VALUE MANAGEMENT - THE HUMAN SIDE

by

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Synopsis

Mr Dawson will summarise his perspective on Value Management in the construction industry and in ways construction can be improved.

Emphasis will be placed on:

* Preventive VM as opposed to curative VM,
* Participation as a means to improving decision making,
* Continuous VM over the Design Period.

I want to talk less about Value Management as the means to arrive at the required function at the lowest cost and more about the techniques underlying Value Management and particularly the human side of Value Management.

I have recently returned from the United Kingdom where there is finally an upsurge in interest in Value Management, at any rate in the construction industry and it is interesting to note that much of this interest concerns for example, "What they do in the USA" and "Can we do it?" and "How should one do it?". A number of academics have made extensive studies of three months or more, papers have been published, lectures given and TECHNIQUES studied and analysed. However, all this activity has been undertaken WITHOUT THE BENEFIT OF EXPERIENCE and with no emphasis on people skills.

I believe that Value Management, particularly as a profession, cannot be practiced without practice. It's the chicken and the egg syndrome. You cannot successfully run a Value Management until you've had experience of running one and you can't get experience of one until you have led one. I do believe, though, that there is much that can be learned from judicious study of appropriate text books and there are many of those available.

So I would like to identify a few points which I hope will enable a better grasp to be made of the human aspects of Value Management.

First, Value Management is about PARTICIPATION. You can't have a Value Management Study without participation. I've spoken to a number of organisations, mainly in the construction area, who claim to practise Value Management within their organisations. I don't believe that six architects or six engineers or six anything else can carry out a successful Value Management Study. They can practise some of the principles but it is vital that the core of those involved must be the focus of attention. This will include a number of disciplines, including the owner or proprietor and the end user if possible (Figure 1).

A very simple example of the power of participation is one which is published by N.A.S.A. about being stranded on the moon (Figure 2). The exercise involves a list of items with which a hypothetical group is stranded on the moon. Each individual in the group prioritises the items and each answer is recorded. The individuals then form small groups and retackle the questions. The resultant answers are always better with group participation.

Others, too, believe in the power of participation. Dr Hans Hagan, the head of BMW Research, is quoted as saying that, "One German engineer is better than 10 Japanese engineers.....However, 10 Japanese engineers are better than 10 German engineers". This reflects what I believe is a cultural problem we have in the West -we are not very good at working efficiently in groups. The Japanese are. They are also the biggest users in the world of Value Management even though the technique was invented in the United States. Eleanor Miles, the wife of Larry Miles (the originator of Value Engineering), has been given the highest possible honor that can be bestowed on a foreigner in Japan. The Japanese culture, allows them more easily to utilise individual talents to get more out of a group, whereas our Western culture finds it somewhat more difficult. This is something which we must come to terms with and address.

Let me give you some more examples of which I am sure you will all be familiar with. Everyone in this room has experienced meetings. And everyone knows that meetings are dominated by certain people - usually those of high status and those with a loud voice. Unfortunately, these usually make up less than half the group and usually substantially less. What happens to the potential contribution of the remainder? Well, I believe that much of that contribution is lost. And its lost because our current systems are just not efficient. The remarkable thing is we all know about this and yet we fail to do anything about it. More and more people are beginning to understand that participation, the real

gaining of information, experience and wisdom of a group of designers, users and owners will always produce a better answer than if these people are dealt with singularly. Value Management provides this opportunity. Some of the rules which I believe must be discussed at the beginning of any Value Management are:

- no criticism
- no hierarchy
- opportunity for all to contribute
- everything challengeable
- no defensiveness.

Sometimes the participants find this very difficult when a new freedom is granted. For example, in a grandstand recently studied, the structural engineer was asked to design his optimum configuration for the projecting roof. At first he was reluctant to do so, because it was going against the architect's desire. However he eventually did so and out of his perfect structural solution sprung a much more economic solution which cost less, yet satisfied the function. Another example was where the mechanical engineer was asked to identify what his optimum solution would be on an airport terminal in a very hot area of Australia. He immediately identified the glazing component which although it was shaded by a very large canopy none the less contributed a very significant sum of money to the actual initial and ongoing costs. These couple of examples are not profound breakthroughs in creative thought (although these do occur in Value Management Studies) but have come about by allowing a free unfettered contribution from the various team members to participate in an environment free from domination by anyone.

And talking participation in Japan, as you probably know most Japanese companies have Value Management departments and there is a very open to suggestions. In Toyota alone I read recently that 5 thousand suggestions per day are currently being generated.

Another aspect of participation which I believe is worth discussing is the difference between the United States approach and our own approach. Many Value Management studies in America are carried out by an outside team separate from the original team. I believe that this is not a good idea, indeed I believe that taking this CONFRONTATION APPROACH, we will diminish the benefits that can be obtained through Value Management. The outside study team identifies proposals over its 5 day study and these are presented to the client and the original team. As you can imagine, the response of the original team is to feel threatened, pressured and certainly to feel defensive. I believe that we must develop Value Management through CO-OPERATION by team work and by our skills, create a feeling of involvement.

It sometimes happens that the client feels the need for another consultant to supplement his original consultants. In such cases, we have on a number of occasions brought in external consultants in addition to the original. This means that we might have, for example, two mechanical engineers and two structural engineers and sometimes even two architects. Again the key word is participation. The participants must be very carefully briefed so that polarisation and threat is minimised and even eliminated. Emphasis must be placed on the group and strategies adopted to assist and to motivate the participants. For example, one of the strategies is to see that no DECISIONS are made in Value Management Studies only PROPOSALS. I personally don't even use the word recommendations in my Value Management Studies, instead I maintain that all of the decision making is to be made by the

client AFTER he has seen the evidence, the information and the arguments contained in the Value Management proposals.

One significant point which often is overlooked in the participatory process, is that of treating the client as one of the team. This has not only the benefit of him understanding the problems of the design team but group pressure from the design team is brought to bear on the Client, particularly to make DECISIONS where these are vital to the timeliness of the project. Indeed, Value Management techniques are sometimes used as a means of distinguishing between needs and wants and ultimately to identify a realistic brief.

Some of the following points may be considered by those of us leading groups as essential for the sensitive Value Manager/Facilitator to address.

VM OPERATING GUIDELINES

1. DO NOT ALIENATE
2. NO CRITICISM
3. DO NOT TAUNT, RIDICULE OR BELITTLE ANYONE OF THE TEAM
4. AVOID POLARISATION
5. ALLOW OPPORTUNITY FOR ALL TO CONTRIBUTE
6. MINIMISE INDIVIDUAL POINT SCORING
7. CREATE A POSITIVE ENVIRONMENT ('YES IF' NOT 'NO BECAUSE')
8. AVOID ROADBLOCKS
9. DISTINGUISH BETWEEN FACTS AND OPINIONS WHERE APPROPRIATE
10. EMPHASIZE CREATIVE AND LATERAL THINKING
11. CREATE COMMON OBJECTIVES
12. EMPHASISE THE POWER OF THE GROUP
13. HAVE A CLEAR MANDATE
14. BE A STRICT CHAIRPERSON
15. HAVE A STRUCTURED PROGRAMME AND STICK TO IT
16. FORCE PARTICIPANTS TO ADDRESS ISSUES
17. EMPHASISE THAT DECISIONS ARE NOT MADE AT VM STUDIES
18. DO NOT TRY TO GENERATE SOLUTIONS UNTIL FACTS /OPINIONS/ BACKGROUND ALTERNATIVES HAVE ALL BEEN THOROUGHLY RESEARCHED /EXPLORED /COMPARED /WEIGHTED /EVALUATED

19. PROPOSE MORE THAN ONE SOLUTION

20. GENERATE AS MANY IDEAS AS POSSIBLE

It has become apparent through years of Value Management that we must take an increasingly broader view of the object of the study. In the development and construction industry, this means looking at CORPORATE goals and investigating the global aims of the organisation, moving toward FUNCTIONAL goals and only then looking at the various parts of the topic under study. In this way, the context is given the prominence it needs (see figure 3). Indeed, when I am asked to undertake Value Management studies I always suggest doing first of all the Value Management study at conceptual stage, that is before the design is even on paper, so that global issues are addressed separately and prior to the main study.

We are now practising what we call PREVENTIVE Value Management as opposed to CURATIVE Value Management where, using Value Management techniques, we address issues BEFORE a design has evolved and we use a small group of specialists to study usually single issues. These may be tangible issues such as structural alternatives or mechanical solutions, or they may be more intangible items such as flexibility or quality versus perceived quality. Such preventive measures we believe are proving highly attractive to a number of major clients.

I might summarise by saying that the key to successful Value Management studies is the consideration of understanding of and nurturing of the group phenomenon. That is, the successful welding together of a number of disparate individuals into a well built team to derive synergy and to provide better value to the client. And in so doing, better team work and higher motivation will result. And, probably most important, the skill, experience, wisdom and effort of the people within the group will have been maximised in a way previously unattainable.

TYPICAL CORE GROUP FOR VALUE MANAGEMENT STUDY

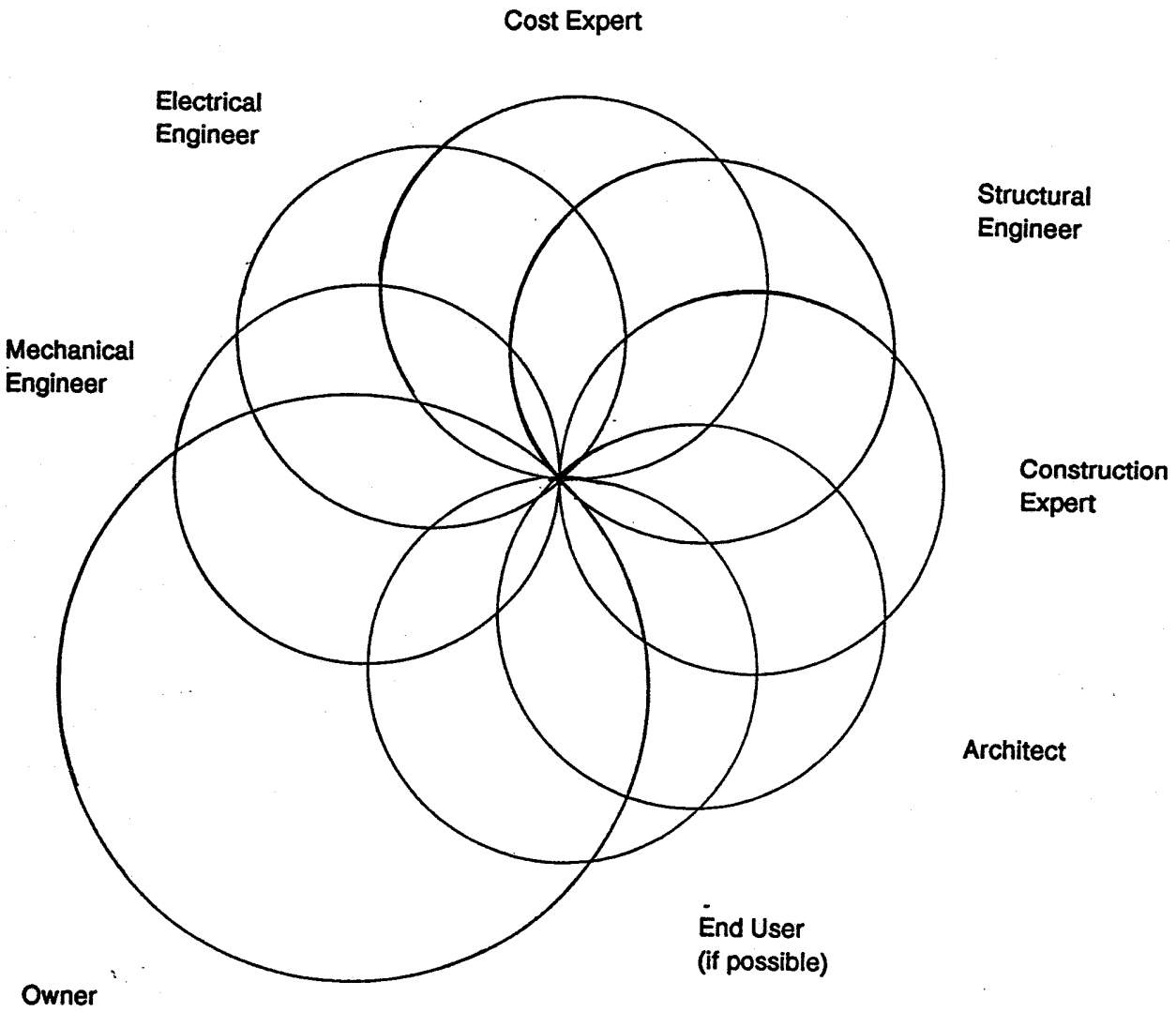

Figure 1

VALUE

STRANDED ON THE LIGHT SIDE OF THE MOON

SITUATION

You are a member of a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some 200 miles from the rendezvous point. During landing, much of the equipment aboard was damaged. Since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200 mile trip. Below are listed the 15 items left intact and undamaged after landing.

Your task is to rank them in the order they will be needed to reach the rendezvous point. Place the number 1 by the most important item, the number 2 by the second most important, and so on, through 15, the least important. You will do this twice: alone (5 min.) and once as a group (10 min). IMPORTANT: Do not change your answers in Column 1 during group discussion.

	1 My Decision	2 My Team Decision	3 N.A.S.A Experts' Decision	4 My Score (3-1)	5 Team Score (3-2)
Box of matches					
Food concentrate					
50 feet of nylon rope					
Parachute silk					
Portable heating unit					
2-45 caliber pistols					
1 case of dehydrated milk					
2-100 lb tanks of oxygen					
Stellar map of moon's constellations					
Life raft					
Magnetic compass					
5 gallons of water					
Signal flares					
First-aid kit					
Solar-powered FM receiver-transmitter					
			Absolute difference		

Figure 2

CLIENT'S PERSPECTIVE OF CORPORATE GOALS INCLUDES

1.	COST OF MARKETING	Say 10% of cost
2.	FINANCING COSTS (DURING LIFE OF BUILDING)	Say 30% of cost
3.	MAINTENANCE, REPAIR & REPLACEMENT COSTS	Say 30% of cost
4.	COST OF BUILDING	Say 30% of cost

Traditionally, only COST OF BUILDING is target for Value Management.

However, ALL OF THE ABOVE should be subject of Value Management.

Figure 3

VALUE