SAVE PROCEEDING 1995

THIRD PARTY VALUE

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ABSTRACT

This paper examines the need for the Value Specialist to fully understand the meaning of "Value" in the broadest context. Through case study analysis the aim is to show that it is no longer sufficient to limit the determination of Value to the two traditional parties, namely the Client and the Customer.

INTRODUCTION

Whilst it is appreciated that there are subtle differences between Value Analysis (VA), Value Engineering (VE) and Value Management (VM), by implication alone they are all concerned with "Value". This is the unequivocal common denominator. It follows that any Value Specialist or consultant who practices VA/VE/VM must be an authority in the specific field of Value above all else. Yet consultants offering other management skills such as TQM, BPR, Quality Circles etc. would argue that whilst for example, Quality may be the main parameter of an exercise, their methods will also produce better Value. So what extra ingredient does the Value Specialist add to merit such an authoritative title? because, if the 'value' provided is not greater than that achieved by the other methods, then either our nomenclature is incorrect, or, worst still, in years to come, we may be blamed for the consequences.

Traditionally in VA, we have two parties:- The CLIENT - the instigator of the project/ product, without whom it probably would not exist. This includes a wide variety of people e.g. shareholders/ owners/ manufacturers etc., and- The CUSTOMER - the purchasers/ users of the item, an equally wide range of people. The success of VA in the Japanese motor industry shows that it is the CUSTOMER who determines the VALUE of the product - and consequently the manufacturer (Client) produces the goods which the Customer wants. So we can describe the functions as:- Satisfy customer; increase sales; increase profits; satisfy shareholders - and BOTH parties are happy!!

So what is meant by THIRD PARTY VALUE ? Well, this is insurance jargon. It relates to a Third Party i.e. an previously unknown element, and like an Insurance Policy, you usually only realise how necessary/ essential/ or how good it is, when it's too late to do anything!! For example - you are driving your car one day, minding your own business, when your car encounters another car/ or a tree/ lamppost or even a person, otherwise described in insurance terms as the "Third Party". This Third Party had no previous involvement in your life or in the purchase of your car. YET the "impact" (excuse the pun) which this unrelated Third Party can subsequently have on your life, can be dramatic. As such, it is the CONSEQUENCE of an encounter with a previously unknown element which constitutes the need for the insurance policy in the first place.

Hence, Third Party Value relates to the consequence which previously unknown or un-identified elements or persons might have on the two previously known parties at any given instant. In relation to VE the hypothesis is straightforward :- "What happens if an item, product or process has NO benefit or Value to EITHER the Client or the Customer ?" Does it have ANY Value? Is its existence due to HABIT ? Is it, in fact, Necessary ? OR, is there perhaps a THIRD PARTY who benefits, and if so, what consideration is given to their Values? The needs of society as a whole and the values of "others" (the Third Party) who are not directly related to the project or process under study should be an integral factor in a more holistic approach in the VE procedure of the future.

FUNDAMENTAL PRINCIPLES

Before attempting to analyse this hypothesis using various scenarios, some basic principles need to be established to set the parameters of this investigation. Value, being the common denominator, has been defined in many ways. For instance, Heller[1] uses mathematical formulae to express the relationship of Value, Function, Cost, and Worth, as follows:-

VALUE = Function / Worth at a minimum Cost
or V = F / W (Cmin)
FUNCTION = Value x Worth at a minimum Cost
or F = V x W (Cmin)

In contrast, Morton [2] defines Value, from the client's perspective, as the relationship between Quality and Price, and the term VALUE as the relationship between Cost (or price to the client) and Reliability / Performance of a product.

Yet another method is Value by category. Whilst the semantics vary slightly, most authors refer to these as :-
USE Value; COST Value; EXCHANGE Value; and ESTEEM Value. These four kinds of value are considered, for the most part, quantifiable values since they can be related to a measurable means of worth, because in a VE exercise what constitutes "better" value is a quantifiable and objective calculation.

The standard Value Study Job Plan is well established and, given the two known parties, is straightforward to follow. Usually, the Client determines the scope of the project in consultation with the Value Specialist. The Value Team then gather all the information and establish the basic and secondary functions which identify the high cost areas that do not contribute towards performing the task, and consequently are revised or eliminated. In other words, if it does not contribute towards the accomplishment of the Basic Function, it is not necessary, so why does it exist ?

Subsequently, alternative ideas for satisfying these functions are created. Then these ideas are evaluated - normally the quantifiable measurement or degree of Value for each item is assessed on a weighted scale during the evaluation phase, (after which the selected items are finally developed into a workable and satisfactory solution). However these items represent the alternative solutions to performing the previously defined functions. and this ASSUMES that all the original Functions (from which the new alternatives are created) have been correctly defined! In the context of a two party scenario - all the functions can readily be defined - because the two constant elements (the Client and Customer) are KNOWN. The problem arises if the product/process under consideration has an impact on a "third party" who has not been identified and who may even be outside the normal scope of the project.

From the brief descriptions above, it can be seen that:- the Value of an item is variable in itself; and the Value of an item is variable in respect of the person valuing it. Value, must be perceived in various dimensions, and to understand this it is necessary to focus on two elements - function and value, and the relationship between them.

Discussions which take place during function analysis and the FAST process are also helpful for highlighting the difference between needs, wants and habits (Fig. 1). However, it is the subsequent decisions based on the above processes (especially if carried out in isolation of other factors) which can produce potential areas of conflict, as will be illustrated later. It should be noted that "HABIT", is

a word to be used with caution!! It is a word which is often used in the negative sense, rather than the positive. This is backed up by countless examples where something is done a particular way because *"it has ALWAYS been done that way "* thereby implying that it is a "bad" habit which should change. Yet there is a fine line between HABIT and TRADITION.

- o we put expensive slate roofs on houses in Yorkshire - is that out of habit - or is it a tradition?
- o are Christmas cards - a habit or a tradition?
- o is the Monarchy - a habit or a tradition?

NEEDS
what the client actually requires/needs to satisfy
what the customer wants
WANTS
what the client thinks he needs
HABITS
what the client thinks he needs because "it has always been done that way"

Fig. 1 Needs, Wants and Habits

The following scenarios may suggest that there are values beyond the accepted norms that anyone seeking would be wise to consider, namely the value to the Third Party.

SCENARIO 1 - CONSTRUCTION PROJECT

On the remote Western Isles of the Outer Hebrides, HM Coastguards built a new Marine Rescue Sub-Centre (MRSC) at Stornoway to replace the old facility. The cost of the new facility was approximately £800,000. The area which the station serves stretches from the mid-Atlantic (where it meets the Canadian coastguard limit) to the western shores of Scotland. The Regional centre is based in Greenock. During a short VM awareness seminar for my students, the sketch plans and specification of an existing building were used as an example to illustrate the various techniques and methodology in a typical VE Study of a building project. The emphasis was on the construction elements and the planning.

VERB	NOUN	TYPE
save	lives	Basic
house	kit	Basic
accommodate	people	Basic
receive	information	Basic
increase	awareness	B/S
administrate	support	Secondary
deliver	information	Secondary
plan	operation	Basic
direct	incident	Basic
protect	Minister	Secondary
teach	recruits	B/S
link	network	Basic

Fig. 2 Function Analysis on Facility as a Whole

CONVENTIONAL APPROACH

To "set the scene" a Function analysis of the facility as a whole was carried out, as shown above. Not being familiar with the rescue procedures involved, it seemed an appropriate exercise to construct a FAST diagram (Fig. 3) to establish how the primary higher order function, "save lives", was achieved.

The exercises that followed during the awareness seminar concentrated on the building. The following analysis was NOT part of the discussion.

The probability of a ship or yacht getting into difficulty and requiring rescue services in the Harbour at Stornoway, in front of the Station is very unlikely (though it can happen). Most vessels requiring rescue services are out at sea, maybe hundreds of miles from the coast. When this happens, distress signals/ location etc. are all conveyed by radar / telecommunications to the mainland, NOT by an officer viewing with binoculars from a window at the station. Rescue helicopters and search planes are sent from the RAF air-base on the

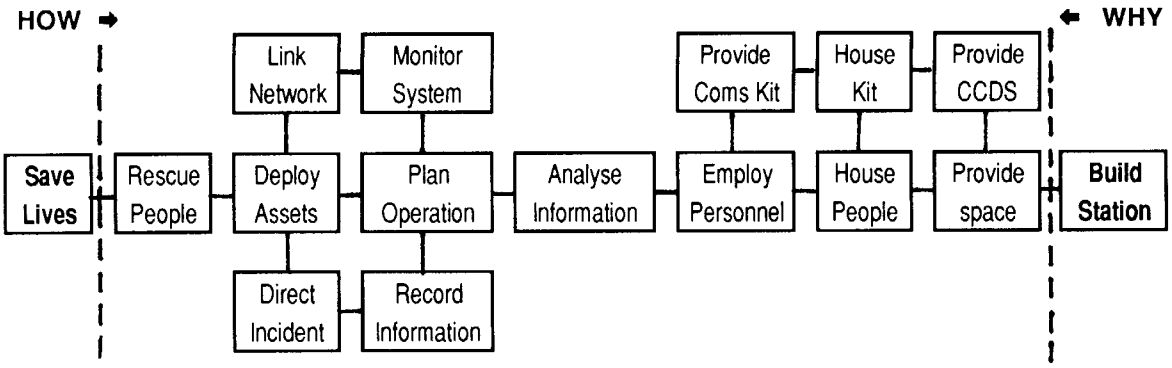

Fig. 3 FAST diagram

mainland, not launched from the Station. In fact, the station does not even have a lifeboat. In the event of a major disaster, a press centre is set up on the island to provide up to date information. This means that dozens of journalists/ police etc. have to fly to the island - to receive information - that is being conveyed to the centre on computers and radio. As a Taxpayer, I must therefore ask the question:- WHY did they NEED to build a station on the island in the first place?

To "Save Lives" and "Rescue People" it is necessary to provide space to house both people and equipment in the same accommodation. However, the location of this accommodation is questionable. Is it possible to perform these functions for this zone without building a station in Stornoway? Given the sophisticated computerised technology employed in such operations today, these functions could be carried out from the Regional Centre in Greenock, or from Birmingham!! So the answer is YES. Put another way - Is building a station on the island necessary to "Save Lives" and "Rescue People"? The answer is NO. "Building Station" cannot therefore be a Basic Function.

Turning to the Cost:Worth ratio, we know that the Cost of building a station was £800,000, but since each function can be carried out elsewhere does this imply that the Worth is £0? Building on any island is very expensive in terms of capital costs, and both maintenance of the building and equipment is high in this location. So what is the "Value" of the building? How does this stand up to the accepted criteria previously stated?

- o If the Worth is £0 and the function is zero, then using Heller's mathematical formulae V = F/W and V = F/C then the Value is zero.

- o If Value is the relationship between Cost and Reliability/ Performance, yet again we have a high cost item whose function can be reliably performed elsewhere, so this implies there is little value.

- o If we turn next to the four kinds of Value:- since it is not "needed" it has no Use Value; since the construction is on an island it has an extremely high Cost Value relative to building on the mainland; the Exchange Value is worthless, and in terms of Esteem Value aesthetics are not regarded as a major consideration, so overall, we again have a low value score.

Finally, we have stated that it is the Client or the customer who determines Value. How then does the building fare with this criteria? If the Client can be provided with the necessary function to the same standard at a reduced cost elsewhere, then it has little value. If the customer is the end user, namely the person being rescued, the answer is the same, since it has been established that the operation can be implemented from any base.

Hence, in terms of the standard criteria for both

cost had been a prime motivator, then this project would have died at the outset. Indeed, the Client was well aware of the alternative options of relocating to the mainland, so why build on the island? HABIT is the first word that jumps to mind "because there has always been a station there". Historical precedence (Tradition?) over-riding technological advances, or what one wants, versus what one needs. Or is it?

ALTERNATIVE APPROACH

It is the job of a Specialist in Value to look beyond the normal parameters; to ask, Why?; to question, What is the Purpose of?; and to seek, What else? Would such a dilemma have arisen had a school or medical centre been used as a case study? Is this a "one off" case blown out of all proportion? and does it relate to other projects? Does it have any significance whatsoever to the rest of us on terra firma?

To answer this, we first have to ask the question: - "is the station of value to ANYONE?" The answer to which is YES, it is of value to the people who live on the island. Viewed from this perspective the functions can be defined as shown in Figure 4 below:-

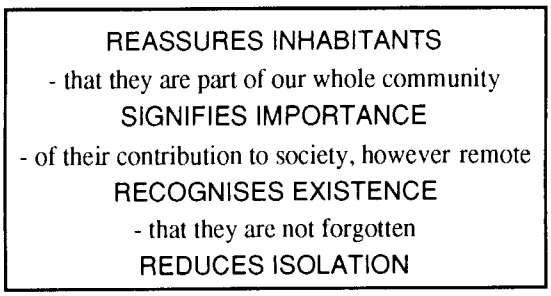

Fig. 4 "Third Party" Functions and Values

Yet these functions do not appear on the original list in Figure 2, because they do not relate to either the client or the customer but to a third party who is not directly involved in the project (i.e. the Islanders). Also both the function and the value are psychological. To understand this, I had to think back to time I lived for three years on an island of 21 square miles in area. Unless one has been born and raised in such an environment, for 80% of the time it may be paradise found, but for the other 20% it can be an isolated and confusing existence which requires a specific state of mind to cope. The expression "rock happy" will be familiar to anyone who has experienced living on an archipelago. It signifies the need to return to the mainland to be reassured, that one exists!

Perhaps it is the essence of the Coastguards' work which makes them understand the **needs of others** beyond their direct contact and which influences their perception of Value. If this approach is applied to other projects then it may indeed be of significance to everyone.

SCENARIO 2 - MANUFACTURING

In the UK there is strong opposition to the EU's Social Charter. Small and medium-sized manufacturers consider that if the Charter is adopted their manufacturing costs will increase dramatically, and that, in the present unstable economic market, their ability to exist will be put in jeopardy. Some have already stated that they would be prepared to close down their UK factories, "pack up" all their equipment and relocate to the Far East or eastern Europe, where wages are lower and restrictions, such as Health and Safety (let alone social charters), are virtually non-existent. Similarly, many very well-known large manufacturers in the USA have already closed their factories in the States and relocated not only in the Far East but JUST over the border in Mexico where the cost of production is much less.

In Value terms, what does this mean first with respect to our two party scenario? Well, the Customer is happy, as the same goods can be purchased at a slightly lower price; and the Client is happy because overheads reduce, profits will increase and more goods are sold. And who is the Third Party? They are the American citizens who used to work in the factories before they lost their jobs when the factories closed and relocated. They could be future Customers, but since they are unemployed they probably cannot afford to buy the goods which they once made, so their perception of Value is non-existent. The other Third Party are the Mexicans who now have a new job at a minimal wage and who

who now have a new job at a minimal wage and who still have to exist in squatter shanty towns. They may conceivably rank this as slightly better Value. So long as both of these Third Parties remain in the minority, they will go unnoticed, but the long-term consequences for their societies may not be so desirable.

SCENARIO 3 - BANKING

The total number of persons employed in the banking, insurance and finance sector in recent years reached a peak in 1990 of around 2.7 million. By the middle of 1993 this had fallen to 2.57 million, a reduction of 124,000. Figures published[3] in January 1994 show that in the last four years employment cuts in the following major banks amounted to:-

- Nat-West = 15,000
- Lloyds = 12,400
- Barclays = 13,000
- Midland = 5,600

These job losses underline the speed at which banking and its public image have changed over recent years. Not long ago the local bank manager was regarded in much the same way as the family solicitor, a trusted confidant, a friend and professional advisor. The situation is very different today as thousands of bank jobs are disappearing, as smaller and more remote branches are closing and as electronic devices such as cash dispensers replace staff.

The demise of the neighbourly bank can be traced to the need to recover huge losses on unwise loans in the late 1980's to failed property developers and to Third World countries. Boards of directors ordered their organisations to be harder on those who ran up unauthorised overdrafts, and to concentrate more on profits and less on acting as "unofficial social workers". The effect has been striking, for instance, Barclays lost £242 million before tax in 1992, but forecasters believed it made profits of £800 million during 1993. Many analysts believe the banks have gone on using the huge losses of the '80's as an excuse to raise charges, squeeze the last drop of profit from their customers and to reduce staff. Whereas, in the past, staff were usually only sacked in a "loss year", now a 6% growth appears to be the cut off point. In fact, the number of current accounts has almost doubled since 1982 (25.5 million to 55.7 million), and turnover has increased proportionately.

Small businesses, in particular, have complained bitterly that the once-amicable manager no longer has the time for a chat, and is likely to present them with high bills if asked for his professional advice. His priority now is to make quick profits for his bank rather than to help the community. The trend towards performance-related pay has also fuelled this process, as staff are pressurised to sell services such as investment schemes, pensions and insurance to boost the corporate coffers. Apart from staff, the banks are also reducing the number of branches. Some 2,200 branches have closed in the last five years leaving around 12,000 in total. However, Barclays and Nat West are closing branches at the rate of 100 a year, and other banks are following suit. So with growth on one hand and cuts on the other, what is the function of the banks? A corporate bank described their purpose in function terms as shown below.

VERB	NOUN	TYPE
raise	money	Basic
lend	money	Basic
satisfy	shareholders	Basic
attract	customers	B/S
house	money	B/S
invest	money	Secondary
provide	service	Secondary

Fig. 5 Function Analysis of Banking as a Whole

These functions place the emphasis mainly on growth activities. So why the cuts in staffing? The answer is simply to "save money". Yet again computerised technology has made this possible, with one cash dispenser said to be the equivalent to 30 staff. And why the reduction in branches? The answer is to "save rent", "save rates", "save salaries" and "save uniforms". New technology allows more work to be done at regional centres, and there has been a dramatic increase in home banking. How-

ever, this raises the question, how do you attract customers if the physical presence of a bank in the High Street does not exist? The response to this is not so simple.

It appears that those in the older age group 30's and upwards like face to face contact in terms of banking. There are many who still prefer to receive their salary in cash and then take it to the bank to lodge in person. Both of these factors are based on **Habit.** The growth area in fully computerised banking, such as First Direct, appeals to the under 30 year olds, the younger generation, who do not have the need for human contact in such matters. It therefore follows that the trend of both staff and branch reductions will continue as future generations rely more on technology rather than people to suffice their needs. Eventually the local bank will possibly not even exist, since in terms of function, it is not needed as these functions can be provided by alternative means at a reduced cost. So in terms of Value, using the standard criteria, the results will be similar to the previous example - the Client and the shareholders may get "better value" in cost terms, but the community as a whole will not.

However, the staff consider the banks provide a form of social service. The flow of shopkeepers, businessmen, pensioners, housewives, students etc. provides a social interaction which gives a structural core to a community. There is a physical building in which a wide variety of people negotiate transactions, discuss problems and debate or dispute deals. So it is about the ability to COMMUNICATE. My students prefer the cash dispensers and computerised system "because we don't have to speak to anyone" - which I find very disturbing. I cannot help wondering how they are ever going to cope with major disputes on a building site, if they find difficulty in negotiating an overdraft with the bank manager. I just hope they never become politicians!!!

PANDORA'S BOX

Adopting the conventional approach, we could therefore eliminate the physical presence of banks and building societies from the High street since their functions can be carried out by alternative technology. Surely the same is true for shops. Buying goods through catalogues is already well established, and more recently the television system of phone-in purchasing is expected to be a growth sector. Both systems save money on expensive shop premises and staff wages. Both satisfy the Client (who sells goods and makes profits) and the Client (who buys goods). We could all sit at home and purchase what we want by means of telephone and computers - BUT - where would the social intercourse necessary for a stable society to exist take place? Leisure facilities? Perhaps, but with more people becoming redundant to "save money", such enjoyment would more likely be the domain of the people who are still employed and therefore able to afford this facility, since they will also have to finance it in the first instance!

At a recent conference entitled "Achieving Efficiency Savings in the Public Sector" six speakers used the word "Efficiency" in the title of their paper, and four of these added "and Value for Money". If we define 'Efficiency' as "doing the job right", then they all made a genuine and sincere attempt to do the job of saving money for their own Authority or specific public sector. However, as professionals, we are virtually legally bound to be efficient - to do the job right, for failing to do so would be negligent - doing the job incorrectly. As Value Specialists providing 'Value' is not just about being efficient, but is about being 'Effective' - which is defined as "doing the right job". And it is here that the dilemma occurs yet again, because what may be desirable for one particular public or corporate body may not be desirable for the community as a whole.

CONCLUSION

If the expression "he who pays the piper calls the tune" holds true, then it is the Client's needs that determine the criteria for value. This may be satisfactory if the subject under analysis is a widget or the detail of a building component. Needs override the wants and habits which previously existed. Value is defined in terms of use, cost, efficiency etc. This is a traditional linear approach tested and proved successfully over time.

However, in some instances a broad **holistic approach** may well be more appropriate. The important point to note in the above examples is the fact that basic functions which have previously been done by people out of HABIT, can now be performed by alternative means at either a reduced cost or at a cost to someone else. As such, these people are not needed - in functional terms they are an "unnecessary cost" and unnecessary costs are usually eliminated. But what is the Value of a society where millions are unemployed because there is no need to employ them? How many of you would DARE define the Basic/Higher Order Function as "Eliminate People"? When applying VM, it may be prudent to consider that people and a community or society as a whole should not be regarded in the same way as widgets. Indeed if, as this conference suggests, "VE is the Way to a Healthier Economy", the key question to ask is simply, "Healthier to whom?".

What I have tried to show is that whilst it is not difficult to produce results, it is the long term CONSEQUENCE of the results, especially the Value to the Third Party, which should be considered. After all, VALUE is your responsibility.

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