Value Engineering Management in an Industry - A Case Study of CGL

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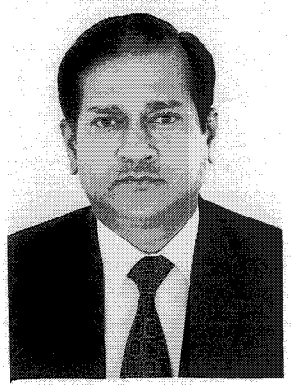
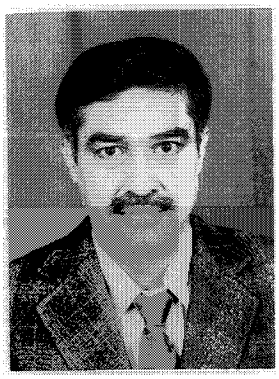


Mr R Dasgupta is a graduate Electrical Engineer and is presently on the Board of Crompton Greaves Ltd. & the President of Power Systems Group of the Organisation. He has been trained at IIM, Ahmedabad, JUSE, Japan & Harvard Business School in USA. He is currently the National President of INDIAN VALUE ENGINEERING SOCIETY & a member of the Executive Council of CII - Western Region.



Mr KJ Mujumdar is a graduate Electrical Engineer having 27 years of experience in the Design of Instrument Transformers; TQ & ISO 9000 System. He is a Lead Assessor of ISO 9001 System. His exposure to VE is since 1985. He has presented several papers in International VE Conferences by INVEST (Indian National Value Engineering Society) & SIVAM Society of Indian Value Management). He is the secretary of Nashik (Maharashtra) Chapter of INVEST.

1) ABSTRACT:

The paper is a case study of Crompton Greaves Ltd., India & deals with the method adopted in institutionalising Value Enginnering technique. The paper explains how successfully the industry of fairly large size has nurtured Value Engineering through Organisation ; Reviews; Recognition & Reward System.

2) INTRODUCTION :

Crompton Greaves Ltd. is a leading organisation in India in the business of Electrical Power Generation, Distribution & Protection Equipment, Consumer Products, Communication Networks & IT Equipment. We are in the business since last over 5 decades. The total strength of employees is about 13000 spread over 36 Manufacturing Divisions; 4 Regional Marketing Networks, Central R&D & Corporate Functions.

The organisation was first exposed to Value Engineering in the year 1985 when our present Chairman & MD, Mr KK Nohria, alongwith then Chairman, Mr NM Wagle & MD, Mr SG Padhye inaugurated the first ever Module 1 workshop. It was their commitment to the technique of Value Engineering.

The technique triggered the CEO & the journey of Value Engineering started in the organisation.The policy decided was to test the success of the technique through the projects selected during the first workshop and then carry the technique to the Manufacturing Divisions.

The Corporate Policy was formed by the top Management and the decisions taken were to identify and nominate a Divisional VE Coordinator; the ownership of the activity was identified as the Design Chief.

3) VE ORGANISATION:-

In the year 1990 the Management once again reviewed the process & decided to give a major thrust to the activity. The organisation of Value Engineering was reorganised . The author of this paper Mr.R.Dasgupta took over as the Convenor & nominated the co-author Mr.KJ Mujumdar as the Chief Coordinator of the activity. The VE organisation structure is shown in fig.1. The responsibility & accountability of each individual was clearly identified & the review structure was well defined. The responsibilities in brief are :

3.1) CONVENOR :

1) Enhance involvement (by including all Manufacturing Division)
2) Set targets.
3) Review results.
4) Arrange management support.
5) Decide reward system.
6) Motivate employees.

3.2) CHIEF VE COORDINATOR :

1) Assist Convenor.
2) Organise meeting.
3) Arrange training/ workshop.
4) Compile data.
5) Facilitate Divisional Coordinator.
6) Organise meeting.
7) Evaluate results.

3.3.) DIVISIONAL VE COORDINATOR :

1) Identify projects.
2) Form teams.
3) Facilitate project needs.
5) Review projects (with General Manager in chair).
6) Represent division (at Corporate Level).

4) VE ACTIVITIES :

The priority was given to nurture the VE activity in the manufacturing divisions. The application of VE and selection of projects started with a focus by ABC analysis of cost data. Naturally the initial couple of years attracted all projects from materials. A stage came when we realised that we have reached a plateau, the focus then shifted to process in addition to materials. The third phase was to involve our business partners - Vendors and include them in our journey. Last couple of years we are spreading VE to our Capital investment proposals ; & are now concentrating on areas of non manufacturing nature.

5) REVIEW SYSTEM :

The review system decided in the year 1988 & is being followed presently is :

5.1) The VE coordinator walks through each project twice a month.
5.2) The Divisional General Manager reviews all VE projects once a month.
5.3) The convenor reviews all divisional VE projects once a month.
5.4) The CEO meets and review the progress twice an year.

The review identified in 3 above is being organised at different Divisions located at different places. During this review the divisional teams make presentations to the convenor and the visiting coordinators from different divisions & locations.

The Divisional General Manager; alongwith the owner of the activity; and the coordinator of each division chalks out a training calender and nominate the engineers/ executives for the training.

The organisation was in a learning process of the VE techniques. The speed of adoption varied from division to division and individual to individual. We allowed a span of couple of years for this process.

It was in the year 1988, a review system was introduced. None other than the CEO chaired a review session. The focus during the review at this stage was learning the technique and implementation through the project. The road blocks were identified and the necessary solutions.

arrived at. The thrust was given on involvement of employees and the project selection. The periodicity of reviews at this stage was twice an year. The activity was at a low priority level

6) RESULTS:-

The results are being monitored in every review meeting. The necessary inputs required are identified and provided. The target set at the beginning of the year vis-a-vis the periodical performance helps achieving the targets.

The complete organisation data of achievement for last 5 years is given in the tables 2, 3 & 4.

Our experience is this encourages employees and has definitely enhanced the motivation.

7) RECOGNITION AND REWARDS :

In our experience the biggest encouraging and motivating factor is recognition. The convenor alongwith all VE coordinators debated, discussed and decided the recognition system. An annual in-house VE Convention - "VECON" was decided to be held every year. Each divisional coordinator is requested to select the best Case Study during the convention. The operating team takes pride in presenting the project to the participants. The participation of the convention includes complete top management of the organisation; experts in the field from other organisation; Guest Speakers and all the VE practitioners.

At the end of the convention several trophies are awarded to the divisions based on the pre-decided performance criteria. The best presentation on the day of convention is rewarded. The President takes pride in rewarding the Best Nurturing General Manager. Above all the coordinators are suitably rewarded by either a very attractive gift or an overseas 3 / 4 days holidays etc. As a policy the recognition or reward is not financial.

The above Recognition and Reward Scheme has developed a very healthy competition amongst the various units and created an urge to excel the bench marking.

8) CONCLUSION :

Through the above case study we are explaining how we in Crompton Greaves Ltd., India have institutionalised Value Engineering. We must mention here that our destination is still far away; but we feel confident in reaching the end of the tunnel. The basic approach was a top down approach; with clear identification of organisation; the approach and the path being followed. However, the target is always a very dynamic parameter in business and hence every effort is being made to excel the target.

CGL VE ORGANISATION

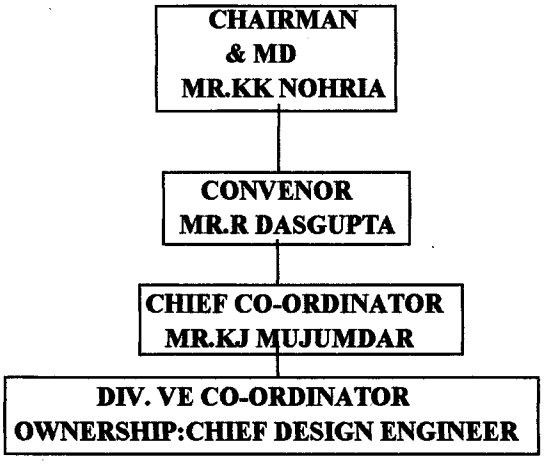


Fig. 1

SAVINGS

	ACTUAL Rs (LAC)	GROWTH OVER LAST YEAR %
1994-95	950	58.6
1995-96	1642	72.5
1996-97	1460	- 11
1997-98	1242	- 15
1998-99	1601	29

Table 2

VE MOVEMENT - AT A GLANCE

	94-95	95-96	96-97	97-98	98-99
SAVINGS Rs (LAC)	950	1642	1460	1242	1624
INVOLVEMENT	546	583	645	631	813
IDEAS	296	310	359	587	676

Table 3

RETAINED SAVINGS

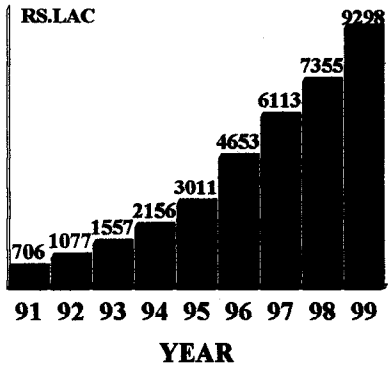


Table 4