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Reaching Strategic Edge

Learning Objectives

- ◆ Learn how Business Process Reengineering can be used as a strategic tool.
- ◆ Learn basic of TQM and how it leads to organizational success.
- ◆ Learn the concept of six sigma quality standards
- ◆ Have an overview of some of contemporary issues in strategic management.

Even if you're on the right track, you'll get run over if you just sit there.

– Will Rogers, Humorist

1. Introduction

Business organizations evolve different kind of strategies in response to the environmental forces. There was a time when diversification was strategic buzzword and different organizations believed in entering into newer business irrespective of any relationship with their existing business. Then the basic ideology of businesses shifted from diversification to core-competencies. There are several such changes in strategic ideology. With the changes in the environment of the business, strategic management is also evolving. In this chapter we will discuss some of the recent and evolving issues in the subject.

2. Business Process Reengineering

Waiting in a queue in a post office or bank, a person may feel need for improvement in processes. In case of queue the process begins with your stepping into the queue, and ends with receiving the desired items or service and leaving the place. The steps of the process are the activities that you and the personnel providing services perform to complete the transaction.

Buying a ticket is a simple business process. There are other business processes such as purchasing raw material, logistic movements of finished products, developing new products, etc. that are much more tricky to deal with. Business processes are simply a set of activities that transform a set of inputs into a set of outputs for another person or process.

In order to have a better appreciation of what Business Process Reengineering (BPR) really means it would be pertinent to have preliminary knowledge of business processes. What is a business process and how it differs from other processes is question that may come to mind. Business process or business activities are not discrete or unrelated pieces of work. They are parts of recurrent work processes within which they are located, sequenced and organized.

What is a Business Process? A process is a set of logically related tasks or activities oriented towards achieving a specified outcome. "A process is a collection of activities which creates an output of value to the customer and often transcends departmental or functional boundaries. For example, one common process found almost in every organization is the order fulfilment. Order fulfilment begins with procuring an order and ends with delivery of goods to the customer. It also includes all other related activities in between. Likewise other basic processes may include developing a new product or service, launching a new product in the market, procuring goods from suppliers, preparing the organization's budget, processing and paying insurance claims, and so on.

A business process comprises a combination of number of such independent or interdependent processes as:

- ◆ Developing new product
- ◆ Customer order processing
- ◆ Bill payment system

Typically a business process involves a number of steps performed by different people in different departments. The structural elements that constitute a process provide the basis for its analysis, appraisal, and redesign for achieving higher levels of efficiency and effectiveness, economy and speed, and quality and output.

A set of interconnected processes comprise a business system. The performance of business firm is, thus, the outcome of the interrelated operation of its constituent work processes. The redesign of processes, therefore, provides a powerful basis for improving the performance of a business enterprise.

Some processes turn out to be extremely critical for the success and survival of the enterprise. BPR focuses on such critical business processes out of the many processes that go on in any company. These are the core business processes of the company. A core business process creates value by the capabilities it provides to the competitiveness. Core business processes are critical in a company's evaluation by its customers. They are vital for success in the industry sector within which the company is positioned. They are crucial for generating competitive advantages for a firm in the marketplace.

While some core business processes are easily identifiable, some core Business processes may not always be immediately apparent. The following instances serve to show that core processes need to be identified carefully in terms of their bearing on a firm's competitiveness:

- ◆ In the insurance industry, the actual work that leads to a balance of competitive premium for customers, and profit after claims for the company, is a core business

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process.

- ◆ In the banking industry, the activities that help mobilise deposits and generate funds for advances to customers, is a core business process.
- ◆ In a fast moving consumer goods industry marketing and brand management is a core process.
- ◆ In the electronics and semi-conductor industries, new product development is a core process.

The core processes of a company may change over a period of time according to the shifting requirements of its competitiveness. Since the objective of reengineering is to provide competitive advantage to the enterprise, it is extremely important to identify those core processes which need to be focussed for achieving excellence. In order to do this we have to necessarily start from the organization's business vision, and drive from there the processes that have to be best in the world in order to realize that vision.

One of the reason for which an imperative need is felt for process change is that most of the processes that the organizations are engaged in might have been developed by their functional units over a period of time and might have been evolved based on a series of unplanned decisions. Seldom there has been any serious effort to systematically analyse the processes and measure their effectiveness towards the organizational efficiency. Quite often the individual departments or units of a company aim at optimising their own performance disregarding the resultant effect on other areas of operation. This may result in a sub-optimal performance for the organization as a whole. The overall business processes in an organization extending over several departments may be quite lengthy, time consuming, costly and inefficient. Also "the existing business processes and work patterns are largely obsolete and irrational.

Fragmentation of work processes makes it difficult to improve the quality of work performance and also develops a narrow vision among the employees. As a result the employees tend to focus more on the narrow goals of their own department at the cost of larger goals of the organization as a whole. This results in piecemeal accomplishment of tasks without looking at the overall goal. As the small fragments of work move from person to person and from unit to unit, delays keep on mounting and it enhances the chances of errors. In such a situation, the emerging critical issues often remain unattended as they do not fit into the narrow definitions of tasks or roles of an individual department.

We must remember that, most of the existing work processes were developed before the advent of computers and IT revolution. Even after the massive penetration of information technology, most organizations have usually applied the technology only in a limited way to automate their existing work methods or to speed up the isolated or narrow components of a larger existing work process. This has resulted only in some sort of mechanization of the existing work methods without bringing in any appreciable change in the process and output. Examples from established Japanese industries as well as new entrepreneurial ventures in

Japan proves that it is possible to achieve a much higher level of process performance by redesigning the process. It has been possible to double the speed of normal production, utilize assets several times more productively and respond to customers' needs and expectations much more rapidly. This could be achieved by effecting a total change in the process instead of a piecemeal change. It is, therefore, imperative that for many organizations on the decline, changing the process or redesigning the process may be the only viable alternative for turnaround. They must break themselves free from their primitive and archaic work processes that drag them down. Issues that emerge from the foregoing discussions on the need for change form the underlying premises of Business Process Reengineering (BPR). They may be briefly outlined as follows:

- ◆ The operational excellence of a company is a major basis for its competitiveness.
- ◆ The business strategy of a company should be oriented towards leveraging its operational excellence into the marketplace.
- ◆ A customer-focussed organization needs to be realigned in terms of a process orientation.
- ◆ Process need to managed, not functions.
- ◆ For considering totally new ways of redesigning processes, each and every concept, assumption, purpose, and principle, needs to abandoned temporarily.
- ◆ Continuous improvement is a deficient approach when a company is far behind the industry standards, and needs rapid quantum leaps in performance.
- ◆ Dramatic improvement in performance is the prerequisite for overcoming competition.
- ◆ How to compete is more important than deciding about where to compete.

Definition of BPR: Business Process Reengineering (BPR) refers to the analysis and redesign of workflows and processes both within and between the organizations. The orientation of the redesign effort is radical, i.e., it is a total deconstruction and rethinking of a business process in its entirety, unconstrained by its existing structure and pattern. Its objective is to obtain quantum gains in the performance of the process in terms of time, cost, output, quality, and responsiveness to customers. The redesign effort aims at simplifying and streamlining a process by eliminating all redundant and non-value adding steps, activities and transactions, reducing drastically the number of stages or transfer points of work, and speeding up the work-flow through the use of IT systems.

BPR is an approach to unusual improvement in operating effectiveness through the redesigning of critical business processes and supporting business systems. It is revolutionary redesign of key business processes that involves examination of the basic process itself. It looks at the minute details of the process, such as why the work is done, who does it, where is it done and when it is done. BPR focuses on the process of producing the output and output of an organization is the result of its process.

"Business process reengineering means starting all over, starting from scratch." Reengineering, in

other words, means pulling aside much of the age-old practices and procedures of doing a thing developed over hundred years of management experience. It implies forgetting how work has been done so far, and deciding how it can best be done now.

Reengineering begins with a fundamental rethinking. In doing reengineering people must ask some most basic questions about their organizations and about their operations. They try to find out answers to such questions like "Why do we do what we do? And why do we do it the way we do?" An attempt to find out answers to such questions may startlingly reveal certain rules, assumptions and operational processes as obsolete and redundant. Reengineering does not begin with anything given or with any assumptions. The thinking process in reengineering begins with a totally free state of mind without having any preconceived notion. Reengineering first determines what a company must do. And then it decides on how to do it. Reengineering ignores what the existing process is and concentrates on what it should be. If something is not required to be done it is outright discarded.

Another key element in the reengineering involves radical redesigning of process. Radical redesigning means going to the root of the problem areas and not attempting to make any superficial changes. Radical redesign involves completely discarding all existing structures and procedures and evolving completely new ways of doing the work. "Reengineering is about business reinvention – not business improvement, business enhancement, or business modification."

The next key concept that lies behind reengineering is that it aims at achieving dramatic improvement in performance. If an organization feels the need for marginal improvement in any area of operation at any point of time, the same can be achieved by conventional methods of adjustments in operating processes and reengineering is not the answer. Reengineering is meant for replacement of the old process by altogether new one to achieve dramatic improvement in the performance.

It follows from the above and also from the characteristics of the definition of reengineering that its main focus is on the process. In an attempt to improve performance. Most people in business focus their attention on tasks, jobs, people, structure, but fail to pay adequate attention on the process. Business process, as already mentioned earlier, has been defined as the series of activities that utilizes various inputs to create output that are valued by customers. Not all the processes in an enterprise enjoy equal importance in creating customers value. In order to improve its competitive position a firm must try to identify the generic business processes which significantly add to the value for its output to the customer and should try to focus on reengineering these processes first. "The generic business processes of a firm needing redesign may be classified into three broad categories as follows:

- ◆ Processes pertaining to development and delivery of product(s) and/or services. These may include research, design, engineering, manufacturing, and logistics, besides purchasing / procurement and materials management.
- ◆ Process involving interface(s) with customers. These usually include marketing, advertising, order fulfilment, and service.

- ◆ Process comprising management activities: These include strategy formulation, planning and budgeting, performance measurement and reporting, human resource management, and building infrastructure.

In the context of these generic business processes, BPR may be viewed as a means of solving business problem through an imaginative leveraging of IT capabilities.

Rationale of BPR: Improving business processes is paramount for businesses to stay competitive in today's marketplace.

Over the last decade several factors have accelerated the need to improve business processes. The most obvious is technology. New technologies (like Information Technology) are rapidly bringing new capabilities to businesses, thereby raising the strategical options and the need to improve business processes dramatically.

After opening up of Indian economy companies have been forced to improve their business processes because of increased competition. More companies have entered the market place, and competition has become harder and harder. In today's market place, major changes are required to just stay even. It has become a matter of survival for most companies.

Customers are also demanding better products and services. If they do not receive what they want from one supplier, they have many others to choose from. They are ready to try new brands.

Implementing BPR in organizations: In a crude sense, companies began business process improvement with a continuous improvement model. This model attempts to understand and measure the current processes, and make performance improvements. However, some companies make reengineering efforts under the assumption that the current processes are wrong and irrelevant. Under such perspectives designers of business process disassociate themselves from existing processes. This helps in looking at the problem with a clean mind, free of any biases.

The approach to BPR begins with defining the scope and objectives of the reengineering project. Persons entrusted with the tasks of BPR have to undertake research in the light of scope and objectives. They have to go through a learning process. They have to research customers, employees, competitors, new technology, etc. With the help of this research base BPR designers are in a position to create a vision for the future and design new business processes. They also create a plan of action based on the gap between the current and proposed processes, technologies and structures. Steps in BPR are as follows:

Determining objectives and Framework: Objectives are the desired end results of the redesign process which the management and organization attempts to realise. This will provide the required focus, direction, and motivation for the redesign process. It helps in building a comprehensive foundation for the reengineering process.

Identify customers and determine their needs: The designers have to understand customers - their profile, their steps in acquiring, using and disposing a product. The purpose is to redesign business process that clearly provides added value to the customer.

Study the existing process: The existing processes will provide an important base for the redesigners. The purpose is to gain an understanding of the 'what', and 'why' of the targeted process. However, as discussed earlier, some companies go through the reengineering process with clean perspective without laying emphasis on the past processes.

Formulate a redesign process plan: The information gained through the earlier steps is translated into an ideal redesign process. Formulation of redesign plan is the real crux of the reengineering efforts. Customer focussed redesign concepts are identified and formulated. In this step alternative processes are considered and the best is selected.

Implement the redesign: It is easier to formulate new process than to implement them. Implementation of the redesigned process and application of other knowledge gained from the previous steps is key to achieve dramatic improvements. It is the joint responsibility of the designers and management to operationalise the new process.

The Role of Information Technology in BPR

The accelerating pace at which information technology has developed during the past few years had a very large impact in the transformation of business processes. Various studies have conclusively established the role of information technology in the transformation of business processes. That information technology is going to play a significant role in changing the business processes during the years to come, has been established beyond doubt.

A reengineered business process, characterised by IT-assisted speed, accuracy, adaptability and integration of data and service points, is focussed on meeting the customer needs and expectation quickly and adequately, thereby enhancing his/her satisfaction level.

Globalization and competition call for better management, faster response to change and adherence to globally accepted standards of quality and services.

- ◆ Impact of IT-systems are identified as:
- ◆ Compression of time
- ◆ Overcoming restrictions of geography and/or distance
- ◆ Restructuring of relationships.

IT-initiatives, thus, provide business values in three distinct areas:

- ◆ Efficiency – by way of increased productivity,
- ◆ Effectiveness – by way of better management,
- ◆ Innovation – by way of improved products and services

All these can bring about a radical change in the quality of products and services, thereby improving the competitiveness and customer satisfaction. Information technology (IT) is a critical factor in the success of bringing this change.

Central Thrust of BPR:

Improvement on quality and cost follows after improvement on thrust area. BPR is continuous improvement process. Although BPR is a multi-dimensional approach in improving the business performance its thrust area may be identified as “the reduction of the total cycle time of a business process.” BPR aims at reducing the cycle time of process by eliminating the unwanted and redundant steps and by simplifying the systems and procedures and also by eliminating the transit and waiting times as far as possible. Even after redesigning of a process, BPR maintains a continuous effort for more and more improvement.

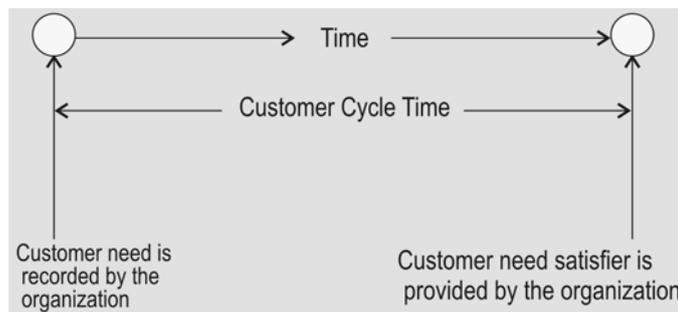


Figure: Customer Time cycle

Reengineering does not mean any partial modification or marginal improvement in the existing work processes. Reengineering is a revolutionary approach towards radical and total redesigning of the business processes. While reengineering may lead to restructuring of organization, any restructuring does not necessarily mean reengineering. The basic principles that differentiate reengineering from any other drive on improving organizational efficiency may be briefly summarized as follows:

- ◆ At the core of reengineering lies the concept of discontinuous thinking. Reengineering does not have any scope for any partial modification or marginal improvement in the existing business processes. It aims at achieving excellence and a breakthrough in performance by redesigning the **process** entirely and radically. Obviously it requires challenging the necessity of existing rules and procedures and discarding the same to evolve altogether new processes.
- ◆ BPR approach recognizes that most of the existing rules and procedures of work methods are based on certain assumptions about technology, people and the goals of the organization. These assumptions may not be valid any more. Besides many of these systems and procedures have failed to reap the benefit of massive development of information technology during the past few years. BPR recognizes “the” vast and expanding potential of IT for the most rational, simple, and efficient redesign of work structure.” BPR aims at utilizing information technology for evolving a new process, instead of automating the existing process.
- ◆ While reengineering starts with the process it does not end there. The fundamental and

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radical changes that takes place while reengineering the process has its own implication on other parts of the organization – almost on every part of it. Reengineering requires viewing a process from cross-functional perspective. Reengineering effort, therefore, focuses on a multidimensional approach disregarding the constraints of organizational structure departmental boundaries.

- ◆ “BPR efforts involves managing massive organizational change.” Reengineering is not just changing the process. The change in process is almost always accompanied by a whole lot of changes in other areas too. Work changes from task oriented to process oriented. People have the choice of making their own decisions instead of being directed. “Functional departments find their existence as redundant. Practically every aspect of the organization changes beyond recognition.”

In view of the massive organizational changes involved in reengineering, it is imperative that a reengineering drive is supported by the vision and commitment of the organizations top leadership to see through its successful completion.

Also faster and efficient redesigned business processes provide a firm with many more opportunities for trying, testing, modifying and learning.

Problems in BPR: Reengineering is a major and radical improvement in the business process. Only a limited number of companies are able to have enough courage for having BPR because of the challenges posed. It disturbs established hierarchies and functional structures and creates serious repercussions and involves resistance among the work-force. Reengineering takes time and expenditure, at least in the short run, that many companies are reluctant to go through the exercise. Even there can be loss in revenue during the transition period. Setting of targets is tricky and difficult. If the targets are not properly set or the whole transformation not properly carried out, reengineering efforts may turn-out as a failure.

3. Benchmarking

Two men were passing through a jungle. They saw a tiger at a distance. One of them immediately started running away. ‘No use’ the other claimed ‘We cannot outrun him. We are sure to be killed’. The first person replied ‘I need to outrun you and not him’.

Similarly, in cut-throat competition it is important for organizations to gain an edge over their competitors. Benchmarking helps organization to get ahead of competition. The organizations possess a large amount of information that helps them in taking strategic and other important decisions. Companies that translate this information to knowledge and use it in their planning and decision making are the winners.

Dictionary defines a benchmark as a standard or a point of reference against which things may be compared and by which something can be measured and judged. In this sense, at a naïve level, it may be compared to the concept of control as the similarities do exist. However, the concept of benchmarking is much broader than mere controlling as there are major strategic dimensions involved. The term has presumably been adapted from physical sciences

wherein it refers to a surveyor's mark made on a stationary object at previously determined position and elevation and used as a reference point to measure altitudes.

The scientific studies conducted by Frederick Taylor in the latter part of the nineteenth century represent an early use of the benchmarking concept. However, the term got popularity much later in the seventh decade of twentieth century. Initially, the concept evolved in companies operating in an industrial environment. Over a period of time it covered other spheres of business activity. In recent years, different commercial and non-commercial organizations are discovering the value of benchmarking and are applying it to improve their processes and systems.

What is Benchmarking?

In simple words, benchmarking is an approach of setting goals and measuring productivity based on best industry practices. It developed out of need to have information against which performances can be measured. For example, a customer support engineer of a television manufacturer attends a call within forty-eight hours. If the industry norm is that all calls are attended within twenty-four hours, then the twenty-four hours can be a benchmark. Benchmarking helps in improving performance by learning from best practices and the processes by which they are achieved. It involves regularly comparing different aspects of performance with the best practices, identifying gaps and finding out novel methods to not only reduce the gaps but to improve the situations so that the gaps are positive for the organization.

Benchmarking is not a panacea for all problems. Rather, it studies the circumstances and processes that help in superior performance. Better processes are not merely copied. Efforts are made to learn, improve and evolve them to suit the organizational circumstances. Further, benchmarking exercises are also repeated periodically so that the organization does not lag behind in the dynamic environment.

Benchmarking is a process of continuous improvement in search for competitive advantage. It measures a company's products, services and practices against those of its competitors or other acknowledged leaders in their field. Xerox pioneered this process in late 70's by benchmarking its manufacturing costs against those of domestic and Japanese competitors and got dramatic improvement in the manufacturing cost. Subsequently ALCOA, Eastman Kodak, IBM adopted benchmarking. Firms can use benchmarking process to achieve improvement in diverse range of management function like:

- ◆ Maintenance operations
- ◆ Assessment of total manufacturing costs
- ◆ Product development
- ◆ Product distribution
- ◆ Customer services

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- ◆ Plant utilization levels
- ◆ Human resource management

The Benchmarking Process

Benchmarking processes lack standardization. However, common elements are as follows:

- (1) *Identifying the need for benchmarking and planning:* This step will define the objectives the benchmarking exercise. It will also involve selecting the type of benchmarking. Organizations identify realistic opportunities for improvements.
- (2) *Clearly understanding existing business processes:* This step will involve compiling information and data on performance. This will include mapping processes. Information and data is collected by different methods for example, interviews, visits and filling of questionnaires.
- (3) *Identify best processes:* Within the selected framework, best processes are identified. These may be within the same organization or external to them.
- (4) *Compare own processes and performance with that of others:* While comparing gaps in performance between the organization and better performers is identified. Further, gaps in performance is analysed to seek explanations. Such comparisons have to be meaningful and credible. Feasibility of making the improvements in the light of the conditions that apply within the organization is also examined.
- (5) *Prepare a report and Implement the steps necessary to close the performance gap:* A report on the Benchmarking initiatives containing recommendations is prepared. Such a report includes the action plan(s) for implementation.
- (6) *Evaluation:* Business organizations evaluate the results of the benchmarking process in terms of improvements vis-à-vis objectives and other criteria set for the purpose. It also periodically evaluates and reset the benchmarks in the light of changes in the conditions that impact the performance.

4. Total Quality Management (TQM)

The Total Quality Management movement (or simply TQM, as it is more commonly known) has caught on in essentially every corner of industry. The TQM philosophy is a guiding force in all industrialized nations like USA, European nations, Japan, etc.

What is TQM? A definition of total quality was endorsed in 1992 by the chairs and CEOs of nine major U.S. corporations in cooperation with deans of business and engineering departments of major universities and recognized consultants:

Total Quality Management (TQM) is a people-focused management system that aims at continual increase in customer satisfaction at continually lower real cost.

TQM is a total system approach (not a separate area or program) and an integral part of high-

level strategy; it works horizontally across functions and departments, involves all employees, top to bottom, and extends backward and forward to include the supply chain and the customer chain. TQM stresses learning and adaptation to continual change as keys to organizational success.

To understand this concept fully, it makes sense first to understand some of the underlying concepts of quality management that have guided industrial development. The concept of quality control as a distinct discipline emerged in the United States in the 1920s. At the time, quality control was intended simply to control, or limit, the creation of defective items in industrial processes. There are numerous disadvantages to this sorting process, especially if the sorting is performed by different people from those manufacturing the product. Pioneering work by Shewhart, Deming, Juran, Feigenbaum, Crosby, and others indicated that perhaps better ways to approach the quality control concept existed. Perhaps simply sorting good products from bad, they reasoned, was not the most efficient way to assure a quality output. A more effective management philosophy might focus on actions to prevent a defective product from ever being created, rather than simply screening it out. Also, these and other men soon recognized that the concept of quality control need not be restricted only to manufacturing processes. The idea of assuring quality could also be applied to administrative processes service industries and all sphere of organization activity.

The TQM philosophy greatly emerged under Deming's guidance, who is regarded by many as the father of TQM. Interestingly, Deming's quality management philosophies were first developed in the years prior to World War II. Deming believed quality management should be pervasive, and should not focus on merely sorting good products from bad. He believed that the responsibility for quality should be shared by everyone in an organization. Perhaps most significantly, Deming recognized that most quality problems were system-induced and were therefore not related to workmanship. But Deming's work only saw limited application in the United States prior to World War II. Subsequently Deming was brought to Japan by General Douglas MacArthur to serve as a management consultant to the Japanese as they rebuilt their industrial base. Deming's message had essentially fallen on deaf ears in the United States, but not so in Japan.

Japan, then as now, was an island nation that had to import all its raw materials. But Japan, as a formerly industrialized nation, had to rebuild its industrial base from essentially nothing. The Japanese had no preconceived approaches about sorting defective products from acceptable ones. They were willing to learn. What followed in Japan during the ensuing decades has been well studied and is now well known. The Japanese dominated almost every market they chose to enter: electronics, cameras, automobiles, steel, shipbuilding, motorcycles, and several others. Superior quality became a common theme of Japanese market dominance. Much of the Japanese quality superiority occurred as a result of statistical manufacturing methods and other management philosophies now recognized as Total Quality Management. The Japanese made additional contributions to the TQM philosophy, most notably in the areas of variability reduction, problem solving, teamwork, and defining and satisfying customer expectations: Taguchi and Ishikawa contributed heavily to these disciplines.

4.1 Principles guiding TQM

Implementing TQM requires organization wide support. There are several principles that guide success of TQM. Various principles that guide the total quality management philosophy are as follows:

- ◆ **A sustained management commitment to quality:** An organization's personality and culture will ultimately reflect its senior management's values. If an organization is serious about implementing TQM, the commitment to do so has to start at the top, and the organization's senior management has to be unwavering in its commitment to quality. Almost any organization's senior managers will claim they are committed to quality, but how they act at the end sets the tone for the entire organization. If management allows a defective product leave the premises of the organisation in order to make sales, then all the talk about quality won't make a difference to the people making the product. If management is willing to take a sales hit if quality levels are not up to requirements, the rest of the organization will understand the commitment to quality is real.
- ◆ **Focusing on the customer:** According to Lee Iacocca had only three rules: Satisfy the customer, satisfy the customer, and satisfy the customer. This sums up the importance of customer focus in the TQM philosophy. Ultimately it the satisfaction of the customers that determines the success of an organisation.
- ◆ **Preventing rather than detecting defects:** TQM is a management philosophy that seeks to prevent poor quality in products and services, rather than simply to detect and sort out defects. "An ounce of prevention is worth a pound of cure." A little precaution before a crisis occurs is preferable to a lot of fixing up afterward. This also saves cost and time.
- ◆ **Universal quality responsibility:** Another basic TQM precept is that the responsibility for quality is not restricted to an organization's quality assurance department, but is instead a guiding philosophy shared by everyone in an organization. TQM requires that everyone takes responsibility for quality. As quality improves, the quality assurance department gets smaller. In fact, world over, a few companies fully committed to TQM have done' away completely with their quality assurance organizations.

Quality measurement: The quality measurement aspect of TQM asks the question: Where are we and where are we going? A basic TQM concept is that quality is a measurable commodity, and in order to improve, we need to know where we are (or stated differently, what the current quality levels are), and we need to have some idea where we are going (or what quality levels we aspire to). This is an extremely important concept

- ◆ **Continuous improvement and learning:** TQM espouses a philosophy of continuous improvement in all areas of an organization. This philosophy ties in closely with the quality measurement and universal quality responsibility concepts mentioned above. Quality measurement is needed in order to focus improvement efforts appropriately.

Continuous improvement is part of the management of all systems and processes. Achieving the highest levels of performance requires a well-defined and well-executed approach to continuous improvement and learning. "Continuous improvement" refers to both incremental and "breakthrough" improvement. Improvements may be of several types:

- Enhancing value to the customer through new and improved products and services;
- Developing new business opportunities;
- Reducing errors, defects, and waste;
- Improving responsiveness and cycle time performance; and
- Improving productivity and effectiveness in the use of all resources.

"Learning" refers to adaptation to change, leading to new goals or approaches. Improvement and learning need to be embedded in the way an organization operates. This means they should be a regular part of daily work, seek to eliminate problems at their source, and be driven by opportunities to do better as well as by problems that need to be corrected.

- ◆ **Root cause corrective action:** Most of us have experienced instances in which problems we thought were corrected continued to occur. TQM seeks to prevent this by identifying the root causes of problems, and by implementing corrective actions that address problems at the root cause level.
- ◆ **Employee involvement and empowerment:** Another fundamental TQM concept is that employees must be involved and empowered. Employee involvement means every employee is involved in running the business and plays an active role in helping the organization meet its goals. Employee empowerment means employees and management recognize that many obstacles to achieving organizational goals can be overcome by employees who are provided with the necessary tools and authority to do so.
- ◆ **The synergy of teams:** In addition to the TQM concepts of empowerment and involvement of employees, taking advantage of the synergy of teams is an effective way to address the problems and challenges of continuous improvement. Dr. Kaoru Ishikawa first formalized the teams concept as part of the TQM philosophy by developing quality circles in Japan.
- ◆ **Thinking statistically:** Statistical thinking is another basic TQM philosophy. Quality efforts often require reducing process or product-design variation, and statistical methods are ideally suited to support this objective.
- ◆ **Inventory reduction:** Largely in response to their lack of natural resources (as well as the 1970s worldwide oil shortages), the Japanese pioneered the concept of reducing inventories. This management philosophy became known as Just-in-Time (or JIT, for

short) inventory management. The Japanese JIT inventory management concepts caught on in the United States and other nations. Although the concept was originally intended to address material shortages, an interesting side effect immediately emerged: As inventories grew smaller, quality improved.

- ◆ **Value improvement:** The linkage between continuous improvement and value improvement is simultaneously obvious and subtle. This linkage becomes apparent when one considers the definition of quality, which is the ability to meet or exceed customer requirements and expectations. The essence of value improvement is the ability to meet or exceed customer expectations while removing unnecessary cost. But simply cutting costs, however, will not improve value if the focus does not remain on satisfying customer requirements and expectations.
- ◆ **Supplier teaming:** Another principle of the TQM philosophy is to develop long-term relationships with a few high-quality suppliers, rather than simply selecting those suppliers with the lowest initial cost.
- ◆ **Training:** Training is basic to the TQM process. The concept is based on empowering employees by providing the tools necessary for continuous improvement. One of the most basic tools is training.

"TQM is a management philosophy, an abstract entity!"

But TQM is not an overnight cure for an organization's quality problems. The TQM implementation process is not a program. A TQM implementation effort has a beginning, but if implemented properly, it does not have an ending. The continuous improvement process continues indefinitely in organizations that successfully implement TQM. TQM requires patience when embarking on its journey.

4.2 TQM and Traditional Management Practices

TQM is quite different from traditional management practices, requiring changes in organizational processes, beliefs and attitudes, and behaviours. "Traditional management" means the way things are usually done in most organizations in the absence of a TQM focus. Many "traditional" organizations have been applying TQM principles all along, so not all of these comments pertain to every organization. The nature of TQM differs from common management practices in many respects. Some of the key differences are as follows:

- ◆ **Strategic Planning and Management:** Quality planning and strategic business planning are indistinguishable in TQM. Quality goals are the cornerstone of the business plan. Measures such as customer satisfaction, defect rates, and process cycle times receive as much attention in the strategic plan as financial and marketing objectives.
- ◆ **Changing Relationships with Customers and Suppliers:** In TQM, quality is defined as products and services beyond present needs and expectations of customers. Innovation is required to meet and exceed customers' needs. Traditional management

places customers outside of the enterprise and within the domain of marketing and sales. TQM views everyone inside the enterprise as a customer of an internal or external supplier, and a supplier of an external or internal customer. Marketing concepts and tools can be used to assess internal customer needs and to communicate internal supplier capabilities.

- ◆ **Organizational Structure:** TQM views the enterprise as a system of interdependent processes, linked laterally over time through a network of collaborating (internal and external) suppliers and customers. Each process is connected to the enterprise's mission and purpose through a hierarchy of micro- and macro-processes. Every process contains sub-processes and is also contained within a higher process. This structure of processes is repeated throughout the hierarchy.
- ◆ **Organizational Change:** In TQM the environment in which the enterprise interacts is considered to be changing constantly. Management's job, therefore, is to provide the leadership for continual improvement and innovation in processes and systems, products, and services. External change is inevitable, but a favourable future can be shaped.
- ◆ **Teamwork:** In TQM individuals cooperate in team structures such as quality circles, steering committees, and self-directed work teams. Departments work together toward system optimization through cross-functional teamwork.
- ◆ **Motivation and Job Design:** TQM managers provide leadership rather than overt intervention in the processes of their subordinates, who are viewed as process managers rather than functional specialists. People are motivated to make meaningful contributions to what they believe is an important and noble cause, of value to the enterprise and society. The system enables people to feel like winners.

5. Six Sigma and Management

Six sigma is often related to Motorola, the company that has invented it. In the eighth decade of the 20th century, Motorola's significantly changed the discussion of quality from one where quality levels were measured in percentages (parts per hundred) to parts per million or even parts per billion. It pointed out that modern technology was so complex that old ideas about acceptable quality levels are no longer acceptable. The success of Motorola effectively changed the focus of quality worldwide. Many giants like Xerox, Boeing, GE, Kodak followed Motorola's lead. In India also Tata's, WIPRO and Bharti's and others are effectively reaping the benefits of six-sigma.

Human quest for better quality is unending. With the help of technology and newer tools organizations enhance quality of their products that are seemingly of very good quality. Quality refers to the degree of excellence and standard. Better quality is often correlated with superior processes and products.

Strategically, a product of good quality should be able to meet the specifications of customer and should be able to satisfy him. If battery of a wristwatch lasts for eight months, but is

expected to last for a year by the customer, then the product battery is not of desired quality. Good quality should not always be associated with good products.

Another dimension of quality is that it should not be restricted to satisfying the existing desires of customers. It should not put a boundary on quality by limiting it to the current information and perspective of customers. Rather it should be futuristic, i.e., in addition to meeting customer's present expectations, it should be able to improve them.

5.1 What is Six Sigma?

Primarily Six Sigma means maintenance of the desired quality in processes and end products. It means taking systemic and integrated efforts toward improving quality and reducing cost.

It is a highly disciplined process that helps in developing and delivering near-perfect products and services. It strives to meet and improve organizational goals on quality, cost, scheduling, manpower, new products and so on. It works continuously towards revising the current standards and establishing higher ones.

Six Sigma has its base in the concept of probability and normal distribution in statistics. Six Sigma strives that 99.99966% of products manufactured are defect free. Six Sigma is a smarter way to manage a business or a department. Six Sigma puts the customer first and uses facts and data to drive better solutions.

Six Sigma efforts target different areas such as:

- ◆ Improving customer satisfaction
- ◆ Improving quality
- ◆ Reducing wastage
- ◆ Reducing cycle time
- ◆ Reducing defects

Improvements in these areas usually represent dramatic cost savings to businesses, as well as opportunities to retain customers, capture new markets, and build a reputation for top performing products and services.

Although it involves measuring and analyzing an organization's business processes, Six Sigma is not merely a quality initiative; it is a business initiative. Achieving the goal of Six Sigma requires more than small, incremental improvements; it requires breakthroughs in every area of an operation. In statistical terms, "reaching Six Sigma" means that your process or product will perform with almost no defects.

But the real message of Six Sigma goes beyond statistics. Six Sigma is a total management commitment and philosophy of excellence, customer focus, process improvement, and the rule of measurement rather than gut feel. Six Sigma is about making every area of the organization better able to meet the changing needs of customers, markets, and technologies - with benefits for employees, customers, and shareholders.

The background of Six Sigma stretches back eighty-plus years, from management science concepts developed in the United States to Japanese management breakthroughs to "Total Quality" efforts in the 1970s and 1980s. But its real impact can be seen in the waves of change and positive results sweeping such companies as GE, Motorola, Johnson & Johnson, and American Express.

GE's Key Concepts of Six Sigma	
At its core, Six Sigma revolves around a few key concepts.	
Critical to Quality:	Attributes most important to the customer
Defect:	Failing to deliver what the customer wants
Process Capability:	What your process can deliver
Variation:	What the customer sees and feels
Stable Operations:	Ensuring consistent, predictable processes to improve what the customer sees and feels
Design for Six Sigma:	Designing to meet customer needs and process capability

Source: <http://www.ge.com/sixsigma/sixsigstrategy.html>

5.2 Six Sigma Methodology

For implementing six sigma there are two separate key methodologies for existing and new processes. Conceptually there is some overlapping between the two. The two methodologies are as follows:

1. **DMAIC:** DMAIC methodology is an acronym for five different steps used in six sigma directed towards improvement of existing product, process or service. The five steps are as follows:
 - ◆ *Define:* To begin with six sigma experts define the process improvement goals that are consistent with the strategy of the organization and customer demands. They discuss different issues with the senior managers so as to define what needs to be done.
 - ◆ *Measure:* The existing processes are measured to facilitate future comparison. Six sigma experts collect process data by mapping and measuring relevant processes.
 - ◆ *Analyze:* Verify cause-and-effect relationship between the factors in the processes. Experts need to identify the relationship between the factors. They have to make a comprehensive analysis to identify hidden or not so obvious factors.
 - ◆ *Improve:* On the basis of the analysis experts make a detailed plan to improve.
 - ◆ *Control:* Initial trial or pilots are run to establish process capability and transition to production. Afterwards continuously measure the process to ensure that variances are identified and corrected before they result in defects.

2. **DMADV:** DMADV is again acronym for the steps followed in implementing six sigma. It is a strategy for designing new products, processes and services.
 - ◆ *Define:* As in case of DMAIC six sigma experts have to formally define goals of the design activity that are consistent with strategy of the organization and the demands of the customer.
 - ◆ *Measure:* Next identify the factors that are critical to quality (CTQs). Measure factors such as product capabilities and production process capability. Also assess the risks involved.
 - ◆ *Analyze:* Develop and design alternatives. Create high-level design and evaluate to select the best design.
 - ◆ *Design:* Develop details of design and optimise it. Verify designs may require using techniques such as simulations.
 - ◆ *Verify:* Verify designs through simulations or pilot runs. Verified and implemented processes are handed over to the process owners.

5.3 What's New About Six Sigma?

In the 1980s, Total Quality Management (TQM) was popular. It too was an improvement-focused program, but it ultimately died a slow and silent death in many companies. What makes Six Sigma different?

Three key characteristic separate Six Sigma from other quality programs of the past. .

1. *Six Sigma is customer focused.* It's almost an obsession to keep external customer needs in plain sight, driving the improvement effort. (External customers are mostly those who buy business's products and services.)
2. *Six Sigma projects produce major returns on investment.* GE's CEO, Jack Welch, wrote in the annual report that in just three years, Six Sigma had saved the company more than \$2 billion.
3. *Six Sigma changes how management operates.* Six Sigma is much more than improvement projects. Senior executives and leaders throughout a business are learning the tools and concepts of Six Sigma: new approaches to thinking, planning, and executing to achieve results. In a lot of ways, Six Sigma is about putting into practice the notions of working smarter, not harder.

Six Sigma has produced some impressive numbers. But reaching them requires a great deal of organizational teamwork. It means having the systems to provide customers what they want when they want it. It means providing employees with the time and training to tackle work challenges with some basic, and some sophisticated, analytical tools.

When a business violates important customer requirements, it is generating defects, complaints, and cost. The greater the number of defects that occur, the greater the cost of correcting them, as well as the risk of losing the customers. Ideally, your company wants to

avoid any defects and the resulting cost in money and customer satisfaction.

But if a company have lots of customers, some defects are bound to slip through, right? The problem is that even a seemingly low percentage of defects can mean a lot of unhappy customers. If company processed 250,000 credit card bills a month and operated at 99.38 percent accuracy (4 sigma), we would have about 1,550 unhappy customers every month.

The goal of Six Sigma is to help people and processes aim high in aspiring to deliver defect-free products and services. The notion of zero defects is not at work here; Six Sigma recognizes that there's always some potential for defects, even in the best run processes or best-built product. But at 99.9997 percent performance, Six Sigma sets a performance target where defects in many processes and products are almost nonexistent.

Also defects can lead to lost customers, and turned-off customers tell others about their experiences, making it that much more difficult to recover from defects. As customers get more and more demanding and impatient, these high levels of defects put a company in serious risk. But keeping customers happy is good and profitable for the business. A 5 percent increase in customer retention has been shown to increase profits more than 25 percent. It is estimated that companies lose 15 percent to 20 percent of revenues each year to ineffective, inefficient processes-although some might suggest that it's even higher. Six Sigma provides a goal that applies to both product and. service activities and that sets attainable, short-term goals while striving for long-range business objectives.

5.4 Six Sigma as a system of management

A significant difference between Six Sigma and seemingly similar programs of past years is the degree to which management plays a key role in regularly monitoring program results and accomplishments. When Jack Welch introduced the Six Sigma program at GE, he told senior executives that 40 percent of their annual bonus would be based on their involvement and success in implementing Six Sigma.

That focused executive attention on turbo-charging Six Sigma in their individual divisions. Training in GE was given a huge boost, and thousands of teams were trained in large sessions. At the same time, executives throughout GE participated in days and sometimes weeks of Six Sigma training.

But training alone is not a management system. A management system involves accountability for results and ongoing reviews to ensure results. With both accountability and regular reviews, managers can begin to use Six Sigma as a guide to leading their businesses.

As a management system, though, Six Sigma is not owned by senior leaders (although their role is critical) or driven by middle management (although their participation is key). The ideas, solutions, process discoveries, and improvements that arise from Six Sigma take place at the front lines of the organization. Six Sigma companies are striving to put more responsibility into the hands of the people who work directly with customers.

In short, Six Sigma is a system that combines both strong leadership and grassroots energy and involvement. In addition, the benefits of Six Sigma are not just financial. People at all

levels of a Six Sigma company find that better understanding of customers, clearer processes, meaningful measures, and powerful improvement tools make their work more rewarding.

5.5 Six Themes of Six Sigma

The critical elements of Six Sigma can be put into six themes as follows:

Theme one – genuine focus on the customer: Companies launching Six Sigma have often been appalled to find how little they really understand about their customers. In Six Sigma, customer focus becomes the top priority. For example, the measures of Six Sigma performance begin with the customer. Six Sigma improvements are defined by their impact on customer satisfaction and value.

Theme two – data and fact-driven management: Six Sigma takes the concept 'of "management by fact" to a new, more powerful level. Despite the attention paid in recent years to improved information systems, knowledge management, and so on, many business decisions are still being based on opinions and assumptions. Six Sigma discipline begins by clarifying what measures are key to gauging business performance and then gathers data and analyzes key variables. Then problems can be much more effectively defined, analyzed, and resolved-permanently. At a more down-to-earth level, Six Sigma helps managers answer two essential questions to support data-driven decisions and solutions.

- ◆ What data/information do I really need?
- ◆ How do we use that data/information to maximum benefit?

Theme three – processes are where the action is: Whether focused on designing products and services, measuring performance, improving efficiency and customer satisfaction, or even running the business, Six Sigma positions the process as the key vehicle of success. One of the most remarkable breakthroughs in Six Sigma efforts to date has been convincing leaders and managers-particularly in service-based functions and industries-that mastering processes is a way to build competitive advantage in delivering value to customers.

Theme four – proactive management: Most simply, being proactive means acting in advance of events rather than reacting to them. In the real world, though, proactive management means making habits out of what are, too often, neglected business practices: defining ambitious goals and reviewing them frequently, setting clear priorities, focusing on problem prevention rather than fire-fighting, and questioning why we do things instead of blindly defending them.

Far from being boring or overly analytical, being truly proactive is a starting point for creativity and effective change. Six Sigma, encompasses tools and practices that replace reactive habits with a dynamic, responsive, proactive style of management.

Theme five – boundaryless collaboration: "Boundarylessness" is one of Jack Welch's mantras for business success. Years before launching Six Sigma, GE's chairman was working to break barriers and to improve teamwork up, down, and across organizational lines. The opportunities available through improved collaboration within companies and with vendors and customers

are huge. Billions of dollars are lost every day because of disconnects and outright competition between groups that should be working for a common cause: providing value to customers.

Theme six – drive for perfection; tolerate failure: How can you be driven to achieve perfection and yet also tolerate failure? In essence, though, the two ideas are complementary. No company will get even close to Six Sigma without launching new ideas and approaches-which always involve some risk. If people who see possible ways to be closer to perfect are too afraid of the consequences of mistakes, they'll never try.

Finally we must bear in mind that Six Sigma is a gradual process. It starts with a dream or a vision:

6. Contemporary Strategic Issues

If we want to stay competitive, we need to be in e-commerce

– Jessica Chu, Marketing manager, Aaeon Technology, Taiwan

Our strategy is to integrate the internet into all of our core business.

– Thomas Middelhoff, CEO, Bertelsmann AG, Germany

6.1 Strategies for Internet Economy

The impact of the Internet and the rapidly emerging e-commerce environment is profound. The advent of the Internet and online networks changes everything. There can be no doubt that the Internet is a driving force of historical and revolutionary proportions. The coming of e-commerce has changed the character of the market, created new driving forces and key success factors and bred the formation of new strategic groups. The creativeness with which a company incorporates e-commerce practices holds enormous potential for reconfiguring its value chain and affecting its company's competitiveness. Also the Internet economy presents opportunities and threats that demand strategic response and that require managers to craft bold new strategies.

What is Internet Technology?

The Internet is an integrated network of banks of servers and high-speed computers, digital switches and routers, telecommunications equipment and lines, and individual users' computers. The backbone of the Internet consists of telecommunications lines (fibre optic lines, high-capacity telephone lines) criss-crossing countries, continents, and the world that allow computers to transfer data in digital form at very high speed. The bandwidth of the line determines the capacity or speed of the data transfer. These lines are connected to computer like digital switches that move traffic along the backbone lines; many of these switches act as routers, deciding which way to direct the traffic and how to handle the requests of users' computers to send or obtain data based on the destinations and line congestion.

Users gain access to the network via a local area network (LAN) server or an Internet service

provider's computerized switch that has the capability to route traffic to and from end users directly connected to it. Many different types of specialized software are required to make the Internet function and infuse it with attractive e-commerce capabilities.

Strategy-shaping characteristics of the E-Commerce environment: We need to understand how growing use of the Internet by businesses and consumers reshapes the economic landscape and alters traditional industry boundaries. The following features stand out:

- ◆ **The Internet makes it feasible for companies everywhere to compete in global markets:** This is true especially for companies whose products are of good quality and can be shipped economically. In retailing, the Internet opens up a much bigger geographic market than a traditional brick-and-mortar retailer could otherwise reach. e-commerce escalates rivalry among sellers in different geographic areas to a whole new level.
- ◆ **Competition in an industry is greatly intensified by the new e-commerce strategic initiatives of existing rivals and by the entry of new, enterprising e-commerce rivals:** Not only is the Internet an important new distribution channel that allows sellers to reach vast numbers of buyers relatively inexpensively but the use of online systems afforded by the Internet also holds considerable potential for improving business efficiency and lowering operating costs. Hence, innovative use of the Internet adds a valuable weapon to the competitive arsenal of rival sellers, giving them yet another way to jockey for market position and manoeuvre for competitive advantage.
- ◆ **Entry barriers into the e-commerce world are relatively low:** Many of the activities comprising the value chains of e-commerce businesses can be outsourced. The software necessary for establishing a Web site is readily available (if entrepreneurs do not wish to develop their own), and the costs of using a Web hosting company to manage the servers and maintain the site are relatively modest. Relatively low entry barriers explain why there are already hundreds of thousands of newly formed e-commerce firms, with perhaps millions more to spring up around the world in years to come. In many markets and industries, entry barriers are low enough to make additional entry both credible and likely.
- ◆ **Online buyers gain bargaining power because they confront far fewer obstacles to comparing the products, prices, and shipping times of rival vendors:** Vendor Web sites are only a few clicks apart and are open for business 24 hours a day, every day of the year, giving buyers unprecedented ability to compare offerings and find the best value. Using online networks, a multinational manufacturer's geographically scattered purchasing groups can easily pool their orders with parts and components suppliers and bargain for volume discounts. Likewise, it is feasible for wholesalers to use online systems to research the products, prices, and features of competing manufacturers and for retailers to shop around and bargain for the best deals from manufacturers and distributors who supply them. Individual consumers can readily get reviews of products, compare the features and prices of rival brands, and put up bids for how much they are willing to pay for items. The Internet eliminates the geographic protection of distance that has traditionally given small-town businesses the advantage

of being the only source within reasonable driving distance. Using the Internet, buyers can readily negotiate car purchases with dealers hundreds of miles away.

- ◆ **The Internet makes it feasible for companies to reach beyond their borders to find the best suppliers and, further, to collaborate closely with them to achieve efficiency gains and cost savings:** In an e-commerce environment companies can use the Internet to integrate foreign suppliers into their supply chain networks more tightly, boosting savings and speeding new products to market. All companies can extend their geographic search for suppliers and can collaborate electronically with chosen suppliers to streamline ordering and shipping of parts and components, improve just-in-time deliveries, work in parallel on the designs for new products, and communicate speedily and efficiently. But the chief point here is that new competitive pressures can spring from the e-commerce relationships between companies and their suppliers-companies not only gain added bargaining power over their suppliers but efficient online collaboration with chosen suppliers can also be a basis for gaining an edge over rivals.
- ◆ **Internet and PC technologies are advancing rapidly, often in uncertain and unexpected directions:** For example, a few years ago, both Intel and Microsoft were focusing all their energies on expanding the role of the personal computer as a multifunctional appliance in both business significance of the internet and bad to initiate crash programs to redirect their efforts.
- ◆ **The internet results in much faster diffusion of new technology and new idea across the world:** Companies in emerging countries and elsewhere can use the internet to monitor the latest technological developments and to stay abreast of what is transpiring in the markets of Europe, Japan, and North America and what the leading companies in these areas are doing.
- ◆ **The e-commerce environment demands that companies move swiftly:** In the exploding e-commerce world, speed is a condition of survival. New developments on first one front and then another occur daily. Market and competitive conditions change very quickly. Late movers are doomed.
- ◆ **E-commerce technology opens up a host of opportunities for reconfiguring industry and company value chains:** Using the internet to link the orders of customers with the suppliers of components enables just-in-time delivery to manufacturers, slicing inventory costs and allowing production to match demand. It allows more accurate demand forecasting. Tight supply chain management starting with customer orders and going all the way back to components production, coupled with the use of enterprise resource planning (ERP) software, can make custom manufacturing just as cheap as mass production, and sometimes cheaper. The impact of e-commerce technology on industry and company value chains is profound, paving the way for fundamental changes in the ways business is conducted.
- ◆ **The Internet can be an economical means of delivering customer service:** The Internet provides innovative opportunities for handling customer service activities. Companies are discovering ways to deliver service online, thus curtailing the need to

keep company personnel at the facilities of major customers, reducing staffing levels at telephone call centres, and cutting the time required for service technicians to respond to customer faxes and e-mail messages.

- ◆ **The capital for funding potentially profitable e-commerce businesses is readily available:** In the Internet age, e-commerce businesses have found it relatively easy to raise hundreds of millions, even billions, of dollars to fund a promising new venture. Venture capitalists are quite willing to fund start-up enterprises provided they have a promising technology or idea, an attractive business model, and a well thought-out strategic plan
- ◆ **The needed e-commerce resource in short supply is human talent-in the form of both technological expertise and managerial know-how:** While some e-commerce companies have their competitive advantage lodged in patented technology or unique physical assets or brand-name awareness, many are pursuing competitive advantage based on the expertise and intellectual capital of their personnel and on their organizational competencies and capabilities. Two of the most valuable competitive assets a company can have are dominating depth in a particular technology and a workforce with exceptional know-how and experience that gives a firm uniquely strong skills and competitive capabilities. E-commerce firms are thus competing aggressively for talent and intellectual capital; individuals with attractive qualifications and know-how can command premium compensation, including equity ownership or lucrative stock options in start-up enterprises.

It is that growing use of e-commerce technology can produce important shifts in an industry's competitive forces – intensified rivalry, greater entry threats, a blurring of traditional industry and geographic boundaries, shifts in the balance of bargaining power both between sellers and their suppliers and between sellers and their customers, and incentives for all kinds of seller-supplier and seller-customer collaboration.

Internet technology and newly emerging products and services that enable e-commerce further have the effects of altering industry value chains, spawning substantial opportunities for increasing efficiency and reducing costs, and affecting a company's resource strengths and weaknesses. Moreover, the pace of technological change is rapid and its direction is often uncertain. Market developments occur swiftly, compelling companies to make decisions at Internet speed or risk getting left behind in the dust.

6.2 Strategic management in non-profit and government organization

Business organization can be classified as commercial or non-commercial on the basis of the interest they have. A commercial organization has profit as its main aim. We can find many organizations around us, which do not have any commercial objective of making profits. Their genesis may be for social, charitable, or educational purposes. Examples of non-commercial organizations can be The Institute of Chartered Accountants of India, municipal corporations, non-governmental organizations such as Help-Age or Child Relief and You. Their main aim is to provide services to members, beneficiaries or public at large. A non-commercial

organization comes to existence to meet the needs not met by business enterprises. These organizations may not have owners in true sense.

The strategic-management process is being used effectively by countless non-profit governmental organizations. Many non-profit and governmental organizations outperform private firms and corporations on innovativeness, motivation, productivity, and strategic management.

Compared to for-profit firms, non-profit and governmental organizations often function as a monopoly, produce a product or service that offers little or no measurability of performance, and are totally dependent on outside financing. Especially for these organizations, strategic management provides an excellent vehicle for developing and justifying requests for needed financial support.

Educational institutions: Educational institutions are using strategic-management techniques and concepts more frequently. Richard Cyert, president of Carnegie-Mellon University, says, "I believe we do a far better job of Strategic management than any company I know ". The significant change in the competitive climate has taken place in the educational environment. Hence, they are adopting different strategies for attracting best students.

The academic institutions have also joined hands with industries in order to deliver education to make graduates more employable. The educational delivery system has also undergone considerable changes with the introduction of computers and internet technologies. The first all-Internet law school, Concord University School of Law, boasts nearly two hundred students who can access lectures anytime and chat at fixed times with professors. Online college degrees are becoming common and represent a threat to traditional Colleges and universities.

Medical organizations: Hospitals are creating new strategies today as advances in the diagnosis and treatment of chronic diseases are undercutting that earlier mission. Hospitals are beginning to bring services to the patient as much as bringing the patient to the hospital. Pathological laboratories have started collecting door-to-door samples. Chronic care will require day-treatment facilities, electronic monitoring at home, user-friendly ambulatory services, decentralized service networks, and laboratory testing.

A successful hospital strategy for the future will require renewed and deepened collaboration with physicians, who are central to hospitals' well being and a reallocation of resources from acute to chronic care in home and community settings.

Backward integration strategies that some hospitals are pursuing include acquiring ambulance services, waste disposal services, and diagnostic services. Millions of persons research medical ailments online, which is causing a dramatic shift in the balance of power between doctor, patient, and hospitals.

The whole strategic landscape of healthcare is changing because of the Internet. Intel recently began offering a new secure medical service whereby doctors and patients can conduct sensitive business on the Internet, such as sharing results of medical tests and prescribing medicine. The ten most successful hospital strategies today are providing free-standing outpatient surgery centres, outpatient surgery and diagnostic centres, physical rehabilitation centres, home health

services, cardiac rehabilitation centres, preferred provider services, industrial medicine services, women's medicine services, skilled nursing units, and psychiatric services.

Governmental agencies and departments: Central, state, municipal agencies, Public Sector Units, departments are responsible for formulating, implementing, and evaluating strategies that use taxpayers' money in the most cost-effective way to provide services and programs. Strategic-management concepts increasingly are being used to enable some organizations to be more effective and efficient.

But strategists in governmental organizations operate with less strategic autonomy than their counterparts in private firms. Public enterprises generally cannot diversify into unrelated businesses or merge with other firms. Governmental strategists usually enjoy little freedom in altering the organizations' missions or redirecting objectives. Legislators and politicians often have direct or indirect control over major decisions and resources. Strategic issues get discussed and debated in the media and legislatures. Issues become politicized, resulting in fewer strategic choice alternatives.

But in government agencies and departments are finding that their employees get excited about the opportunity to participate in the strategic-management process and thereby have an effect on the organization's mission, objectives, strategies, and policies. In addition, government agencies are using a strategic management approach to develop and substantiate formal requests for additional funding.

Summary

In this chapter we have discussed some of the recent and evolving concepts in strategic management. We have discussed business process reengineering (BPR) – its meaning, rationale, implementation, thrust and problems. Business process reengineering is an approach to unusual improvement in operating effectiveness through the redesigning of critical business processes and supporting business systems.

Another emerging issue in strategic management is benchmarking. Benchmarking is an approach of setting goals and measuring productivity based on best industry practices. It helps businesses in improving performance by learning from the best practices. Some of the common elements of benchmarking process are also covered in this chapter.

Total quality management (TQM) is a people-focused management system that aims at continual increase in customer satisfaction at continually lower real cost. It is a total system approach. There are several principles that guide success of TQM. Comparison of TQM with traditional management practices has been included in the chapter.

The chapter also discusses six sigma, which means maintenance of the desired quality in processes and end products. It means taking systematic and integrated efforts towards improving quality and reducing cost. For implementing this technique, the two methodologies are discussed in the chapter. Some of the contemporary strategic issues such as strategies for internet economy, strategic management in non-profit and government organization are also included in the chapter.