

Performance Management Systems and Cultural Development

Abstract

Successful organizations continually seek ways to improve productivity, reduce and control costs, and increase efficiency. There is a continuing need for better tools and a number of entities have turned to performance management systems due to their promise of improvement in various areas of productivity and accountability.

This paper explores several performance management systems, with a focus on Six Sigma, a performance management system which has recently experienced widespread adoption in industry in the United States, and internationally. In this paper, several such performance management systems, including Total Quality Management TM, Six Sigma, Balanced Scorecard, and Enterprise Risk Management are reviewed and discussed.

Importantly for organizations around the world, in September 2011, Six Sigma was adopted by the International Standards Organization (ISO) as ISO 13053-1:2011, Quantitative methods in process improvement -- Six Sigma -- Part 1: DMAIC methodology, and ISO 13053-2:2011, Quantitative methods in process improvement -- Six Sigma -- Part 2: Tools and techniques. The new standards, ISO 13053:2011 – Parts 1 and 2, focus on the application of Six Sigma to improve existing processes. These are added as a quality performance system methodology, tools and techniques.

The paper explores Six Sigma's effects, socialization, and organizational cultural impacts on an organization. The Balanced Scorecard is reviewed and discussed, with an emphasis on its aiding an organization to achieve goals. Also importantly, a relatively new system, Enterprise Risk Management, which has recently begun to be widely adopted, will be discussed, both in the context of the COSO model, and ISO 31000.

Keywords: Performance management, total quality management, TQM, six sigma, balanced scorecard, enterprise risk management.

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Hugh Van Seaton, Ed. D., CSSGB, CGMA, CPA
Jacksonville University

INTRODUCTION

As successful organizations seek ways to improve productivity, reduce, and control costs, and increase efficiency, it leads to continuing efforts to develop efficiencies and adopt best practices in order to maintain good financial operations and to achieve success in their endeavors. Since the beginnings of the industrial revolution, business has used non-financial and financial information to guide management's decision making in planning the extent of activities and financing of the organization and controlling the production units and workers. A report by FitchRatings affirmed the importance of the practices adopted by management: "in analyzing financial crises of the past 25 years, it is clear that management has had a significant impact on salvaging or exacerbating situations" (Campa, Murray, Raphael, Doppelt, Laskey, O'Keefe, & Scott, 2007, p. 1). We only have to recall the effects of management actions on Lehman Brothers, MF Global, and others, to see this.

Accounting information, primarily used to plan, forecast, and develop what-if scenarios, together with non-accounting metrics and information geared toward tracking the flows and costs through the organization, have begun to be supplemented now; however, by newer forms of performance management programs including those which are incorporating ideas such as Deming's (1982) continuous process improvement philosophy (Total Quality Management, or TQM).

Since the 1980's, the emergence of Six Sigma as a performance management system has become relatively widespread, as a growing number of companies have adopted Six Sigma, such as Motorola, GE, and DuPont (Eckes, 2001a). Six Sigma, and the earlier Total Quality Management (TQM), have been influenced by and are perhaps outgrowths of the earlier 'scientific management movement', which developed in the late 1900s, and the early 20th century, and which was shaped by the works of Fayol (1916/1949), Taylor (1911/1998), Follett (1949), and others. Their early contributions provided much of the foundation for subsequent developments in management practices, and some of the initial sources of management tools. Shafritz and Ott (2001) characterized the era of the evolution of organizational theories and the scientific management movement as the "beginning of a continuous search for the most effective means by which people can be organized into social units in order to achieve the goals of their companies, their governments, or themselves" (p. 1).

Historic Overview: Origins of Continuous Process Improvement

Continuous process improvement concepts, and their validation, serve as the basis for TQM and Six Sigma, which are statistically based, and utilize forms of statistical control tools. The first of these was the control chart, invented by Dr. Walter A. Shewhart (1933), an important contributor to the field. Shewhart developed the first control charts, as indicated in Figure 1, Appendix, at Bell Telephone in the 1920s. Shewhart charts are still used today to test and monitor the variability within a system or process. As a method for analyzing his charts, Shewhart developed his theory of variability and an activity known as statistical process control.

The technique of using control charts has been widely adapted by businesses throughout the United States and elsewhere. Shewhart charts were adopted by the American Society for Testing Materials in 1933 and advocated to improve production during World War II (Deming & Shewhart, 1968). Following the conclusion of World War II, Deming went on to champion Shewhart's methods, working as an industrial consultant to a number of Japanese corporations from 1950 to 1990, and later to several U.S. based corporations. Deming's systematic strategy for business improvement was responsible for a dramatic increase in Japanese productivity over that period (Deming, 1982; Leitner, 1999; Seaton, 2007).

Deming (1982) also used and credited Shewhart with what is more widely known today as the Deming Cycle, which Deming introduced in Japan in 1950 as the Shewhart Cycle, as indicated in Figure 2, Appendix. The Deming Cycle is a six-point cycle of activities for a team, and begins with a series of questions (Deming, 1982, p. 88).

During the 1990s, Shewhart's (and Deming's) genius was rediscovered by a third generation of managers, who named it the Six Sigma approach (Eckes 2001a, 2001b, 2002). The Six Sigma system represents an evolution from TQM, adding a significant factor of statistical analyses, and perhaps more importantly, where TQM was customer focused, Six Sigma has an added concentration on costs and profitability (Seaton, 2007).

Total Quality Management (TQM) a continuous process improvement program

In 1950, Deming, invited to Japan, successfully convinced Japanese executives to adopt his statistic-based quality control system. By 1975, Japan had developed significantly in quality production and achieved high levels of productivity (Deming, 1982; Shafritz & Ott, 2001). Deming's ideas were quickly adopted as the need to reestablish manufacturing was crucial to the country's survival and to the regaining of prosperity for its citizens (Deming, 1982). The country had effectively *reengineered* itself (Deming, 1982; Leitner, 1999; Hammer and Stanton, 1995). Leitner (1999) described Deming's successes in explaining his concepts to the Japanese during this period. The Japanese took readily to the infusion of statistical process measurements of the organizations' activities, and to the culture of quality that TQM embodies, so that the philosophy of quality work throughout production became an intrinsic part of their programs. Deming's transformational ideas were later adopted, beginning in the 1980s, by the U.S. corporations after Japanese corporations' gains became widely recognized, as Corporate America began to focus on quality and on productivity in a meaningful way (Deming, 1982).

Six Sigma

Six Sigma is a rigorous application of principles-based continuous process improvement methods, tools, and statistic-based analyses of processes. Goals include improved customer service and quality, reduced error rates, and increased productivity. This is also described as "Six Sigma projects follow a defined sequence of steps with quantified goals and financial targets (cost reduction and/or profit increase), and rely on statistical tools to deal with uncertainty. Implementation involves the establishment of an infrastructure with specific roles and responsibilities (e.g. black or green belts)". (ISO 13053, 2011, p.1)

This methodology can produce significant benefit to businesses and organizations (Eckes, 2001a). As Eckes (2001b) described it, at some organizations Six Sigma simply means a measure of quality that strives for near perfection. To achieve Six Sigma, a process must not produce more than 3.4 defects per million opportunities [number of defects observed for a given process]. The fundamental objective of the Six Sigma methodology is the implementation of a strategy focused on process improvement and variation reduction, and facilitated through the use of two Six Sigma sub-methodologies: Define, Measure, Analyze, Improve, and Control (DMAIC) and Define, Measure, Analyze, Design, and Verify (DMADV). DMAIC is an improvement system for existing processes falling below specification and looking for incremental improvement, and is similar to the Deming/Shewhart Cycles, a six-point methodology from which Six Sigma evolved (Deming, 1982; Eckes, 2001b).

Six Sigma Success Factors

Six Sigma projects, and process reviews, are developed, and executed by Six Sigma Green Belts (GB), Yellow Belts (YB), and Black Belts (BB), and are overseen by Six Sigma Master Black Belts (MBB), the highest level of expertise. These designations denote progressively greater levels of training and certifications. The BB/GB nomenclature sets this methodology apart; there is quite a lot of technical training required to become a BB. (Seaton, 2007)

Organizational cultural change in Six Sigma has been conceived of as a breakthrough strategy, as it has been reported as being accountable for changes in firm values and culture. In other words, everyday concepts are reorganized and raised to a higher level ... however; the everyday concepts that are raised to higher level might not be called everyday concepts after this elevation because they now include elements of more systemic thinking. (Yoshida, 2004, p. 4)

Performance management systems are often utilized by enterprises thought to be in the forefront of using education as a means to both improve employee morale and performance, and to develop an awareness of the mission, vision, and values of the organization. The very far-sighted implementation of organizational culture-based training programs at these organizations often has been utilized for a number of years. Organizational culture training originates frequently with the *reengineering* programs, which represent significant process changes, and when implemented more broadly, may result in dramatic, breakthrough improvements; the reengineering program may also include the application of new technologies (Hammer & Stanton, 1995).

As benefits of performance management systems (Six Sigma, and others), Farooqui (2004) described the need for increased communication, motivation, and specifically, employee education. He suggested that a large majority of organizations consider providing financial information as an obligation rather than a product. He stated that applying Six Sigma principles could have a significant impact on perception about the provision of financial information and reporting on internal controls required by the Sarbanes-Oxley Act.

The concept of continuous process improvement, as represented by the work of Deming (1982) and Shewhart (1933) is regarded as the conceptual background for Six Sigma. Six Sigma

is a more statistically rigorous program than TQM, and is often more of a “bottom line” focused program. Six Sigma is initially implemented through extensive on-going mapping of an organization’s processes, combined with a focus on training the organization’s employees in the Six Sigma tools of measurement. It also provides for development of the organizational culture necessary to ensure success (Eckes, 2001b).

Organizational Culture Change Attributes

Organizational culture development and the concept of worker training were discussed since as early as 1911. Taylor (1911/1998) wrote, “[that] under scientific management, the ‘initiative’ of the workmen (that is, their hard work, their good-will, and their ingenuity) is obtained with absolute uniformity and to a greater extent than is possible under the old system” (p. 15). Further, on this culture development emphasis, Deal and Kennedy (1982, 1999) stated,

The culture of an organization [sometimes] is very strong and cohesive; everyone knows the goals of the corporation, and they are working for them. Whether weak or strong, culture has a powerful influence throughout an organization; it affects practically everything – from who gets promoted and what decisions are made, to how employees dress and what sports they plan. (1982, p. 4).

In addition, true learning occurs most readily in an environment that supports learning as a basic value. The needs of modern employees thus fit perfectly with the interests of a company pursuing the acquisition and exploitation of knowledge as a key to long-term business success. Many progressive companies have made the most of this overlap in needs and interests and have constructed a work environment allowing mutual interests to flourish. (1999, p. 281)

Another important subject is the issue of organizational culture and its resistance to change. Selznick (as cited in Shafritz & Ott, 2001, p. 132) referred to “co-optation” as “the process of absorbing new elements into the leadership or policy-determining structure of an organization as a means of averting threats to its stability or existence”. Implementation of a system based on continuous improvement can be particularly vexing due to the difficulty in providing adequate education to the organization’s staff. However, “while it may take years and much hand-wringing for it to be adopted at all by an organization ... once accepted ... [the system] become[s] part of the generally accepted managerial canon and become[s] very difficult to dislodge” (Koch, 2003, p. 326).

Schein (1988, 1993) stated that understanding hinged upon linking dialogue to people’s previous experiences, and that dialogue among organizational cultures and subcultures, transversing hierarchical boundaries, was a high need. He also described the concept of organizational socialization, which, he said, refers to the process by which a new member learns the value system, norms, and required behavior patterns of the society, organization, or of the group in which the socialization is meant to occur. The basic responses to socialization are: (a) rebellion, (b) creative individualism, and (c) conformity (Schein, 1988).

Six Sigma Performance System implemented at JEA

The example discussed in this context was JEA, a government enterprise in Jacksonville, Florida. JEA's present comprehensive organizational culture began with a forward-looking management, which had guided JEA well through the 1990s. It was during this period that JEA began to focus on customer satisfaction; a focus that management subsequently expanded upon. (Seaton, 2007)

In late fiscal year 1997, the City of Jacksonville (COJ) contributed the COJ owned Water and Sewer Department (W&S) to JEA. While JEA had been an autonomously operating authority since a major reorganization of the COJ in 1968, the W&S had remained a COJ department. As a result, the two organizations, when combined in 1997, had significant differences in cultures, and in management styles. (Seaton, 2007)

Senge (1990) described the successful organization of the future as an organism with the developed capacity to continually enhance its capabilities and shape its own future. JEA used implementing the Six Sigma performance management system in order to bring a new way of managing performance to the organization, and it seemed to provide an important side benefit, which was to bring socialization to the then two disparate groups. This was done to achieve several objectives, including, bringing a better operational, and financial management program to the W&S system, to allow JEA to provide for significant capital expenditure upgrades to the system, and to improve its operational activities. Following the 1997 successful combination of the two systems, JEA began the implementation of the Six Sigma performance improvement program in 2000, first with the senior executives, and then, throughout the newly combined organization. Argyris (1982) suggested that use of a research program designed to help understand, and then alter the reasoning and learning processes of individuals and organizations. At JEA, its earlier efforts to provide culture based (Covey and others) training, its WorkSmart projects (reengineering activities), and including the Six Sigma program, seem to show it as being an early adopter of organizational change management programs (Seaton, 2007).

Continuous training is a critical element in implementing any performance management system, both to initially install it, and to maintain it over time. For Six Sigma, in particular, as it is in the commencement of any statistically based continuous process improvement structure, training is very important. Without a long term training program, it is unlikely that an organization will be able to successfully implement Six Sigma. It is a full-blown intensive training program involving people throughout the organization. For example, General Electric [in 1996] set itself a goal of becoming a Six Sigma quality company by the year 2000" (Argyris, 1982, p. 329).

The performance management system study (Seaton, 2007) examined the organizational culture impact of the implementation of Six Sigma at JEA. The study utilized a questionnaire, and focused interviews, and considered the organizational cultural change effects in the context of the broader implications of performance management systems.

Organizational values refer to the principles, which underlie patterns of behaviors and norms. A typical questionnaire item would read the degree to which "respect for individuals" or "flexibility," for instance, are characteristics of

the firm's organizational culture. ----- The main advantage of these instruments is their commensurate measurement scheme where individual preferences and organizational values are assessed along the same dimensions, enabling estimations of congruency. (Delobbe, Haccoun, & Vandenberghe, 2004, p. 4)

By investigating the performance management system's (Six Sigma) implementation effects, the results, and outputs through analysis of the survey instrument results, coupled with analysis of the interviews, which were conducted, several major themes emerged. These themes, and the results observed from this mixed method approach, illuminated and helped to explain the significance of implementing a continuous improvement program.

The first of these general themes was the early implementation activities. *Theme 1: Expectations.* This theme, described broadly by the executives, considered the implementation of Six Sigma, which was expected to provide improvement in both the operating results, and hoped for improvement by developing an organizational cultural standards for quality and operations measurements. Several executives indicated variations in levels of success achieved (Seaton, 2007).

Theme 2: Organizational culture change management effects. Another theme several executives discussed included the change management effected throughout the company by implementing Six Sigma. Their comments described that they had observed employees from different areas of the company who now shared 'a common language, and understood a common set of tools,' which indicated that the shared language and tools would enable employees to focus more clearly on areas of concern. *A Subtheme: A common language* emerged. (Seaton, 2007).

Another *Subtheme: Organizational culture change* described as:

The expectations were that the company would move to being data driven and use key indicators for process management, with a focus on those with performance gaps. The implementation of Six Sigma has changed the organizational culture. JEA used to "run on the fly" and was not accustomed to using metrics to measure performance. Now the company has shifted to focusing on the data. It did change the organizational culture to one that now measures things (Seaton, 2007).

Theme 3: Data driven decisions. A recurring theme observed was in regard to do with data driven decisions, and described as, the company is now more data driven as managers seek data to make and support decisions versus just tribal knowledge." (Seaton, 2007)

Subtheme: Process mapping is a good tool. Comments applied to this theme drew primarily from interview questions regarding performance driven improvement initiatives, goal setting, and objectives.

Theme 4: Improvements of implementing Six Sigma. These described implementation improvements observed as:

Six Sigma has improved the effectiveness of business unit activities. Management, and control, of projects improved and oversight of projects is better

now. In addition, documentation has been aided. Process mapping was a good improvement.

Theme 5: Implementation could have been better. Uniformly, it was felt the implementation could have been better, as:

The implementation mechanism was perceived as being a negative, and this was combined with a process-based reorganization, which seemed to create “silos.” The achievement of cross-functionality, which should have resulted, was not obtained by the process-based reorganization, which rather than improve it, created gaps.

Kemp, Walker, Astin, and Lindholm (2001) discussed the cultural components of various types of institutional culture and the resistance to change. They emphasized, when initiating change, the importance of understanding organizational culture. The understanding of the concept of organizational structure is important particularly regarding analyzing the element of resistance to change. They also described several value structures; elite, meritocratic, or leadership-style, as more likely to view change negatively, versus what they felt would view change in a more positive way, that being a more collegial structure.

Sorensen (2002), discussed organizational cultures in a study with an analysis that showed that organizations, which had strong organizational cultures exhibited results indicating that reductions in performance variability could be beneficially achieved. He showed that firms with a strong organizational culture would be more predictable cash flows, and thus likely to under-invest in new business activities. His conclusions reflected on organizations with strong cultures, which may be able to benefit, as since they were able to increase staff motivation, facilitate coordination and control, and create/take competitive advantage of opportunities that might arise.

Despite the observed initial resistance, “JEA has definitely seen the results from Six Sigma.” This was an observation shared by nearly all of the interviewees, that Six Sigma had been a successful performance management system, with real results and impacts on organizational culture. (Seaton, 2007)

The survey instrument statistical analysis utilized in the study (Seaton, 2007), and the result of the analyses performed, confirmed (failed to reject) the null hypothesis that there is no difference in the organizational cultural perceptions among the organizational groups investigated. Ashkanasy, Wilderom, and Peterson (2000), suggest an organizational culture, which is highly integrated, where there appears to be consensus throughout the organization, and accepted by the members as “deeply held values with many operating at the level of the ‘taken for granted’” (p. 168).

Summary of Implementation of Six Sigma

In summary, JEA’s environment is one which now leverages Six Sigma projects, with matrix-based operations and which ensures compliance. “The financial implications and organizational cultural perceptions of the implementation of a performance management system in a governmental enterprise are several. First, the research supported that the performance

management system being investigated, Six Sigma, has had financial success at the organization, “based on this analysis, the aggregate savings for the period under investigation [2000-2006] were projected to be \$84,928,000, allocated between the electric system at \$10,275,000 and the water and sewer system at \$74,653,000”. (Seaton, 2007, p 69). The data indicated that the financial implications were statistically significant, and the financial analysis that was performed quantified it as material and relevant to both of JEA’s major business units. The interviews with the executives also found that they felt uniformly that the implementation of Six Sigma had had significant effects on the operating activities of those business units. An examination of the organizational cultural perceptions of the implementation was conducted through interviews of the executives who were, in large part, responsible for the implementation, and they generally confirmed the financial and statistical analyses. Finally, the organizational culture perceptions measured by the survey instrument were statistically analyzed and the results suggested that the organizational culture of the various groups examined is commonly shared. As a result, the null hypothesis was accepted: the data suggest that there is no difference in the organizational cultural perceptions among the groups. (Seaton, 2007)

One interesting additional observation that can be made is that the long and valuable history of organizational literature over the last century became very evident, as it proved to be of continuing value. Much of importance and value of the principles to be gleaned from the earlier writings were still evident. The continuing truisms of the body of literature reviewed in the current study remain of import to the managers of organizations who seek to find ways to make their organizations more efficient and effective. Certainly, while the more recent literature review materials have improved on the depth, and viability, of the earlier writings and research, the study in question benefited greatly and strengthened from the inclusion of both these earlier ideas, principles and concepts supported and embellished by the research enhancements gained over the past century. (Seaton, 2007)

Balanced Scorecard

The balanced scorecard is a nontraditional performance measurement system developed by Kaplan and Norton (1992) in the early 1990s that links organizational measurement and strategic implementation. The goal is facilitate strategic decisions that are made based on corporate vision and long-term value to the organization. Chevan (2009).

The approach of the balanced scorecard (BS) is to balance historic financial accuracy with predictive future performance drivers that are aligned with the corporate strategy. It provides a Measurement system, Management system, and Communication tool combined.

The starting point for the BS is to have a clear rationale for developing a Scorecard. In addition, as with all performance management systems, it needs to have support from top-level executives and to have the necessary resources made available. It should have a strong BS team, which should include an Executive sponsor, a BS champion(s), strong committed team members, and an Organizational change expert (Kaplan & Norton, 1996).

The following are several steps to setting in place a BS system:

1. Gather and distribute background material.

The BSC translates the organization's strategy into action. The team must have available to them information concerning the organization's mission, vision, values, strategy, competitive position, and employee core competencies. Annual reports, analyst reports, consulting reports, news articles are examples of sources of information.

2. Develop or confirm mission, values, vision, and strategy.

The purpose of the BS is to turn an organization's strategy into action. Therefore, it is vital to have developed a mission, vision, and strategy. If this is not the case, the top-level executives will need to work on this first.

3. Conduct extensive interviews.

The team should interview top-level executives to gather information on what they believe the company's core competencies are, possible performance measures, and key success factors of the future. Having the support of top-level executives is crucial to the success of a BS.

4. Develop objectives and measures in each of the BS perspectives.

Develop objectives and measures in each of the Balanced Scorecard perspectives. This is where the hard work really begins.

5. Develop cause-and-effect linkages.

Develop cause-and-effect linkages. A successful Balanced Scorecard should contain measures that are interlinked between perspectives. This area will be discussed in more detail further in the presentation.

6. Establish targets for your measures.

7. Develop the ongoing Balanced Scorecard implementation plan. (Kaplan & Norton, 1996, 1996a)

As organization should design performance measures to enable the organization to determine if it is meeting its objectives and are typically quantitative in nature. A Balanced Scorecard should contain a both leading measures and lagging measures. Ideally, there should be one leading indicator for each lagging indicator. Having a good balance of leading and lagging measures is particularly important in the customer perspective. If your objective is to increase the number of repeat customers, a lagging measure may be customer satisfaction ratings. A leading indicator may be number of training hours per employee on products. (Kaplan & Norton, 1992)

Examples of indicators include those outlined in the balanced scorecard, as indicated in Figure 3 and Figure 4, Appendix.

Chevan's article (2009, p.395), describes the process of a BS briefly, and succinctly, as that of:

Clarify and translate vision into strategy.

Communicate and link strategic objectives and measures.

Plan, set targets and align strategic initiatives.

Enhance strategic feedback and learning.

Chevan (2009) goes on to posit four perspectives that a balanced scorecard should encompass.

1. Financial perspective: to succeed financially how should we appear to our shareholders? Measures: return on capital; improved shareholder value; and asset utilization.
2. Customer perspective: to achieve our vision how should we appear to our customers? Measures: product/service attributes; customer relationships; and image and reputation.
3. Internal business processes: to satisfy our shareholders and customers, at what business processes must we excel? Measures: develop products and services; deliver products and services; and “post-sales” services.
4. Learning and growth perspective: to achieve our vision, how will we sustain our ability to change and improve? Measures: employee capabilities; information system capabilities; motivation; and empowerment and alignment.

If the BS system is implemented successfully, it facilitates excellent communication throughout the organization, with its strategic alignment with the organization’s values, mission, and Strategy – to/with the top level organization’s Balanced Scorecard, and then downward holistically through the entire organization, from Board of Directors, then the Chief Executive Officer (CEO), downward through the organization to the entire staff. It provides for a systematic translation of the measurement metrics in operational terms, tailored for the respective business units, departments, crews, teams, etc., and helps development of the organization’s goals, bonuses, and rewards for employees. It helps the executive management with the tasks of long-term thinking, and provides for development of the right business model for continue success. It includes mapped out processes and cause and effect linkages, together with cross-functional coordination. (Chevan, 2009)

Frigo (2002) described its connection to strategic management “to achieve great results, companies must excel in the right combination of strategic competencies ... the cause-and-effect relationship in the balanced scorecard framework can help management to continuously evaluate and refine its strategy at various levels of this hierarchy”. (p. 9)

Enterprise Risk Management

Organizations are doing better today than ever in managing areas of risk and aggressively managing the financial components of their business activities, often by Enterprise Risk Management tools. One important reason for an organization to improve performance measurement is the indirect improvement in investors’ perceptions of government performance: “It seems logical to expect that better ----- performance will lead to greater CTG [citizen’s trust in government]” (Yang & Holzer, 2006, p. 114).

ERM has several definitions, including:

Enterprise Risk Management (ERM) is a strategic business discipline that supports the achievement of an organization's objectives by addressing the full spectrum of its risks and managing the combined impact of those risks as an interrelated risk portfolio.

ERM represents a significant evolution beyond previous approaches to risk management in that it:

1. Encompasses all areas of organizational exposure to risk (financial, operational, reporting, compliance, governance, strategic, reputational, etc.);
2. Prioritizes and manages those exposures as an interrelated risk portfolio rather than as individual "silos";
3. Evaluates the risk portfolio in the context of all significant internal and external environments, systems, circumstances, and stakeholders;
4. Recognizes that individual risks across the organization are interrelated and can create a combined exposure that differs from the sum of the individual risks;
5. Provides a structured process for the management of all risks, whether those risks are primarily quantitative or qualitative in nature;
6. Views the effective management of risk as a competitive advantage; and
7. Seeks to embed risk management as a component in all critical decisions throughout the organization. ("What is ERM?," 2011)

Another definition, by the Risk Management Association (RMA), describes ERM as a framework to reduce earnings volatility through a robust risk governance structure and strong risk culture, supported by sound risk management capabilities. It is the organization's enterprise risk competence—the ability to understand, control, and articulate the nature and level of risks taken in pursuit of business strategies—coupled with accountability for risks taken and activities engaged in, which contributes to increased confidence shown by stakeholders.. RMA (2011)

One of the biggest areas of discussion in business today is regarding the adoption of Enterprise Risk Management (ERM) tools and ideas. In the United States, the Sarbanes-Oxley (SOX) law has transformed the risk management practices of publically traded companies. Following the Enron Corporation failure, and others, this law instituted a set of new requirements and potential criminal penalties for those organizations that violate it.

It has been some ten years since the SOX was passed, and some eight years since the release of *Enterprise Risk Management — Integrated Framework* by the Committee of

Sponsoring Organizations of the Treadway Commission (www.coso.org). However, a November 2009 survey by Crowe Horwath, *Avoiding the Black Swan: Barriers to Improving Risk Management*, found that “52 percent of the top finance executives indicated that either they didn’t know or their ‘chief risk officer and independent risk management function’ played no role in developing strategy because their companies did not have either role”. (Crowe, Horvath, 2009, p7). It also found that with regard to corporate governance, ERM, monitoring, and communication, continues being adopted slowly. Other findings included that some organizations, it appears, are putting off the ERM journey because of concern about what they might find and then have to address; that many organizations are struggling to develop an effective monitoring process; and that the current economic climate has diverted resources and managers’ attention away from the ERM process (Crowe, Horvath, 2009).

COSO Enterprise Risk Management -- Integrated Framework (2004) (The COSO Model), defines ERM as Enterprise risk management as “a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives” (COSO, 2004, p 13.)

The COSO model, developed in 2004, by the Committee of Sponsoring Organizations of the Treadway Commission was a joint initiative of the five private sector organizations, including the American Accounting Association, the American Institute of CPAs, Financial Executives International, the Association for Accountants and Financial Professionals in Business, and the Institute of Internal Auditors. This organization is dedicated to providing thought leadership through the development of frameworks and guidance on enterprise risk management, internal control and fraud deterrence.

This model (COSO) has been endorsed by the Public Company Accounting Oversight Board (PCAOB) and was described in its Auditing Standard (AS2), and more recently updated in AS4 (2006), which discusses the performance and reporting requirements. AS4 states that the COSO report provides a suitable and available framework for purposes of management's annual assessment of internal control over financial reporting (PCAOB AS4). This is further reflected in AS5, which describes the opinion paragraph language from the audit report from the independent auditor: [*Opinion paragraph*]

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of W Company as of December 31, 20X8 and 20X7, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 20X8 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, W Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 20X8, based on [*Identify control criteria, for example, "criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO)."]*. (PCAOB AS5, Para 87, 2007)

The COSO model shows the four objectives, on the top plane, as indicated in Figure 5, Appendix, as Strategic; Operations; Reporting; and Compliance. It also shows the organization's ERM business unit activities represented by the vertical columns along the right hand side of Subsidiary, Business Unit, Division, Entity Level, and the eight ERM components, beginning with the internal environment and ending with monitoring, which are represented on the horizontal rows along the face of the cube. This depiction portrays the ability to focus on the entirety of an entity's enterprise risk management, or by objectives category, component, entity unit, or any subset thereof.

ISO 31000

One new development, which will advance the adoption of ERM, is the International Standards Organization's (ISO) ISO 31000 *Risk management -- Principles and guidelines*, released in November 2009. As ISO has some 162 member organizations, including the USA's American National Standards Institute, it is expected that business organizations worldwide will begin to adopt ISO 31000.

ISO 31000 is principles based and has several advantages versus the COSO Integrated Framework. It focuses on Plan, Do, Check, and Act. In the Plan stage there is the design of framework for managing risk. In the Do stage, risk management is implemented. In the Check stage, the framework is monitored and reviewed. Lastly, in the Act stage the organization does continual improvement of the framework. It is an integrated process from every level of the organization.

The purpose of ISO 31000 is to provide principles and generic guidelines for the design, implementation and maintenance of risk management throughout an organization. It seeks to provide a model recognized across the globe and used to employ risk management processes. Among its advantages, versus the COSO standard, is that the COSO standard is 125 pages long as compared to 24 pages for the ISO 31000 standard. COSO is often described as being too cumbersome even for the average professional. ISO is also cost effective and identifies risks, sets priorities and establishes dynamic programs. It is a framework for organizations of all sizes and types. ISO is focused on the effect of risk on objectives. It is flexible and can be tailored to an organization's specific needs and structure. Enterprise Risk Management (ERM) is a relatively new management system, which was expanded significantly by the adoption of ISO 31000 in November 2009.

ISO 31000's framework is as indicated in Figure 6, Appendix:

ERM reflects a holistic view of achieving control over an organization's strategic objectives, and sets in place an organized way of identifying the various risks and challenges for the organization, and then seeks to find solutions, mitigations, and plans for meeting the risks so that the organization is facilitated by ERM in achieving its objectives.

As indicated by Figure 7, Appendix, the steps shown begin with the context. This is a 'top-down' approach, which begins with the Board of Directors, who set the strategy and goals, and who then delegates to the executive management team, the authority and

responsibility to manage the organization so as to attain these. The ERM effort is owned by the executive team, and is a continuous process; from Risk Assessment, all the way through Risk Treatment, and then Monitoring and Review, which completes and continues the loop back through the strategy.

The basic concepts of enterprise risk management have been applied, more or less, in several industries for well over a decade. The changing regulatory environment, economic turmoil, and growing complexity of products, tools, and risks has among other influences helped to launch the practice of enterprise risk management into the financial services area. In this respect, ERM, in the financial services world, is very much in its early development, though much progress has been made.

By definition, the business of banking exposes the organization to a wide variety of risks. The ERM framework is designed to support the depth and breadth of activities by providing a structured approach for identifying, measuring, controlling, and reporting on the significant risks faced by an organization. Specific risk management (e.g. credit, operational, market), capital management, and liquidity management provide the essential underpinnings to an ERM framework. (RMA, 2011).

Finally, ISO 31000:2009 sets out principles, a framework, and a process for the management of risk that are applicable to any type of organization in the public or private sector. It does not mandate a "one size fits all" approach, but rather emphasizes the fact that the management of risk must be tailored to the specific needs and structure of the particular organization. Section 2.2 describes risk management as coordinated activities to direct and control an organization with regard to risk (2.1)

[ISO Guide 73:2009, definition 2.1], and in Section 2.3, the risk management framework, as a set of components that provide the foundations and organizational arrangements for designing, implementing, monitoring (2.28), reviewing and continually improving risk management (2.2) throughout the organization and notes that NOTE 1 The foundations include the policy, objectives, mandate and commitment to manage risk (2.1).

NOTE 2. The organizational arrangements include plans, relationships, accountabilities, resources, processes and activities. And,

NOTE 3. The risk management framework is embedded within the organization's overall strategic and operational policies and practices. [ISO Guide 73:2009, definition 2.1.1] (ISO31000, 2009)

Summary and Conclusions

The overarching objectives of these several performance management programs include to more effectively, and better manage the organization's activities, to achieve its strategies and to meet or exceed the goals for the organization. The intent of these is, quite frankly, to get executives, staff, and employees to *DO WHAT THE ORGANIZATION WANTS THEM TO DO, WHEN IT WANTS THEM TO DO IT!*

Performance management systems have proven to be of high value, with the example cited in this paper of Six Sigma, which has been of significant value at the subject of the study. The value was demonstrated in two ways, with the financial implications, it was determined to have contributed to cost containment of operating and maintenance expenses (Seaton, 2007, 2009b), and secondly, it has been shown to have contributed to the organizational culture socialization of the organization's employee workforce (Seaton, 2007, 2009a).

The foregoing discussions of the various performance management programs point out that the underlying efforts of these programs depend on excellent communication to the organization's staff and executives of the importance of these programs to the respective organization. There is little doubt that these programs are effective when implemented successfully. There is also little doubt that the implementation is difficult, requiring a high level of commitment across the organization, led by the executive management team, and accompanied by a strongly committed training program.

Interestingly, it is the view of the writer, that with the possible exception of TQM and Six Sigma, these performance management programs are not mutually exclusive. There are many large publicly traded companies who have implemented ERM, Six Sigma, and Balance Scorecard programs successfully and which continue them today. Certainly, companies such as Bank of America, Motorola, Ford Motor Co., Prudential Insurance, and many others have more than one (if not three) of these, or similar such programs currently in their organizations.

Better management practices will continue to evolve, and be developed. The efforts to improve the culture socialization of an organization's staff and employees will continue, as it is through these efforts that organizations can draw upon the collective strengths of the staff and employees more effectively, and more responsively, so that the continuous changing conditions and events can be better met, and dealt with in the future. Continuous improvement does in fact work, and these programs are vital to the effort.

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APPENDIX

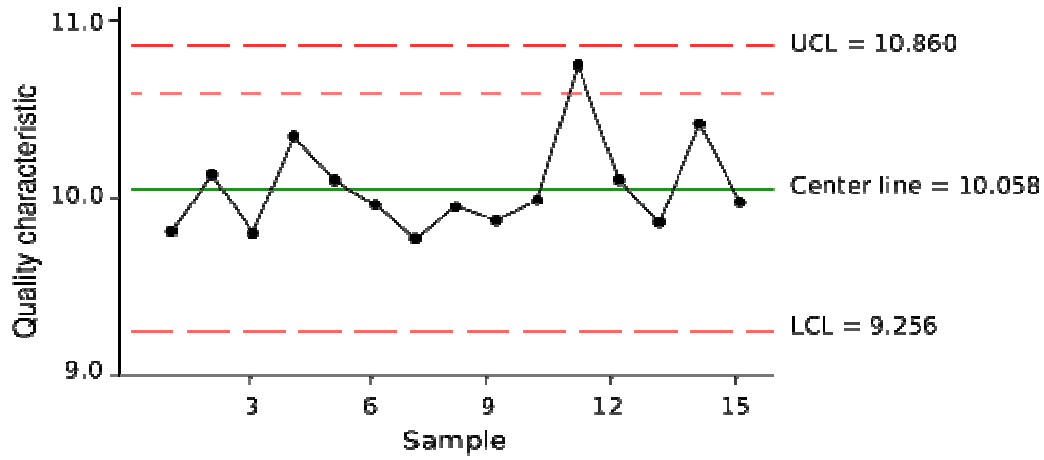


Figure 1. Shewhart Chart (“Control Chart”) Deming, W. E., & Shewhart, W. A. (1968)

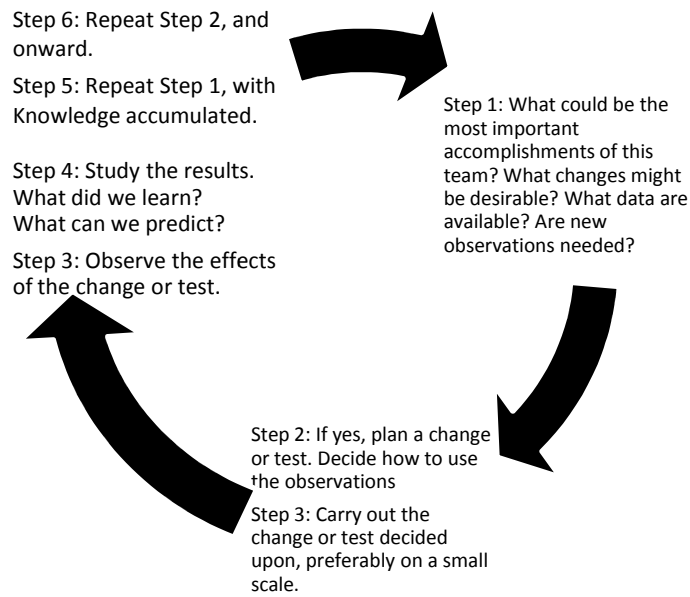


Figure 2. The Deming Cycle, also known as the Shewhart Cycle. Deming, W. E., & Shewhart, W. A. (1968)

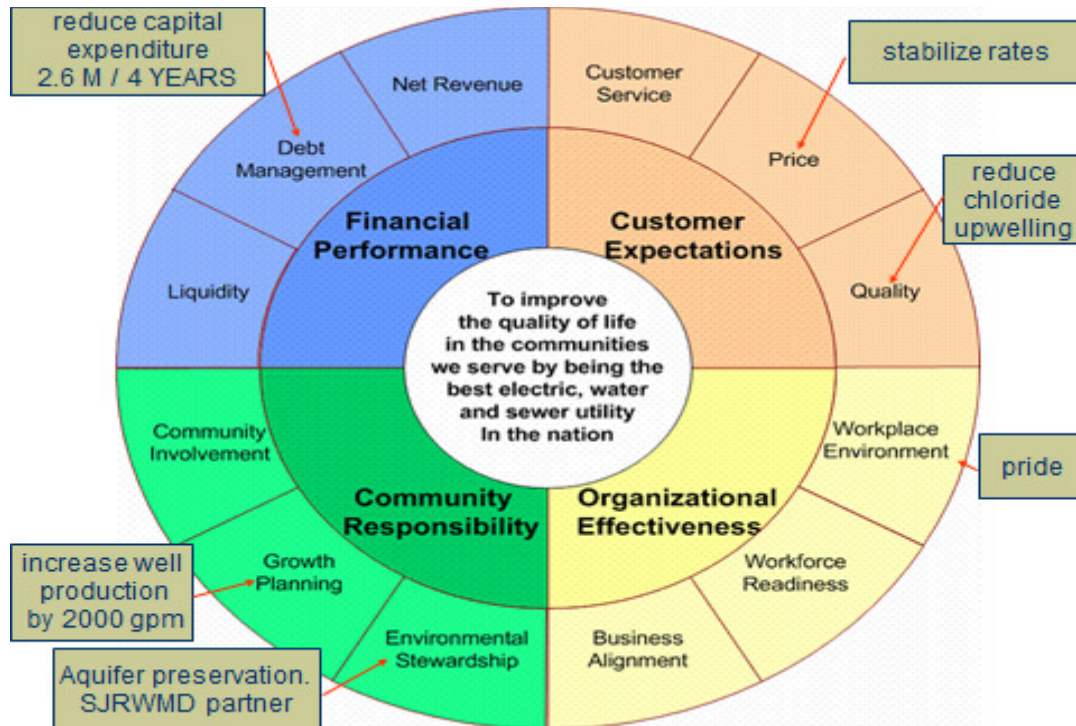


Figure 3. Balanced Scorecard (JEA, 2007)

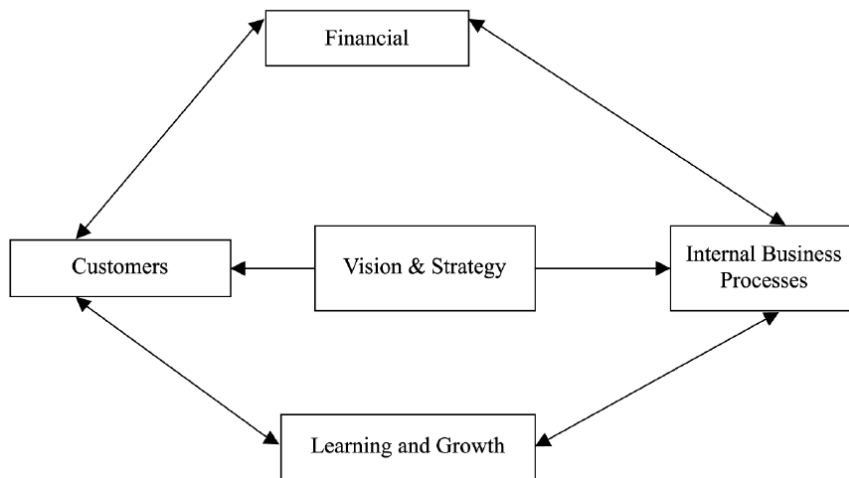


Figure 4. Basic design of a balanced scorecard performance system (p. 397)



Figure 5 COSO Model (www.coso.org)

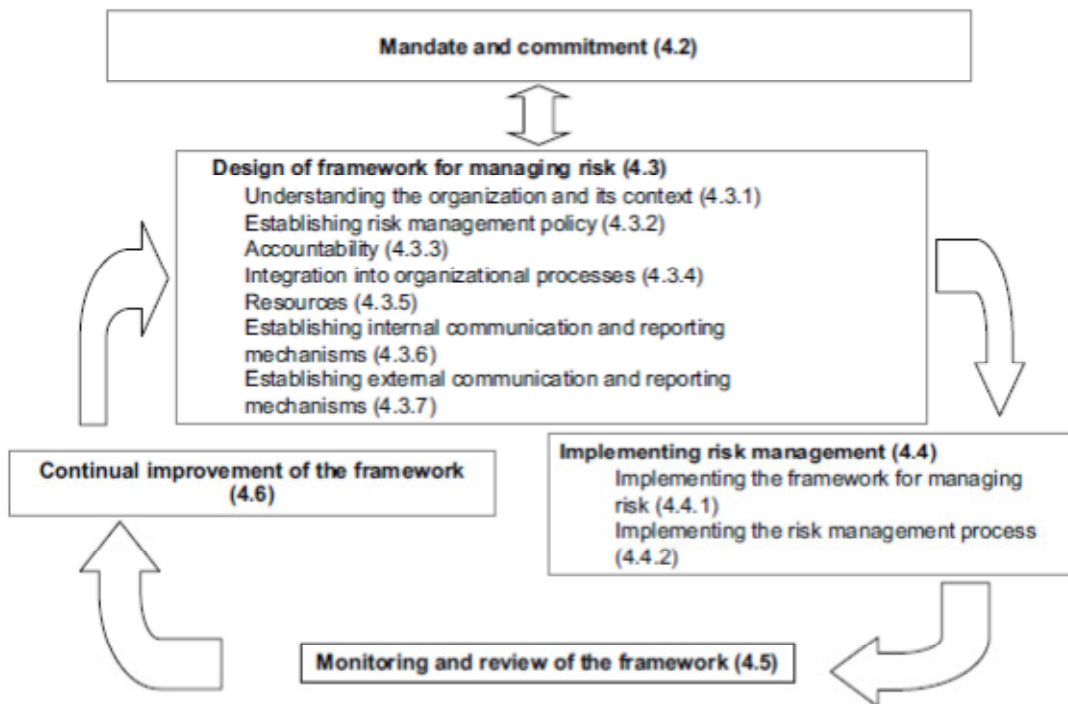


Figure 6. Relationship between the components of the framework for managing risk. (ISO 31000, p. 9)

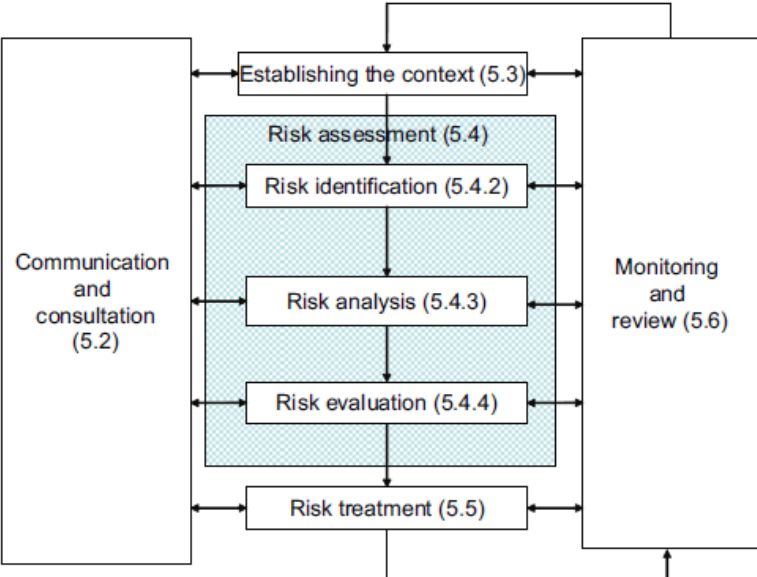


Figure 7. Risk Management Process (ISO 31000, p. 12)