

ENERGIZING VALUE ENGINEERING BY SYNERGISING WITH VENDORS



Saket Kumar Srivastava B. Tech (Elect.)

is employed with M/s. Crompton Greaves Ltd. India for last 18 years. He has worked in production, manufacturing, simultaneous engg. product development, process development, improvement management, purchase, stores, material and value management. He is a V. E. coordinator for his division since 1991. He has presented papers on V.E. and quality circles at National conferences such as INVEST & QCFI. He is Sr. Executive incharge of development.

ABSTRACT

Globalisation of Economy on our soil has arrived with tremendous opportunities to the CAN DO professionals. It has enlarged the horizons of expectations and quality. The concept of value for money itself has taken a new dimension. Most surprising is that the customers are discovering that their expectations are being surpassed more often than ever it was in past. What is in store for tomorrow is difficult to comprehend but certainly the organizations having healthy and attitude focused value practitioners shall be the better survivors in this battle for market supremacy.

INTRODUCTION

Customers and suppliers are breaking barriers of National frontiers in search of best value for their money. In this process the first casualty shall be the product and service below expectation. The market dynamics of demand shall automatically connect to the best sooner than we can think. This offers a golden opportunity to people with fresh ideas.

The big value ideas is all what we are searching. Now, the key issue before us is that how quickly we can capture the big value ideas or say BREAK THROUGH IDEAS and exploit its full potential and move to next work.

This leaves us with only one task and that is how to structure this mechanism and to multiply the process and thus the gains.

ENVIRONMENT

We thrived in a controlled economy for a long time and switch to the market economy was indeed difficult. In past most of the vendors who operated as small scale industry where reasonably rich people and for them this was a mean to grow their assets. However in the last decade our country had seen a different set of highly educated and skilled people switching over to the small scale industry set up. These people had sufficient exposure to the big industries and matching qualification to contribute with their superior intellect to the issues related to technology.

OUR NEW APPROACH

Initiate large scale V.E. projects and involve strategic vendor partners.

V.E. POLICY

We decided to have our targets as under in 1996.

- 1) Minimum saving on net sales = 3%
- 2) Minimum saving on mat'l cost = 6%
- 3) Any capital expenditure more than Rs. 5.00 lacs to be valued engineered before approval.
- 4) Share the VE saving with the vendors as per the agreement.

CURRENT TREND

In conventional value engg. management, there is a

cross functional team and after doing their work, using VE methodology, the new drawings are handed over to the vendor for compliance. There is no occasion to involve the vendor for discussions and participation hence creative path breaking ideas do not emerge. At best we may hire an expert which has its own utility and role.

NEW CONCEPT

Value Engg. has become part of our business plan and is reviewed and budgeted at the apex level. Thus we had to charter a different course to see its effect on business bottom line. Given the new environment of new set of high-tech professionals setting up small scale industry and keen interest in doing things differently appeared as an opportunity to us. In our current set up and others as well there are basically five functions which are such as design, production, materials, quality assurance and engineering. The people in these functions are directly connected to the product which are processed there. In order to get the best right in the beginning, we had identified our vendors and their skills as a major resource by experience we knew that creative potential of our people multiplies in the company of our vendor partners. Thus we made our vendor an integral part of the entire process. Adequate efforts were made for selection, so that once trained in the value methodology they should continue to stay with us and also avail the fruits of this learning in their own business as well.

HOW ?

Any improvement management activity can survive and grow in an organization only if it is patronized by their CEO and it has a minimum critical mass of participants to nature it in good and bad times. This critical mass as we understand is inside professionals having appropriate training and expertise to use these tools effectively. CEO of the company after having provided the resources looks for the impact on the bottom line which is the measurement of success.

KEY AREA OF ACTION

- 1) Product which is older than 3 years.
- 2) Product which is on the concept stage.

KEY STRENGTH

In house value engg. training faculty and training infrastructure.

CASE (1)

Product falling in the first category do have a material cost content often of the order of 65% to 73%. This has direct reference to the protected market era. As the market forces changed and the prices started falling by not less than 30% a year the panic buttons were pressed. By consensus it was agreed that large scale time bound value engg. effort can only save the day for us.

RESOURCES

This gigantic task has to be completed in a fixed time and for that we need to allocate resource. It is at this stage we decided to involve our vendors and integrate their efforts along with us on preagreed terms on sharing by exposing them to basic VE awareness program in-house and hands on training by conducting in-house value engg. workshop.

VENDOR PROFILE

We selected for this massive exercise a pool of 24 vendors. This pool included experts from the field of electronic instrumentation, data logging, panel builders, CNC experts, machining experts, metal forming engg., pneumatics, instrument transformers, polymer scientist and also expert in process engineering, plastics and metallurgists. We had press tool manufacturer, mould makers and cad professional. We had some vendors from distances more than 1000 miles as well. The common thing was that each one of them knew that they shall be learning with us the VE tools and also avail an opportunity to work with us and more importantly taking this learning along with them to their work place.

LEARNING PROCESS

The projects were identified along with their leaders and the team members. The leader has to supply all the relevant data, necessary for the exercise. The time table was fixed in coordination with the coordinator. Since the number of projects were large and professionals few, almost everybody were part of more than six projects in various capacities. VE

awareness module was prepared and kept as simple as possible for better learning. The VE saving sharing concept arrived by transparent process and by consensus.

DIVISIONAL HEAD

He being the profit center head, was a leader of this entire process. He has to play a role of motivator. Since it was being done at such large scale, it was almost necessary that his presence and visibility in the entire process was a must. As a matter of policy, all the projects / workshop would begin with an address by him & his explicit expectations from the participants.

BENCH MARKING

This is the most precious part of this process. As I said initially that the quantum of the value engg. savings are directly related to the big value idea and they occur mostly to the people not connected with the product directly. Only when they invest enough time and involve in intense brain storming the big value idea springs up. In this sustained process routine ideas start exhausting and creativity starts taking shape and it is here, a motivator plays vital role of preventing the group from giving up. We as a policy took reference of best in the country and in the international market. Our target being beat the best has to be handled carefully, so as not to waste efforts during the process. Our most popular motivation factor was always the Walkman story.

CUSTOMER INTERFACE

We select a valuable customer and treat his voice data as input for our process. He is always absolutely focused to the ease of operation, safety of the operator and most importantly the robustness of the function orientation. His participation acted as an eye opener to all and added a customer point of view to us. The bonus came in form of his belief in our process which is for adding value and not cost reduction. This cemented his bonds with us for we established that we care.

PROTOTYPE

The job plan is prepared for each project and his put in the shape of time table. The review calendar helps to do the course correction if any and almost no

unexpected events effected the time. Speed was buzz word. Role of modern and state of the art technology was vital in compressing the through put time by almost 40%.

WHAT WAS DIFFERENT

In previous projects tooling, jigs and fixtures etc. were ordered only after successful testing of prototype. The rationale behind this was to prevent wastage. However, we on account of better process had no fear in ordering the same simultaneously this saved precious time of implementing by almost 6 weeks.

PROCESS AUDIT

We added a new step of auditing the entire process by our colleague in research and development and in the technology cell. This added a new dimension of awareness to the team members and also our position in the global market in terms of technology status and cost. This acted as a measurement of our quality of breakthrough value idea.

IMPLEMENTATION

Our strategy of investing the tooling etc. saved adequate time and also made a process very smooth. We could sell the product in the market ahead of our schedule. This achievement was possible because of overwhelming support and response of our partners.

IMPACT OF VENDOR INTEGRATION

Our vendor partners were involved right from beginning and could extend their inputs on issues related to process etc. In a very short time the issues were resolved and they also could get verified as well. The element of uncertainty never cropped up. Hence final blue print came along with processes and other necessary inputs. Infact minds were working ahead of the items. This resulted into reducing implementation time by almost 50% and was a major attribute to the success.

Exhibit (1) shows that in 96-97 we implemented 28 projects in a span of 52 weeks, which worked out to be one project every 2 weeks. In the subsequent years it has jumped to 53 projects and it means one project a week. In other words the productivity of idea conversion doubled up. This itself is one measurable parameter to highlight the effect of our new approach.

EXHIBIT NUMBER (1)

IMPACT ON IDEA IMPLEMENTATION :

Sr. No.	Financial Year	Ideas generated	Ideas Selected	Ideas Implemented	Implemented
1	1996-97	143	43	28	65%
2	1997-98	242	53	48	90%
3	1998-99	307	57	53	95%

EXHIBIT NUMBER (2)

IMPACT ON SAVINGS :

Sr. No.	Financial Year	A Saving on net sales	B Saving on net material cost	C Rise in productivity
1	1996-97	3%	6%	12%
2	1997-98	3.5%	9%	18%
3	1998-99	7%	14%	25%

EXHIBIT NUMBER (3)

IMPACT ON SAVINGS :

Sr. No.	Financial Year	A Impact on profit	B Impact on market share
1	1996-97	20%	6%
2	1997-98	40%	11%
3	1998-99	53%	21%

It also resulted in business yield to the vendors at similar pace. As a result of this, four vendor members have completed their v.e. module 1 training. On account of process quality there were no rejection and in other words the hidden waste was eliminated.

Out of this vendor pool three members have already implemented ten projects or more.

Exhibit (3) shows growth in our market share quite significantly and the same was true for our all vendors. In other words it could be concluded that their integration in our process resulted in growth of their business, good will and most importantly their self esteem. It was a win-win situation on account of gains being shared on pre agreed terms.

Highlight -

We developed a new auxiliary switch along with two vendor partners with reliability of hundred thousand fault free operation and a saving of almost 25 \$. The joy which our customer expressed was a turning point in our learning process.

BENEFITS

Intensive training and application of value methodology arrived with enhanced understanding and also the desirable critical mass to take future projects. This process added new awareness to the members about their hidden potential which is vital for big value ideas to happen. Finally it set a chain reaction and many vendors approach us to be a part of similar projects.

Now we shall see the impact of this structured new approach value management on our business results in exhibit (1), (2) and (3). I have made an attempt to highlight the important ratios of business performance to evaluate quantified impact of value management in all aspects of our current business process. This input should act as catalyst to the like minded professionals with a dream.

RESULTS

On account of sustained hard work and team effort, the division has been getting various trophies for last 3 years. This divn is proud of having one the best nurturing GM Trophy as well for last 3 years. This goes to prove that value engineering methodology

can play a vital role for surviving and succeeding in this competitive world. The action initiated with a fresh approach established belief of value practitioners.

ACTION PLAN 2000

Based on the resounding success, we had by virtue of vendor integration in last 3 years, we have decided to conduct a refresher course for all the team members. Objective behind this exercise is to rebuild the spirit.

Establishment of Nasik Chapter of INVEST in 1999 to be used as a platform to add new value practitioners.

CONCLUSION

We have exercised the choice of using Value Engineering methodology to make our product user friendly and competitive at the market place.

In this basket we have taken products as well as 3 years to seven years and we found that the value gap which we addressed justified our reference.

After having tasted success we shall make new efforts to explore new avenues to use these tools effectively and add further value to our business processes.

FUTURE PLANS

We have experienced that life cycle of technology itself has reduced to almost 3 years. In view of this, we wish deploy our resources to identify the expected changes in the technology, focused to the new market and start applying value engg. tools in advance at the concept stage to attain status of a pioneer.

REFERENCES

Made in Japan by Okio Morita.