7 Reaching Strategic Edge

Basic Concepts

1. Introduction

The basic ideology of businesses shifted from diversification to core-competencies. There are several such changes in strategic ideology. The chapter on reaching strategic edge covers some of the recent and evolving issues like Business Process Reengineering (BPR), Total Quality Management (TQM), Six Sigma and overview on a few other contemporary issues in strategic management.

2. Business Process Reengineering

Business Process Reengineering (BPR) is an approach to unusual improvement in operating effectiveness through the redesigning of critical business processes and supporting business systems. 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 refers to the analysis and redesign of workflows and processes both within the organization and between the organization and the external entities like suppliers, distributors, and service providers.

The orientation of redesigning efforts is basically radical. In other words, it is a total deconstruction and rethinking of business process in its entirety, unconstrained by its existing structure and pattern. Its objective is to obtain quantum jump in process performance in terms of time, cost, output, quality, and responsiveness to customers.

Implementing BPR in organizations

BPR involves the following steps:

2.1 Determining objectives and framework

Objectives are the desired end results of the redesign process which the management and organization attempts to achieve. This will provide the required focus, direction, and motivation for the redesign process.

2.2 Identify customers and determine their needs

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

2.3 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, some companies go through the reengineering process with clean perspective without laying emphasis on the past processes.

2.4 Formulate a redesign process plan

The information gained through the earlier steps is translated into an ideal redesign process. Customer focused redesign concepts are identified and formulated. In this crucial step alternative processes are considered and the optimum is selected.

2.5 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.

3. Benchmarking

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 performance can be measured. Benchmarking helps businesses in improving performance by learning from the best practices and the processes by which they are achieved. Thus, benchmarking is a process of continuous improvement in search for competitive advantage. It measures company's products, services and practices against those of its competitors or other acknowledged leaders in the industry.

The Benchmarking Process

Some of the common elements of benchmarking process are as under:

(i) Identifying the need for benchmarking: This step will define the objectives of the benchmarking exercise. It will also involve selecting the type of benchmarking. Organizations identify realistic opportunities for improvements.

(ii) Clearly understanding existing decisions processes: The step will involve compiling information and data on performance.

(iii) Identify best processes: Within the selected framework best processes are identified. These may be within the same organization or external to them.

(iv) Comparison of own process and performance with that of others: Benchmarking process also involves comparison of performance of the organization with performance of other organization. Any deviation between the two is analysed to make further improvements.

(v) Prepare a report and implement the steps necessary to close the performance gap: A report on benchmarking initiatives containing recommendations is prepared. Such a report also contains the action plans for implementation.

(vi) 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)

Total Quality Management or TQM is a people-focused management system that aims at continual increase in customer satisfaction at continually lower real cost. There is a sustained management commitment to quality and everyone in the organisation and the supply chain is responsible for preventing rather than detecting defects.

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.

4.1 Principles guiding TQM

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
- Focusing on the customer
- Preventing rather than detecting defects
- Universal quality responsibility
- Quality measurement
- Continuous improvement and learning
- Root cause corrective action
- Employee involvement and empowerment
- The synergy of teams
- Thinking statistically
- Inventory reduction
- Value improvement
- Supplier teaming
- Training

4.2 TQM and traditional management practices

The nature of TQM differs from common management practices in many respects. Some of the key differences are as follows:

- Strategic Planning and Management
- Changing Relationships with Customers and Suppliers
- Organizational Structure
- Organizational Change
- Teamwork
- Motivation and Job Design

5. Six Sigma and Management

Meaning of 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 efforts target different areas such as:

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

Six sigma methodology

The two methodologies as follows:

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 Define, Measure, Analyze, Improve and Control.

DMADV: DMADV is again acronym for the steps followed in implementing six sigma. It is a strategy for designing new products, processes and services. The five steps are Define, Measure, Analyze, Design and Verify.

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
- ***Theme two*** – data and fact-driven management
- ***Theme three*** – processes are where the action is
- ***Theme four*** – proactive management
- ***Theme five*** – boundaryless collaboration
- ***Theme six*** – drive for perfection; tolerate failure

6. Contemporary Strategic Issues

Strategies for Internet Economy: 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.

6.1 Strategy-shaping characteristics of the E-Commerce environment

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.
- 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.
- Entry barriers into the e-commerce world are relatively low.
- Online buyers gain bargaining power because they confront far fewer obstacles to comparing the products, prices, and shipping times of rival vendors.
- 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.
- Internet and PC technologies are advancing rapidly, often in uncertain and unexpected directions.
- The internet results in much faster diffusion of new technology and new idea across the world.
- The e-commerce environment demands that companies move swiftly.
- E-commerce technology opens up a host of opportunities for reconfiguring industry and company value chains.
- The Internet can be an economical means of delivering customer service.
- The capital for funding potentially profitable e-commerce businesses is readily available.
- The needed e-commerce resource in short supply is human talent-in the form of both technological expertise and managerial know-how.

6.2 Strategic management in non-profit and government organization

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

Very Short Answer Type Questions

Question 1

Explain the meaning six sigma

Answer

Six sigma is a highly disciplined process that helps in developing and delivering near-perfect products and services. It strives to meet and improve organizational outputs in terms of quality, cost, scheduling, manpower, new products and so on. It works continuously towards revising the current standards and establishing higher ones. It means taking systemic and integrated efforts towards improving quality and reducing cost.

Short Answer Type Questions

Question 2

State with reasons which of the following statements is correct / incorrect:

(a) Reengineering mean partial modification or marginal improvement in the existing work processes.

(b) BPR is an approach to maintain the existing growth of an organization.

(c) The main focus of six sigma is on the shareholders.

(d) The focus of six sigma is on customers.

(e) Benchmarking and Business Process Reengineering are one and the same.

(f) Not-for-profit organizations are not required to have a strategy.

(g) E-commerce technology opens up a host of opportunities for reconfiguring industry and company value chains.

(h) Benchmarking is a remedy for all problems faced by organizations.

(i) Total Quality Management (TQM) focusses on preventing rather than detecting defects.

(j) Six sigma efforts target following main areas:

i. Improving customer satisfaction.

ii. Reducing wastage

iii. Reducing defects

Answer

(a) Incorrect: 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.

(b) Incorrect: BPR is an approach to unusual enhancement in operating effectiveness through the redesigning of critical business processes and supporting business systems. It is revolutionary redesign of key business processes that involve examination of the basic processes.

(c) Incorrect: Although any business action may result directly or indirectly in creation/erosion of shareholders wealth, the main focus of six sigma is on delivering value to the customers. Six sigma aims in improving customer satisfaction. Primarily, six sigma means maintenance of the desired quality in processes and end products. It also means taking systematic and integrated efforts toward improving quality and reducing cost.

(d) Correct: Six sigma puts the customer first and uses facts and data to derive better solutions and products. Six sigma focus on three main areas: improving customer satisfaction, reducing cycle time and reducing defects.

(e) Incorrect: Benchmarking relates to setting goals and measuring productivity based on best industry practices. The idea is to learn from competitors and others to improve their own performance. On the other hand business process reengineering relates to analysis and redesign of workflows and processes both within and between the organizations.

(f) Incorrect: Similar to commercial organizations, 'not-for-profit' organizations must also have a strategy. It is required to give it direction, focus and efficient utilization of resources. In many 'not-for-profit' organizations surpluses are important for their survival and growth.

(g) Correct: 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 both internally, and with suppliers and customers. Using the network to link the customers and the suppliers enables just-in-time delivery, reducing inventory costs and allowing production to match demand.

(h) Incorrect: Benchmarking is an approach of setting goals and measuring productivity based on best industry practices and is a process of continuous improvement in search for competitive advantage. However, it is not 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.

(i) Correct: TQM is a management philosophy that seeks to prevent poor quality in products and services, rather than simply to detect and sort out defects. A little precaution before a crisis occurs is preferable to a lot of fixing up afterward. This also saves cost and time.

(j) Correct: Primarily Six Sigma means maintenance of the desired quality in processes and end products. It is a highly disciplined process that helps in developing and delivering near-perfect products and services. 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.

Question 3

Briefly answer the following questions:

(a) Define T.Q.M.

(b) How internet has helped business?

(c) Distinguish between the TQM and Traditional Management Practices.

(d) Describe briefly the use of Strategic Management techniques in Educational Institutions.

(e) Being a strategic professional, analyze and redesign the work flows in the context of business process reengineering.

(f) Elaborate the following principles that guide the Total Quality Management Philosophy:

(i) Universal Quality Responsibility

(ii) Preventing Rather than Detecting Defects

(iii) Continuous Improvement and Learning

(g) Distinguish between DMAIC and DMADV Methodology of Six Sigma.

(h) Trace the role of information technology in business process reengineering.

(i) Write a short note on Internet Technology.

(j) "Firms can use benchmarking process to achieve improvement in diverse range of management functions." Elucidate.

Answer

(a) TQM or Total Quality Management is a people-focused management system that aims at continual increase in customer satisfaction at continually lower real cost. There is a sustained management commitment to quality and everyone in the organisation and the supply chain is responsible for preventing rather than detecting defects.

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.

(b) The Internet is an integrated network of high-speed computers and servers, digital switches and routers, telecommunications equipment and lines and individual computers of users. The Internet has provided a very fast means of communication to business with no geographic limitations. Internet also makes it feasible for companies to find, negotiate and deal across the world with suppliers on one hand and customers on the other. The

evolving Internet technology is altering industry value chains, spawning substantial opportunities for increasing efficiency and reducing costs, and affecting strengths and weaknesses of business organisations.

(c) Total Quality Management is different from traditional management practices, requiring changes in organisational processes, beliefs and attitudes, and behaviours. 'Traditional management' means the way things are usually done in most organisations in the absence of a TQM focus. The nature of TQM differs from common management practices in many respects. Some of the key differences are as follows:

(i) Strategic Planning and Management: Quality planning and strategic business planning is indistinguishable in TQM. Customer satisfaction, defect rates and process cycle times receive very high attention on TQM which is not the case in traditional management.

(ii) Changing Relationships with customers and suppliers: Distinguishable, innovation is essential to meet and exceed customers' needs. In TQM quality is defined as product and services. Traditional management places customers outside of the enterprises and within the domain of marketing and sales.

(iii) Organizational Structure: TQM is also distinguishable as it views enterprise as a system of interdependent processes. Every process contains sub-processes and is also contained within a higher process.

(iv) 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. TQM recognises the inevitability of external change and focuses on shaping the future.

(v) Teamwork: In TQM, individuals cooperate in team structure such as quality circles, steering committees, and self-directed work teams. Departments work together toward system optimization through cross-functional teamwork.

(vi) Motivation and Job Design: TQM managers provide leadership and motivation rather than overt intervention in the processes of their subordinates who are viewed as process managers rather than functional specialists.

(d) Education is considered to be a noble profession. An educational institution often functions as a not-for-profit organization managed by trusts and societies. They include schools, colleges and universities. Being inherently non-commercial in nature, educational organisations do not have cut-throat competition as in case of their commercial counterparts. However, as the number of institutions belonging to both public and private sector are increasing, the competition is gradually rising. Through the use of strategic management techniques such institutions are expected to concentrate attention towards:

- Getting better name and recognition.

- Attracting talented students.
- Designing the curriculum in such a way to provide better citizenry and employability.
- Appointing and retaining quality faculty for teaching.
- Preparing students for the future challenges by capacity building.

(e) 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. It involves total deconstruction and rethinking of a business process in its entirety

The workflows are studied, appraised and improved in terms of time, cost, output, quality, and responsiveness to customers. The redesign effort aims to simplify and streamline a process by eliminating all extra avoidable steps, activities, and transactions. With the help of redesigning workflows, organizations can drastically reduce the number of stages of work, and improve their performance.

(f) (i) Universal quality responsibility: TQM requires that everyone takes responsibility for quality. The responsibility for quality is not restricted to an organization's quality assurance department, but is a guiding philosophy shared by everyone in an organization.

(ii) 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. This saves cost, time and wastages.

(iii) Continuous improvement and learning: TQM adopts a philosophy of continuous improvement in all areas. Improvement and learning need to be embedded in the way an organization operates. They should be a regular part of daily work, seeking to eliminate problems at their source.

(g) For implementing six sigma, there are two separate key methodologies for existing and new processes. They are known as DMAIC and DMADV.

DMAIC is an acronym for five different steps used in six sigma - Define, Measure, Analyze Improve, and Control. DMAIC methodology is directed towards improvement of existing product, process or service.

- 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 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 factor.
- 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.

DMADV is an acronym for Define, Measure, Analyze, Design, and Verify. DMADV 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.

However, in spite of different orientation in two methodologies, conceptually there is overlapping between the DMAIC and DMADV as both are essentially having similar objectives.

(h) The Role of IT 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. Information technology is playing a significant role in changing the business processes.

A reengineered business process, characterized by IT-assisted speed, accuracy, adaptability and integration of data and service points, is focused on meeting the customer needs and expectation quickly and adequately, thereby enhancing his/her satisfaction level. With the help of tools of information technology organizations can modify their processes to make them automatic, simpler, time saving. Thus IT can bring efficiency and effectiveness in the functioning of business.

(i) The Internet is an integrated network of banks of servers and high-speed computers, digital switches and routers, telecommunication equipments and lines, and individual

computers. The backbone of the internet consists of telecommunication lines criss-crossing countries, continents, and the world that allow computers to transfer data in digital form at very high speed.

Internet has made significant changes in the way businesses are being conducted. Communications has become faster, with many interlinkages promoting globalization. While markets have expanded, the competition has also increased manifolds. E-commerce is a new area which has developed on account of internet technology.

(j) Benchmarking is a process of finding the best practices within and outside the industry to which an organisation belongs. Knowledge of the best practices helps in setting standards and finding ways to match or even surpass own performances with the best performances.

Benchmarking is a process of continuous improvement in search for competitive advantage. Firms can use benchmarking process to achieve improvement in diverse range of management function such as mentioned below:

- Maintenance operations,
- Assessment of total manufacturing costs,
- Product development,
- Product distribution,
- Customer services,
- Plant utilisation levels; and
- Human resource management.

Questions with Descriptive Answers

Question 4

Define each of the following and analyse its role in strategic implementation:

(1) B.P.R.

(2) ERP

(3) Benchmarking

Answer

(1) BPR: BPR stands for business process reengineering. It refers to the analysis and redesign of workflows both within and between the organisation and the external entities. Its objective is to improve performance in terms of time, cost, quality, and responsiveness to customers. It implies giving up old practices and adopting the improved ones. It is an effective tool of realising new strategies.

Improving business processes is paramount for businesses to stay competitive in today's marketplace. New technologies are rapidly bringing new capabilities to businesses, thereby raising the strategical options and the need to improve business processes dramatically. Even the competition has become harder. In today's market place, major changes are required to just stay even.

(2) ERP: ERP stand for enterprise resource planning which is an IT based system linking isolated information centers across the organisation into an integrated enterprise wide structured functional and activity bases. ERP is successor to MRP systems (material requirements and manufacturing resource planning systems). ERP is used for strengthening the procurement and management of input factors.

Modern ERP systems deliver end-to-end capabilities to support the entire performance management of an organisation. It helps in consolidated financial reporting, financial management, planning, budgeting, performance management and so on.

(3) Benchmarking: It is a process of finding the best practices within and outside the industry to which an organisation belongs. Knowledge of the best helps in standards setting and finding ways to match or even surpass own performances with the best performances.

Benchmarking is a process of continuous improvement in search for competitive advantage. 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, plant utilisation levels and human resource management

Question 5

Define Business Process Re-engineering. Briefly outline the steps therein.

Or

What is the rationale behind Business Process Reengineering (BPR)? What steps would you recommend to implement BPR in an organization?

Answer

Business Process Reengineering (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 refers to the analysis and redesign of workflows and processes both within the organization and between the organization and the external entities like suppliers, distributors, and service providers.

The orientation of redesigning efforts is basically radical. In other words, it is a total deconstruction and rethinking of business process in its entirety, unconstrained by its existing structure and pattern. Its objective is to obtain quantum jump in process performance in terms

of time, cost, output, quality, and responsiveness to customers. BPR is a revolutionary redesigning of key business processes.BPR involves the following steps:

1. Determining objectives and framework: Objectives are the desired end results of the redesign process which the management and organization attempts to achieve. This will provide the required focus, direction, and motivation for the redesign process. It helps in building a comprehensive foundation for the reengineering process.
2. 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.
3. 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, some companies go through the reengineering process with clean perspective without laying emphasis on the past processes.
4. 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 focused redesign concepts are identified and formulated. In this step alternative processes are considered and the best is selected.
5. 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.

Question 6

What is Benchmarking? Explain briefly the elements involved in Benchmarking process.

Answer

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 performance can be measured. Benchmarking helps businesses in improving performance by learning from the best practices and the processes by which they are achieved. Thus, benchmarking is a process of continuous improvement in search for competitive advantage. It measures company's products, services and practices against those of its competitors or other acknowledged leaders in the industry.

The Benchmarking Process

Some of the common elements of benchmarking process are as under:

(i) Identifying the need for benchmarking: This step will define the objectives of the benchmarking exercise. It will also involve selecting the type of benchmarking. Organizations identify realistic opportunities for improvements.

(ii) Clearly understanding existing decisions processes: The step will involve compiling information and data on performance.

(iii) Identify best processes: Within the selected framework best processes are identified. These may be within the same organization or external to them.

(iv) Comparison of own process and performance with that of others: Benchmarking process also involves comparison of performance of the organization with performance of other organization. Any deviation between the two is analysed to make further improvements.

(v) Prepare a report and implement the steps necessary to close the performance gap: A report on benchmarking initiatives containing recommendations is prepared. Such a report also contains the action plans for implementation.

(vi) 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.

Question 7

What is Six Sigma? How is it different from other quality programs? Explain in brief themes of Six Sigma.

Answer

Meaning of 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 efforts target three main areas:

- Improving customer satisfaction
- Reducing cycle time
- Reducing defects

Six sigma and other quality programs

Six sigma is improvement over other quality programmes:

(i) Six sigma is customer focused. It strives to provide better satisfaction to the customer owning the product.

(ii) Six sigma is a total management commitment and philosophy of excellence, process improvement and the rule of measurement.

(iii) Six sigma induces changes in management operations - new approaches to thinking, planning and executing to achieve results.

(iv) Six sigma combines both leadership and grassroots energy and involvement for its success.

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 often to find that 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, assumptions and gut feeling. Six sigma disciplines begins by clarifying what measures are key to gauging business performance and then gathers data and analyzes key variables. Problems are effectively defined, analyzed, and resolved. Six sigma also helps managers to answer two essential questions to support data-driven decisions and solutions.
  - What data/information is really required?
  - How to use the data/information for maximum benefit?
- *Theme three – processes are where the action is* Designing products and services, measuring performance, improving efficiency and customer satisfaction and so on. 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. Process may relate to build competitive advantage in delivering value to customers.
- *Theme four – proactive management:* In simple terms, 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:* Organizations need to make efforts to achieve perfection and yet at the same time 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. Six sigma cannot be implemented by individuals who are overly cautious and are scared of making mistakes.

Question 8

'The growing use of the internet by businesses and consumers is changing the competitive scenario.' Identify the characteristics of the E-commerce environment doing so.

Or

How does the Internet Technology influence an industry's competitive environment? Explain.

Answer

The impact of the Internet and the rapidly emerging e-commerce environment is substantial and widespread. The advent of the Internet and online networks is changing everything. Growing use of the Internet by businesses and consumers reshapes the economic landscape and alters traditional industry boundaries. Characteristics of E-commerce environment changing competitive scenario are as under:

(a) 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.

(b) There are new e-Commerce strategic initiatives of existing rivals and new entrants in the form of e-commerce rivals. The 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.

(c) Entry barriers into the e-commerce world are relatively low. 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.

(d) Increased bargaining power of customers to compare the products, prices and other terms and conditions of rival vendors. Online buyers gain bargaining power because they

confront far fewer obstacles to comparing the products, prices, and shipping times of rival vendors.

(e) Possibility for business organizations to locate the best suppliers across the world to gain cost advantage. 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. Organisations can extend their geographic search for suppliers and can collaborate electronically with chosen suppliers to systemise ordering and shipping of parts and components, improve deliveries and communicate speedily and efficiently.

(f) Internet and PC technologies are advancing rapidly, often in uncertain and unexpected directions. Such changes are often bringing in new opportunities and challenges.

(g) Faster diffusion of new technology and new idea across the world. Organisations 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 developed markets.

(h) The e-commerce environment demands that companies move swiftly. In the exploding e-commerce world, speed is a condition of survival. New developments occur on one front and then on another occur regularly.

(i) 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.

(j) The Internet can be an economical means of delivering customer service. Organisations are discovering ways to deliver service in a centralised manner – online or through telephone. Thus curtailing the need to keep company personnel at different locations or at the facilities of major customers.

(k) 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 capital. 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 thoughtout strategic plan

(l) 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.

Questions with Hints

Question 9

What is Benchmarking? What are the areas where benchmarking can help.

Answer

For explanation to benchmarking refer answer to question No. 4.

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 can help in almost all aspect of business that are amenable to comparison and are significant to business. Typically organisations 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
- Plant utilization levels
- Human resource management

Questions for Practice

1. *Write an explanatory note on the role of information technology in BPR.*
2. *What is TQM? Compare it with traditional management practices.*
3. *What are the strategy shaping characteristics of E-commerce environment?*
4. *Is the strategic management implemented in non-profit and Government organizations?*

Activity

Make a list of household products. Segregate them into the ones that can be purchased through internet and those that are not available on internet. Identify the reasons, why some of the products are not popular on internet sales.