Value Analysis or Value Engineering

1. Explain, how does value chain approach helps an organisation to assess its competitive advantage

Answer: Most of the firms define value chain as mission of creating product or services. For these firms, the products or services generated are more important than any single step within their value chain. These firms use the value chain approach to better understand and identify which segment, distribution channel, price point, product differentiation, selling proposition and value chain configuration will yield them the greatest competitive advantage.

The way the value chain approach helps these firms to assess competitive advantage includes the use of following steps of analysis :

(i) Internal cost analysis -- to determine the sources of profitability and the relative cost position if internal value creating processes.

(ii) Internal differentiation analysis – to understand the sources of differentiation (including the cost) within internal value creating processes, and

(iii) Vertical linkage analysis – to understand the relationships and associated costs among external suppliers and customer in order to maximize the value delivered to customers and to minimise cost.

These type of analysis are not mutually exclusive. In fact, firm begin by focussing on their internal operations and gradually widening their focus to consider their competitive position within their industry. The value chain approach used for assessing competitive advantage is an integral part of the strategic planning process.

2. Write a short notes on value analysis

Answer Value analysis (also known as value engineering) is a systematic interdisciplinary examination of factors affecting the cost of a product or service in order to devise means of achieving the specified purpose at the required standard of quality and reliability at the target cost.

The aim of value engineering is to achieve the assigned target cost by

(i) identifying improved product designs that reduce the product's cost without sacrificing functionality and/or

(ii) eliminating unnecessary functions that increase the product's costs and for which customers are not prepared to pay extra for.

Value analysis or value engineering is one of the most widely used cost reduction techniques. It can be defined as a technique that yields value improvement.

It investigates into the economic attributes of value. It attempts to reduce cost through

a. design change,
b. modification of material specification,
c. change in the source of supply and so on.

It emphasises on finding new ways of getting equal or better performance from a product at a lesser cost without affecting its quality, function, utility and reliability. For example, the function of a fastener is to join two or more parts. Value analysis examines the value of this function in terms of alternative methods such as welding, taping stapling, etc. in view of the stress and vibrations involved in a specific application.

In value analysis each and every product or component of a product is subjected to a critical examination so as to ascertain its utility in the product, its cost, cost benefit ratio, and better substitute etc. When the benefits are lower than the cost, advantage may be gained by giving up the activity concerned or replacing if for betterment. The best product is one that will perform satisfactorily at the lowest cost.

The various steps involved in value analysis are :

1. identification of the problem;
2. collecting information about function, design, material, labour overhead costs, etc., of the product and finding out the availability of the competitive products in the market; and
3. exploring and evaluating alternatives and developing them.

In other words value analysis brings out clearly the areas where the cost of a product can be reduced by pointing out :

1. Unnecessary items, components in a product to be removed.
2. Possibility of substitution with reduced cost without affecting its quality.
3. Possibility of overall simplification in design manufacture etc. of a product.

3 Value Engineering is more effective than any other cost reduction technique like Work Study, Automation etc. — Discuss this statement in the Indian context.

Answer. Value engineering or value analysis is one of the most widely used cost reduction technique in the purchasing and production areas. It aims at reducing cost through change, modification of material specification, change in the source of supply of material and so on. It emphasis's on finding new ways of getting equal or superior performance from a product at a minimum cost without affecting its quality, function and reliability.

It is the process of subjecting each and every component of a product to a critical examination so as to ascertain :

(i) Its utility in the product;
(ii) Its cost;
(iii) Whether is cost commensurate with its utility ;
(iv) Whether it can be replaced by a cheaper components ;
(v) Whether it can be does away with ;
(vi) What the competitors are using in place of it ; and
(vii) Whether anybody is buying it at cheaper price.

Utility means usefulness; this can be easily and definitely measured when the concerned component or the service can be obtained form outside — the price measures it usefulness. In some cases where an outside market does not exist, utility would be measured only subjectively. Still one would have a fair idea of whether the benefit obtained, say in terms of better appearance, is worth the costs incurred.

Usually it would be profitable tom tap outside sources if the price is lower than the cost. But this decision needs to be made with great care as the question of fixed and sunk costs is very important.

Value engineering bring clearly the areas where the cost of product can be decreased by pointing out:

(i) Unnecessary items/components in a which might have had once some utility but now are redundant and, therefore, dispensable ;

(ii) the possibilities of component — substitution with reduced cost without affecting the quality of the product; and
(iii) the possibilities of overall simplification in design / manufacture etc. of a product.

The relationship between value engineering and cost reduction

a. Value engineering is done with a view to reduce the cost and cost reduction looks upon value engineering as one of its prime tools.

b. Cost-reduction has always followed a critical examination of the benefit incurred. Value engineering is a careful and as far possible, quantities appraisal of the benefit derived at each stage of work. Where the benefits are lower than the cost, advantage may be gained by giving up the activity concerned or replacing it by something else.

c. Work study automation etc, do reduce cost but in most cases, they save only labour cost by improving efficiency, etc. On the other hand, value engineering relates the worth of the product, its value to the function it is intended to perform and makes a sizeable in the cost of the materials by design changes, substitution etc.