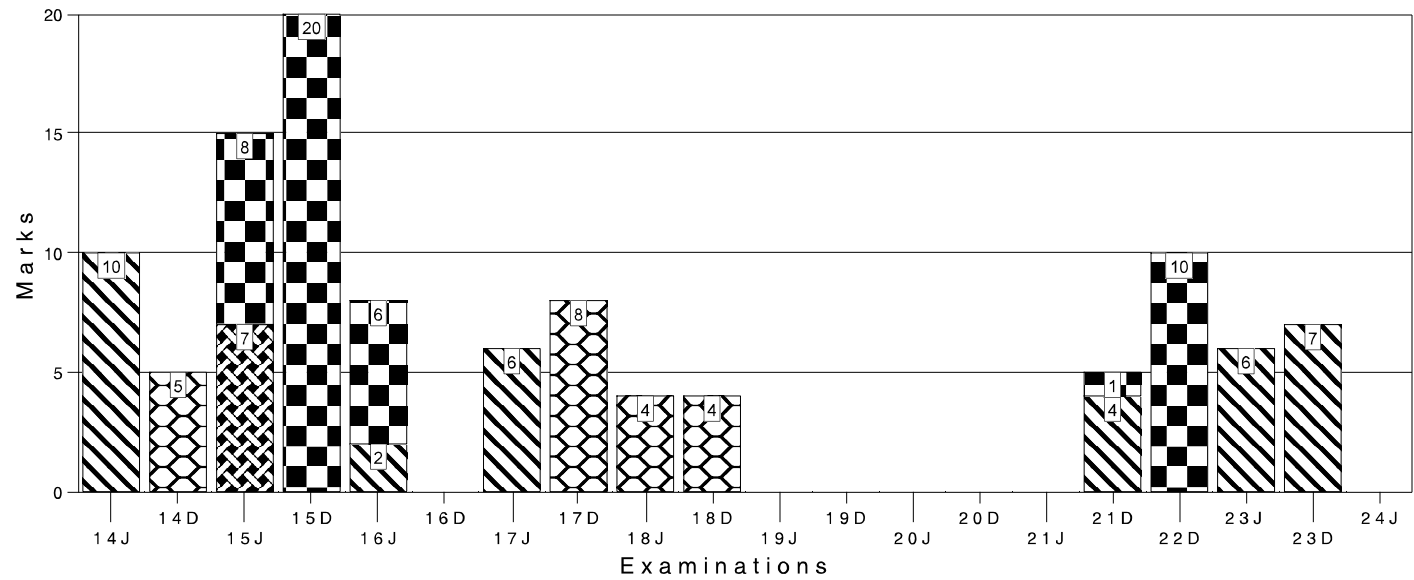


Marks of Objective, Short Notes, Distinguish Between, Descriptive & Practical Questions

Legend



1 *INTRODUCTION TO STRATEGIC COST MANAGEMENT*

THIS CHAPTER INCLUDES

- | | |
|---|---|
| 1. Concepts of Strategic Cost Management in Different Stages of Value Chain | 3. Value Chain Analysis and Value Engineering-Business Process Re-engineering |
| 2. Cost Control and Cost Reduction-Contemporary Techniques | 4. Supply Chain Management |

CHAPTER AT A GLANCE

Strategic Cost Management (SCM)

Strategic Cost Management (SCM) refers to the cost management that specifically focuses on strategic issues such as:

- (a) the company's cost, productivity, or efficiency advantage relative to competitors or
- (b) the premium prices a company can charge over its costs for distinctive product or service features.

SCM has three important pillars, viz., strategic positioning, cost driver analysis and value chain analysis.

1. **Strategic Positioning Analysis:** It determines the company's comparative position in the industry in terms of performance.
2. **Cost Driver Analysis:** Cost is driven by different interrelated factors. In strategic cost management, the cost driver is divided into two categories, i.e., structural cost drivers and executional cost drivers. It examines, measures and explains the financial impact of the cost driver concerned with the activity.

3. **Value Chain Analysis (VCA):** VCA is the process in which a firm recognizes and analyses, all the activities and functions that contribute to the final product.

Value Chain

A company's value chain is typically part of a larger value system that includes companies either upstream (suppliers) or downstream (distribution channels), or both.

Value Created and Captured – Cost of Creating that Value = Profit Margin

Elements in Porter's Value Chain

Primary Activities: Primary activities relate directly to the physical creation, sale, maintenance and support of a product or service. They consist of the following:

- Inbound Logistics
- Operations
- Outbound Logistics
- Marketing and Sales
- Service
- Support Activities
- Procurement (Purchasing)
- Human Resource Management
- Technological Development
- Infrastructure

Value chain analysis (VCA)

Value chain analysis (VCA) is a process where a firm identifies its primary and support activities that add value to its final product and then analyse these activities to reduce costs or increase differentiation. Value chain analysis relies on the basic economic principle of advantage - companies are best served by operating in sectors where they have a relative productive advantage compared to their competitors.

Value Innovation
Value innovation is a process in which a company introduces new technologies or upgrades that are designed to achieve both product differentiation and low costs. The changes implemented through value innovation create new or improved elements for the product or service, but also result in cost savings by eliminating or reducing unnecessary aspects during the product life cycle.
Red Ocean vs Blue Ocean Strategy
Red oceans are all the industries in existence today – the known market space, where industry boundaries are defined and companies try to outperform their rivals to grab a greater share of the existing market. Cutthroat competition turns the ocean bloody red. Hence, the term ‘red’ oceans. Blue oceans denote all the industries not in existence today – the unknown market space, unexplored and untainted by competition. Like the ‘blue’ ocean, it is vast, deep and powerful –in terms of opportunity and profitable growth. The creation of blue ocean enables driving costs down while simultaneously pushing value up.
Cost Control
‘Cost Control’ is defined as the regulation by executive action of the costs of operating an undertaking, particularly where such action is guided by cost accounting. Thus, cost control is the guidance and regulation through an executive action and this executive action is exercised in respect of all the expenses incurred in operating an undertaking.
Cost Reduction
Cost reduction is defined as the real and permanent reduction in the unit costs of goods manufactured or services rendered without impairing their suitability for the use intended.
Five steps to Strategic Cost reduction 1. Start with strategy

<ol style="list-style-type: none"> 2. Align costs to strategy 3. Aim high 4. Set direction and show leadership 5. Create a culture of cost optimisation
Value Analysis
Value Analysis (VA) is one of the important techniques of cost reduction and control. It is a scientific approach that ensures all the functions of a product or service are carried out at the minimum cost without compromising quality, reliability, performance and appearance.
Value Equation
Value analysis aims to simplify products and process, thereby increasing efficiency. Value analysis enables people to contribute towards value addition by continuous focus on product design and services. Value analysis provides a structure through initiatives in the direction of cost saving, cost reduction and continuous improvement. Value Equation: $\text{Value} = \{(\text{Performance} + \text{Capability}) \div \text{Cost}\}$ $= \text{Function} \div \text{Cost}$
Phases of Value Analysis
<ol style="list-style-type: none"> (i) Origination (ii) Information (iii) Functional Analysis (iv) Innovation (v) Evaluation (vi) Choice (vii) Implementation
Value Engineering (VE)
'VA' and 'VE' are closely related terms so much so that they are, frequently, used interchangeably. Though the philosophy of understanding the two is the same, the difference lies in the time and stage at which the technique is applied.

Business Process Reengineering
BPR involves the radical redesign of core business processes to achieve dramatic improvements in productivity, cycle times and quality. In Business Process Reengineering, companies start with a blank sheet of paper and rethink existing processes to deliver more value to the customer. They typically adopt a new value system that places increased emphasis on customer needs.
Characteristics
<ul style="list-style-type: none"> (i) Several jobs are combined into one (ii) Very often workers make decisions (iii) The steps in the process are performed in a logical order (iv) Work is performed, where it makes most sense (v) Quality is built in (vi) Manager provides a single point of contact (vii) Centralized and decentralized operations are combined.
Seven Principles
<ul style="list-style-type: none"> (i) Processes should be designed to achieve a desired outcome rather than focusing on existing tasks (ii) Personnel who use the output from a process should perform the process (iii) Information processing should be included in the work, which produces the information (iv) Geographically dispersed resources should be treated, as if they are centralized (v) Parallel activities should be linked rather than integrated (vi) Doers should be allowed to be self-managing (vii) Information should be captured once at source.
Key Benefits
<ul style="list-style-type: none"> (i) Reduction in Costs and Cycle Times (ii) Improvement in Quality

Supply Chain
<p>Supply Chain refers to the entire gambit of linkages in manufacturing a product or rendering a service.</p> <p>Listed below are the generic links of a supply chain:</p> <ul style="list-style-type: none"> (i) Extraction of Raw Materials (ii) Vendor (iii) Manufacturer (iv) Distributer (v) Retailer (vi) Consumer
Supply Chain Management (SCM)
<p>Supply chain management encompasses every activity involved in maintaining the supply chain. The goal of supply chain management is to look holistically at the entire supply chain from supplier through to the consumer, and review three core areas of people, process and systems in order to maximise value from all activities.</p>
Importance of Supply Chain Management
<p>Boosts Customer Service</p> <p>Right Location</p> <p>Right Delivery Time</p> <p>Right After Sale Support</p>
Reduces Operating Costs
<p>Decreases Purchasing Cost</p> <p>Decreases Production Cost</p> <p>Decreases Total Supply Chain Cost</p> <p>Improves Financial Position</p> <p>Increases Profit Leverage</p> <p>Decreases Fixed Assets</p> <p>Increases Cash Flow</p> <p>Societal Benefits</p>

SHORT NOTES

2009 - June [8] Write short note on:

(b) Supply Chain Management;

(5 marks)

Answer:

Supply Chain Management: Supply Chain Management encompasses the planning and management of all activities involved in sourcing, procurement, conversion and logistics management. Supply Chain Management integrates supply and demand management within and across companies.

Five basic components of supply Chain Management are:

- Plan-Develop a strategy for managing all resources that go towards meeting customer demand.
- Source-Choose the supplier.
- Make-Schedule activities for Production.
- Deliver- Coordinate receipt of order to delivery.
- Return-Receive defectives and excess product back from customers.

2014 - Dec [8] Write Short Notes on the following:

(b) Areas of Cost Reduction and techniques to be adopted for Cost Reductions

(5 marks)

Answer:

Areas of Cost Reduction and Techniques to be adopted for Cost Reductions:

Areas of Cost Reduction:

- (1) Reduce payroll costs by outsourcing activities.
- (2) Redesign processes to eliminate duplication of effort and time.
- (3) Make more use of technology and automation.
- (4) Consolidate purchasing with fewer suppliers to get better discounts and build strong relationships.
- (5) Agree to long-term supply contracts or annual purchase volumes in return for lower prices and negotiate longer payment terms.
- (6) Trim back your product range and increase production runs.

- (7) Get the most out of your premises by sub-letting spare space.
- (8) Cut the cost of communications and travel by using email, internet calls (such as Skype) or teleconferencing whenever possible.

Cost Reduction Techniques

- (1) **Standardization:** According to Kimball and Kimball, “By standardization in the manufacturing scene meant the reduction of any one line to fixed types, sizes and characteristics.” In simple words standardization is the process of formulating and applying rules for an orderly approach to specific activity.
- (2) **Codification:** It is a process of representing each item by a number, the digit of which indicates the group, the type and the dimension of item.
- (3) **Value Analysis:** Value analysis is defined as an organized creative approach which has, as its objective, the efficient identification of unnecessary cost.

2017 - Dec [8] Write short notes on the following:

- (b) Seven Principles of BPR
- (e) Value Engineering **(4 marks each)**

Answer:

(b) Seven Principles of BPR:

- 1. Processes should be designed to achieve a 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.

(e) Value Engineering: Value engineering is an organized / systematic approach directed at analyzing the function of systems, equipment, facilities, services, and supplies for the purpose of achieving their essential functions at the lowest life-cycle cost consistent with required performance reliability, quality and safety.

Society of Japanese Value Engineering defines VE as:

“A systematic approach to analyzing functional requirements of products or services for the purposes of achieving the essential functions at the lowest total cost”.

Value Engineering is an effective problem solving technique. Value Engineering is essentially a process which uses function analysis, team-work and creativity to improve value. Value Engineering is not just “good engineering”. It is not a suggestion program and it is not routine project or plan review. It is not typical cost reduction in that it doesn’t “cheapen” the product or service, nor does it “cut corners”.

2018 - June [8] Write short notes on the following:

(d) Value Engineering

(4 marks)

Answer:

Value engineering is a function oriented, systematic team approach and study to provide value in a product, system or service. Often, this improvement is focused on cost reduction; however other important areas such as customer perceived quality and performance are also of paramount importance in the value equation.

Value engineering techniques can be applied to any product, process, procedure, system, or service in any kind of business or economic activity including health care, governance, construction, industry and in the service sector.

Value engineering focuses on those value characteristics which are deemed most important from the customer point of view.

Value engineering is a powerful methodology for solving problems and /or reducing costs while maintaining or improving performance and quality requirements.

Value engineering can achieve impressive savings, much greater than what is possible through conventional cost reduction exercise even when cost reduction is the objective of the task.

2018 - Dec [8] Write short notes on the following:

(a) Business Process Re-engineering

(4 marks)

Answer:

Business Process Re-engineering (BPR) refers to fundamental rethinking and redesign of business processes to achieve improvement in critical measures of performance such as cost, quality, service, speed and customer satisfaction.

In contrast, the meaning of Kaizen, which involves small, incremental steps towards gradual improvement, re-engineering involves a giant leap.

It is the complete redesign of a process with an emphasis on finding creative new way to accomplish an objective.

It has been described as taking a blank piece of paper and starting from scratch to redesign a business process. Rather than searching continually for minute improvement, re-engineering involves a radical shift in thinking about how an objective should be met.

Re-engineering prescribes radical, quick and significant change.

Admittedly, it can entail high risks, but it can also bring big rewards.

These benefits are most dramatic, when new models are discovered for conducting business.

DISTINGUISH BETWEEN

2015 - June [4] (b) (ii) Distinguish between Cost Reduction and Cost Control. **(7 marks)**

Answer:**Difference between Cost Reduction and Cost Control:**

Particulars	Cost Reduction	Cost Control
1. Permanence	Permanent, Real and reflects genuine savings in cost.	Represents efforts made towards achievement of pre-determined target or goal.

2. Nature of function	It is a corrective function. It can operate along with an efficient cost control system. This concept Believes that there is always a scope for further reduction in costs.	It is a preventive function, where costs are optimized before these are incurred.
3. Nature of process	It presumes the existence of concerned potential savings in norms or standards and therefore it is a corrective process.	It does not focus on costs independent of revenue nor considers product attributes as given. It is a holistic control process.
4. Performance evaluation	It is not concerned with maintenance of performance according to standards.	The process involves setting up a target, investigating variances and taking remedial measures to correct them.
5. Nature of Standards	Continuous process of critical examination includes analysis and challenge of standards. It assumes the existence of potential savings in the standards and aims at improving them by bringing out more savings.	It accepts the standards, once they have been fixed. In other words, standards shall remain, as it is.
6. Dynamism	Fully a dynamic approach.	It is a routine exercise and lacks dynamic approach.
7. Coverage	Universally applicable to all areas of business. Does not depend upon standards, though target amounts may be set.	Limited applicability to those items of cost for which standards can be set.

8. Basic approach	It is not concerned with maintenance of performance according to standards. It challenges the very standards set.	It involves setting up a target, ascertaining the actual performance and doing the variance analysis, followed by remedial actions.
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DESCRIPTIVE QUESTIONS

2012 - Dec [7] (a) What is 'Supply Chain Management'?

(3 marks)

Answer:

Supply Chain Management :

Supply Chain Management encompasses the planning and management of all the activities involved in sourcing, procurement, conversion and logistics management. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers and customers. In essence, Supply Chain Management integrates supply and demand management within and across the companies.

The concept of Supply Chain Management emphasizes on linkages among all of the value- adding activities in the chain. This concept has virtually displaced the term “business logistics”. In fact Supply Chain Management’s emergence is perhaps the most significant development in business management since the early 1980s. Savvy business executives firmly believe that effective management of the Supply Chain can help boost a firm’s performance. They recognize that Supply Chain Management can provide a distinctive and sustainable competitive advantage and improved profitability.

2014 - June [7] (a) What is meant by Business Process Re-engineering (BPR)? How can BPR be applied to an organisation? Give an example of BPR application.

(2 + 6 + 2 = 10 marks)

Answer:

Business Process Re-engineering: is a business management strategy, originally pioneered in the early 1990s, focusing on the analysis and design

of workflows and processes within an organization. BPR is aimed to help organizations fundamentally rethink how they do their work in order to dramatically improve customer service, cut operational costs, and become world-class competitors. In the mid-1990s, as many as 60% of the Fortune 500 companies claimed to either have initiated re-engineering efforts, or to have plans to do so.

BPR seeks to help companies radically restructure their organizations by focusing on the ground-up design of their business processes. According to Davenport (1990) a business process is a set of logically related tasks performed to achieve a defined business outcome. Re-engineering emphasized a holistic focus on business objectives and how processes related to them, encouraging full-scale recreation of processes rather than iterative optimization of sub-processes.

An Example of BPR Application

For example, if a bank customer enters into the bank determined to apply for a loan, apply for an ATM card and open a savings account, most probably must visit three different desks in order to be serviced. When BPR is applied to an organization the customer communicates with only one person, called “case manager”, for all three inquiries.

The implementation of “One Stop Shopping” as a major customer service innovation, requires the close coordination with a team of staff assigned to a process powered by IT for exchanging information and documents in order to service the customer’s request.

For instance a customer applying for a loan “triggers” a team of staff assigned to service a loan application. The manager completes an application for a loan in electronic form, which in turn is submitted through the network to the next team member, the credit control director, who examines the credit status of the customer. If the credit status is not satisfactory the rejection of the loan is approved by the credit manager and a rejection form is filled and it is returned to the case manager. The case manager explains to the customer the reason that his application was rejected.

How can BPR be applied to an organization

1.	Empowering People	Empowerment means giving people the ability to do their work: the right information, the right tools, the right training, the right environment and the authority they need. Information systems help empower people by providing information, tools and training.
2.	Providing Information	Providing information to help people perform their work is a primary purpose of most information systems although they provide information in many different ways.
3.	Providing Tools	In addition to providing the right information, empowering people means giving them the right tools.
4.	Providing Training	Since information systems are designed to provide the information needed to support desired work practices, they are often used for training and learning. As shown by an expert system and a decision simulator, they sometimes provide new and unique training methods.
5.	Eliminating Unproductive Uses of Time	Information systems can reduce the amount of time people waste doing unproductive work.
6.	Eliminating Unnecessary Paper	One common way to improve data processing is to eliminate unnecessary paper. Although paper is familiar and convenient for many purposes, it has major disadvantages. It is bulky, difficult to move from place to place and extremely difficult to use for analysing large amounts of data.

7.	Eliminating Unnecessary Variations in the Procedures and Systems	In many companies, separate departments use different systems and procedures to perform essentially similar repetitive processes, such as paying employees, purchasing supplies and keeping track of inventories.
8.	Minimizing the Burden of Record Keeping	Data Handling and General Office Work. Since processing data is included in most jobs, improving the way people process data is an obvious place to look for information system applications.

2016 - June [7] (b) Define the term 'value engineering'. **(2 marks)**

Answer:

Value Engineering is a function oriented, systematic team approach and study to provide value in a product, system or service. Often, this improvement is focused on cost reduction; however other important areas such as customer perceived quality and performance are also of paramount importance in the value equation.

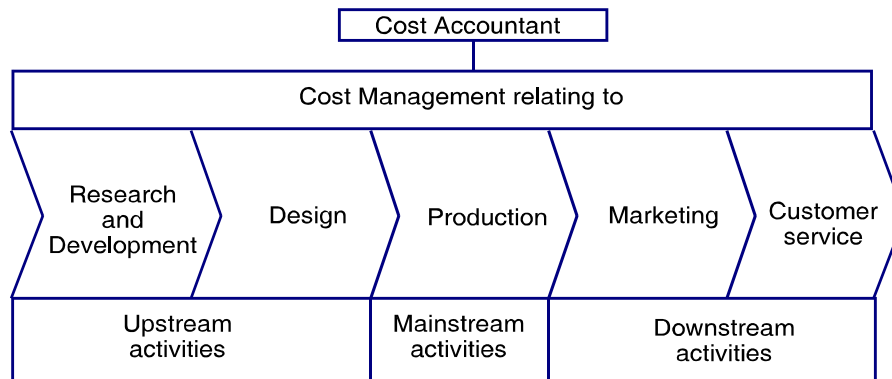
2017 - June [2] (a) What is Value Chain ? How does it help modern cost management? **(2+4 = 6 marks)**

Answer:

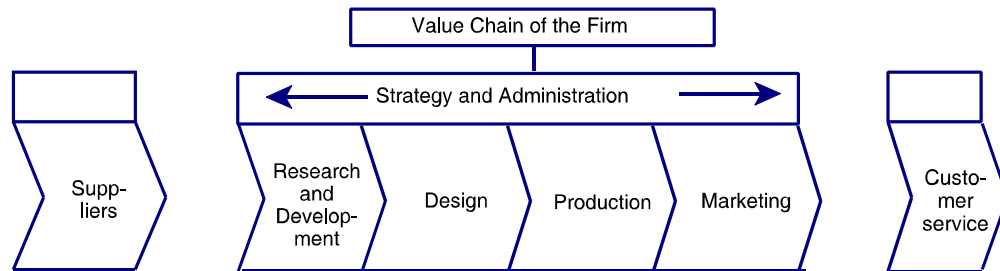
A value chain is the sequence of business functions in which utility (usefulness) is added to the products or services of the firm. Through proper analysis and management of each segment of the value chain, customer value is enhanced. Non- value creating activities are eliminated.

In value chain analysis, each of the business functions is treated as an essential and valued contributor and is constantly analyzed to enhance value relative to the cost incurred. Like business functions, in value chain approach also, it is important that the efforts of all functions are integrated and co-ordinated to increase the value of the products or services to the customers.

The following diagram shows the important functions or activities of a firm and the role of the cost accountant in cost management.



Michael Porter introduced the value chain concept in cost management in 1985. It was developed further by Ahw subsequently. When the supplier and customers are included, the firm is viewed as an extended value chain as shown below:



The value chain approach is an integral part of strategic cost management, which is an approach to Management Accounting that explicitly highlights strategic issues and concerns. It sets cost analysis as a broader context in which cost information is used to develop superior strategies.

Modern cost accountant has an important role to play in analyzing cost information relating to each of the segments of the value chain and supplying the same to other functional managers for improved decisions.

2017 - June [2] (b) (i) What are the problems of Traditional Costing arising out of volume-based cost allocation to products? **(1 mark)**

Answer:

Under traditional costing, overhead which occupies an important share of the total cost structure of the firm is generally allocated based on volume-based allocation rates viz. rates per labour hour, rate per machine hour, % of labour cost, etc. It does not take into consideration disproportionate consumption of service from service department. As a result, the product cost gets distorted i.e., some products are over costed while others are under costed. The basic assumption in cost allocation is; the higher the volume, the greater the share of indirect costs to the product or service. This simplistic assumption does not hold good in reality.

2021 - Dec [2] Define Value Engineering (VE).What are the issues considered during a VE review? **(4 marks) [Sec. C - Three LAQ]**

Answer:**Meaning of Value engineering:**

Value engineering involves searching for opportunities to modify the design of each component or part of a product to reduce cost, but without reducing the functionality and quality of the product.

Following Issues are given below:

1. Elimination of unnecessary functions from the production process.
2. Elimination of unnecessary product qualities
3. Design minimisation
4. Substitution of parts
5. Search for better way of doing things.

2023 - June [2] (a) "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.

(6 marks)

Answer:

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

- (i) Several jobs are combined into one
- (ii) Often workers make decisions

- (iii) The steps in the process are performed In a logical order
- (iv) Work is performed, where it makes most sense
- (v) Quality is built in
- (vi) Manager provides a single point of contact
- (vii) Centralized and decentralized operations are combined.

Seven Principles of BPR:

- (i) Processes should be designed to achieve a desired outcome rather than focusing on existing tasks
- (ii) Personnel who use the output from a process should perform the process
- (iii) Information processing should be included in the work, which produces the information
- (iv) Geographically dispersed resources should be treated, as if they are centralized
- (v) Parallel activities should be linked rather than integrated
- (vi) Doers should be allowed to be self-managing
- (vii) Information should be captured once at source.

2023 - Dec [4] (b) "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*) **(7 marks)**

Answer:

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 familiarisation 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 analysed 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 the actual use with the help of the programs and action plans. The progress of implementation is continuously monitored and followed up to ensure that the desired results are achieved.

PRACTICAL QUESTIONS

2013 - Dec [1] {C} M/s. Kraft Foods Ltd., is the world's second largest food company, with an average annual turnover of over ₹ 200 Billion. The company provides the best brands of Coffee, Chocolate, Cheese and many savory food items. To help in consistently delivering against its objectives,. M/s. Kraft Foods Ltd. has created a very strong Supply Chain Relationship between the company and its Suppliers/Customers. M/s. Kraft Foods Ltd., believes that a truly excellent Supply Chain Relationship with its customers cannot be achieved without the support and co-operation from its employees. Further the company believes that Customer Satisfaction is the key for its success.

M/s. Kraft Foods Ltd., is committed to ensure that right products are made available to its customers at right time and in right quantity and price. Its brand image is quite strong, based on 3 key areas, viz., quality, value and trust.

M/s. Kraft Foods Ltd.'s supply chain functions are provided with excellent operational support, which helps to deliver, as per its objectives.

M/s. Kraft Foods Ltd., focused on the successful management of a customer order from the moment it is compiled at the customer, its processing through M/s. Kraft Foods Ltd.'s order systems to the point of delivery at the customer warehouse. The company's policy is to ensure that any 'waste' that could cause delay or disruption should be eliminated. The customer order is compiled correctly, using accurate date, sent at agreed timings with jointly agreed delivery windows. Ideally the order is electronically communicated using EDI or the Internet. Further the company believes that e-commerce is improving communication with the use of e-mail and the extranets making contract and the sharing of knowledge and information faster and easier.

You are required to:

- (i) Describe the objectives of Supply Chain Management, with regard to M/s. Kraft Foods Ltd.,
- (ii) Describe the importance of Supply Chain Management to the company under reference viz., M/s. Kraft Foods Ltd.,
- (iii) Describe the measures taken by M/s. Kraft Foods Ltd., to change to Supply Chain Management. What are the benefits the company has been able to derive due to its sound Supply Chain Management?

(5 x 3 = 15 marks)

Answer :

- (i) The main objectives of Supply chain management with regards to M/s Kraft Foods Ltd. are to improve the overall organization performance and customer satisfaction by improving product or service delivery to consumer.

The other objectives are:

1. To maximize overall value generated.
2. To look for Sources of Revenue and Cost:-There is only one source of Revenue i.e. customer.

3. Replenishment of the Material or Product whenever required.
4. Cost Quality Improvement.
5. Shortening time to Order.
6. Faster speed to market.
7. To meet consumer demand for guaranteed delivery of high quality and low cost with minimal lead time.
8. Efficient supply chain.
9. To achieve world class performance.
10. More awareness of supply chain dynamics and efficiency.
11. To fulfill customer demand through efficient resources.
12. To optimize pre and post production inventory levels.
13. Good understanding of business characteristics.
14. Provide flexible planning and control mechanism.
15. Reduce transportation cost.
16. Greater labour efficiency, equipment and space efficiency.
17. To maximize efficiency of distribution side.
18. Helps in better decision making.

(ii) **“Supply Chain Management has an important role to play in moving goods more quickly to their destination”.**

it is so important for M/s Kraft foods Ltd. to get products to their customers quickly. Faster product availability is key to increasing sales. Appropriate management of the flow of information, product or funds is a key to supply chain success.

1. It makes for shorter lead-times to a customer.
2. It improved planning and forecasting capabilities for all partners of the supply chain.
3. It leads to cost saving and efficiency optimization.
4. It reduces dead or slow moving stock and eventually removes it from a system with careful planning.
5. Faster execution of customers' orders is the key to increasing sales. The company stands with a chance of procuring more orders and more market share.

(iii) The measure taken by the M/s Kraft Foods Ltd. to change to Supply Chain Management that the policies made by management should be transparent because it requires co-operation of all employees of organization at all levels.

- Policies should be designed in such a way that it should be acceptable at all levels of organization.
- There should be proper planning and proper communication.
- Selection of right suppliers.
- Creating a network for receiving defectives.

There are countless benefits of sound supply chain management.

- It maximizes overall value generated.
- It makes far shorter lead-times to a customer.
- It improves planning and forecasting capabilities for all partners of the supply chain.
- It leads to cost saving and efficiency optimization.
- It reduces dead or slow moving stock and eventually removes it from a system with careful planning.
- Supply Chains have bargaining power.
- Earning a good brand image delivers a competitive advantage.
- Excellent supply chain relationship with its customers.
- Customer's satisfaction.

2015 - June [4] (a) (i) Aadarsh Instruments, located in Ambala, is a medical instrument manufacturing company considered to apply Value Engineering in to the Focus Adjustment Knob in one of their model SL 250 for Slit Lamp in microscope. This microscope has found application in the field of eye inspection. The value engineering analysis may help company in running its export business of medical microscope. This firm is producing different types of microscopes which they export to various countries around the globe. All of the products manufactured here are conforming to the international standards. It is an ISO certified company.

The total savings after the implementation of value engineering are as given below:

- Cost before analysis — ₹ 29.99
- Total Cost of Nylon Knob — ₹ 18.40

- Saving per product — ₹ 11.59
- Percentage saving per product — ₹ 38.64%
- Annual Demand of the product — 8,000
- Total Annual Saving — ₹ 92,720
- Value Improvement — ₹ 62.98%

What are the steps to be followed for doing Value Engineering? How can you conclude the decision on the basis of the above Value Engineering?

(8 marks)

Answer:

The following are the steps to be used for carrying out the Value Engineering exercise by Adarsh Instruments in their model SL 250 for Slit Lamp in Microscope for the Focus Adjustment Knob:

- (i) Selection of the Product Plan.
- (ii) Gathering Product Information
- (iii) Functional Analysis
- (iv) Creativity Phase and preparing the work-sheet
- (v) Evaluation Sheet
- (vi) Cost Analysis
- (vii) Result and Conclusion
- (viii) Implementation.

Conclusion:

Value Engineering methodology is a powerful tool for resolving system failures and designing improvements in performance of any process, product, service or organization. In the Case Study discussed under the question, we have used the concept of Value Engineering to analyze the Focus Adjustment Knob of SL 250 Slit Lamp Microscope. With a critical evaluation of this study, we have been able to increase the value of the product by substituting another material in place of the one currently in use. The % value improvement is to the tune of 62.98% and the total annual saving has been ₹ 92,720.

The various advantages have been observed in terms of:

- Cost Reduction
- Increase in overall production

- Reduction in man-power
- Reduction in scrap.

Thus the cost has been brought down by a substantial margin and thereby the value of the product has been increased.

2015 - Dec [1] {C} This Case Study explains why Nestle Inc. needs a first class Supply Chain, with high quality linkages from where the coffee is grown in the field, to the way in which it reaches the consumer. For Nestle's, the Supply Chain is a bit complex and includes:

- Growers of Coffee
- Intermediaries like dealers/brokers/roasters/retailers, etc., Some Intermediaries may buy Coffee and doing some of the primary processing.
- Growing and processing of Coffee. This includes activities like coffee picking, drying and hulling sorting, grading & picking.
- Price-Balancing Supply and Demand: Coffee prices are determined on day-to-day basis on the world commodity markets in London and New York. The price of Coffee is determined by the relationship between the amount of Coffee available to be sold (Supply) and the amount which the company would like to buy (demand). If there is more Coffee available than what the company would desire to buy at current prices, the prices will fall. The market, thus, ultimately determines the price that the farmer receives.
- Nestle's Trading Methods: Nestle is a pioneer in purchasing Coffee direct from growers. A growing % of the company's Coffee is bought direct from the producer and it is now one of the world's largest direct purchasers. In Countries, where this is not possible, Nestle operates in a way that takes it as close to the growers as possible.
- Buying from dealers: In countries like UK, it is impossible for Nestle to buy from the hundreds of thousands of farmers, who ultimately supply the Company and so the coffee is bought from dealers, using the international market.

Conclusion: Creating wonderful cups of Coffee is not only Nestle's business, it is the business of everyone involved in the Supply Chain. It is in everyone's interest the farmers and Nestle's – that farmers receive a fair income from their Coffee. This ensures that they will continue to grow Coffee and to invest in increasing their yield and quality and this in turn, guarantees the supply of quality Coffee, which companies like Nestle require.

In the context of the above case study, answer the following questions:

- (i) What is Supply Chain Management? Explain clearly its basic concept?
- (ii) What are the basic objectives of a Supply Chain?
- (iii) State the way Nestle Inc., manages its Supply Chain?

(8 + 5 + 7 = 20 marks)

Answer:

- (i) Supply Chain Management (SCM) is the active management of Supply Chain activities to maximize customer value and achieve a sustainable Competitive Advantage.

A Supply Chain is a network of facilities and distribution options that performs the functions of Procurement of materials, transformation of these materials into intermediate and finished goods and the distribution of these finished goods to the customers. Supply Chain exists in both Service and Manufacturing Organizations. The complexity of the chain may vary greatly from Industry to Industry and from firm to firm.

The concept of Supply Chain Management (SCM) is based on the core idea that every product that reaches an end user represents the cumulative effort of multiple organizations and collectively referred to as Supply Chain.

Supply Chain Management (SCM) represents a conscious effort by the Supply Chain firms to develop and run Supply Chains in the most effective and efficient ways possible.

In 1980s companies discovered new manufacturing technologies and strategies that allowed them to reduce costs and compete better in different markets. Strategies like JIT manufacturing, Lean Manufacturing, TQM etc., became very popular and vast amounts of resources were invested in implementing these strategies. Many

companies have reduced manufacturing cost to the barest minimum. Many companies are discovering that effective SCM is the next step that must be taken to increase Profit and market share.

SCM is a strategy/mechanism, through which different functions can be integrated.

SCM is not a new innovation in management philosophy. Rather it existed since the time of Napoleon, as he commended once "Army marches on its stomach." He did not explain his statement but the inner meaning is unquestionable i.e., to make a strategy successful, it should have a strong line of supply be it food, clothes, arms or anything else.

Thus, SCM is the management of upstream and downstream value-added flow of materials, final goods and related information among Suppliers, Company, Re-Sellers and final customers. It is a systematic and strategic co-ordination of the traditional business functions with a view to improving the long-term performance of the company. It encompasses the planning and management of all activities involved in Sourcing, Procurement, Conversions and Logistic Management.

In a nutshell, SCM implies all such activities by which the final product is delivered in the hands of customers.

Logistics is the logical way of transportation in a timely way so that Production and Distribution are not hampered.

But in SCM, we take into account all the aspects of the Product like:

- Sales demand analysis
- Production Planning
- Procurement of Raw-Material
- Ware-housing
- Production Process/Conversion
- Opicking, Drying and hulling, sorting, grading & picking.
- **Price-Balancing Supply and Demand:** Coffee prices are determined on day-to-day basis on the world commodity markets in London and New York. The price of Coffee is determined by the relationship between the amount of Coffee available to be sold

(Supply) and the amount which the company would like to buy (demand). If there is more Coffee available than what the company would desire to buy at current prices, the prices will fall. The market, thus, ultimately, determines the price that the farmer receives.

- **Nestle's Trading Methods:** Nestle is a pioneer in purchasing Coffee direct from growers. A growing % of the company's Coffee is bought direct from the producer and it is now one of the world's largest direct purchasers. In countries, where this is not possible, Nestle operates in a way that takes it as close to the growers as possible.
- **Buying from dealers:** In countries like UK, it is impossible for Nestle to buy from the hundreds of thousands of farmers, who ultimately supply the Company and so the Coffee is bought from dealers, using the international market.

2016 - June [5] {C} (b) The public sector Bank of India (BOI), which targets to take its business to about ₹ 12 lakhs crore in next five years, mulls to implement Business Process Re-engineering (BPR) initiates to streamline its growing business. Seven consultants, including Ernst & Young, Boston Consulting Group (BCG) and McKinsey, have expressed interest to take up the job of evaluation and restructuring the organizational set-up by using 3Rs Model of BPR. What are the actions and resources to be considered for 3Rs Model of BPR for expecting the results to BOI? **(6 marks)**

Answer:

BPR is achieving dramatic performance improvements through radical changes in organizational process, re-architecting of business and management process. It involves the redrawing of organizational boundaries, the reconsideration of jobs, tasks, knowledge and skills. This occurs with the creation and the use of models. In resuming the whole process of BPR in order to achieve the expected results is based on key steps- principles which include 3R (i.e., re-design, re-tool and re-orchestrate). Each step- principle embodies the actions and resources as presented in below:

Re-design	Re-tools	Re-orchestrate
Simplify	Networks	Synchronies
Standardize	Intranets	Processes
Empowering	Extranets	Information Technology
Employee-ship	Workflow	Human resources
Groupware		
Measurements		

2021 - Dec [5] A hand crafted product is produced in a factory taking 8 hours per unit against the standard set at 9 hours. The production manager is trying to find means of reducing the standard to lesser hours by improving material handling, etc. This measure is considered as (Cost Reduction/ Cost Control) **(1 mark) [Sec. B - SAQ]**

Answer:

Cost Reduction

2022 - Dec [2] (a) ABC Enterprises has prepared a draft budget for the next year as follows:

Quantity	10,000 units
Sales price per unit (₹)	30
Variable costs per unit:	
Direct Materials (₹)	8
Direct Labour (₹)	6
Variable overhead (2hrs. × 1) (₹)	2
Contribution per unit (₹)	14
Budgeted Contribution (₹)	1,40,000
Budgeted Fixed Costs (₹)	1,25,000
Budgeted Profit (₹)	15,000

The Board of Directors are dissatisfied with this budget, and asks working party to come up with alternate budget with higher target profit figures. The working party reports back with the following suggestions that will lead to budgeted profit of ₹ 25,000. The company should spend ₹ 30,000 on

16.40

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advertising and set the target sales price up to ₹ 32 per unit. It is expected that the sales volume will also rise, in spite of the price rise to 12,000 units. In order to achieve the extra production capacity, however, the workforce must be able to reduce the time taken to make each unit of the product. It is proposed to offer a pay and productivity deal in which the wage rate per hour is increased to ₹ 4. The hourly rate for variable overhead will be unaffected. Ascertain the target labour time required to achieve the target profit.

(10 marks)

Answer:

Time required to achieve the target profit = 21,600 hours

Repeatedly Asked Questions		
No.	Question	Frequency
1.	Define the term 'value engineering'. 16 - June [7] (b), 17 - Dec [8] (e), 18 - June [8] (d)	3 Times