USE VA TECHNIQUES TO PURCHASE FOR PROFIT

78-29

EXHIBIT A.

BUYERS WILL LEARN TO MUCH MORE NEARLY BUY "FUNCTION"

ALL WANTS AND NEEDS ARE FOR FUNCTIONS - EITHER "USE" OR "AESTHETIC".

ALL "BUILDING BLOCKS" EITHER OF PRODUCTS OR SERVICES, ARE FUNCTIONS.

ALL COSTS ARE TO PROVIDE FUNCTIONS THE PURCHASER WANTS.

ALL COMPARISONS ARE BASED UPON FUNCTIONS - USE & AESTHETIC - AND COSTS.

ALL DECISIONS ARE BASED UPON FUNCTIONS - USE & AESTHETIC - AND COSTS.

STILL, ALL CATALOGUES, ALL MATERIAL LISTS, MOST PURCHASE REQUISITIONS, MOST SALES PROMOTION EFFORTS ARE IN THE LANGUAGE OF MATERIAL, ALTHOUGH NO ONE WANTS A MATERIAL - HE WANTS A FUNCTION.

BEFORE LEARNING "HOW" TO BECOME A BETTER PROFIT MAKER, THERE ARE FIVE DECISIONS FOR THE BUYER TO MAKE. HE MUST DECIDE:

1. THAT HE IS THE "GOALIE" (AS IN HOCKEY OR SOCCER). THAT IT IS HIS JOB TO SEE THAT NO MONEY GOES OUT UNLESS VALUE COMES IN, NO MATTER WHAT. THAT HE DOESNT COMPETE WITH HIS TEAMMATES, NOR FAULT THEM FOR THEIR MISTAKES, BUT HE DOES HAVE A JOB TO DO. WHEN THE PUCK OR BALL SLIPS THRU, HE STOPS IT. IF IT GETS BY HIM TOO ITS A LOSS, AND COMPETITION WINS.

2. THAT HE WILL NOT JUST CATCH THE BALL AND QUICKLY THROW IT ON. HE WILL RUN IT A MEANINGFUL DISTANCE TOWARD THE GOAL BEFORE HE THROWS IT. HE WILL NOT JUST GET A REQUISITION, AND HANDLE IT CLERICALLY. HE WILL CONTRIBUTE.

3. THAT, AS IN A GAME, HE WILL HAVE BLOCKERS AND STOPPERS WHICH HE MUST OVERCOME. HE MUST EXPECT THIS, BE PREPARED FOR IT AND DO IT.

4. THAT HE MUST TEACH HIS TEAMMATES THAT HE IS COMPETENT TO RUN THE BALL A MEANINGFUL DISTANCE, AND THAT HE WANTS AND EXPECTS TO DO IT.

5. THAT HE WILL TEACH HIS VENDORS TO HELP HIM.

IT IS BY NO MEANS SUGGESTED THAT THE VA BUYING TECHNIQUES WHICH FOLLOW WILL ALLOW THE INEXPERIENCED PERSON TO BUY PROFITABLY, BUT RATHER THAT THEY ARE ADDED TECHNIQUES FOR THE USE OF THE EXPERT BUYER. THEY ARE FOR THE "COACHING OF CHAMPIONS". SPECIFIC "ONE-AT-A-TIME" VA BUYING TECHNIQUES, SOME WITH BRIEF DESCRIPTIONS OF EXAMPLES, FOLLOW. THE READER WHO WISHES MORE DEPTH OF INFORMATION ABOUT ANY EXAMPLE WILL FIND IT BY REFERING TO THE PAGE IN PARENTHESIS ie (57), IN THE MILES BOOK, SECOND EDITION, MCGRAW-HILL BOOK CO.

TEN VALUE ANALYSIS TECHNIQUES FOR BUYERS

1. PURCHASED PART FUNCTION ANALYSIS
2. PURCHASING PARTICLE FUNCTION ANALYSIS
3. PURCHASING SPECIFICATION FUNCTION ANALYSIS
4. PURCHASING AESTHETIC FUNCTION ANALYSIS
5. ADDITIONAL COST FUNCTION ANALYSIS
6. SUPPLIER MANUFACTURING COST FUNCTION ANALYSIS
7. FUNCTIONING PRODUCT FUNCTION ANALYSIS
8. SUPPLIER MANUFACTURING PROCESS FUNCTION ANALYSIS
9. NON-WORKING COST FUNCTION ANALYSIS
10. COMBINATIONS
    - (2) PURCHASING PARTICLE FUNCTION ANALYSIS))
    - (3) PURCHASING SPECIFICATION FUNCTION ANALYSIS))

THE BUYER WILL LEARN FUNCTION, KNOW FUNCTION, AND IN SO FAR AS HE CAN WILL PAY OUT NO MONEY WHICH DOES NOT BRING IN AN IDENTIFIED AND WANTED FUNCTION. SOME APPROACHES FOLLOW:

1. "PURCHASED PART FUNCTION ANALYSIS." THE BUYER LEARNS THE FUNCTION OF THE PARTS HE BUYS. HE ASKS QUESTIONS. HE LEARNS. HE UNDERSTANDS. IF THE PART SEEMS TO CONTRIBUTE LITTLE, OR NOTHING, HE ADVISES THE REQUISITIONER, AND ASKS HIM IF HE WISHES TO RECONSIDER, TO CANCEL OR CHANGE THE REQUISITION.

Example (100) "Dust Cover" used inside another enclosure on electronic equipment. It cost $5.00. Buyer saw no function, questioned it. Engineering said "Marketing Require it". Marketing said, "No function, take it off. Only one customer wants it. I'll charge him extra and put it on his.

2. "PURCHASING 'PARTICLE' FUNCTION ANALYSIS". THE BUYER CREATIVELY AND IMAGINATIVELY EXAMINES EACH PARTICLE OF THE ITEM HE BUYS. IS THAT PARTICLE WORKING? ARE ALL PARTICLES WORKING APPROXIMATELY TO THEIR CAPACITY, OR ARE SOME PARTICLES DOING NOTHING BUT ADDING WEIGHT AND VOLUME AND COST? WHEN HE FINDS NON-WORKING PARTICLES WHICH HE KNOWS HE MUST PAY FOR, HE RAISES THE QUESTION "CAN SOME OF THIS NON WORKING MATERIAL BE ELIMINATED, OR PUT TO WORK"?

Example (57) The buyer bought 11¢ worth of steel 3 inches wide x 1/8 inch thick from which stampings were made for a shift lever bracket on an appliance. He evaluated the function at 3¢. He saw that the bracket was 2½, not 3" wide and that ½" of steel scrap along each side resulted from punching. This was non functioning steel he was paying for. He saw that there was waste steel all the way around. Why? Why not get the right width of steel and just cut it off? He questioned it. The result pleased him greatly The shape of the back end did'nt matter, so the designer made it th reverse of the front shape, so that instead of punching out each par with scrap all around, now it was just a cut-off operation, so that by advancing the material two lengths for each stroke, one was cut off and the other punched off. The result was no scrap, ½ the punchi cost, and no scrap handling. Cost became 2¢ total, ready to use. $37,000/yr were added to earnings.

3. "SPECIFICATION FUNCTION ANALYSIS". EACH ITEM OF THE SPECIFICATION WHICH ADDS COST, IS FOR THE PURPOSE OF BRINGING SOME FUNCTION. SURFACES SMOOTHER THAN NORMAL, CLEARANCES TIGHTER THAN NORMAL, PERPENDICULARNESS MORE EXACT THAN NORMAL. EACH ARE FOR SOME FUNCTIONING PURPOSE. THE BUYER CHECKS EACH OTHER-THAN-NORMAL SPECIFICATION, TO LEARN WHICH ARE ADDING COST, HOW MUCH, AND WHAT FUNCTION THEY PROVIDE. HE OFTEN FINDS THAT SOME ARE NOT ADDING FUNCTION. HE THEN DEVELOPS THE AMOUNT OF COST BENEFITS WHICH WOULD RESULT IF THOSE SPECIFICATIONS WERE NOT INCLUDED. HE PROVIDES THAT KNOWLEDGE TO HIS APPROPRIATE TEAMMATES SO THAT PROPER ACTION MAY BE TAKEN.

Example (126) A small, very precise steel part resembling the top half of a shingle nail was being purchased in quantities of 700,000 per year. They cost 6¢ each, $42,000 per year. The buyer questioned their function. They were "valves" in the gas system of a refrigerato They acted as a check valve. They were always mounted in an upright position and were positioned in the top of a tube so that any gas flow from below only had to lift their weight to proceed, but any gas trying to return was stopped. To shorten this interesting and valuable story, all of the tolerances other than on the underneath of the head added nothing to function and were made normal. Surprising the cost was lowered to 1/10 cent. $700. per year instead of $42,00

4. "PURCHASING AESTHETIC FUNCTION ANALYSIS". AESTHETIC FUNCTION IS IMPORTANT. NO NEED TO MAKE IT IF IT DOESNT PLEASE THE CUSTOMER SO THAT HE WILL BUY IT. "AESTHETIC" FUNCTION IS BOUGHT THE SAME AS "USE" FUNCTION, EXCEPTING, THE BUYER CANNOT USE AS MUCH OF HIS OWN JUDGEMEN IN SELECTING WHAT IS "ARTFUL", HE MUST LEAVE THAT ENTIRELY TO HIS TALENT TEAMMATE. HE DOES HOWEVER OFTEN DEVELOP COSTS FOR ALTERNATIVES WHICH MIGHT PROVIDE THE SAME, OR BETTER AESTHETIC VALUES, AT LOWER COST. THI KNOWLEDGE GREATLY AIDS THE ARTFUL DECISION MAKER IN SELECTING BEST "AESTHETICS" AT LOWEST COST.

Example (2) A small pointed triangular shaped piece of very thin aluminium was used on the knob of an appliance. It served two functions. It covered the screw which mounted the knob to a shaft and it served as a pointer indicating the adjustment. It contained a red dart emphasizing the direction it pointed. 1,000,000 each yea

The buyer asked a supplier of tiny stampings to quote to the same drawing, but make it of pre-polished stainless steel. He quoted $5,000 for a years supply of interchangeable parts. The style designer said, "buy it, I like it better, and we add $15000. to earnings.

5. "ADDITIONAL COST FUNCTION ANALYSIS". IS THE PART OR MATERIAL READY TO USE, AS RECEIVED? IF NOT, WHAT IS IMMEDIATELY DONE TO IT? WHAT IS THAT COSTING NOW? COULD WE BUY IT READY-TO-USE? HOW MUCH MORE WOULD THAT COST?

I PAUSE A MOMENT HERE TO POINT OUT THAT NONE OF THE DECISION MAKERS IN THE SYSTEM HAVE THAT INFORMATION - UNLESS AND UNTIL THE BUYER GETS IT. MUCH OF THE ADDED CONTRIBUTION WHICH THE BUYER CAN MAKE IS FROM THE FACT THAT HE HAS SOURCES OF INFORMATION, WHICH IN FACT NEEDED, BUT WHICH IS NOT DEVELOPED, EXCEPTING BY HIS ACTION.

Example (232) For 2½¢ each the buyer bought thin strip steel 2 inches wide which was used in pieces 8 inches long, more than 1,000,000 per year. Pursuing the "Additional Cost Function Analysis" approach he found that the part went into the product at 10½¢. Some for making holes, but much for grinding, rounding and smoothing one edge. He then proposed that he buy "mill edge" strip, by paying a small price "extra", securing the smooth rounded edge, as received. This lowered the "as used" cost to 4½¢, adding $60,000 per million per year to earnings.

6. "SUPPLIER MANUFACTURING COST FUNCTION ANALYSIS". ON LARGE VOLUME COMPETITIVE ITEMS IT IS OFTEN IMPORTANT FOR THE BUYER TO KNOW MUCH ABOUT THE MANUFACTURING PRACTICES AND PROCESS OF THE SUPPLIER. WHAT WORK IS HE DOING, AND WHAT COST IS HE INCURRING WHICH DO NOT ADD TO THE FUNCTIONS THE BUYER WANTS? THE SKILLED BUYER, IN THE PROPER FRAMEWORK OF BUYER-SUPPLIER CONFIDENCE CAN RELATE APPROXIMATE COSTS TO FUNCTIONS IN THE SUPPLIERS OPERATIONS. HE OFTEN FINDS OPPORTUNITY TO END COSTS WHICH DO NOT FUNCTION, ENDS THEM AND BRINGS BENEFITS TO BOTH THE SUPPLIER AND THE BUYER.

Example (63) Enormous quantities, 50,000,000 per year, of a tiny stainless steel pin 1/16 dia. x 3/8 inches long were purchased and used in electric clocks, at a cost of $3.65 per thousand. The buyer arranged to examine the form of incoming raw material to the supplier

and each operation which added cost, together with the function provided by that cost. The results were most gratifying. Among other non-functioning costs the buyer found that the wire bought was so large that it required 3 centerless grinding passes to bring it to the right size and finish. The quantity was so large that wire the exact size wanted could be bought, at no premium, and given one centerless grinding pass. The supplier had set his own manufacturing tolerances at half those of the customer, and threw away those between ½ and full allowable tolerance. Of course they were included in his costs. Changes were made in inspection and handling. Cost became $1.90 per thousand. The same changes made on a similar additional part brout the added earnings per year to over $100.000.

7. "FUNCTIONING PRODUCT ANALYSIS". OFTEN REQUISITIONS CALL FOR PRODUCTS WHICH THE BUYER BUYS. LEARNING WHAT THE FUNCTION NEEDED FROM THE PRODUCT IS, THEN SECURING PROPOSALS FROM SUPPLIERS WHO MIGHT PROVIDE THAT FUNCTION, BUT BY A DIFFERENT APPROACH, IS EXTREMELY PROFITABLE. THE BUYER THEN SUBMITS THE PROPOSAL TOGETHER WITH ITS COSTS TO THE REQUISITIONER FOR HIS STUDY, AND OFTEN, HIS APPROVAL.

Example (334-19,339-19) 3000 arching horns per year,made of bronze parts formed and brazed cost $6.50 each. They were 15 inches long and about 2x2 inches. The function was to absorb the heat of the arc when the contacts were opened, so that the arc would extinguish. With this configuration and function in mind the buyer submitted it to a supplier of shell-moldings. He suggested a shell-molded casting of the same size,shape,and heat-absorbing properties. With this knowledge and the quotation of $2.25 each plus 65¢ each for the first year, the buyer submitted the proposal to the production people. This new knowledge allowed them to lower costs $10,000 to $12,000 per year.

8."SUPPLIER MANUFACTURING PROCESS FUNCTION ANALYSIS" THIS IS QUITE SIMULAR TO #6,BUT DIFFERENT. FUNCTION BUYING IS A NEVER-ENDING PROCESS THE BUYER CONSTANTLY LEARNS THE FUNCTIONS WHICH ARE BEING PERFORMED BY THE MATERIALS HE BUYS. HE USES HIS KNOWLEDGE AND SKILL TO MATCH UP THE FUNCTION NEED WITH SPECIALTY SUPPLIERS CAPABILITIES. HE TRIES DIFFERING APPROACHES. HIS BATTING AVERAGE BECOMES PRETTY GOOD.

Example (147,218) 800,000 J-bolts per year were being purchased for 11½¢ each. They were 8 inches long,made from 3/16 inch dia. steel rod. Three of them supported the heavy weight of the TV tube and the surrounding coils and apparatus. They had a ½ inch radius hook on one end and two inches of thread on the other. The buyer

evaluated their function by several comparisons and decided that 2 or 3¢ was the maximum possible value of the function. In that quantity, he wouldnt pay more than 3 or 4 cents for a bolt that length and size, Certainly the J-bolt should be made by a supplier who used roll threading and automatic bending and cut-off equipment. He asked one for a quotation. The vendor replied that the drawing calls for cut threads, which puts it on the slow screw machine equipment. As contrasted, he would make it with rolled thread which would be interchangeable. He quoted 1½¢. The engineer examined the suitability of roll threads vs cut threads. He found that roll threads were a little stronger because the metal is worked a little. He changed. Purchase cost became 1½¢ instead of 11½¢, adding $80,000 of earnings.

9. "NON-WORKING COST FUNCTION ANALYSIS". EACH PURCHASE COST IS TO SECURE SOME WANTED FUNCTION. THE BUYER WILL LEARN WHAT THAT FUNCTION IS. OFTEN HE CAN IDENTIFY, IN THE PRODUCT, THE PART OR PARTS WHICH PERFORM THAT WANTED FUNCTION. HE WILL ALSO FIND SUPPORTING ITEMS, NOT PERFORMING THE MAIN FUNCTION, WHICH ARE ADDING MUCH TO COST. HIS SUPPLIERS MAY SUGGEST LESS COSTLY MEANS TO PROVIDE THIS SUPPORT. VA TECHNIQUES CALL THESE "SECONDARY" FUNCTIONS. PROPER CHANGE IN THEM DOES NOT EFFECT THE WANTED FUNCTION FROM THE DEVICE. IT'S THE BUYERS JOB TO DEVELOP THIS KNOWLEDGE AND REFER IT TO APPROPRIATE SUPPLIERS FOR THEIR PROBABLE CONTRIBUTION.

Example (108) Large quantities of a tiny radio frequency transformer about twice as large as a grain of rice, cost 39¢ each. The buyer reasoned, "where is the cost? only a small amount of two tiny wires, held close together, perform the function. He discussed it with the supplier. The wires were wound on a tiny spool. 4 holes were drilled in the spool ends and working by microscope the wires were threaded through those holes. It was very slow and costly. Clearly, the principal costs in the purchased item added no function. The laboratory was asked for an adhesive which would not react with the insulation on the wires and which would have long life. It was provided. The wires were wound on a support tab, touched with a spot of adhesive, and the transformer was functional and interchangeable. Cost became 19¢. Earnings were increased $40,000 per year.

10. COMBINING TWO VA PURCHASING TECHNIQUES - "COMBINATION OF PURCHASING SPECIFICATION FUNCTION ANALYSIS AND PARTICLE FUNCTION ANALYSIS". SINCE EACH TECHNIQUE HAS BEEN PRESENTED (TECHNIQUES 2 & 3) IT IS ENOUGH TO HERE SHOW THE REMARKABLE BENEFIT OF USING THE TWO IN COMBINATION. THE BUYER WILL LEARN TO USE SEVERAL SIMULTANEOUSLY, OFTEN WITH MUCH RESU

Example (127) 2,000,000 per year of small iron screw machine parts cost 3½¢ each,$70,000. They were ¼ inch diameter x ½ inch long,with a slightly larger flange at one end. Tolerances and finishes were very exact overall. What was the function? They were "pole pieces". Their function was to carry electromagnetic flux up from the flanged end out through the cylindrical sides, in radio and television speakers. The small end of the speaker cone mounted a light cylindrical coil which "floated" closely around them without touching. Spaced closely outside of the floating coil was the electromagnet.

To function properly, the flang-end surface must be real smooth and flat, so that un-wanted air-gap does not exist. The sides must be very perpendicular to this surface so that the floating speaker coil which surrounds them can have close dimensions, still not touch. The buyer questioned,"What is the function of the flange?" It is for convenient mounting. "Does the top of the pole piece whis in air in the cone have any function? No. It was seen that since the useful flux goes out through the sides,a conical shap of material in the top was not functioning.

The buyer called in a supplier of "coined" steel parts. Told him: 1. We need 2,000,000 per year. 2.Smooth and flat surface on the bottom. 3. Close tolerance and close perpendicular tolerance on the sides. 4. Flange can vary normal amounts in thickness and diameter. 5. Exactness of length is not important,in fact some material might be removed from the inside top.

The supplier quoted 1½¢ on coined "buttons" of iron. He could cut-of the slugs on a high speed shear,(which produces a little variatic in their lenth. He would coin them in a closed die with mirror smooth surfaces. Any slight variations would come in the flange or t top end. The change was made. Identical performance and $40,000 additional earnings were the result.