AIE ROANOKE

1-15-65

NOTHING TO SELL

UNDERSTANDING

WHAT WOULD YOU LIKE TO KNOW - List questions

WHAT DO WE WANT THE WORDS VALUE ANALYSIS TO MEAN?

cost oriented work?, etc?

NOT BEFORE 1947

WHAT V.A. IS NOT - Read Q+A

WHAT THEN COULD IT BE?

T

SYSTEM - TELEPHONE, JET

S | S

OCEAN-WEATHER, HUMAN BODY

MANMADE ARE - POLITICS, GOVERNMENT AFRICA BUSINESS ABACUS

WHAT A SYSTEM NEEDS & DOES NOT HAVE IT

EXTRACTS AN ENORMOUS PRICE FOR

IN PERFORMANCE

IN COST

WHAT COULD OUR SYSTEM T□ REQUIRE THAT IT DOES NOT HAVE

MEASUREMENTS? OTHER

WHAT IS IN OUR SYSTEM THAT ENCUMBERS IT? SOMETHING NOT NEEDED-

LETS LOOK FOR BOTH

MEASUREMENTS
PROBLEM SOLVING SET
I A C J D

DISPOSAL STUD
USE PSS -

NOW WHAT DOES IT CONTAIN THAT ENCUMBERS
PSYCHO NOT LOGIC
HONEST WRONG BELIEFS
LACK INFO
LACK KNOWL
HABITS
ATTITUDES
~~INFO NOT~~
ANSWERS NOT BEST SOURCES
TEMPORARY CIRCUMSTANCES
OTHER - "HAVE THE MACHINES"

SO - VA APPROACH IS TO
REMOVE WHAT ENCUMBERS
ADD WHAT IS REQUIRED

PROBABLY MORE IS REQUIRED THAN MEASURES
WHAT COULD IT BE?

LETS DEVELOP SOME "ADDERS"
LETS IDENTIFY SOME DETRACTERS

TOGETHER THEY CONSTITUTE THE VA SYSTEM

GROUP INDIVIDUAL WORK ON THE STUD 8¢ - .8

In what fields of Management would VA not be useful in.

How would you apply VA to product development?

How is VA applied to process type of Mfg.

What is the relationship of VA to men with job in which is to improve efficiency & cut costs

What is best means of starting VA Prog
turn a separate dept —
or committee from various techniques.

How Tell if a company is ready to apply VA

How to organize for best results in use of VA?

How determine when VA on a particular item is complete

How is VA applied

1- manpower

2 materials

3 Purchasing

what is an approach to use with first line supervision to communicate the approach to them

what is application of VA to Gen Plant engineering and ~~equ~~ Plant equipment design.

Suppose a co Develops a new product or line which has no competition - Do these rules still apply there? Isn't the supplier the one who then determines approp. cost

Better understanding how VA can increase cost Reduction Results

How can it be applied to QC work

Hear something about True Cost of items

True Cost of Equipment

Is VA primarily in Design or is it applicable to
Personell
Management
etc ?

Suggestions as to how to sell VA Program to a rather indifferent management.

How does VA work in procurement of raw materials

Is there any set way to attack a VA problem or are they all different?

Assistance in establishing a good VA program in an area where all material is specified by a defense customer.

Questions

WHAT ULTIMATE PLACE DOES IT HAVE IN THE ORGANIZATION?

WHO DOES IT REPORT TO

REVIEW

SYSTEM

WHAT IS NEEDED

ABILITY + SKILL IN MAKING MEAS -

MODIFIED TECH TO AID OTHERS USE - ASTHETIC FUNCT NECESSARY KNOWLEDGE INPUT - MKTG - OTHER

WHAT DOES IT HAVE THAT IMPEEDS IT

CASE STUDY - REFRIG CONTROL

STATUS -

TRAINING REQUIRED

Images -

QUESTIONS -

~~word overload~~

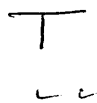
Took each topic in turn and allowed em to talk

1965

Mr Leander

Needed better system
Use eventuing have
keep all quality
Help Ident. unnec. cost sooner - more efficently

Started on products - then used on procedures etc



Needed Mees

Function
use
Asthetic

Stud

control

radio dept

Redefines problem
etc

How to Train

How To Orgenize

Some Things managers must watch

Relation to Product Analysis

Very satisfactory conference

1965

PROBLEMS IN THE AREA OF APPROPRIATE COSTS

0 - More established products today suffer value obsolescence than performance obsolescence.

1 - Can't measure value.

2 - Obscure 'cause and effect' relationships.

3 - Decisions required to get value are often what people do not want to do.

4 - Robot decisions
  Routine
  Sound general criteria which don't fit the specific
  Shades of gray decisions

5 - Heavily weighted subjective criteria.

6 - Fear of criticism.

7 - Want to do it the same--but better.

1965

PROBLEMS IN THE AREA OF APPROPRIATE COSTS FOR USE AT THE PRESIDENT OR EQUIVALENT LEVEL

1. The president may be the lowest level man with accountability in measurable terms for profits.

2. Consequences of earnings failure below the president level can be shifted.

3. Men accountable for performance, or for shipments, not for profits, in measurable terms, often make decisions which vitally determine earnings.

1965

Accumulated experience with special focus on decision-making as it affects appropriateness of cost

1. DECISIONS BASED ON "WHAT WE NORMALLY WANT TO DO", PUT AND KEEP IN EXTRA COST

As an engineer we face a design problem by thinking - designing - testing, thinking, designing - testing, and finally have something that works. We then naturally want to do it that way. We don't want to change it.

As a manufacturing man we have space, we have machines, we know how to plan and to use them. We want to use them - we don't want to change all of our plans for available functional products, or different processes, or materials. We don't want uncertainty introduced.

As a buyer we want to buy from a man who earned our confidence years ago, and who has become a fine friend. We don't want to take the business away from him although his people may have become complacent and out-dated. We really would be personally sad to even learn it.

Yet, Management must often make unpopular decisions contrary to the above if competitive value or value leadership is to be achieved.

2. DECISIONS BASED ON "SOUND GENERAL CRITERIA" THAT DO NOT FIT THE SPECIFIC, PUT AND KEEP IT IN

For example,

The requisition on a "one shot" order for screw machine parts called for 5000. They cost 10¢ each - Total $500

The parts could also be made by cold heading. 15,000 was the minimum order - 2¢ ea. the cost - Total $300

The sound general criteria - "Buy as required - do not accumulate excess inventory"...added 66% extra cost.

3. DECISIONS BASED UPON TRADITIONAL CRITERIA FOR THE AREA WHICH DO NOT FIT THE SPECIFIC, PUT AND KEEP IN EXTRA COST

For example,

Small motors were billed to one plant "on the parts list basis" at 28¢ ea. extra ($2800 extra for each 10,000 order) because the coil assemblies were on one order and the rotor assemblies on another.

The criterion traditional to the area: write separate orders when ordering materials from different drawing lists so that incoming packages will be marked with the correct drawing list and accumulation for assembly will be facilitated. This traditional decision added $2800 per order of extra cost.

4. DECISIONS WHICH BECOME ROUTINE BECAUSE THEY SEEM TO BE IN HARMONY WITH SIMILAR ACTIONS IN THAT AREA, PUT AND KEEP IN EXTRA COST

For example,

A plant had the practice of bringing every job into the factory that the factory could do. Several parts were purchased from a supplier at 84¢/set. After assembly, the shop cost became $1.33 (49¢ of "contributed value"). When a profitability and market-loss crisis developed, the vendor was asked to quote on the assembled parts. He quoted 86¢. The belief was that the contributed value included some profit. The facts were that no profit was included.

Often, objective Value-Criteria are in conflict with the "way of thinking" in an area. Overcoming the subjective thinking is very difficult.

5. DECISIONS BASED UPON WHAT THE DECISION-MAKER IN ERROR "BELIEVES" TO BE THE "POLICY, OR PRACTICE, OR WISH" OF SUPERIORS, PUT AND KEEP IN EXTRA COSTS

For example,

The practice in one plant was to "allow twenty weeks for tool changes."
An approved change in one part reduced costs $50,000/yr - $1000/week.
Four man-days of tooling work costing $350 were required.
Work was scheduled to start in sixteen weeks so that it would comfortably be ready in the established twenty. $20,000 of excess cost was to be accepted so that the $350 tool change would "wait its turn" according to "practice". Fortunately, this plan was discovered by a value consultant after eight weeks. When brought to the attentionof the Manufacturing Manager, the tool was at once made, saving $11,000 of the "normal" extra cost.

A surprising observation is that in nearly all cases the criterion which controlled the decision, keeping extra cost, is in itself a good generality.

6. FAMILIES OF DECISIONS, WHICH HAVE A VITAL EFFECT ON PROFITABILITY, ARE OFTEN MADE BY MEN WHO ARE PERSONALLY ACCOUNTABLE FOR QUANTITIES OR PRODUCT PERFORMANCE BUT NOT FOR PROFITABILITY, PUT AND KEEP IN EXTRA COSTS

There are scores of value decision cases that exemplify this situation. The following are representative:

Shop Cost	Shop Cost After Value Criteria Were Developed
$12.50	$1.82
4.95	.55
11.33	2.28
7.00	2.00
8.76	1.67
7.05	1.10

7. DECISION-MAKING IS CHOOSING THE OPTIMUM FROM VARYING SHADES OF GRAY. THE FACT THAT MUCH SHADING IS FROM OTHER THAN THE OBJECTIVE SITUATION PUTS AND KEEPS IN EXTRA COST.

"Coloring" other than by the objective facts of the situation in a decision involving value, results in lowered value - extra cost - in that product.

Shades of gray are established by...

1. Known or assumed attitudes of higher executives.
2. The spectrum of prior experiences of the decision-maker which have established his "attitudes".
3. The known objective facts of the situation.

For example,

	(1) Attitudes of Superiors	(2) Prior Established Attitudes	(3) Objective Situation
Men vary...			
One man	0%	75%	25%
Another	75	15	10
Still Another	50	25	25
Possibly Ideal	10	0	90

Often the objective situation in decisions involving value has insufficient weighting to be either a controlling or a heavily influencing factor in the decision.

For example,

In one factory, it was shown that casting some special parts of available scrap chips would reduce costs to less than half and make better shapes practicable. It was not done. The prime attitude shading was that the factory "should be a machine shop", "not a foundry".

8. GENERAL MANAGER IS LOWEST LEVEL MAN WHO MUST FACT ACCOUNTABILITY FOR VALUE, YET SUM TOTAL OF DECISIONS WHICH CAN EITHER HALVE OR DOUBLE PROFITS ARE MADE WITHOUT HIS KNOWLEDGE.

Engineering management may believe manufacturing is inefficient.
Manufacturing management may believe that design is too costly to manufacture.
Marketing management may believe that selling work is inefficient but product costs are too high.
Lack of value is possibly the only major problem for which accountability, below the General Manager level, is unfixed.

By contrast, the responsibility for other aspects of the product are clear-cut.

-- If performance is not suitable, it's engineering;
-- If quantities are wrong, it's manufacturing;
-- If inventories are too high, it's materials;
-- If customers don't buy, it's marketing.

BUT - If value is poor, it may be...

Poor engineering, or
Poor manufacturing, or
Poor purchasing, or
Poor product planning, or
Poor management

Poor work results of any business function adversely affect value. As contrasted, poor work results of many work functions do not necessarily adversely affect performance of the product.

A product with limited engineering may accomplish its functions reliably. The only sure casualty will be value.

A poorly manufactured product; e.i., one made in slow, inefficient machines -- may accomplish its function reliably - and, if enough machines are running, quantities will be correct. The only sure casualty again will be value.

A product including purchased elements "bought" in a clerical fashion may accomplish its function reliably. The only sure casualty will be value.

9. DECISIONS BASED UPON "ACTIVITY" VALUE MEASUREMENT RATHER THAN "RESULTS" VALUE MEASUREMENTS, PUT AND KEEP IN EXTRA COSTS

Too often value work (below the General Manager level) is measured by "activity" - that is, the meetings held, the letters written, the reports made, the programs carried out.

The "Results" type of measurement, in effect, compares the work of General Electric personnel directly with the work of equivalent personnel of our competitors.

1 - What are the functions the customer wants?
2 - What must he pay for them from non-G.E. sources?
3 - What must he pay from G.E. sources?

10. OBSCURE CAUSE-AND-EFFECT RELATIONSHIP PROMOTES DECISIONS INJURING VALUE, PUTS AND KEEPS IN EXTRA COST

While decisions affecting most other aspects of the product are based on cause-and-effect criteria...such as:

for quantities - count them
for performance - test them
etc.

...value decisions are often based on criteria far removed from the specific situation, weighted too heavily on the subjective side and too lightly on objective facts of the specific value situation.

As a result, the flow of instructions which injure only value do not bring their own correction. Their effect is to generate profitability-and-sales-volume problems in the business. They are not recognized as the cause, and accordingly not forthrightly dealt with.

For example,

Automatic equipment was installed to make $50,000/yr. worth of parts. The market volume and profitability problems which developed were assumed to be normal. Years later, under critical market pressure, a value study was made which showed that functional products of equal reliability and convenience could have been purchased for $10,000/yr. during the entire period.

11. LACK OF A SYSTEM TO SECURE AVAILABLE PERTINENT INFORMATION BEFORE CERTAIN CLASSES OF DECISIONS ARE MADE, PUTS AND KEEPS IN EXTRA COSTS

They are the situations associated with subjective feeling. One example is the "Let's make it ourselves" area. Being for this is like being for "mother-hood" and "virtue". To develop objective criteria which might show large amounts of excess cost is emotionally interpreted as being against "what's good"; hence, often no provision is made to rigorously develop meaningful supplier alternatives for use as effective value criteria in the "motherhood" and similar subjective areas.