

**DEVELOPMENT OF SELF-ASSESSMENT TOOLS
TO EVALUATE
QUALITY ACTIVITIES AND SYSTEM**

by

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ABSTRAK

PEMBANGUNAN INSTRUMEN PENILAIAN KENDIRI BAGI MENGUKUR PRESTASI KUALITI DARI ASPEK AKTIVITI DAN SISTEM

Kajian ini bertujuan untuk membina suatu instrumen penilaian sendiri bagi mengukur prestasi kualiti sesebuah organisasi. Pengukuran prestasi yang diiktiraf seperti Malcolm Baldrige National Quality Award (MBNQA) dan Deming Prize digunakan sebagai asas atau rangka utama dalam pembinaan instrumen ini. Instrumen penilaian sendiri seperti ini adalah penting dalam mana-mana organisasi kerana ia dapat digunakan oleh sesiapa sahaja dalam organisasi itu pada bila-bila masa untuk memantau prestasi masa kini mahupun masa lepas. Ia juga dapat digunakan sebagai satu panduan masa hadapan untuk kemajuan berterusan. Terlalu bergantung kepada penilaian pihak ketiga amat memakan masa dan belanja.

Instrumen penilaian sendiri yang dicadangkan ini telah dibina melalui penyelidikan berasaskan soal-selidik yang telah dikemukakan kepada organisasi multinasional di Malaysia. Ini diikuti dengan temuduga yang lebih lanjut terhadap beberapa organisasi paling cemerlang yang terpilih. Analisis keputusan daripada penyelidikan ini menunjukkan panduan yang dicadangkan ini dapat digunakan sebagai satu instrumen penilaian sendiri bagi mengukur pencapaian kualiti organisasi dari aspek aktiviti dan sistem.

Pada kesimpulannya, instrumen penilaian diri ini dapat digunakan untuk mengukur pencapaian prestasi kualiti organisasi sama ada syarikat-syarikat tempatan mahupun syarikat-syarikat multinasional, selaras dengan budaya kerja Malaysia dan persekitarannya, disamping untuk mencapai kualiti bertaraf dunia. "Bertindak secara tempatan tetapi berfikir secara global" adalah satu langkah yang dapat membantu syarikat-syarikat di Malaysia khasnya Industri Kecil dan Sederhan (SMI) dalam memainkan peranan penting di pentas arena antarabangsa.

ABSTRACT

This research study endeavors to develop a self-assessment tool to measure quality performance in an organization. Recognized performance measurement standard such as Malcolm Baldrige National Quality Award and Deming Prize are used as a basis or major framework in developing the self-assessment tools. Self-assessment is an important tool in any organization since it can be utilized anytime and by anybody in the organization to evaluate past and existing performance and as a guide for future continuous improvement. Too much reliance on a third party assessment is time consuming and expensive.

The proposed self-assessment tool was evaluated by developing and conducting a questionnaire based survey which were sent to selected multinational companies in Malaysia. This was followed by in depth interview for the top few organizations. The results analyzed indicate that the proposed guide can be used as a self-assessment tool to evaluate any organizational quality activities or system.

In conclusion this self-assessment tool could be used for evaluating quality efforts for local or multinational companies based on Malaysian working culture and its environment in order to strive for a world class quality or standard. "Thinking Globally, Acting Locally" is adopted as one of the most important ingredients to enable the Malaysian companies especially Small, Medium Industries (SMI), as main players in the global arena.

Chapter 1

INTRODUCTION

1.1 Introduction

In retrospective, the 1970s were Japan's Decade and 1985-1995 America's Decade whereby the early 1980s were transitional period. Obviously only few players dominated those decades. Examples of Japan's innovations include Total Quality Control, Just In Time, Kanban, Total Preventive Maintenance and Quality Function Deployment (Richard, 1996). America's contributions (with some non-U.S. participation) include for instance Design for Manufacture and Assembly, Benchmarking, Reengineering, Peer Performance Appraisal and formulated gain/profit-sharing/bonuses/employee stock ownership (Juran, 1995). Regardless of the goal i.e. improving the organizations and business for survival.

Regional dominance, however, is of the past. The end of the Cold War and the globalization of trade and communications ensure that regional dominance is no longer valid. Presently the Global Decade is prevalent. Innovations in managing manufacturing companies and many that are equally applicable in services will continue to pour forth but from all parts of the world, including the less developed countries. In order to remain competitive, organizations have to adopt all and any means that will help them in the borderless market and educated customers. Amid all the uncertainties and fierce competition, what companies need is a guide that will move them forward confidently, step by step towards the world class quality standard or world class manufacturing (Richard, 1996).

Juran (1999), a pioneer and elder statesman of the quality movement stated the 20th Century has been the Century of Productivity, in which many companies became world leaders in productivity, while as a nation we became more of a leader in productivity. During this century, very few of the companies became world leader in quality. The 21st Century will be the Century of Quality. He believed that many of the companies will become world leaders in quality, and quality will be a major area of world competition.

Currently, Quality is widely recognized as one of the most important disciplines and strategies for an organization to improve its global competitiveness. Companies apply quality methodologies in the form of strategic quality management, quality system, quality assurance and quality control, in order to gain or sustain a competitive edge. Today's competitive marketplace is fueled by demand for excellence. Organization must be driven by a vision, be adaptable to market changes, be innovative and customer-oriented (Puay *et.al*, 1998).

An organization needs both a model for guiding all employees' quality-related actions and a means of assessing how well these actions are carried out, especially as they relate to the firm's competitors or world-class standards. Awards and certifications provide tested business models as well as a basis for assessing progress, achievement, and conformance. The awards and certifications include Malcolm Baldrige National Quality Award, ISO 9000 and QS 90000 (ASQ, 1999).

The ISO 9000 series of quality system management has generated much awareness worldwide, which provide the basis for demonstrating a company's compliance to a quality system by establishing the documentation, and procedural standards that must be met. To some extent, it is recognized by many to be deficient in important concepts and methodologies for achieving quality improvements and economic gains. According to Juran (1999), adherence or certification to ISO 9000 does not ensure that a company will become a quality leader. There is no proof and no research establishing that companies, which are certified to ISO 9000, have

products superior to those, which are not certified. On the other hand some researchers in Hong Kong (Sun, 2000), Spain (Santos & Escanciano, 2002) and Netherlands (Singels *et.al*, 2001) strongly believe that the quality management system based on ISO 9000 standards is a necessary foundation for other quality methods under TQM

National Quality Awards represent important alternative resources for “business excellence”, or “performance excellence” of an organization. Among the more renowned National Quality Awards are the Deming Prize in Japan, the Malcolm Baldrige National Quality Award in the USA and European Quality Award. Other developed and developing countries have launched National Quality Awards of their own (Puay *et.al*, 1998).

Puay *et.al*, (1998) research summaries that with the exception of the Malcolm Baldrige National Quality Award and Deming Prize, the majority of the National Quality Awards are relatively new, all having originated after 1990. Many National Quality Awards are still at that stage of accumulating learned experience through assessing organizations for the awards.

However the Baldrige National Quality Award has been subject to some criticisms, including the following (ASQ, 1999):

- Winners have not necessarily solved all their business problems and gone to capitalist heaven.
- The award does not guarantee that a winning company’s products are superior. At Cadillac-GMC the judges judged the quality management system, not the product.
- Applicants have found that the award process is an ordeal that can eat up management time and cost hundreds of thousands or even millions of dollars.

- With the increasing visibility of the award, there is a growing misunderstanding. The goal of winning can appear to displace the goal of achieving real performance excellence.

The above comments may deter many companies from applying for the award unless they think they are prepared and are at a stage of their quality journey that gives them a real chance of winning the award.

Likewise in Malaysia, the Prime Minister Quality Award (Private Sector Category) was first introduced on 9 November 1990. This annual national quality award is given to organization in the private sector in recognition for their excellent achievement in quality management (NPC, 2001). However the assessment criteria for this prestigious award was not published to the public except for the participating organization.

It was noticed that the criteria used in the national awards provide a comprehensive performance assessment of various areas in an organization. Companies could regularly use the framework to benchmark their current quality performance and identify areas of improvement. To facilitate wider use of the award criteria, a self-assessment tool in the form of a survey-based questionnaire could be developed for measuring the essential elements in each of the criteria.

This research summarizes the development methodology of a self-assessment tools which is based on the Malcolm Baldrige National Quality Award and Deming Prize frameworks. This assessment tool could be used to evaluate quality efforts for both local and multinational companies based on Malaysia working culture and its environment in order to strive for world class quality system or standard. According to Hitachi President, E.Shoyama (Shoyama, 2001), Thinking Globally, Acting Locally is one of the most important ingredients to bring up our Malaysian companies into the global arena.

1.2 Purpose of Study

Instituting Quality as a way of doing the right things entails many facets. There are world class manufacturers to benchmark against; there are quality gurus to follow, tools to use, and systems to implement. Despite all the available help, an organization has to assess its own performance internally in order to plan for any improvement. Self-assessment is an important tool in the quality journey. As such the objective of this study is to develop a self-assessment tools based on two national quality awards: Malcolm Baldrige National Quality Award and Deming Prize. This assessment tools is especially vital for small and medium industries (SMI) for measuring their quality performance in order to elevate Malaysia's companies into the global arena. The three main objectives as stated below:

1. To develop the self-assessment tools
2. To assess the newly develop self-assessment tools
3. To provide guidelines of using the self-assessment tools

1.3 Scope and Significance of the Study

This study is to examines the applicability of a national quality award or awards' criteria as a basis for a self-assessment tool to measure the quality performance in organizations. This self-assessment tool can be applied in

1. Small and medium industries (SMI) to evaluate and measure their quality performance against the world class standard.
2. Multinational companies to evaluate their quality efforts based on Malaysia working culture and its environment.

1.4 Problem Statement

According to Juran (1999), adherence or certification to ISO 9000 does not ensure that a company will become a quality leader. There is no substantial evidence that products come from ISO 9000 certified companies are superior to those companies, which were not certified. He has seen some research comparing products that have come from certified companies and products that have come from noncertified, and the authors found no difference. From his point of view, if somebody adheres to ISO 9000 and doesn't go any further, it almost assures that they will not be quality leaders in 21st century.

The adoption of ISO 9000 and/or QS 9000 among the Malaysia Industries is very encouraging. The needs for globalization and AFTA by year 2002 further enhance the involvement of companies in ISO 9000 certification, although achieving certification to ISO 9000 does not ensure that a company will become a quality leader. Weile (1997) showed that ISO 9000 series did provide a right path towards a business or quality award level and along its way, self-assessment play an important role.

Self-assessment is an important tool in any organization since it can be utilized anytime and by anybody in the organization to evaluate past and existing performance and as a guide for future continuous improvement. Too much reliance on a third party assessment is time consuming and expensive. A cost effective self-assessment tool need to be implemented by Malaysian companies especially Small, Medium Industries (SMI's), in order to strive for a world class quality or standard. Subsequently this leads to being the main players in the global arena.

1.5 Organization of Thesis

This thesis is presented in seven chapters including introduction, literature survey, research methodology, results, case study, development of self-assessment guideline and finally discussion and conclusion.

The introduction chapter will describe the important of the quality performance in 21st century and the setback of the national quality awards and ISO 9000 certification. The idea of develops and assesses the newly developed self-assessment tools based on national quality awards also declared in this first chapter. Chapter two will cover literature survey on TQM, Benchmarking, business performance, comparison of the major national quality awards, self-assessment tool, which are related to the current project.

Chapter three will cover the project methodology, which includes the postal questionnaire and in depth interview. The results of the postal questionnaire survey as well as the reliability test were presented in chapter four. Chapter five consists of the case study that carried out for the four top ranking organizations. The development of the self-assessment guidelines will be described in chapter six. The thesis will end with the discussion and conclusion as well as the suggestion for future research in chapter seven. The appendixes are presented to support the thesis for further understanding.

Chapter 2

LITERATURE SURVEY

2.1 Introduction

The concept of quality management may be most easily introduced with its comparison to that of quality assurance. It has been said that quality assurance is the assurance of quality, whereas quality management is the management of quality. Quality assurance involves correction and prevention of problems; quality management practices include the on going search for opportunities to improve (Juran, 1995). People typically look for the quality department to administer quality assurance. Quality management on the other hand is a holistic concept that must be sponsored and championed by senior management, not by any one function (Laszlo, 2000).

The principles of quality management must be embedded into the organizational culture so as to foster a climate of open co-operation and teamwork among members of the staff, customers and suppliers. The willingness and the ability to change and to improve based on innovation; lessons learned and benchmarking are necessary components within the quality management approach. Management is expected to participate in operations and to demonstrate its leadership by actions and through respect and recognition they show for individual and team efforts that are exemplary; efforts in support of the goals and objectives aimed and customer satisfaction that were communicated throughout the organization.

The involvement of people in the continuous improvement of business processes is a fundamental theme that runs through the many published definitions of TQM. By definition, this requires measurement and an understanding of how superior performance can be achieved.

Assessing business or organizational quality excellence is an essential of this learning and measurement process. Self-assessment is a comprehensive, systematic and regular review of an organization's activities and results referenced against an appropriate business's excellence model (Porter & Tanner, 1996). In this research the main focus is the self-assessment of organization's quality system which is one of the most powerful organizational learning tools available. This self-assessment process allows the organization to identify its strengths and as well as areas in which improvements can be made and subsequently plan the necessary quality improvement activities.

2.2 Total Quality Management (TQM)

In the last two decades, most organizations have experienced a period of great change in their markets and operations in the global arena. International competition has meant that many organizations have had to face an increasingly turbulent and hostile environment. Customers have become more demanding competition has become more intense and sophisticated and the pace of technological change has quickened. Regulators and customer groups have also added to these pressures. As a result, many organizations have adopted TQM in response to these forces (Vijay and Anil, 2000).

TQM is a business approach that focuses on improving the organization's effectiveness; efficiency and responsiveness to customers' needs by actively involving people in process improvement activities. The achievement of business or organizational excellence is at the core of TQM. On the other hand the ultimate purpose of TQM management in any organization is to improve the quality of that organization's products and services for the customer (Richard, 1994). Successful implementation of TQM requires commitment and leadership. Total Quality must begin from the top. Without the total commitment of the chief

executive officer and his immediate executives and other senior managers nothing much will happen, and anything that does will be permanent. They have to take charge personally, provide direction and exercise forceful leadership, however commitment without involvement cannot guarantee success (Tee, 1995). Francis and Carl (1994) stated that top management plays a major role to ensure the TQM started from a solid launch to the evergreen system. Figure 2.1 showed the Pyramid model of TQM proposed by Kanji and Asher (1996).

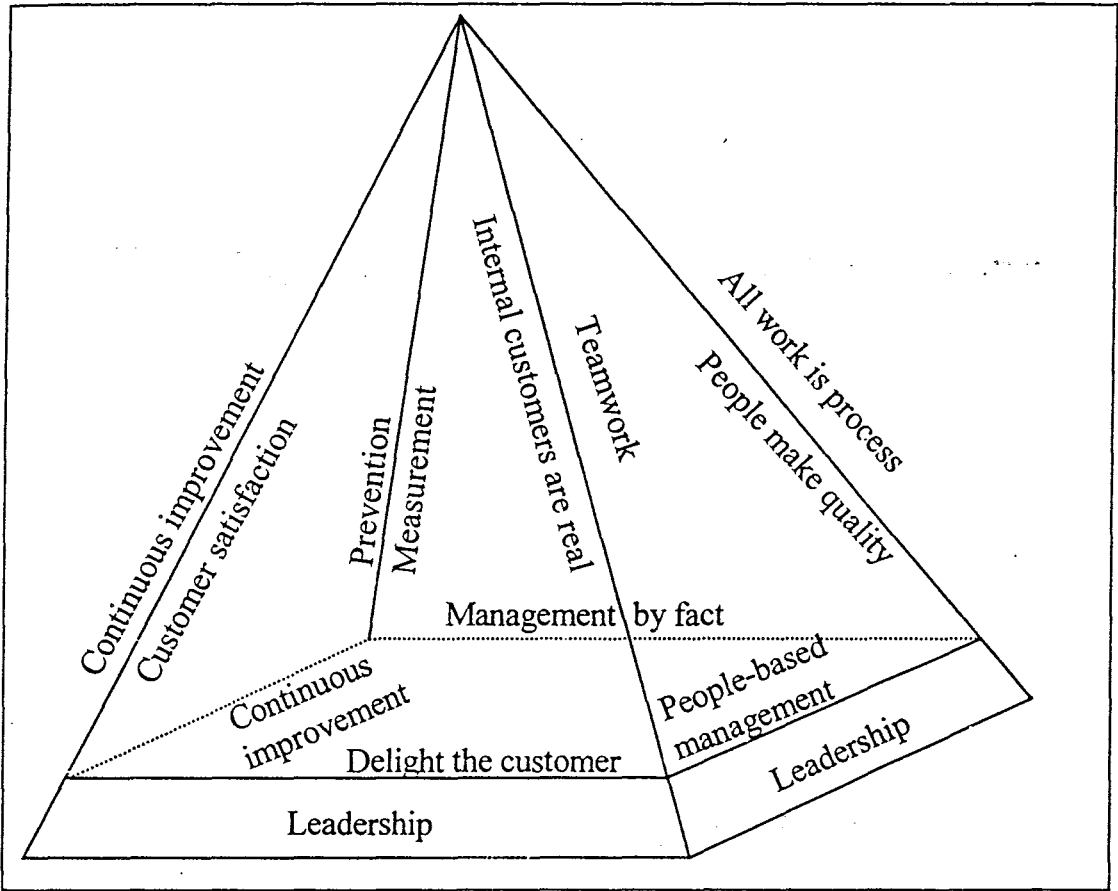


Figure 2.1 Pyramid model of TQM

Organization's performance results are the milestones of achievement and progress. If there are not captured on a regular basis, it becomes very difficult to maintain momentum, commitment and, more importantly, the motivation and desire to achieve higher performance standards. Richard and Ralph (2001) research validates the importance of aligning the reward system in support of TQM and sheds light on how management can use the reward system to

ensure that TQM is as effective as possible. The increased use of appropriate intrinsic and extrinsic rewards practices should be seriously considered to ensure that TQM business practices have an even greater effect on the company's performance.

Customer perceived quality has been shown to be directly associated with profitability and many studies have suggested a strong and identifiable link between a TQM approach and superior financial performance. Despite these studies, however, quantifying the effectiveness of TQM and integrating TQM into normal business practice has presented a stumbling block to many organizations. Silverman and Propst (1999) research showed that many organizations began to notice TQM efforts that had been under way since the early to mid-1980s were not producing bottom line results. By the early 1990s the need for results drove organizational leaders to search for other answers.

Zuraidah and Zainal (2000) reported that there is not much evidence on research and paper published in journal related to the application of TQM in Malaysia. They also reported that most of the multinational companies from Europe and the USA only applied Total Quality Control in accordance with their own standard manuals. This was due to many problems of TQM implementation in the other categories of organizations. Some recognized the importance of quality management but their effort was limited to that of line inspection activities only. There were also companies that recognized the importance, but were unable to implement TQM due to "insufficient facilities".

Sha'ri and Aspinwall (2000) reported on the United Kingdom business situation that large business have always been in the forefront of adopting many advanced management philosophies including TQM implementation. Large businesses such as IBM, Xerox, British Airway is in the "premier league" and smaller business is always left behind and has found difficulties for the TQM implementation. Similar finding also reported by Aziz and Chan

(1998) that the used of quality techniques as well as TQM were more likely to be practiced by larger, non-resource-based companies. (Non-resource based companies were those in electrical, electronic, textile, chemical, machinery, transport equipment and plastic manufacturing sectors). The authors also observed that the adoption of more advanced form of quality practices such, as TQM was lower in Malaysia than in the United Kingdom.

Overall research findings in United Kingdom (Schalkwyk, 1998), USA (Easton, 1997), Greece (Gotzamani, 2002) and Sweden (Samuelsson, 2002) has concluded that the adoption of TQM results in positive outcomes for organizations. When implemented well, TQM can help an organization to improve itself, and in the process, better serve its community and its own members. A study by Noriaki Kano (Shelton, 1996) on the profitability of Deming Prize winners versus the average profitability of manufacturing companies showed that successful TQM companies in Japan, companies that won the Deming Prize, had double the profit of manufacturing companies as a whole. In summary there are four major benefits of TQM according to Deming Prizewinner as reported by Kano:

1. TQM produces growth in market share.
2. TQM improves customer satisfaction by reducing problems and defects.
3. TQM reduces costs, which helps grow market share.
4. TQM reduces the cycle time for the design of new products.

2.3 Benchmarking

Best practices benchmarking has become recognized in recent years as a valuable performance measurement and evaluation technique, which can make important contributions in many areas of business endeavor. It has its root in the drive to seek enhanced competitive advantage by learning from comparative performance viewpoints on an internal or external basis, at a strategic, operational or business management level. These comparisons are based typically on cost, time and quality considerations, viewed from an internal, a functional, a competitive, or a generic business perspective (DeToro, 1995).

The main idea of benchmarking goes all the way backs to over 2500 years old and originated in China. In the year 500 B.C., Sun Tzu, a Chinese general wrote,

“If you know your enemy and you know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained, you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battles.”

Sun Tzu’s words could well illustrate today’s competitive business markets. As long as competitors are regarded as an enemy, then solving ordinary business problems, conducting management battles, and surviving in the marketplace are all forms of war, fought by the same rules (William, 1994).

Juran (1995) stated benchmarking is related to quality measurement and it is a most useful tool, which has gained broad acceptance during the 1980s. The concept is to set quality goals based on realities rather than on empirical judgment. To apply the concept requires

discovery of what is the best performance being achieved, whether in-house, by a competitor, or by someone in a totally different industry.

Shaukat and Ong (1999) reported that gathering intelligence about competitors is not a new phenomenon, but its formal and widespread use, as a managerial tool is relatively recent. Dramatic improvement in the performance of Xerox, Ford, and Motorola and many others, is in part due to benchmarking. More than 70 % of Fortune 500 companies in the USA use benchmarking on a regular basis. Similarly 78% of The Time Top 1000 companies in the UK claim to conduct benchmarking. Also, the inclusion of benchmarking as one of the criteria for the Malcolm Baldrige Quality Award reflects the importance attached to it. Similarly Sharif (2002) and McAdam and Kelly (2002) research finding showed that the business excellence model could be combined with generic benchmarking to improve performance of the organizations.

The US Benchmarking award frameworks were originally drafted by Greg Watson while working for the American Productivity and Quality Center (APQC) and who, alongside Robert Camp of Xerox, is one of the fathers of benchmarking. The Benchmarking Awards recognize benchmarking excellence and provide a platform for those excellent examples to disseminate their knowledge, and further the improvement of organizations (Porter, 1998).

There are three categories of award: the Benchmarking Research Award, the Benchmarking Study Award and the Award for Excellence in Benchmarking. The awards are open to all sectors from business to healthcare to academia to government. In summary, the Benchmarking research Award is designed to encourage new methodology both in an academic and applied sense. The Benchmarking Study Award looks at specific benchmarking projects ensuring that a structured approach had been used and that the study leads to positive action. This award is open to both individuals and teams. Finally the Award for Excellence in Benchmarking looks at integration of benchmarking into a company's strategic drive.

2.4 Business Performance

Since the beginning of the 1980s, several countries have adopted for their individual use quality or excellence awards with criteria that are based on the quality management model. They have served well to familiarize organizations around the world with what are generally accepted management principles. The examples of successes demonstrated by winners of such awards have not only made such models increasingly popular, but have also become the subjects of much research by academia that launched numerous studies to determine the key factors of success of these organizations (Laszlo, 2000).

Managing an organization without any performance measures is similar to a captain of a ship who navigates without instrumentation. The captain would most likely end up traveling in circles, as would an organization. Measurement plays a vital part in the success or failure of an organization (Besterfield, 1995).

Dalrymple *et. al* (2000) reported “business excellence” or “performance excellence” as the model used by organizations to self-assess across constituent dimensions of excellence for the purpose of driving organizational strategy. This is accomplished by identifying organizational strengths, weaknesses, and areas targeted for improvement across each of the examined dimensions. In the end, this information is used to formulate strategy that, if properly deployed, will strengthen organizational efficiency, effectiveness, and competitive position. quality alone. Applying this rotation of strategy formulation, deployment, and assessment on an annual or similar basis is essentially equivalent to the implementation of Deming’s PDCA cycle at the organizational level, applied with the goal of organizational excellence.

2.5 Comparison Between The Major National Quality Awards

The following section briefly introduced the major quality awards. This leads to a detailed comparison based on a comprehensive framework that includes the criteria items of the selected national quality awards, i.e. the Deming Prize in Japan, the Malcolm Baldrige National Quality Award in United State, European Quality Award, and the Malaysia Prime Minister Quality Award.

2.5.1 Malcolm Baldrige National Quality Award (MBNQA)

The Malcolm Baldrige National Quality Award (MBNQA) framework is probably the best-known award and the world's most widely used self-assessment framework. It was established in 1987. This award was named after President Reagan's secretary of commerce, who was killed in an accident shortly before the senate acted on the legislation. Since its creation, the MBNQA has had a significant influence on many U.S. organizations, particularly companies embarking on or continuing with quality improvement efforts (NIST, 2000).

The awards core values and concepts and extensive scoring guidelines and weightings are updated and revised annually to reflect available science and technology and provide a detailed road map for company's quality improvement efforts. The National Institute of Science and Technology (NIST), a branch of the U.S. Department of Commerce, manages the MBNQA. American Society for Quality (ASQ) assists in the award's administration (Lawrence & Przasnyski, 1999).

The TQM business approach is the basis for the MBNQA; an annual award to recognize US companies for business excellence. This award promotes an understanding of the requirements for performance excellence. It fosters sharing information about successful

performance strategies and the benefits derived from using these strategies. The framework defines the essential, universal components of a management system. It defines a number of subsystems, which are required to create an effective management system (Hutton, 2000). The core values and concepts are embodied in seven categories:

1. Leadership

The leadership category examines organization's senior executives' personal leadership and involvement in address values, directions, and performance expectations, as well as a focus on customers and stakeholders, empowerment, innovations, and learning. It also examines how the organization addresses its responsibilities to the public and supports its key communities (Brennan, 1997 & NIST, 2001).

2. Strategy Planning

The strategy planning examines how the organization sets strategic directions, and how it determines key planning requirements. The development of planning requirements to all works units through the performances management system is also considered (Spagnol, 1997 & NIST, 2001).

3. Customer and Market Focus

The customer and market focus category examines how the organization determines requirements, expectations, and preferences of customers and markets. Also examines how the organization builds relationships with customers and determines the key factors that lead to customer acquisition, satisfaction and to business expansion (NIST, 2001).

4. Information and Analysis

The information and analysis category examines the management and effectiveness of the use of data and information to support customer-driven performance excellence and marketplace success (DuPont, 1997 & NIST, 2001).

5. Human Resource Focus

The human resource focus examines the key element of how the organization motivates and enables employees to develop and utilize their full potential in alignment with their organization's overall objectives and action plans. This part examined the organization's efforts to build and maintain a work environment and an employee support climate conducive to performance excellence and to personal and organizational growth (Williamson, 1997 & NIST, 2001).

6. Process Management

The process management category examines the key elements of the organization's process management, including customer focused design, product and service delivery, key business, and support processes. This category also examines how all work units, including research and development units and suppliers, contribute to the overall quality and operational performance requirements (Saco, 1997 & NIST, 2001).

7. Business Results

This category examines the organization's performance and improvement in key business areas like customer satisfaction, product and service performance, financial and marketplace performance, human resource results, and operational performance. Also examined are performance levels relative to those of competitors (NIST, 2001). Figure 2.2 shows the interrelationship of each of the seven categories. Customer and market-focused strategy and action plans serve as the "umbrella" (ASQ, 1999).

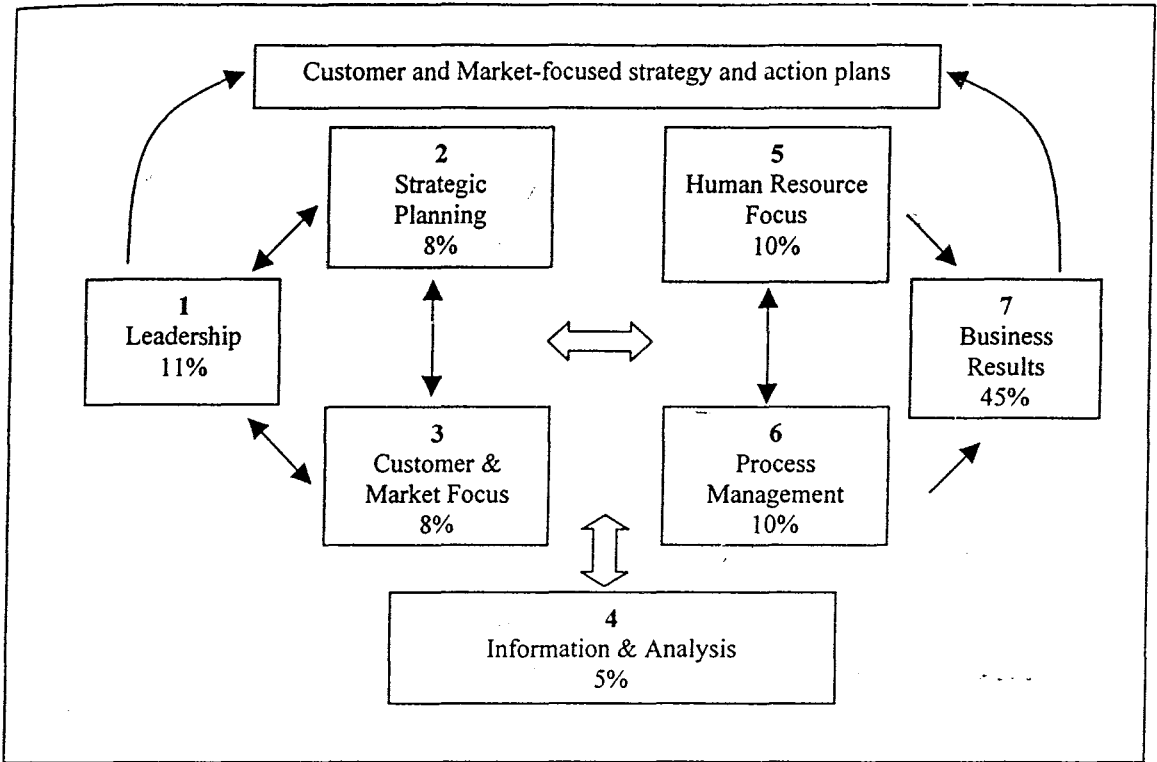


Figure 2.2 : MBNQA Framework (2000)

2.5.2 European Quality Award

The European Quality Award (EQA) was established in 1991 and the award criteria are based on the European Foundation for Quality Management's (EFQM) model for business excellence. The European Quality Award has taken the Baldrige Award as a starting point and refined it so that it has a similar but unique focus on the adoption of total quality as a business improvement vehicle (EFQM, 1999). This was inline with the European Quality vision with the ultimate aim of making Europe the Quality leader of the world (EFQM, 2000). Figure 2.3 shows the European Quality Award framework.

The European Quality Award is based on the concept that customer satisfaction, employee satisfaction and impact on society are achieved through leadership driving policy and strategy, people management, resources and processes, leading ultimately to excellence in business results. The criteria for the European Quality Award are embodied in nine categories (Lascelles & Peacock, 1996).

1. Leadership

The leadership criterion examines the behavior of all managers in leading the organization towards total quality. Specifically it looks at how the executive team and all other managers inspire, drive and reflect total quality as the organization's fundamental process for continuous improvement.

2. Policy and Strategy

The policy and strategy criterion looks at the organization's mission, values, vision and strategic direction and the manner in which it achieves them. Specifically it looks at how the organization's policy and strategy reflect the concept of total quality and how the principles of total quality are used in the formulation, deployment, review and improvement of policy and strategy.

3. People Management

People management is key to the European Model for Total Quality Management. Specifically, this criterion looks at how the organization releases the full potential of its people to improve its business continually.

4. Resources

This section concerns itself with the management, utilization and preservation of resources to achieve continuous business improvement. Specifically, this criterion looks at how the organization's resources are effectively deployed in support of the policy and strategy.

5. Processes

This criterion considers the management of all the value-adding activities within the organization. Specifically, it looks at how processes are identified, reviewed and, if necessary, revised to ensure continuous improvement of the organization's business. For the purposes of this criterion, a process is defined as a sequence of activities that adds value by producing required outputs from a variety of inputs.

6. Customer Satisfaction

The customer satisfaction results criterion looks at what the organization is achieving in relation to the satisfaction of its external customers. An external customer is defined as the immediate customer of the organization and all other customers in the chain of distribution of its products and services through to the final customer.

7. People Satisfaction

This criterion looks at what the organization is achieving in relation to the satisfaction of its people, where people are defined as all of the individuals employed by the organization.

8. Impact on Society

This criterion looks at what the organization is achieving in satisfying the needs and expectations of the community at large. This includes perception of the organization's approach to quality of life, the environment and to the preservation of global resources, and the organization's own internal measures.

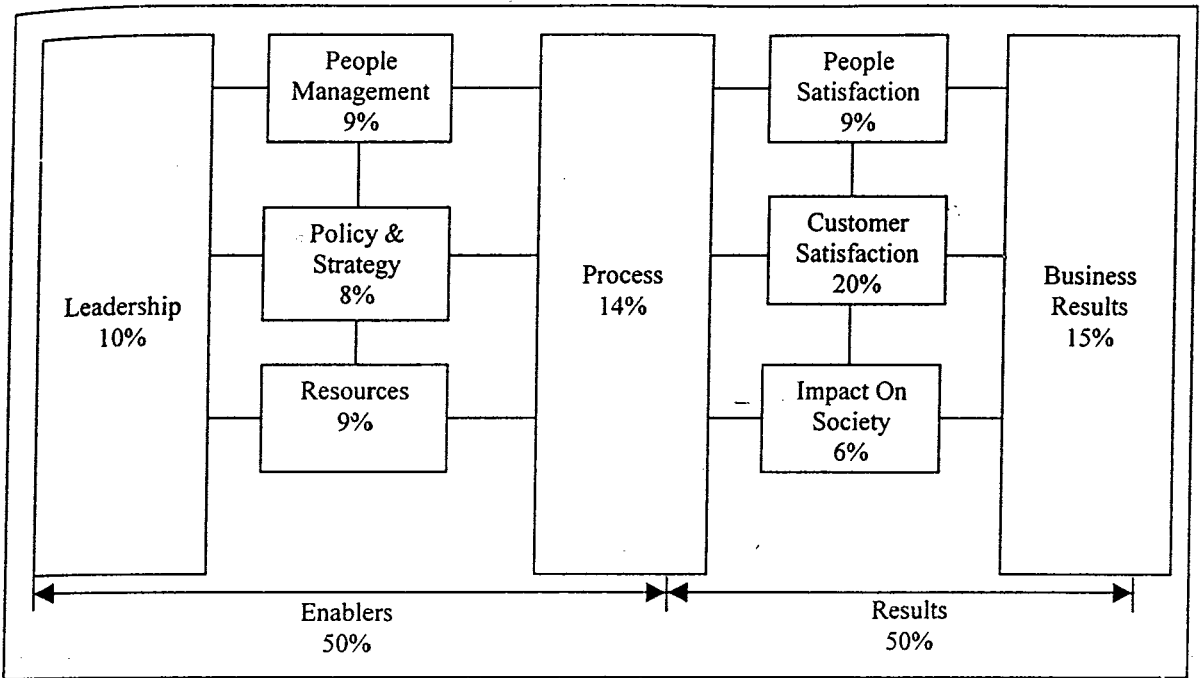


Figure 2.3: The European Quality Award Framework (Business Excellence Model)

2.5.3 Deming Award

The Union of Japanese Scientists and Engineers (JUSE) in recognition of the late Dr. W. Edwards Deming's friendship and achievements in the cause of industrial quality control instituted the Deming Prize in 1951. The Deming Prize was established to ensure that improved performance is achieved through the successful implementation of company wide quality control activities. There are two broad categories of Deming Prize: the Industrial person and the Application Prize. The Application Prize has four sub categories: overall organization, overseas company, division, and small enterprise (Mahoney & Thor, 1994). The Deming Prize actually consists of two frameworks. The first is centered on the implementation of a set of principles and techniques such as process analysis, statistical methods and quality circles. It seeks to evaluate the organization against ten criteria as shown in next page (JUSE, 2000):

1. Top Management Leadership, Vision, Strategies

This criterion examines how the top management leadership in the effective utilization of management resources and achievement of business plan. Also examines top management involvement in establishing management principles, vision and strategies.

2. TQM Frameworks

This criterion focuses on organizational and its operations, daily and policy management, the implementation of ISO 9000, ISO 14000 and other management improvement programs as well as the TQM promotion.

3. Quality Assurance System

This criterion is to ensure all the elements of the production operation that are essential for quality and reliability (from product development to service) are examined, along with the quality assurance management system.

4. Management System for Business Elements

This criterion examines the elements of cross-functional management, delivery management, cost management, environment management and safety, hygiene, and work environment management.

5. Human Resources Development

This criterion examines the organization's people management, employee participation program like QC circles and the education and training system.

6. Effective Utilization of Information

This criterion examines how the information collected and disseminated at various locations inside and outside the organization.

7. TQM Concept and Values

This criterion examines the organization's understanding for the importance of quality management to improve the customer satisfaction, practiced of upstream management to achieve good results. Apart from this its also examines the employee participation in TQM activities, conducive environment to promote employee self-actualization through self-development by learning from each other.

8. Scientific Methods

This criterion focuses on the utilization of problem solving methods such as Statistical Process Control, Quality Function Deployment and Design of Experiment. Apart from statistical way, it also encourages the use of new method, which leads to technological improvement.

9. Organizational Power (Core Technology, Speed and Vitality)

This criterion examines the strategy used for technologies, speedy decision making and to witness tat the executives and managers are full of entrepreneur and venture spirit.

10. Contribution to Realization of Corporate Objective

This criterion examines all the elements related to customer, employee social, suppliers, shareholder and the long-term perspective that the organization secures reasonable profits.