



PW Principles of value analysis

Only use information from the best source

By Lawrence D. Miles
Certified value specialist

Lawrence D. Miles has been practicing and refining value analysis since he originated the techniques as a member of GE's corporate purchasing department almost thirty years ago. He has written and lectured extensively on VA, and has published two books on the subject: "Cutting Costs by Analyzing Values," and "Techniques of Value Analysis and Engineering." He is a fellow of the Society of American Value Engineers (SAVE), and served as its first president. And he is a holder of the Distinguished Public Service Award—the highest military honor awardable to a civilian—given him for benefits accrued to the U. S. Navy from the use of VA techniques.

"I'm going to ask your boss to fire you," a marketing vice president said to me, as we were leaving a top management planning meeting. "How come?" I asked. "Because you're too disruptive, too embarrassing to tolerate. I told them that we could sell twice as many of our product next year but that production was limited by available steel and that we were now using every pound that it was possible to get. Then you suggested calling in the steel buyer. He said to go ahead and double the production rate, that he would get the steel. How do you suppose I feel about being reversed before the company president?"

"Oh, I'm sorry," I said, "I was just following one of our value analysis principles. **Only use information from the best source.** You're the best source on selling. The manufacturing VP is the best source on manufacturing. You're not the best source for information on steel, which was the only action stopper. That's why I suggested calling in the steel buyer. You said you could sell them. The manufacturing VP said he could make them. You're not supposed to be the authority on steel supply; the buyer is, so we got him. We believe you in your area—sales. We believe the manufacturing VP in his area—manufacturing, and the steel buyer in his area—steel supply."

I'm sure he never liked me again. Embarrassment is hard to take. But I never heard about it from my boss, so I guess he decided to leave it alone. They did double their production rate. The buyer did get twice as much steel. (He bought some parts partly fabricated so

that the suppliers used their own allotments of steel). They did sell twice as many. Earnings on the item more than doubled—all because at this one time one VA principle was used.

The buyer must have knowledge. He must know facts. He must ask questions. He must get truth for answers. To understand true function so that he can buy economically, he will search for information such as: Why is this square? Why is it painted red? Why does it have double contacts? Why is there a .0001" tolerance on the diameter? How does the customer mount the base? In what positions can it be mounted? At what atmospheric conditions must it work? What causes it to be noisy? To every question, he will get an answer, he will get an answer that is exactly correct, partly correct, or wholly wrong. It depends upon the knowledge of the person giving answers. To make matters more difficult, many persons who only have a part of the knowledge, or obsolete information, are more verbal than the man with the real facts, and will immediately volunteer half-correct or plausible sounding wrong information. To minimize the damage to clear, effective thinking from this source, buyers will often—many times each day—almost say aloud to themselves "is he the best source in this world, (usually in United States) to provide the most nearly right answer to that question? In a little time it becomes quite automatic. Without extra thought, the buyer's mind always matches what is said with the degree of up-to-the-minute knowledge of the "sayer," and gives no credence to the utterance unless the speaker is the best authority on that matter.

Here's an example: In a moderate-sized piece of electrical equipment, a partial inside cover was found that cost \$5. The buyer could find no function for it. Accordingly, in reporting to the engineer in charge, he said, "This cover costs \$5 and I can find no function for it." The engineer immediately answered, "It has no function, but the customers require it." The buyer at once recognized this as quite a normal situation, in which the engineer voiced his belief; in fact, he voiced the criterion on which the decision to retain this cover had been made for years. The buyer's suggestion was "Why don't we ask the sales

manager why it is that the customers require this cover since it seems to us to have no function?" When the question was put to the sales manager, his answer was: "Does that cost \$5? Take it off. I have only one customer who uses it. The others take it off and throw it away. I will see that this customer pays a special charge for extra equipment."

When the answer came from the best instead of the near-best, or second-best source, it was, as we see, very different, and allowed the buyer a big movement toward improving earnings. The same thing happens again and again.

A special instrument required a glass cover about 10 in. in diameter having a curved shape similar to a cereal bowl and having a ¼-in. hole through it. Quantities would be 20,000 per year. Cost was \$1.25 each. As it went from the laboratory into production, the laboratory buyer told the production buyer, "That is a tricky part. I made extensive search and finally found and developed a supplier who could and would make it right. There is no other supplier." The factory buyer believed that he could find a better source of information. He asked the buyer at a clock factory, who habitually bought various sizes and shapes of clock faces, about it. The reply was, "We have six excellent suppliers for that type of item; send six sets of specifications." The result was a proven supplier of high quality materials who charged 50¢ instead of \$1.25.

An engineer, hard pressed to meet competitive prices on a small transformer, solicited the buyer's help to lower some costs. It soon became quite apparent that an important simplification of the design would make a thoroughly good product at 20% less cost. The buyer asked, "Why don't you do it?" "Underwriters won't approve it," the buyer was told. "We submitted that design and they turned it down." It seemed to meet all conditions and needs so well that the buyer suggested they contact Underwriters again.

This time Underwriters said, "Proceed with the change. Several years ago under different conditions of application, we felt that the transformer should be made in a certain way. However we have since changed this requirement.