

78-34

THIS IS S.A.V.E. AND VALUE ANALYSIS ENGINEERING/MANAGEMENT

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Abstract

What the Value Analysis Technology is, why and how it was developed.

Why S.A.V.E. was organized. Status of the technology today. Actions which are timely now.

WHY S.A.V.E.

The Society was formed to spread and exchange knowledge about Value Analysis procedures. As a spring in the mountain might contain good pure water, still be useless, so the technique, until it was made available, would benefit few. The Society was a brook-bed, in the mountain, to allow flow to the fertile fields. As it has proceeded, it has become like the mainstream of a river into which additions — new techniques flow. It receives new contributions of technique, integrates them, makes them useful and available.

Value Analysis Technique is basically a new Approach

Traditionally, costs and prices have been associated with materials. 40¢/lb for nails. \$5.00/100' or \$1.00/lb for copper wire. \$300. for a refrigerator. VA technique is totally different, so for many purposes, much more effective. It associates cost and price with function. Function in all cases, is what is wanted. Pricing by materials is, for the decision maker, always missing the bulls-eye. Like target practice in which the sight could never be set on the bulls-eye. For that reason, function pricing, function buying and function thinking produce better quality at the same price or better price for the same quality. Securing or using a material is restrictive to one specification. Securing of using a function allows and encourages creativity — wider choice — more benefit per dollar.

Better Thinking System Found Needed

With this more precise costing, and the effective creativity it at once draws in, it was seen that a better thinking system was needed and justified. The Job Plan, which effectively uses all kinds of thinking at the right time, developed. It varies a little according to the special need of the task, but in general follows these effective steps,;

1. "Mind Tuning". Exactly what am I/we trying to do?
2. Intense information search
3. Information analysis. Exactly what are the meanings? Exactly what main problem shall I/we solve first?
4. Depth creativity on that problem.

5. Judgement and refinement. Which of the creative approaches shall we use, and how do we refine it to make it fully usable?

How, When, and Why were the VA Techniques Started

Start was in Dec. 1947.

A few years prior, 1940 to 45, great, incredible, "impossible" demands were made of American Industry. I transferred from engineering to purchasing. I took responsibility to provide vital quantities of engineered components to GE's factories. Parts for airplanes, airplane engines, essential electronic gear, 50-caliber machine gun accessories etc. I often found that suppliers schedules were already over-filled also with highest priority materials. Yet, I must cover the production line needs. Soon the approach had to change. It became, "What can you make, not to meet these material Specs. but to perform this function"? In every case we found something. A different material, a different machine, a different shape, a different skill of labor could be used and could be found, and accomplished the function. Altho some were more costly, a surprising number performed better than the specified item, often at lower cost.

The war ended. I became purchasing agent of one of GE's plants. In 1947, my company was hurting in some of its important product lines. Competitors had converted their factories back to civilian production, in some cases had improved their designs, and were cutting deeply into some product line sales at lower prices, we couldn't meet. This "function" approach in the back of my mind exerted itself. I decided I'd like to try it in "peacetime", under normal conditions.

I made a pitch on it to Harry Erlicher, VP Purchasing for GE. He bought it. My budget covered an engineer, a manufacturing methods man and a secretary and space in GE's purchasing headquarters. Results of the "Function" approach were immediate and startling. The group soon was to grow to a dozen.

Why the name Value Analysis, Value Engineering or Value Management?

To gain engineering understanding and support I showed GE's VP engineering, Harry Winne, a GE product which was losing sales volume because of cost. He saw that function values were greatly below function costs. He said, "This is the best method yet found to help engineers end unnecessary costs in their designs. What will you call the approach?" I asked for his suggestion. He said "You analyze both function and cost. It's really cost-function analysis. Proper function for proper

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cost is Value. I suggest you call it Value Analysis". So it became.

Adm. Leggett, chief of the Navy Bureau of Ships found its use would save millions of dollars. He sent men to our seminars to learn it. We then helped them start training seminars in the Buships. He wanted to use it, but he had no jobs named "analysts" in his job brackets. He could however add any kind of an "engineer" needed. Someone in the Buships suggested that they call it Value "Engineering" instead of "Analysis", then it could at once be put to work. He bought it. So, in the Navy, it became Value Engineering. The society was organized in Washington in this environment. Hence the name of Society of Engineers instead of Society of Analysts.

More recently, some very competent and dedicated men in Washington DC have been working to bring these function-cost techniques into the management and operation system of government groups spending billions and billions of dollars. They have found benefits in the hundreds of millions. Thousands of decision making people manage the billions of expenditure. They must learn and use the value systems and techniques and have them taught to the "do-it" people by the tens of thousands. To do this, the thousands of decision makers must learn value management. Hence, the value analysis approach being promoted and presented in Washington right now goes under the name Value Management.

The Miracle of Life

In the early days great opposition grew - some still exists. The approach was different and strange to people in the established system based upon material specification and pricing. They didn't understand this. It was a threat to them. They were occasionally embarrassed in the eyes of their peers or superiors by the simple, better solutions which quickly came when the function-cost system was used.

A most fortuitous event happened at this time of our great need. Wm. (Bill) Sredenschek, a top-grade manager of marketing was brought in to succeed Mr. Erlicher at his retirement. Bill Sredenschek was brilliant and energetic and perceptive. He was courageous and, when necessary, a fighter. He never side-stepped criticism at any level of management. We then always met it with facts. Great and sound achievement grew.

Today's Status

Worldwide use of the function-cost based techniques to get high quality without unnecessary costs is progressing. Most effective use is by Japanese industry, with Germany, Sweden and United States about tied for second.

In USA now a few 10,000s of people know its effectiveness and know at least how to use some of it. A few dozen managers, perhaps 50, know its effectiveness and are starting to support it. Possibly 5% of American companies are benefiting between 10 and 50% as much as they could be, by it. It's an open opportunity area.

What Now?

It's our move.

To qualify people.

To constantly improve the technique.

To communicate.

What Future?

We are still in the era of materials thinking and pricing. We have usable listings of materials and their meaningful descriptions and prices. We will gradually, during the next 25 years, move into an era of function listing and pricing, and develop listings of functions and their meaningful descriptions and prices.

Every step along this road will bring meaningful benefits to the achiever.

The Society has an award waiting for you — an award for a major advance in our technology. It has been given only once. It was to Chas. Bytheway for the powerful Function Analysis Systems Technique called FAST. We would like to award it to you for some significant progress along the FUNCTION road.