Paper-16 Strategic Cost Management

ICMAI - PAST PAPERS + MQP

Important Theory Questions

Question. 1

"Business Process Re-engineering involves the radical redesign of core business processes to achieve dramatic improvements in productivity, cycle times and quality." In this context, state what are the characteristics and principles of Business Process Re-engineering.

(June 23)

Answer. 1

Characteristics and Principles of Re-engineering Process are enumerated below:

1. Several jobs are combined into one
2. Often workers make decisions
3. The steps in the process are performed In a logical order
4. Work is performed, where it makes most sense
5. Quality is built in.
6. Manager provides a single point of contact
7. Centralized and decentralized operations are combined.

Seven Principles of BPR:

1. Processes should be designed to achieve the desired outcome rather than focusing on existing tasks.
2. Personnel who use the output from a process should perform the process.
3. Information processing should be included in the work which produces the information.
4. Geographically dispersed resources should be treated as if they are centralized.
5. Parallel activities should be linked rather than integrated
6. Doers should be allowed to be self-managing
7. Information should be captured once at source.

Question.2

Summarize the essential steps to be taken in the implementation of Total Quantity Management (TQM). **(June 23)**

Answer.2

The essential steps to be taken in the implementation of Total Quality Management are summarized below:

Step 1: Identification of customers / customer groups:

Through a team approach (a technique called Multi-Voting), the Firm should identify major customer groups. This helps in generating priorities in the identification of customers and critical issues in the provision of decision-support information.

Step 2: Identifying customer expectations:

Once the major customer groups are identified, their expectations are listed. The question to be answered is What does the customer expect from the Firm?

Step 3: Identifying customer decision-making requirements and product utilities:

By identifying the need to stay close to the customers and follow their suggestions, a decision support system can be developed, incorporating both financial and non-financial and non-financial information, which seeks to satisfy user requirements.

Step 4: Identifying perceived problems in decision-making process and product utilities:

Using participative processes such as brainstorming and multi-voting, the Firm seeks to list its perception of problem areas and shortcomings in meeting customer requirements.

Question. 3

(i) What do you mean by Business Intelligence (BI) software?

(ii) Discuss in brief what are the features of R Programming Language. **(June 23)**

Answer. 3

(i) Business Intelligence (BI) Software is a set of business analytics solutions used by companies to retrieve, analyze and transform data into useful business insights usually within easy-to-read visualization like charts, graphs and dashboards. Examples of the best BI Tools include data visualization, data warehouses, interactive dashboards and BI reporting tools. A BI Solution pulls internal data produced by a company, into an Analytics platform for deep insights as to how different parts of a business affect one another. B1 software interprets a sea of quantifiable customer and Business actions and queries based on patterns in the data.

(ii) Features of R Programming language are stated below:

1. **Statistical features of R:**
   - Basic Statistics Most common terms of basic statistics are Mean, Median and Mode which are the Measures of Central Tendency for a dataset. These can be very easily computed using R
   - Statie Graphics R is rich in facilities for creating and developing interesting Static Graphics. R contains functionality for many plot types including graphic maps, mosaic plots, bi-plots and the list go on.
   - Probability Distributions Probability Distributions play vital role in statistics. By using various types of problems related to probability distributions (such as Binomial Distribution. Normal Distribution, Student's Distribution, Chi Square Distribution etc.) can be handled very easily.
   - Data Analysis It provides a large, coherent and integrated collection of tools for data analysis.
2. **Programming features of R: -**
   - R Packages One of the major features of R is the fact that it has wide availability of libraries. R has CRAN (Comprehensive R Archive Network) which is repository holding more than 10.000 packages.
   - Distributed Computing - Distributed computing is a model in which components of a software system are shared among multiple computers to improve efficiency and performance. Packages like ddR and multidplyr are used for distributed programming in R.

Question. 4

"Value Analysis is a methodical approach to sharpening the efficiency and effectiveness of any process" - In this context, summarize the phases of Value Analysis. (Any five)

(Dec. 23, Dec. 24, MQP – Dec. 24)

Answer. 4

The Phases of Value Analysis are summarized as follows:

1. **Origination:** The phase of origination starts with the identification of a project to undertake value analysis. After selecting the project, a project team consisting of experts from various fields and departments is constituted.
2. **Information:** The second phase is that of collecting relevant information. In this phase, the relevant facts relating to specifications, drawings, methods, materials, etc. are collected. Costs are, also, ascertained for each of the elements that are being studied.

3. **Functional Analysis:** Then follows the important phase of functional analysis. After familiarization with the relevant facts & figures, a functional analysis is carried out to determine the functions and uses of the product and its components. The cost and importance of each function are identified. A value index is computed on the basis of cost benefit ratio for each of the functions).
4. **Innovation:** This is the creative phase concerned with the generation of new alternatives to replace or remove the existing ones. The objective is to produce ideas and to formulate alternative means and methods for accomplishing the essential functions and improving the value of the element under consideration.
5. **Evaluation:** During the stage of evaluation, each and every alternative is analyzed and the most promising alternatives are selected. These alternatives are further examined for economic and technical feasibility. The alternatives finally selected must be capable of performing the desired functions satisfactorily.
6. **Choice:** In this phase, the decision makers choose the best of alternatives. The programs and action plans are then developed to implement the chosen alternative. (
7. **Implementation:** The chosen alternative is put to actual use with the help of the programs and wis action plans. The progress of implementation is continuously monitored and followed up to ensure that the desired results are achieved.

Question. 5

Narrate the principles, practices, and tools of Lean Accounting. **(MQP – Dec. 23)**

Answer. 5

S. No.	Principles	Practices	Tools of Lean Accounting
1.	Lean & Simple Business Accounting	Continuously eliminates waste from the transactions, processes, reports, and other accounting methods	• Value stream mapping; current & future state • Kaizen (lean continuous improvement). • PDCA (Planning, Doing, Checking and Acting) problem solving
2.	Accounting processes that support lean transformation	Management control & continuous improvement	• Performance Measurement Linkage Chart; linking metrics for cell/process, value streams, plant & corporate reporting to the business strategy, target costs, and lean improvement • Value stream performance boards containing break- through and continuous improvement projects • Box scores showing value stream performance
		Cost Management	• Value stream costing • Value stream income statements
		Customer & Supplier value and Cost Management	• Target Costing
3.	Clear & timely communication of information	Financial Reporting	• "Plain English" financial statements Simple, largely cash-based accounting
		Visual reporting of financial & non- financial performance measurements	Primary reporting using visual performance boards; division, plant, value stream, cell/ process in production, product design, sales/marketing, administration, etc.
		Decision-making	Incremental cost & profitability analysis using value stream costing and box scores
4.	Planning from a lean perspective	Planning & budgeting	Hoshin policy deployment. (HosinKanri) (also called Policy Deployment is a method for ensuring that a company's strategic goals drive progress and action at every level within that company. This method eliminates the waste that comes from inconsistent direction and poor communication). Sales, operations & financial planning (SOFP)
		Impact of Lean Improvement	• Value stream cost and capacity analysis • Current state & future state value stream maps • Box scores showing operational,

			financial, and capacity changes from lean improvement. • Plan for financial benefit from the lean changes
		Capital Planning	Incremental impact of capital expenditure on value stream box-score. Often used with 3P approaches. (Production Preparation Process)
		Invest in people	Performance measurements tracking continuous improvement participation, employee satisfaction & cross- training Profit sharing
5.	Strengthen internal accounting control	Internal control based on lean operational controls	• Transaction elimination matrix. • Process maps showing controls and SOX risks. (A SOX control is a rule that prevents and detects error within a process cycle of financial reporting. These controls fall under the Sarbanes-Oxley Act of 2002 (SOX). SOX is a U.S. federal law requiring all public companies doing business in the United States to comply with the regulation).
		Inventory valuation	

Question. 6

What is Lean Accounting? Append the Principles and Practices of Lean Accounting.

(June 24)

Answer. 6

Lean Accounting:

Lean Accounting is the application of Lean thinking to all accounting and finance processes and systems. It is an essential component of a successful Lean transformation for any organization. Lean accounting uses a method that categorizes costs by value stream rather than by department. This approach "provides the basis for sound management decisions". Lean accounting groups together costs that fall outside of the value stream as "business sustaining costs" that do not get included in value stream costs. This, in turn, helps the businesses to find better price points for products and do further research into high-cost areas. The bottom line is that Lean accounting can help business leaders quickly know if they are heading in the right direction or need to make a change.

The principles and practices of lean accounting are appended in the following table:

Principles	Practices
Lean & Simple Business Accounting	• Continuously eliminates waste from the transactions, processes, reports, and other accounting methods.
Accounting process that supports lean transformation	• Management Control & Continuous improvement. • Cost Management • Customer & supplier value and Cost Management.
Clear & Timely Communication of information	• Financial reporting • Visual reporting of financial & non-financial performance measurements. • Decision making
Planning from a lean perspective	• Planning & Budgeting. • Impact of lean improvement. • Capital planning • Invest in people
Strengthen internal accounting control	• Internal control is based on Lean Operational Controls. • Inventory Valuation.

Question. 7

Discuss the significance of Lean Accounting. **(MQP – De. 24)**

Answer. 7

Lean accounting uses a method that categorizes costs by value stream rather than by department. This approach "provides the basis for sound management decisions". The researchers define value stream accounting as "tracking revenue and the associated variable costs required to generate those sales." It is experienced that value stream costing includes a simpler cost collection method and reduces the number of cost centers. They also list features of value stream accounting such as:

- Costs calculated weekly
- No distinction made between direct or indirect costs considered direct costs all costs of the value stream are
- Value stream costs include labor, materials, production support, machines and equipment, operation support, facilities and maintenance
- Value stream costing provides a more accurate picture by eliminating unnecessary costs outside control of value stream managers

Lean accounting groups together costs that fall outside of the value stream as "business sustaining costs" that do not get included in value stream costs. This, in turn, helps the businesses to find better price points for products and do further research into high-cost areas. The bottom line is that Lean accounting can help business leaders quickly know if they are heading in the right direction or need to make a change.

Three principles guide Lean Accounting and form the foundation for all of accounting's work and interaction with the organization:

i. Customer value: Delivering the relevant and reliable information in a timely manner to all users of the information inside the organization.

ii. Continuous improvement: Improving accounting processes, cross-functional business processes and the information used inside the business for analysis and decision making.

iii. Respect for people: Adopting a learning attitude by seeking to understand root causes of business problems and issues in a cross-functional, collaborative manner.

Lean Accounting facilitates the changes that are required to a company's accounting, control, measurement, and management processes to support lean manufacturing and lean thinking.

Question. 8

"Quality is the degree to which a set of inherent characteristics fulfils requirements." - In this context, explain the concept of quality and append the cost of quality under different categories briefly explaining them. **(June 25)**

Answer. 8

The term quality is a perception which is personal to an individual. In plain terms, quality is "features" or "worth" or "value". Today, there is no single universal definition of quality. Some common definitions of quality are as under Conformance to specifications: It measures how well the product or service meets the targets and tolerances determined by its designers.

Fitness for use: It focuses on how well the product performs its intended function or use.

Value for price paid: It is a definition of quality that consumers often use for product or service usefulness.

Support services: These services provided are often how the quality of a product or service is judged.

Psychological criteria: It is a subjective definition that focuses on the judgmental evaluation of what constitutes product or service quality.

Costs of quality can be classified into the following groups for better quality costs management:

(i) Prevention costs,
(ii) Appraisal costs,
(iii) Internal failure costs and
(iv) External failure costs.

(i) **Prevention costs:** Prevention costs are all costs incurred in the process of preventing poor quality from occurring. They include quality planning costs, such as the costs of developing and implementing a quality plan. Also included are the costs of product and process design, from collecting customer information to designing processes that achieve conformance to specifications.

Example: Quality training. Quality circles, Statistical process control activities, System Development for prevention. Quality improvement.

(ii) **Appraisal costs:** Appraisal costs are incurred in the process of uncovering defects. They include the cost of quality inspections, product testing, and performing audits to make sure that quality standards are met. Also included in this category are the costs of worker time spent measuring quality and the cost of equipment used for quality appraisal.

Example: testing and inspecting materials, final product testing and inspecting, WIP testing and inspecting, package inspection and depreciation of testing equipment.

(iii) **Internal failure costs:** Internal failure costs are associated with discovering poor product quality before the product reaches the customer site. One type of internal failure cost is rework, which is the cost of correcting the defective item. Sometimes the item is so defective that it cannot be corrected and must be thrown away. This is called scrap, and its costs include all the material, labor, and machine cost spent in producing the defective product.
Example: cost of scrap (net of realization), cost of spoilage, cost of rework, down time due to defect in quality and retesting.

(iv) **External failure costs:** External failure costs are incurred when inferior products are delivered to customers. They include cost of handling customer complaints, warranty replacements, repairs of returned products and costs arising from a damaged company reputation.
Example: cost of field servicing, cost of handling complaints, warranty repairs, lost sales, warranty replacements.

Question. 9

Discuss the underlying principles of Total Quality Management. **(MQP – June 25)**

Answer. 9

TQM is a vision based, customer focused, prevention oriented, continuous improvement strategy based on scientific approach adopted by cost conscious people committed to satisfy the customers first time every time. It aims at Managing an organization so that it excels in areas important to the customer.

- **Customer Focus:** The first of the Total Quality Management principles puts the focus back on the people buying your product or service. Your customers determine the quality of your product. If your product fulfills a need and lasts as long or longer than expected, customers know that they have spent their money on a quality product. When you understand what your customer wants or needs, you have a better chance of figuring out how to get the right materials, people, and processes in order to meet and exceed their expectations.
- **Total Employee Commitment:** You can't increase productivity, processes, or sales without the total commitment of all employees.
- **Process Approach:** Adhering to processes is critical in quality management. Processes ensure that the proper steps are taken at the right time to ensure consistency and speed up production.

- **Integrated System:** Typically, a business has many different departments, each with their own specific functions and purposes. These departments and functions should be interconnected with horizontal processes that should be the focus of Total Quality Management. But sometimes these departments and functions operate in isolated silos. In an integrated system, everybody in every department should have a thorough understanding of policies, standards, objectives, and processes. Integrated systems help the company to look for continual improvement in order to achieve an edge over the competition.
- **Strategic and Systematic Approach:** The International Organization for Standardization (ISO)describes this principle as: "Identifying, understanding and managing interrelated processes as a system contributes to the organization's effectiveness and efficiency in achieving its objectives." Multiple processes within a development or production cycle are managed as a system of processes in an effort to increase efficiency.
- **Continual Improvement:** Optimal efficiency and complete customer satisfaction do not happen in a day- your business should continually find ways to improve processes and adapt your products and services as customer needs shift.
- **Fact-based Decision-making:** Analysis and data gathering lead to better decisions based on the available information. Making informed decisions leads to a better understanding of customers and your market.
- **Communications:** Everybody in your organization needs to be aware of plans, strategies and methods that will be used to achieve goals. There is a greater risk of failure if you don't have a good communication plan.

Question. 10

Quality impacts all aspects of an organization and can result in significant costs. These costs are generally classified into two broad categories: quality control costs and quality failure costs. Discuss the differences between these two categories with examples.

(MQP – June 25)

Answer. 10

Quality affects all aspects of the organization and has dramatic cost implications. The most obvious consequence occurs when poor quality creates dissatisfied customers and eventually leads to loss of business. However, quality has many other costs, which can be divided into two categories. The first category consists of costs necessary for achieving high quality, which are called quality control costs. These are of two types: prevention costs and appraisal costs. The second category consists of the consequences of poor quality, which are called quality failure costs. These include external failure costs and internal failure costs. The first two costs are incurred in the hope of preventing the second two.

Prevention Costs: Prevention costs are all costs incurred in the process of preventing poor quality from occurring. They include quality planning costs, such as the costs of developing and implementing a quality plan. Also included are the costs of product and process design, from collecting customer information to designing processes that achieve conformance to specifications. Employee training in quality measurement is included as part of this cost, as well as the costs of maintaining records of information and data related to quality.

Appraisal Costs: Appraisal costs are incurred in the process of uncovering defects. They include the cost of quality inspections, product testing, and performing audits to make sure that quality standards are met. Also included in this category are the costs of worker time spent measuring quality and the cost of equipment used for quality appraisal.

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