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THE PRACTICAL CHALLENGES IN DEFINING VALUE IN VM PRACTICE

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INTRODUCTION

It is commonly understood that the producer (or seller) sets the market value (or price) of the product, or service offering; but the customer, (or buyer) exerts significant influence on the value placed on those products and services offered.

We sometimes (hopefully infrequently) wonder why our product is not a market success, when our offering is rich with features and functions. A simple test to determine if the proper value has been assigned to the market offering is to seek the answer to the question, “Is the customer willing pay for those functions and features we offer?” Functions and features that don’t attract customers have little or no market worth.

THE DIFFERENCE BETWEEN “VALUE” AND “WORTH”

The terms “Worth” and “Value” are often interchanged in conversation, and when incorrectly used, does not appear to take away from the meaning, or the intent of the expression in which the terms are used. In other words, the buyer and seller understand their roles and act accordingly.

As an impressionable youth just entering the “Value Engineering” world, I was blessed to have as my mentor, Mr. Carlos Fallon ⁽¹⁾. I learned that only someone who is an expert in his field has the ability and confidence to express him/her self, in a way that makes complex subjects easy to understand. I take pleasure in sharing with you the event, many, many years ago, that led me to that conclusion.

As was the custom of the SAVE Association, Larry and Eleanor Miles⁽²⁾ hosted an annual SAVE Board meeting, and the social event that followed, at the L. D. Miles estate on the Maryland shores. During one such event I had the opportunity to asked Carlos Fallon, the international authority on value concepts, and a SAVE Board member, to help me understand the perception of

“value.” Rather than launching into a complex discussion of the various types of value (market, assets, wealth, etc) Carlos asked me; “How much money do you have in your wallet.” I opened my wallet and withdrew about \$50.00.

Carlos said; “Hold tightly onto that money because I will attempt to take it away from you.” He then said; “I have an old pair of gym sneakers, a bit warn, but filled with “valued” memories, which I will, with reluctance, sell to you for \$50.00. Interested?”

I said “No way. Not interested in possessing your old warn-out pair of sneakers; certainly not for \$50.00.”

Carlos responded with; “Okay, how about my 1.5 perfect carat diamond ring, set in platinum. Would you buy it from me for \$50.00? I said; “Absolutely!!” Carlos then asked me how I made my decision to reject the sneakers, but buy the diamond ring. I told Carlos; “because I thought the ring was worth \$50.00, but the sneakers weren’t.”

“Ah,” said Carlos. You have just made a valuable market decision, by distinguishing between the terms “Value,” and “Worth.”

“Consider the term ‘Value,’ said Carlos “as the posted market price, the ‘price tag,’ if you will.” “It is what I, as the seller; hope to get for selling my products, or services. ‘Worth’ is a buyer’s term. It is a personal determination that drives the ‘buy’ motivation.” “Worth is also the factor that determines how I can separate you from your \$50.00.” “If you think what I’m offering is ‘worth it,’ that is, you will benefit by it in some way, then we can have an exchange of values.” The term “exchange of values” implies that both the buyer and the seller benefit by the exchange, but for different reasons.”

Carlos’ motivation to sell his possessions is to gain financially by the exchange. My buy motivation is driven by one, or all three reasons for why anyone buys anything. Those reasons are:

- Exchange – Worth
- Esteem – Want
- Utility – need

Therefore, Buyers purchase ‘things’ because they think they will benefit by the purchase. That is, they believe the item for sale is worth it, they want it, or they need it, or a combination of the three.

All buy decisions contain “worth.” If we wish to re-sell our recently acquired product; worth would be the dominant buy factor. However, we can also be driven to acquire the offering by “want;” to hold in esteem, like possessing rare stamps, or painting by a known master. This market segment is known as “collectables’ where esteem or “want” dominates the buy decision.

A simple example of “need,” or utility, is contemplating how much you would pay for some gas, when you have run out of fuel in your car, on a long stretch of infrequently travelled road, in the late night hours. What would having enough fuel to reach civilization be “worth’ to you, at that time?

THE VALUE EXCHANGE PROCESS

The exchange process always involves two distinct parties; the seller, and the buyer. The intent of both buyer and seller is to profit from the exchange. The term “profit” is defined as “...a gain from activity,” which includes, but goes beyond monetary considerations.

As discussed previously, we distinguished between the two terms “Value” and “Worth” by assigning “Value,” to the seller, and “Worth” to the buyer. We also established that it is the seller that sets the value of the products and services offered for sale. Also noted was that in commerce, “Value” is often represented by a price tag. The price established by the seller includes the seller’s profit expectations, as well as the cost of acquisition, risk, inventory, availability, buyer appeal, competition, market dynamics, and other factors considered in preparing that offering for sale.

The decision to affect an exchange of values rests with the buyer, not the seller. The factors considered in the buy decision are too numerous to list, but once some personal “worth index” is reached, based on the buyer’s perceived benefits, the sale is made and an exchange of values occur. Why refer to the process as “an exchange of values,” rather than “an exchange of worth’s?” Because in completing the sales transaction, the buyer assumed the role of a potential seller, and thereby establishing a new value for the item he/she recently acquired.

A procedure that attempts to better balance the value – worth scale is called, “The Bargaining Process.” The bargaining process is an attempt by the seller to increase the buyer’s sense of worth, by lowering its market value (price), or adding functions and features for which the buyer is willing to pay. Both approaches are in common use and have proved equally successful in the process of exchanging buyer/seller values.



Figure 1. The bargaining process.

THE VALUE MANAGEMENT CONTRIBUTION TO VALUE

The role of the Value Manager (VM) (synonymous here with the terms VE/VA) is to assist companies identify, and incorporate wanted functions and features in product and services that the companies offer to the market, at a price (value) that will return a reasonable profit, while appeal-

ing to the customer's sense of worth.

The most common application of Value Management (the process) is to reduce producer costs. By so doing, the producer can supposedly reduce price, become more competitive, while protecting profit margins; or, seek higher profits by maintaining the price of the offering produced at a lower cost. However, cost reduction is a small part of the potential this powerful process offers. Value Management, a business improvement process, can be employed much more effectively by analyzing competitor advantages, identifying those functions and features wanted by those willing to pay for those attributes, and incorporating those attributes into the products and services offered.

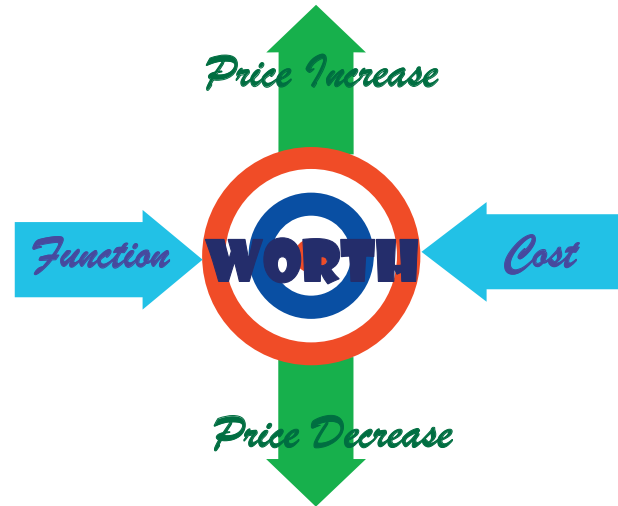


Figure 2. The exchange process.

FOCUS ON FUNCTIONS

A function is *not* a “thing.” It is the intended performance of a thing. People don’t buy “things.” They buy the functions and outcomes that things do. When analyzing the design of a component, or device we must determine what functions and features this component is design to achieve. However, conventional analysis is focused on how the component operates, rather than the function(s) being addressed by the component.

To cite two examples; a screwdriver’s function is to “Transmit Torque,” not “drive screws.” The function of an oil filter is to “trap Containments,” not “clean oil.” “Drive screws” and “clean oil” are the outcomes of the device’s properly performing their intended functions to achieve the desired end result.

In assessing why a competitor’s products are highly successful, measured in terms of sales volume, the

The VALUE / WORTH RELATIONSHIP

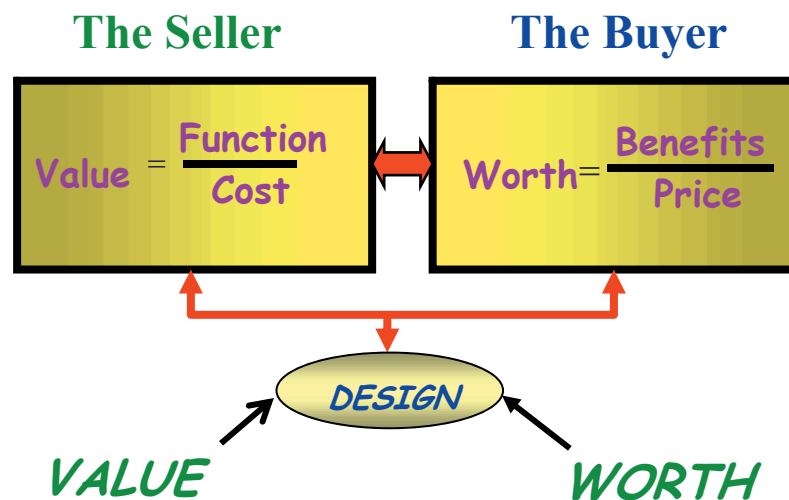


Figure 3. The value/worth relationship.

Value Manager must go beyond identifying the “things” incorporated in the product that attracts customers. Too often, marketing, or sales will place their successful competitor’s product on the designer’s desk, and say; “See these ‘things’ that are attracting our customers?” “Make our product just like that, only better.”

It would be much more helpful to the design engineer if he/she knew what functions to address so that the design focus can explore better, more innovative ways of performing the functions of the “things” that customer’s desire.

THE ORGANIZATION AFFILIATION OF VALUE MANAGEMENT

As a business management process, the organization affiliation best suited to be the operational base for this expanded VM role is not engineering, manufacturing, or procurement, but marketing. It is marketing’s function to study and characterize the target market, track the market dynamics, identify those functions and features having the greatest worth appeal, and assist in defining these attributes so that they can be incorporated into the products and services offered to the target market.

The focus of Value Managers, working in association with Marketing, is to analyze the needs and wants of potential customers, in terms of buyer benefits in a given market, and express those needs and wants in function terms. By so doing, design engineering’s role is to configure those functions and features in product offerings that appeal to the buyers in the defined market. However, in converting expressions of wants and needs into function terms, the Value Manager must only focus on those functions and features that the customer is willing to pay for. To do otherwise would, as noted in the introduction, result in incorporating functions and features that may be unique, but may not appeal to the customer’s sense of “worth.” If the customer does not think those offerings were worth it, he/she would not buy it for the price offered. The role of the Value Manager is therefore, to assess the market, and translate those needs and wants into function descriptions, so that the design engineer can incorporate those functions and features into products that appeal to the market being addressed.

It must also be understood that potential buyers purchase products and services when they believe that the benefits they receive are “worth” the price they pay for those offerings.

Therefore, there is not only a link between the two rela-

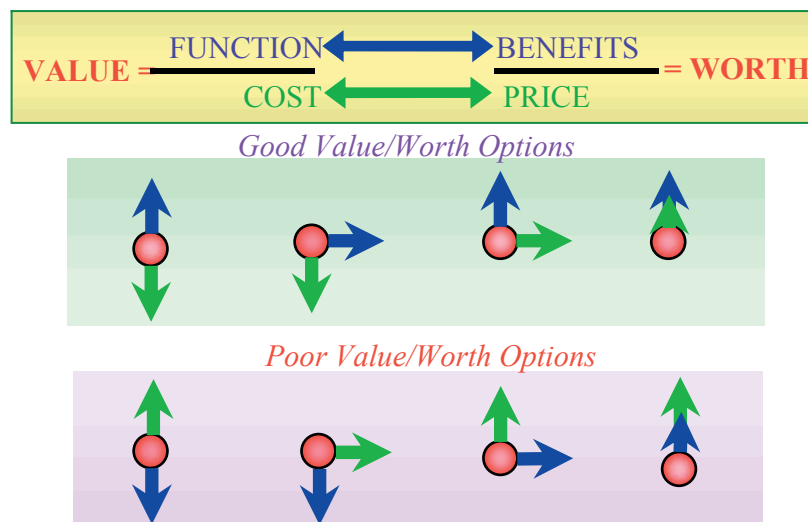


Figure 3. The dynamics of value and worth.

tionships describing the buyer and seller interests (below) but the dynamics of those relationships are the same.

Value = Function/Cost; - is a seller (or producer's) focus.

Worth = Benefits/Price; - is a buyer's (or customer's) focus

If value is expressed as the price of the offering, then to be a market success, price must consider the functions offered, at a product cost that not only results in a profit for the producer, but appeals to benefits wanted, or needed by the buyer.

Referring to FIGURE 4 above, reducing buyer's cost (or price), is not the only way to improve the worth of the offering. Incorporating unique functions and features that the customer is willing to pay for, will justify a price increase while increasing sales and profits for the producer (seller).

Although it is proposed that the Value Management reside in the Marketing Department, the qualifications for a Value Manager (VA/VE) must include a working knowledge of design engineering, manufacturing, procurement, and other professional disciplines, as well as a practical understanding of market dynamics.

CONCLUSION

For the Value Management process to move forward requires a universal identity. The definitions of the terms; Value Management, Value Engineering, Value Analysis, and other value associated titles, are as varied as they are in common use. Is Value Management an art, or science? Is there an underlined discipline that governs its performance? Are there in existence, "Value Standards," against which its performance can be judged? Is there a defend career path leading to, and from Value Managements?

Resolving those issues noted above, by a recognized international source (SAVE International) is long over due, and essential to the acceptance and effectiveness of this most powerful business system.

REFERENCES AND SUGGESTED READING

(1) Carlos Fallon was one of the most delightful of raconteurs of our time. He had a wealth of fascinating stories to tell, whether of his happy childhood in Bogota or of those wonderful family skeletons-in-the-closet like Great-uncle Gregorio, who became a Carthusian monk when he was wrongfully accused of murdering the bishop! In 1960 when George A. Fadler, vice president for Manufacturing Services and Materials, brought Carlos Fallon into the RCA corporate staff as Manager, Value Analysis, he told a meeting of RCA executives, “We wanted an engineer’s engineer to head value analysis.” Though Fallon chose to call himself a value analyst, he was indeed an engineer’s engineer. Naval engineering in South America - he was a long time member of the American Society of Naval Engineers - structural design of telemetry equipment and nucleonic instrumentation, and missile launching system design, all have provided an outlet for this hobby, which is bringing advanced mathematics down-to-earth for practical use.

(2) Laurence D. Miles was the creator of the Value Analysis Discipline, a founder of the Society of American Value Engineers and served as SAVE’s first president. In the mid 1940’s, Larry worked as a design engineer at GE under W.C. White, Manager of the Vacuum Tube Engineering Dept. In six years, he earned twelve patents for his new designs of vacuum tubes and related circuits. He was then transferred to GE Purchasing Dept., Worked with vendors to obtain lower costs, Larry was transferred to Locke Insulator, Baltimore, MD, in 1944, a subsidiary of GE, as manager of Purchasing. He saw first-hand both the productive and destructive force of human attitudes and practices, and their effect on designs and the cost to produce those designs. In 1947 Larry returned to Schenectady, NY where he put into practice the design focus on functions and features that address market needs and wants, while improving cost and productivity. He referred to this practice as “Value Analysis.”

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AUTHOR INFORMATION



J. Jerry Kaufman, CVS, FSAVE, has engineering degrees from the Academy of Aeronautics and Johns Hopkins University. His 25 years of progressive management positions spans the industrial, energy, process, service and aerospace industries. Jerry has written four books, many papers and articles on Value Management. He is past President of SAVE, and past Chairman of the CVS Certification Board. Jerry's honors include; "Engineer's of Distinction" by the Engineers Joint Council in 1973, the "Meritorious Service award," "Fellow" and "Life Member" of SAVE International. In 1980 and again in 1999 he was awarded the "Presidential Citation" by the Society for Japanese Value Engineering. The American Association of Cost Engineers (AACE) recognized Jerry as their "Speaker of the Year" for the period 1989-1990. In 1994 SAVE

awarded Jerry the "Lawrence D. Miles Award,"

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