top management. Second, executives must listen down, that is getting out and asking questions to workers and managers alike. Quality must be discussed at every opportunity to ensure it is properly

implemented into an organizations culture. Third, top executives must appreciate employees. Programs of recognition, gratitude, and celebration, big or small, should be incorporated and attended by senior leaders.

One critical resource that TQM programs bid for is time. In any normal business environment there is competition among work activities. One indicator used to measure the loss of TQM emphasis was the frequency with which TQM activities were superseded by other "more urgent" business activities.<sup>9</sup>

### *C. Types of Total Quality Models*

There are several types of quality models that have been used to implement and administer total quality management. 5-S is a Japanese TQM program. The 5-Ss stand for Seiri (structure-organization), Seiton (systematize-neatness), Seiso (sanitise-cleaning), Seiketsu (standardize-standardization), and Shitsuke (self-discipline). The aim is to bring about change; a change in the way the organization conducted day-to-day business and a change in business focus to solidify relationships with clients.<sup>10</sup> An understanding of the 5-S will enable an organization to simplify workstations and daily routines. However, as with many organizational changes Leaders should be aware that introducing TQM could become a lower priority than day-to-day operations so they should commit to ensuring the introduction of 5-S and the attainment of the strategic business plan goals occur simultaneously.

Quality Control Circles (QCC) are small groups that perform quality control activities. This group works to improve quality control activities utilizing quality control techniques with full participation of all members.<sup>11</sup> Total Productive Maintenance (TPM) is a

“system of maintenance covering the entire life of equipment to include planning, manufacturing, and maintenance.”<sup>12</sup> This process involves the entire operation from top executives, middle managers, and production workers. TPM brings maintenance into focus as a necessary and vitally important part of the business. Maintenance is no longer regarded as a non-profit activity. Appropriate time for maintenance is scheduled as a part of the manufacturing day and is treated as an integral part of the manufacturing process. The overall objective is to hold emergency and unscheduled maintenance to a minimum. TPM promotes production maintenance through morale-building management and small-group activities to maximize equipment efficiency.

The Army is using Lean Six Sigma (LSS) as the continuous process improvement tool to transform the Army. LSS combines the principles of Lean, reducing and eliminating non-value activities with Six Sigma, reducing variation, increasing quality to improve process efficiency and process effectiveness. Because each Army organization is different, standardization and flexibility in the organization must be balanced to maintain a focused Army-wide deployment that will thrive and become embedded in the command's culture. The root of both Lean and Six Sigma were established when the greatest pressure for quality and speed were on manufacturing. Lean rose as a method for optimizing automotive manufacturing; Six Sigma evolved as a quality initiative to eliminate defects by reducing variation in processes in the semiconductor industry. It is not surprising that the earliest adopters of Lean Six Sigma arose in the service support functions of manufacturing organizations. Six Sigma;

emphasizes the need to recognize opportunities and eliminate defects as defined by customers, recognizes that variation hinders our ability to

reliably deliver high quality services, requires data driven decisions and incorporates a comprehensive set of quality tools under a powerful framework for effective problem solving, provides a highly prescriptive cultural infrastructure effective in obtaining sustainable results. Lean, on the other hand, focuses on maximizing process velocity, provides tools for analyzing process flow and delay times at each activity in a process, centers on the separation of "value-added" from "non-value-added" work with tools to eliminate the root causes of non-valued activities and their cost.<sup>13</sup>

Ironically, Six Sigma and Lean have often been regarded as rival initiatives. Lean enthusiasts note that Six Sigma pays little attention to anything related to speed and flow, while Six Sigma supporters point out that Lean fails to address key concepts like customer needs and variation. Both sides are right. Yet these arguments are more often used to advocate choosing one over the other, rather than to support the more logical conclusion that we blend Lean and Six Sigma.

#### *D. Effectiveness of Total Quality Management*

TQM can be effective regardless of industry type or organizational size. A study was conducted during a transformation project on a community and how it related to the organizational change process of a corporation. The area quality initiative took a fairly familiar first phase approach to improving communities-an organization-by-organization approach to its work, focusing on promoting the application of the principles and practices of quality and participation in independent organizations. The expectation is that through this team's effort you will develop an organization that will be flexible, adaptable, and capable of learning and changing with the challenges of today and tomorrow. In the midst of the transformation process, the team became convinced that the more powerful learning goes from community to organization. The learning derived

from emerging models of community development can be effectively translated and make dramatic contributions to the theory and practice of organizational transformation. They discovered that the community has much to teach about organizational growth and development. Many of the steps and tasks used mirrored those used by corporations. The team developed a model for community change, and in the final analysis, suggested that applying the community model to organizational transformation would be very beneficial.

Another report published in the International Journal of Public Sector Management in 2007 evaluated an organizational development program that was implemented at the tertiary-care public hospital in Sri Lanka from 1997-2001. Developing countries are gradually restructuring their economic systems. Government interventions are downsized and market mechanisms are facilitated. Many public-owned organizations are privatized, with the aim of improving efficiency and quality. Some countries and public hospitals have attempted to implement quality improvement programs without altering the basic structure of the organization. TQM is an organizational development strategy that focuses on process and human resource management with the aim of providing higher quality of clinical-care and patient-satisfaction. Proponents of TQM believe that TQM can improve competitiveness and improve customer and employee satisfaction.

Fundamentally, a 5-S based TQM program was feasible given that as the vision and mission of the hospital were aligned to achieve quality. The long-term strategy was total quality management and the short-term plan was 5-S. The practice of 5-S in turn led to the identification of management issues that needed improvement. The study

confirmed that significant improvements in performance were achieved following 5-S based TQM implementation.<sup>14</sup> The 5-S program may explain improvements, at least partially. Employee feedback, too, indicates the positive impact. Moreover, it shows that 5-S based TQM can stimulate organizational management changes. The 5-S based TQM system appears to be a feasible and promising system to initiate management improvement. Effective leadership, teamwork, training and monitoring can facilitate smooth implementation.

Implementing TQM in a manufacturing plant provides an excellent example of how total quality management in conjunction with organizational development can be used to increase the production and profitability of an organization. Published in *Manufacturing Systems Journal*, a study showed that by introducing new manufacturing techniques increasing the emphasis on quality and redesigning matrix-switching products, a large scale company managed to obtain significant results. Total cycle time was reduced by 60%; inventory was cut 43% from \$6.3 million to \$3.5 million, final assembly reduced by 52%, and manufacturing floor space declined by 30%.<sup>15</sup> The company used a three-step process. First, they focused on major manufacturing components removing buffers such as inventory, space and time. Second, they looked at how to better utilize workers by focusing on training and ownership. Lastly, non-value added process transactions were eliminated. Prominence was placed on training employees. Interdisciplinary teams were formed emphasizing communication to introduce new plans. The company even sent these teams to other operations demonstrating new methods to reveal how things would be better and provide reinforcement through constant discussion.<sup>16</sup> The

company implemented the plan from bottom to top allowing for its most valuable asset, its people, to be involved and stimulated by the change process.

#### *E. Conclusion*

In today's global economy, industries must find and maintain a competitive edge in order to survive. When effectively implemented, Total Quality Management can provide this edge and allow them to endure. Total Quality Management is taking hold in various types of organizations, including manufacturing, government, service industries, research and development, and education. The ultimate goal is to have a lean efficient organization that produces a quality product in a proficient manner that eliminates waste, all while satisfying customer needs.

### III. The Integrated Management System

The new Integrated Management System (IMS) is designed to make better resource-informed decisions. To achieve this “the Army will make a concerted effort to amalgamate business operations across the Army’s various functional areas. IMS is an integrated set of management processes. The components include: Strategic Planning, Enterprise Governance, Enterprise Architecture, Decision Support, Data & Information Systems, Performance Management, Leadership, and Culture Change.”<sup>17</sup>



Figure 1

The Integrated Management System is a structure for leading Army to improved business operations. Metrics are developed and used to establish and maintained linked together to disclose how business processes impact one another and taken

together contribute to overall performance.<sup>18</sup> This enables accuracy on identifying and eliminating business challenges through informed decision making.

The Army's plan calls for implementing IMS in four steps: Plan, Implement, Assess, and Adjust. There are three phases to Planning: Strategic Planning, Enterprise Governance, and Enterprise Architecture. Strategic Planning involves developing and communicating business strategies, goals, and desired outcomes and ensures business rules and policies are aligned with the stated goals and outcomes.<sup>19</sup> The Army Campaign Plan will influence strategic planning and will be the basis for strategic management planning. Enterprise Governance separates roles, responsibilities, and decision rights; orchestrates, aligns, and integrates authority, and moves to reduce redundancy.<sup>20</sup> Enterprise Architecture simplifies business processes aligned to the business enterprise architecture.<sup>21</sup>

The purpose of the Business Enterprise Architecture and the associated transition plan is "to provide a blueprint for transformation that helps to ensure the right capabilities, resources and materiel are rapidly delivered. The Business Enterprise Architecture guides and constrains implementation of interoperable defense business system solutions as required by the Fiscal Year 2005 National Defense Authorization Act and guides information technology investment management to align with strategic business capabilities as required by National Defense Authorization Act, Clinger-Cohen and supporting Office of Management and Budget and Government Accountability Office policy."<sup>22</sup>

Implementation consists of Decision Support and Information Systems. Decision support provides well-timed information and analysis to support informed, focused,

performance-based decision making and reporting. It also provides transparency of resources and funding.<sup>23</sup> Data & Information Systems offers authoritative, timely, precise, dependable, and objective data sources to support analysis and decision-making.<sup>24</sup>

Assessment incorporates Performance Management. Performance Management develops goals and metrics that will provide the capability to assess performance against stated business goals. This also incorporates accountability and inducements to improve performance.<sup>25</sup>

Finally, Adjustment incorporated Leadership and Culture. Leadership designs and implements initiatives to adjust performance and makes properly informed decisions while leading the transformation effort.<sup>26</sup> Culture change enables an organization to improve through the use of training and development, which then allows the necessary knowledge, experience, and competencies to make improvements.<sup>27</sup> The ultimate goal for IMS is to arrive at a common set of outcomes, identifying and aligning measurable objectives, implementing performance metrics, measuring and monitoring outcomes, establishing feedback mechanisms, and adjusting processes and procedures based on lessons learned.<sup>28</sup>

#### **IV. Total Army Quality**

In 1988, the Secretary of Defense issued guidance to the Services to implement the principles of Total Quality Management (TQM) to improve performance and efficiency through a program called Total Army Quality. TAQ is a system of management focused towards improving organizational processes, resource management, and customer focus.<sup>29</sup> It is an integrated strategic management approach for achieving performance excellence, which occurs when organizational goals and processes are linked and aligned to enhance the delivery and quality of the products or services with a minimal expenditure of resources.<sup>30</sup> There are four principles that are the foundation for providing value to the customer while providing significant and sustained organizational improvement: leadership vision and commitment, mission and customer focus, employee empowerment, and continuous improvement.<sup>31</sup> The Army's approach to improve organizational performance and continuously improve its processes included several initiatives the first being Army Regulation (AR) 5-1, Army Management Philosophy, 12 June 1992, which established Total Army Quality (TAQ) as the Army's management approach. The TAQ provided a blueprint to perform systematic analyses of organizations, business and work processes to achieve process improvement.<sup>32</sup> Also in 1992, the concept plan for TAQ implementation, Leadership for Total Army Quality was endorsed. The plan builds on the foundation laid by AR 5-1 and addresses Army-wide implementation of TAQ. Finally, in 1995, the Army implemented a set of Army Performance Improvement Criteria (APIC) as a framework for improving operational performance.<sup>33</sup> The Malcolm Baldrige National Quality Award Criteria and the criteria for the President's Quality Award, which are Baldrige criteria tailored to fit the federal

government rather than private industry, formed the basis for the APIC. From its inception as the Army's management approach in 1992 to the present, TAQ has provided leaders and managers the flexibility to incorporate new methods and proven business practices as they develop.

The APIC helps the manager at higher levels view the linkages between the various functional areas and multiple processes that comprise the organization. It fulfills all the requirements for assessment outlined previously. This assessment framework can be applied equally no matter which specific management discipline or philosophy is adopted by an organization. The use of APIC supports Total Army Quality in three ways<sup>34</sup>

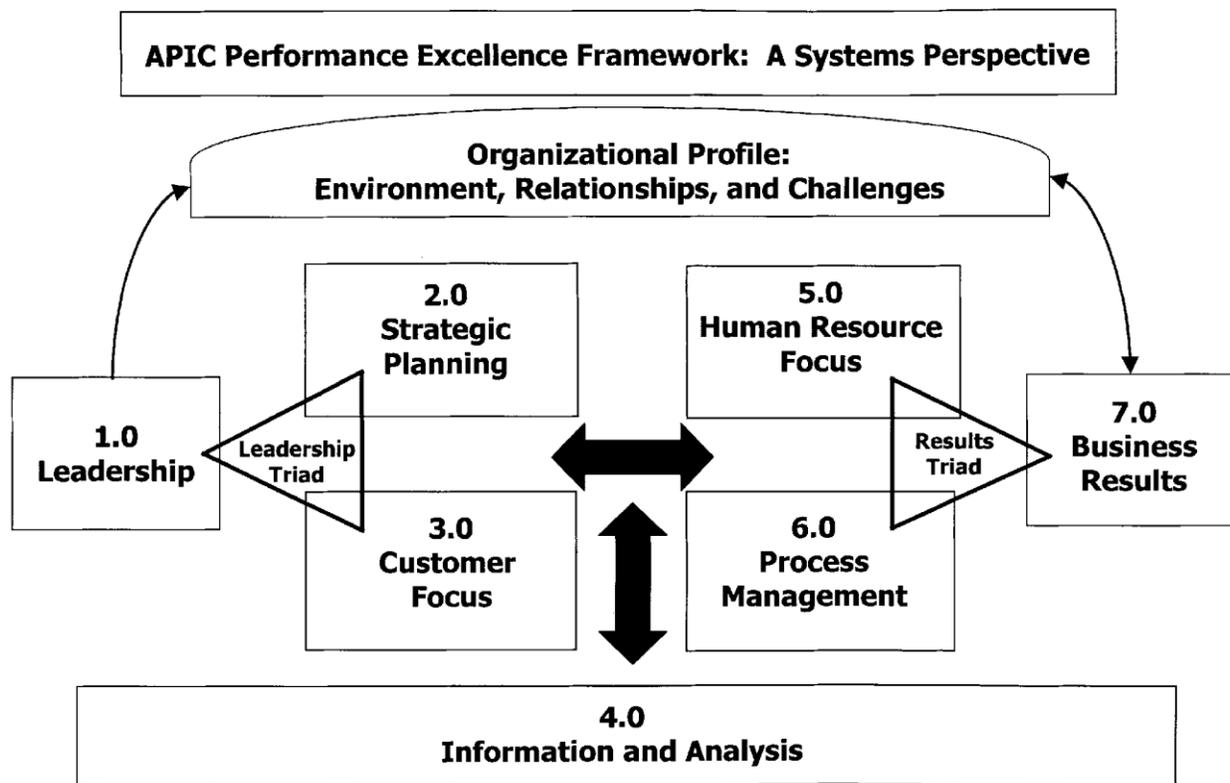
(1) Provides a disciplined approach to manage the dynamics of change by providing a effective tools for strategic planning, conducting organizational assessments, analysis, and performance improvement planning.

(2) Elevates the organization's performance potential and standards by improving business practices and capabilities.

(3) Establishes common performance criteria to enable make possible communication and distribution of the best management techniques, strategies, and practices.<sup>35</sup>

The APIC assists in generating continuous improvement over time. When properly conducted, the self-assessment reveals the health of organizations, identifies strengths, and pinpoints opportunities to improve management practices and programs. Through continuous self-assessment, the organization can review, prioritize, and select the best approach for getting results.<sup>36</sup> The criteria are built upon core values and concepts,

which are found in high-performing organizations. They are the foundation for integrating key performance requirements within a results-oriented framework that creates a basis for action and feedback.<sup>37</sup> The APIC'S core values and concepts are embodied in seven categories: Leadership, strategic planning, customer and market focus, information and analysis, human resource focus, process management, and business results.<sup>38</sup> The following illustration is an example of how the categories are interconnected.



In the illustration above, the Organizational Profile sets the framework for how the organization operates. The environment, working relationships, and strategic challenges provide an overarching guide for the organizational performance management system.<sup>39</sup> All six APIC Categories establish the basis for the organization. It further consists of two triads, leadership and results, and an Information and Analysis base.<sup>40</sup> The Leadership

Triad represents Leadership, Strategic Planning, and Customer Focus. This calls attention to the importance of a leadership focus on strategy and customers. The Results Triad incorporates the Human Resource Focus, Process Management, and Business Results. Employees and key processes accomplish organizational goals that produce its business results. These actions are aligned toward business results; a combination of customer, financial, and operational performance results, including human resource and public responsibility.<sup>41</sup>

The horizontal arrow links the leadership triad to the results triad, which is vital to organizational success. This highlights the relationship between Leadership and Business Results. Leadership must scrutinize Business Results and must incorporate lessons learned to drive improvement. The two-headed arrow highlights the magnitude feedback plays in an effective performance management system.<sup>42</sup> Information and Analysis is vital to the successful management of the organization and to system for improving organizational performance and competitiveness. The Information and analysis base serves as a foundation for the performance management system.<sup>43</sup>

## **V. Review and Analysis**

An organization utilizing total quality management by implementing continuous improvements demonstrates the basic integral tenet of total customer satisfaction. Total quality management integrates quality in all functions throughout the organization and considers every interaction between the various elements of the organization. Most organizational development professionals analyze a company's ability to utilize TQM principles or similar quality standards in their business environment. Organizational development practitioners must examine the organizational culture before implementing TQM principles to ensure they will place a high priority on the proper allocation of TQM. It reinforces a set of management practices and behaviors that should exemplify and reinforce learning-organizations and TQM principles.<sup>44</sup> Consultants and executives must examine the existing relationship between TQM and the learning organization.

Learning organizations are characterized by their willingness to provide continuous learning opportunities for employees while linking individual performance with organizational performance and are continuously aware of and interact with their environment. TQM initiatives have improved the quality of products and profits. TQM and organizational learning are inextricably linked. Both relationships allow organizations to examine how they systemically perform tasks, to develop and implement new insights, and transmit new knowledge throughout the organization. The organization development model measures the relationship of a supportive culture and TQM principles on a learning organization. In addition, the model measures the relationship between the learning organization and its impact on worker motivation. The organizational development model was designed as a realistic diagram for practitioners,

executives, researchers, and organizational development specialists to consider when investigating the attributes of TQM and culture in a learning organization.

Although a variety of management techniques and approaches exists to improve business operations, many current initiatives share a number of similar recommendations at the operational level.<sup>45</sup> Strategic initiatives help a company to focus on moving toward achieving a specific mix of strategic objectives: Reducing costs, increasing quality and managing time. Total Quality Management is achieved through a company's total commitment to quality in its products, processes, and operations. It emphasizes nonfinancial measures such as process controls, defect rates, and customer satisfaction.

There is a possible fallacy to TQM. The application of TQM does not assume that profitability will result from achieving excellent quality.<sup>46</sup> One possible explanation for disconnections between the promises and operating results is incomplete implementation. Companies may find innovation and adaptation more important to success than reduction of process errors.

The key to an effective TQM program is not in the understanding, but rather the execution. TQM consist of five pillars: Customer satisfaction, total involvement, measurement, systematic support, and continuous improvement.<sup>47</sup> Customer satisfaction is self-explanatory. Total involvement entails everyone, at every level, and every function. Senior management plays an important role. It must ensure that staff members do more than merely attend training sessions, but hold their staffs responsible for implementation. One CEO went as far as to tie part of senior staff members' variable compensation to implementing TQM. Measurement is not a question of

whether or not to measure but of measuring the right things. When things are not done right, it incurs costs. By measuring appropriate values, such as time and redundancy, areas of waste such as unnecessary meetings can be identified and eliminated. A common problem with TQM implementation is that it is treated as a program, kept separate and not linked to vital business functions throughout the organization. Systematic support means having TQM aligned with organizational systems such as performance management, financial planning, and strategic planning, rather than a separate system that is followed occasionally.<sup>48</sup> Continuous improvement means just that, work is a process that can always be done better. Resistance will be met during the implementation process. However, using planning, internal implementation strategies such as leadership and commitment, education and resources; and external strategies cultural change can occur because of doing the right things over time.

Total Quality Management can yield successful results regardless of industry providing it is effectively planned, implemented, and managed. The TQM system must be easy to understand and apply. However, TQM is different from management of total quality. To be successful in quality, managers and workers must realize that quality is important for an organization. Everyone must actively participate in the quality program<sup>49</sup>. With this said, there have been noted differences between the application of quality management in the West as compared to Japan.

In the West, the biggest barrier for quality movement is trust. In order to achieve successful quality programs, open communication and delegation of power is needed. However, "top management in the West has been unwilling to delegate power because their authority would be threatened. They want to keep the information secret as power;

conversely, workers are suspicious of the management's actions in delegating power"<sup>50</sup> Japanese workers and management believe the quality movement will enhance the excellence of the company and that both will benefit. The top priority of management in the West is profitability. It is expected that quality programs will improve short-term profitability. As a result, quality systems are set up which use employees to check quality results rather than help to achieve quality. In Japanese factories, by contrast, all workers are quality control inspectors for their work before they pass the work-in-progress to the next person. There is no need to have a separate quality control department; everyone is a quality control inspector.<sup>51</sup> Managers and workers work together to solve quality problems establishing a trust relationship. The concentration is for long-term profitability for the company. "The West depends on the quality system to produce a high-quality product; the Japanese motivate people to produce a high-quality product through the quality system".<sup>52</sup> Within the DOD what is needed is not only a quality system but a quality culture. However, a quality mind-set must be established first. A quality mind-set plants the seed of quality into the minds of both workers and management. The result will be a business of excellence.<sup>53</sup>

## **VI. Recommendations**

The Army is unique from other military services and the civilian sector because it has different roles and mission, and places importance on people over technology.

Therefore, the employment of quality will differ as well. The hierarchical rank system is both an intrinsic and important element of military culture. At the same time, this also represents a hindrance to bottom-up organizational communication essential for quality management efforts to generate a free-flow of ideas in all directions.<sup>54</sup> It must be understood that TAQ and IMS are not tools for cost reduction. Implementing them as such will fail. Besides increasing customer satisfaction, the primary objective of these systems is to produce continuous improvement methodology. This in turn results in a quest for improved performance and elimination of redundant steps, which will lead to reduced costs.

As a result, the Army proposed to DOD the following steps to reduce the DoD budget by \$29 Billion over the next five years: Consolidating six installation management commands to four, consolidating email infrastructure and data centers, cancelling the SLAMRAAM surface-to-air missile, and terminating the NLOS Launch System.<sup>55</sup> In addition The Under Secretary of Defense for Acquisition, Technology, and Logistics released further guidance to reduce contracts for goods and services. TAQ provides a flexible umbrella which allows individual organizations the opportunity to apply an assortment of, and highly effective, process management disciplines, philosophies, and tools. Flexibility is available to use and adjust the correct management tools and techniques such as the Baldrige-based criteria for organizational self-assessment, business process reengineering, Army Ideas for Excellence Program, benchmarking,

activity-based costing/management, and knowledge management and acquisition reform to meet mission requirements.<sup>56</sup>

The use of TAQ requires three key elements to successful implementation: Senior leadership buy-in, full and open communication at all levels, and training. Managing changes is not about forcing people to change, it is about ensuring people understand why and how the change should take place, while providing leaders to mentor those implementing the change. The approach to implementing TAQ must be decentralized. This will enable leaders the flexibility to adapt, use and modify TAQ at their level to achieve their specific strategic goals. The intent is to improve quality and increase productivity. Correct implementation translates into continuously improving training, unit readiness, and enhanced combat effectiveness. The first key issue in managing changes is to establish a sense of urgency. One must understand the rationale for the timing to counteract the tendency for procrastination. Nothing worries rational human beings more than the great unknown or even an element of uncertainty regarding the future. To offset the overall anxiety for changes, management must provide a clear outline of the vision and strategy regarding the changes, recognizing that the development of a clear vision and strategy is one of the principal responsibilities of leaders. The central aspect of managing changes is planning.

The use of TAQ requires commitment at all levels. Leaders must be willing to devote time towards the training, implementation, and evaluation of TAQ. Implementation requires changing the culture, establishing an environment which promotes and sustains continuous improvement.<sup>57</sup> Questioning senior leaders concerning the use of TAQ revealed that few, if any, had even heard of TAQ let alone were involved in

implementation or training. Leaders at all levels should speak honestly and openly about problems and opportunities. Also, they should work continuously to reduce and eliminate organizational barriers and obstacles to open, effective communication.<sup>58</sup>

It must be emphasized that TAQ is not a new trend, but rather a management tool that will be ingrained into the culture of the Army as much as physical training. TAQ is a long-term commitment. A leader must obligate their time management and decision-making process to quality and the Army management philosophy. A leader must demonstrate constant personal commitment to quality by their actions. This cannot be delegated.<sup>59</sup>

Mentorship can make a difference. Mentors ensure junior leaders are competent and committed to organizational goals. They also have a vocational and psychological impact on their protégés. Some vocational benefits include sponsorship, exposure and validity, protection, and challenging assignments. Mentors can help an organization improve in the areas of acceptance and confirmation, counseling, and friendship. Mentoring, however, affects more than just the individual. It also influences the organization.<sup>60</sup> Some of the benefits are improved staff performance, the ability to identify people with high potential more easily and earlier, and greater organizational loyalty. This is not to say that a good working mentorship program will always yield positive results, which in turn result in operational gains. However, continuous improvement happens when quality managers are improved. A good way to accomplish this is through a caring and seasoned mentor.

With the advent of participative and total quality management and the focus on empowerment, major problems have arisen. Organizationally induced helplessness is

the antithesis of empowerment. An organization trying to change to a culture of empowerment faces difficulties. One such difficulty is that employees believe they have no say in business decisions. Even when employees are shown that they have the ability and authority to exercise power, they frequently fail to use it. Soldiers need to provide input to the decision-making process during the planning stage. Leaders should retain authority during decision making. This is in sharp contrast to total quality management doctrine, where leader representation is powered-down to the follower level.<sup>61</sup> However, in the Army, decision making is a non-delegated authority that must remain with the leader.

Since most of the Army is unfamiliar with TAQ, training is essential. TAQ training will provide the knowledge, skills, and ability to continuously improve the process and ultimately the user. To be successful, TAQ training should focus on leadership and continuous process improvement. The training needs to be top-down driven, centering on specific areas such as quality management, quality control, quality improvements, group problem solving, and group dynamics.<sup>62</sup>

A TAQ training program must be developed using start-up and sustainment training. During start-up training, the focus is at the executive and management levels. Executive training should produce the vision and long-range goals for TAQ implementation, an implementation action plan, and a clearly defined tactics, techniques, and procedures (TTP).<sup>63</sup> In addition, it is helpful to have a clear understanding of the unit's organizational relationships in order to facilitate implementation. Management training, consisting of middle managers and first-line leaders, will focus on TAQ principles, and applying basic theories and tools for process

improvement. Outcome should be mid-and short-range goals for implementation, identification of processes requiring improvement, and a self assessment of the existing organizational culture.<sup>64</sup>

Sustainment training consists of train-the-trainer and individual awareness training. Train-the trainer is a concept that is not new to the Army. Its purpose is to produce a training cadre that is capable of conducting initial and improvement classes. They assist units in developing an environment which will encourage innovation, teamwork, and involves every member of the organization in continuous improvement activities. Key areas of discussion include elimination of barriers and open communication along horizontal and vertical lines. They also act as the eyes and ears for senior leadership, reporting on the current status of implementation. Individual awareness focuses on training each member in the concepts and application of TAQ. Institutionalization of TAQ is the desired outcome.<sup>65</sup>

It must be taken into account that the Army must remain effective even at the cost of the efficiency it desires. The Army will always be judged on its effectiveness during wartime and the use of its greatest commodity, the Soldier. Quality management in the traditional sense places high emphasis on the product. In the framework of the Army, emphasis needs to be on the process used to achieve the desired result.

Today, the Army is facing a shrinking budget, which is forcing the military to re-examine how business is being conducted at all levels of the organization. Research has shown a primary reason for the failure of TQM in an organization is the lack of top-down commitment. Does the Army have the top-down commitment to support the TQM / TAQ initiative? With the proper support and training, TAQ can be the strategic

management process for the Army, but it will take dedicated commitment from the Army leadership at all levels.

## VII. Endnotes

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<sup>2</sup> Todd Holder and Lorin Walker, "TQM Implementation," *Journal of European Industrial Training*, Vol. 17 Iss: 7 (1993):18.

<sup>3</sup> Khurram Hashmi, "Introduction and Implementation of Total Quality Management (TQM)" [http://www.isixsigma.com/index.php?option=com\\_k2&view=item&id=1489&Itemid=1&Itemid=1](http://www.isixsigma.com/index.php?option=com_k2&view=item&id=1489&Itemid=1&Itemid=1) (Accessed September 10, 2010).

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*

<sup>6</sup> W. Edwards Deming, *Out of Crisis* (Cambridge, Mass: Massachusetts Institute of Technology, Center for Advanced Engineering Study, 1986), 23-24.

<sup>7</sup> Michael J. Cook and Gopal K. Kanji, "Quality Improvement through Organizational Development," *Total Quality Management*, July 1998, <http://web.ebscohost.com.ezproxy.lib.utexas.edu/ehost/detail?vid=3&hid=12&sid=36c58519-1452-477a-a449-4f1097104c02%40sessionmgr13&bdata=JnNpdGU9ZW9hvc3QtbGl2ZQ%3d%3d#db=a9h&AN=874890>, (accessed September 10, 2010).

<sup>8</sup> *Ibid.*

<sup>9</sup> Holder and Walker, "TQM Implementation," *Journal of European Industrial Training*, Vol. 17 Iss: 7 (1993):18.

<sup>10</sup> Peter Bryar, Mick Walsh, "Facilitating Change – Implementing 5-S: An Australian Case Study," *Managerial Auditing Journal*, June 2002, <http://www.emeraldinsight.com.ezproxy.lib.utexas.edu/journals.htm?issn=0268-6902&volume=17&issue=6> (accessed September 8, 2010)

<sup>11</sup> Samuel K.M. Ho and Christopher K.H. Fung, "Developing a TQM Excellence Model", *The TQM Magazine*, June 1994, <http://www.emeraldinsight.com.ezproxy.lib.utexas.edu/journals.htm?issn=0954-478X&volume=6&issue=6>, (accessed October 5, 2010).

<sup>12</sup> *Ibid.*

<sup>13</sup> US Department of the Army Office of Business Transformation, *Lean Six Sigma*, <http://www.armyobt.army.mil/cpi-kc-tools-lss.html>, (accessed 12 January 2011).

<sup>14</sup> Ibid.

<sup>15</sup> Barbara Dutton, "Switching to Quality Excellence," *Manufacturing Systems*, March 1990, 51.

<sup>16</sup> Ibid.

<sup>17</sup> U.S. Department of the Army Office of Business Transformation, *Business Transformation Plan 2011*, (Washington, DC: U.S. Department of the Army, October 1, 2010), 88.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid, 89.

<sup>20</sup> Ibid,89.

<sup>21</sup> Ibid, 89.

<sup>22</sup> Ibid, 107.

<sup>23</sup> Ibid, 89.

<sup>24</sup> Ibid, 89.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid,89.

<sup>27</sup> Ibid.

<sup>28</sup> Ibid, 88.

<sup>29</sup> U.S. Department of the Army, *Leadership for Total Army Quality Concept Plan*, (Washington, DC: U.S. Department of the Army, September 25, 1992), 1.

<sup>30</sup> U.S. Department of the Army, *Total Army Quality Management*, Army Regulation 5-1 (Washington, DC: U.S. Department of the Army, March 15, 2002), 2.

<sup>31</sup> Ibid, 2.

<sup>32</sup> Ibid, 2.

<sup>33</sup> Ibid, 2.

<sup>34</sup> Ibid, 4.

<sup>35</sup> Ibid, 4.

<sup>36</sup> Ibid, 4.

<sup>37</sup> Ibid, 5.

<sup>38</sup> Ibid, 5.

<sup>39</sup> Ibid, 6.

<sup>40</sup> Ibid, 6.

<sup>41</sup> Ibid, 6.

<sup>42</sup> Ibid, 6.

<sup>43</sup> Ibid, 6.

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<sup>46</sup> Ibid.

<sup>47</sup> Donald L. Weintraub, "Implementing total quality management", *Economic Development Review*, Summer93, Vol. 11 Issue 3,  
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<sup>48</sup> Ibid.

<sup>49</sup> W. M. Mak, "Cultivating a quality mind-set", *Total Quality Management*, July 1999,  
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<sup>62</sup> U.S. Department of the Army, *Leadership for Total Army Quality Concept Plan*, 20.

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