



Value Analysis

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Managing Innovation

Value Analysis

Why and When Is It Used?

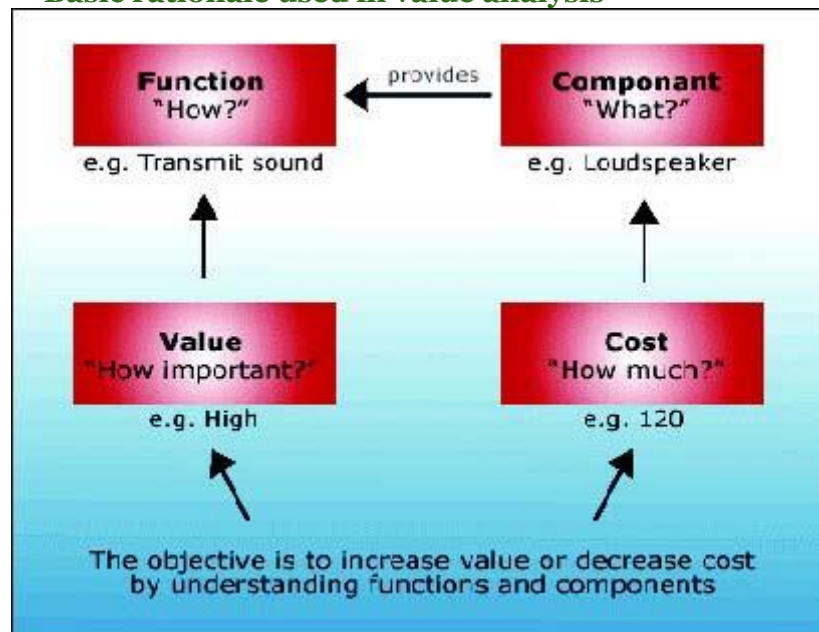
Value analysis is an approach to improving the value of a product or process by understanding its constituent components and their associated costs. It then seeks to find improvements to the components by either reducing their cost or increasing the value of the functions.

How Does It Work?

To understand value analysis it is necessary to understand some key concepts:

- **Value:** the ratio between a function for customer satisfaction and the cost of that function.
- **Function:** the effect produced by a product or by one of its elements, in order to satisfy customer needs.
- **Value analysis:** methodology to increase the value of an object – the object to be analysed could be an existing or a new product or process, and it is usually accomplished by a team following a workplan.
- **Need:** something that is necessary or desired by the customer.

Basic rationale used in value analysis

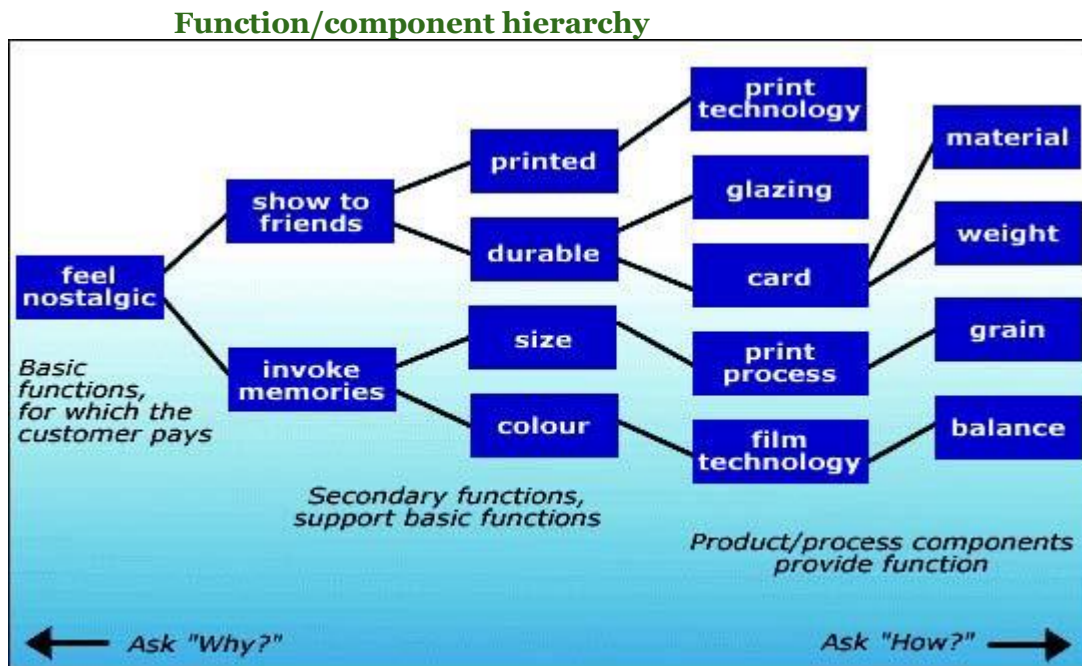


Functions may be broken down into a hierarchy, starting with a basic function, for which the customer believes they are paying, and then followed by secondary functions, which support that basic function.

The purpose of functions may be aesthetic or use, and basic functions may be either or both of these. For example, a coat may have a use function of making you warm and an aesthetic function of 'looking attractive'.

The product or process may be broken down into components, which can be associated with the functions they support. The value of the product or process then may be increased by improving or replacing individual components. This also applies to the whole item being analysed, which may be completely replaced with a more functional or lower cost solution.

Although this is a simple-sounding tool, it can be quite difficult in practice, as it requires both deep analysis of the product or process to be improved and also an innovative approach to finding alternatives.



The Value Analysis Process

Value analysis is based on the application of a systematic workplan that may be divided into six steps: orientation/preparation, information, analysis, innovation/creativity, evaluation and implementation and monitoring. The application of value analysis only needs to make use of basic techniques such as matrixes, pareto chart, pert and gantt diagrams, etc., in most of the value analysis steps.

Specific techniques to be applied in value analysis

Value analysis step		Specific technique
1	Orientation/preparation	Basic techniques
2	Information	
3	Analysis	Functional analysis, basic techniques
4	Innovation/creativity	Basic techniques
5	Evaluation	
6	Implementation and monitoring	

Strengths and Weaknesses

Some of the major advantages in using value analysis can be summarized in the following ideas:

- A high **customer orientation**, focusing on those aspects of the product/service that better satisfy customer needs.
- **Cost reduction** by eliminating functions that do not supply specific advantages to satisfy customer requirements/needs.
- **New ideas** that arise from the creativity/innovation phase and may add radical changes and therefore competitive advantages that will be regarded by the market.
- A new **systematic mentality** to be taken into account for next designs of new products or to systematically improve the existing ones.

The problems that may arise during the application of value analyses can be of different nature. In order to arrive at a successful completion of the process, one has to bear in mind the following 'rules':

- Avoid making generalizations and superficial statements – it is important to be precise at every moment.
- Collect, determine and examine all costs involved – only when one is cost conscious will it be possible to determine the value of the thing being assessed.
- Make use of information from the best possible sources.

Further Information

<http://www.npd-solutions.com/va.html>