

The Journey of Participative Management At HPCL - Operations And Distribution

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Abstract- *The business today is ambiguous, volatile, complex which need a competent and capable processes and people to harness the opportunities. The need thus is not only continuous improvement but initiate continual innovation as habit of our work force to take the business to better level of excellence. There is a need to improve operational performance at all HPCL Oil Installations through all stakeholders including shop floor workmen. We must strategize to develop a challenging and attractive platform to motivate the workmen in producing excellence, resulting Sustained Operational Excellence. Probably, this fact has lead Peter Senge to comment “The rate at which Organization learn and Participate in every facets may soon become the only source of Competitive advantage”. HPCL –Operations Distribution department (O&D) has grown significantly in last few years in every dimension of operations viz Productivity, Safety, Quality, Cost and Delivery and have enhanced value to customers. We have envisaged to Involve employees at all levels through participative management and Identify gaps and improve processes through structured & scientific method of problem solving techniques normally used in TPM, Six Sigma etc. However, opportunities are aplenty to harness the technology further which will also add in enhancing the agility of organization in meeting the changing business & customer’s requirement. True Participation of its human resource will thus define the success.*

Keywords- Skill Development, Participative Management, Productivity, Cost Competitive, Operational Excellence, Problem Solving Techniques, Continuous Improvement, Six Sigma,

I. INTRODUCTION

O&D Department is the backbone in ensuring the achievement of Corporation’s objective of Udaan 2030 as it supplies around 80% of Corporation’s volume. The department has 2300 employees who are operating over 79 POL locations spread across the country. O&D handles 30,000 operating personnel on daily basis, majority of whom are TT Crews and delivers the product to over 14300 Retail Outlets and approx. 5500 Direct Sales Customers. O&D successfully manage such large and diverse workforce amidst lot of logistic

challenges and delivers product safely to its customer on time. This long term strategy “Udaan” (2030) which is woven around creating differentiated customer experiences to generate value for customers and improve our market share significantly. O&D is central to the implementation of this strategy by exceling in conversion efficiency in positioning quality product and timely supplies to dealers/customers and help corporation maximize both volume and profit.

The involvement of large number of employees and operating personnel at O&D locations throws up a challenge in enrolling and engaging them for productivity enhancement and thus it is imperative for management to involve these floor workmen into change management process by actively seeking participation from them on daily basis in meeting the increased demand safely and timely. Accordingly Project-Utkrishtwas introduced for enhancing productivity and safety with following concept:

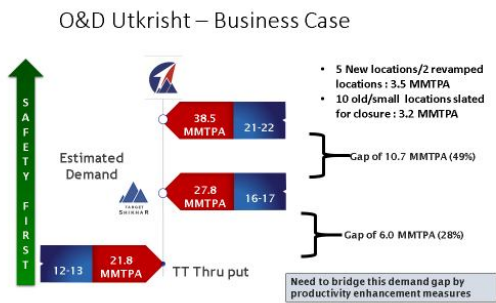
II. CONCEPT- PROJECT UTKRISHT

- Involve employees at all levels through participative management
- Identify gaps and improve processes through structured & scientific method of problem solving techniques normally used in TPM, Six Sigma etc problem solving techniques
- Carry Out Line balancing of all work stations through time and motion study approach

The Project was piloted at 5 locations (Loni, Wadala, Hassan, Raipur &Vashi) in 13-14 and after experiencing significant results, in 6 months the Project was then replicated at all Depots/Terminals across India.

The “vehicle” used for the project implementation was the formation of Quality Circle teams in various operational areas like Productivity, safety, 5-S and Maintenance comprising select working personnel from all fields viz officers, employees, TT Crew, Security staffs, Contract Labours etc. The Project was executed by QC teams through implementation of quick win solutions by on daily/regular basis. The aim was to involve all working personnel, motivate them through participative management

principle and use scientific method of data analysis and technology for identifying bottleneck and resolve them by using problem solving techniques like Six Sigma/TPM tools.



Business Case

The gap in projected demand and our TT loading capacity is enormous as indicated above. The problem is further compounded by the fact that very negligible capacity augmentation work is planned through infrastructure in coming years. The cost of construction of new Depots and Terminals are getting vaster day by day and hence it is imperative that all efforts are put in for maximization of productivity and safety at our locations by implementing the cost effective model of debottlenecking and man related productivity.

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III. OBJECTIVE OF THE PROJECT

1) Productivity

- a. Improvement in TT Cycle Time (Gate-In and Gate Out time)
- b. Improve Working Time Utilization thereby bay utilization (Asset / capacity usage)
- c. Reduction in wasteful expenditures/resources (Remove non value add, Zero defect and reject, reduction in Over time, Electricity cost)

2) Quality: Elimination of Dip. Quality Assurance to Dealers/Customers

3) Safety

- a. Implementation of SOP by all stake holders
- b. PPE usage by all stake holders
- c. Compliance of all audit observation
- d. Reporting Near Miss
- e. Adopting Management of Change

4) Environment

- a. 5-S (Visual Identity, Housekeeping, Identification and traceability, Handling of Waste/Scrap material etc.)
- b. Reduction in water and electricity usage
- c. Carbon foot print and Assessment on Green Belt development with effective Carbon Sequestration
- d. Reducing stock loss, evaporation, oil spill etc and keeping oil free clean Oil Installations across country.

IV. PRINCIPLE OF THE PROJECT

Improvement in Man, Machine, Method & Material: The improvement in productivity is planned to be brought through process improvement by touching all factors Man, Machine, Method and Material (4M). For any initiative to take off and be sustainable and consistent, we need to identify the problems affecting installation performance under 4 heads in the generic category of Man, Machine, Method & Material. The identification of problem can be done by both ways – through senses (visible) and through validation (for non-visible problems). This approach is highly popular and is called Cause-Effect Diagram or Ishikawa Diagram. Tools of Six Sigma and TPM will also be used at different stages of execution of project. Aanalysis is done basis validated data and root causes are identified and solutions are arrived and implemented. This in turn gives rise to scientific approach to problem solving and solution is not based on assumptions/experience alone. This creates a platform for development of capabilities of problem solving through scientific processes and build further on the same for achieving continual excellence.

Man	Machine	Method
<ul style="list-style-type: none"> • Participative Management • Motivation & Recognition • Time management 	<ul style="list-style-type: none"> • Flow meter up-gradation • Minor Alteration in Facilities • Pumping up-gradation 	<ul style="list-style-type: none"> • Time & Motion study • Advance scheduling • Optimum setting of equipments • DIP Elimination

Implementation

Various project teams consisting of workmen, officers at the floor level are formed at all O&D locations and solutions were implemented by the QC Teams. Basis encouraging results at Pilot locations, the project is replicated at all 79 O&D locations in India. This is a unique project by collaboration of HR department and Operations & Distribution based on principles of management and Japanese concepts viz. Change Management, Participative Management, TQM, Six Sigma, Kaizen, 5 S etc..

The Quality Circle teams are mainly:

- a. Productivity Team,
- b. Safety Team,
- c. 5-S Team and
- d. Maintenance team

Each team comprises 2-5 workmen, 1-2 officers and they meet every day to discuss on various aspects of problems/solutions. The team co-opts other stakeholders like Security staffs, TT crew and contract laborers as well to make it more representative and also to empower workmen/labors at various levels who are connected with the operation on daily basis. Some of the smaller locations have constituted 1-3 teams depending upon their size and strength of workmen. However, the scope of project team covers all the 4 facets viz productivity, safety, 5-S and Maintenance. The team collects data, analysis is done and then appropriate solutions are identified. Technology is leveraged to obtain complex data through TAS (Terminal Automated Solution) and resources are provided by Location In-charge/Officers who are leading the team.

The entire improvement process was focused onto 4 broad categories. The project aimed at improving all 4 areas in the workplace so as to directly impact the efficiency levels and thereby yield desired results.

• Productivity

Productivity is essentially the efficiency in which a company or economy can transform resources into goods, potentially creating more from less.

• 5-S (workplace management system, environment etc)

5S was developed in Japan and stands for the Japanese words seiri (sort), seiton (simplify), seiso (shine/cleanliness), seiketsu (standardization), and shitsuke (sustain). It focuses on having

- a. Visual order

- b. Organization
- c. Cleanliness
- d. Standardization
- e. Sustain

• Maintenance

Proper maintenance of plant equipment can significantly reduce the overall operating cost, while boosting the productivity of the plant. Although many management personnel often view plant maintenance as an expense, a more positive approach in looking at it is to view maintenance works as a profit center.

• Safety

No work precedes the importance of safety at workplace. It is of paramount importance to ensure that any measure to increase productivity or efficiency do not compromise on the safety aspects of the location. In fact, the aim is to enhance safety through process management initiatives and workmen involvement.

Approach of the Project:

- i. Quality Circle Teams (2-4 teams basis size of the location and need: Productivity/Safety/Maintenance & 5-S) : 2-4 workmen per team
- ii. Team Leader /Co-Leader – Officer (Gantry/Maintenance /Safety/Planning/TAS)
- iii. Identification of problems basis 4 Ms (Man, Machine, Method, Material)
- iv. Implementation of QWO (Quick Win Opportunities) by the Project teams
- v. Chief/Sr/ Installation Manager- The implementer, over all In charge of the project
- vi. 4 Phase Project with PDCA approach, Presentation by workmen/floor Officers
- vii. Deliberations are attended by Head-Zone, Unit Head (Higher Mgmt involvement)
- viii. Usage of Terminal Automation System-TAS Report by Project teams workmen
- ix. Execution of all above workmen Projects-Daily meeting of team & Leader and Weekly meeting of team with Installation In-Charges
- x. Standard format (8 nos.) for data collection and analysis
- xi. Time Bound –
 - 12-18 months (4 phase)- Short Term
 - 3 Years: Middle Term (March 16)
 - 5 Years : Long Term (March 18)
- xii. Create short term wins & keep creating stretch

Quick Win solutions are first implemented to achieve initial gains followed by costlier time taking solutions. Regular review is done at location level and Zonal level to provide sense of urgency, motivation, opportunity of knowledge sharing and finalization of action plan. The progress is reviewed on monthly basis by HQO and inputs are provided by them to Zones for effective implementation of Project. Basis encouraging result The results are encouraging with significant gains at many locations in TT Cycle time, number of TTs dispatched in first 2 hours/4 hours/reduction in starting time delay etc. The improvement in productivity has also resulted in customer satisfaction and stakeholder satisfaction. People today, specially floor people, are very different from those in employment earlier in view of availability of opportunity for good education & their rise in social hierarchy. Today's business is all about involvement and engagement and skill of the operating staffs and success of any endeavor is a direct function of these variables of employees. The employee's performance takes huge jump if they are given opportunity to demonstrate the skill of managing (supervising) also apart from "operating" as nothing satisfies human being more than "recognition" which comes directly with any one donning the role of "supervisor". Employees at any level do need to manage at least few situations or circumstances on floor and quite naturally they are the best Manager for any job which they usually do. The solutions to the problems of shop floor are normally more effective if it is devised/suggested by operating staffs themselves. This is based on the premise that analysis can be best done by the operating staffs and they own the implementation if the solution comes from them. It really then becomes "Management through participation" as synergy is more visible and vibrant.

Engaging employees through various means like Quality Circle team formation, empowerment, Task Forces, communicating the objective and impact change need in a non-threatening manner, create short term wins etc are some of the tools which can be used to produce high quality result. The gaps in improvement need to be identified through objective analysis of data and then use scientific methods to guide the initiative through a structured process where gains are tagged and new stretch is created every time someone reaches the target.

Team work is essence of any significant improvement. However, to achieve the objective in a most effective way, a scientific approach is required which should aim at development of human resources to make them capable enough and put them through a process of scientific management wherein they first identify the problem and then analyze to reach the root cause and then take effective measure to find the best solution and finally implementing it.

The process thus become system specific wherein many people (not individual) become capable through development and empowerment and the journey to reach objective becomes enriching and enjoyable.

Knowledge is power and is more true in today's world where one idea from any employee, if tagged properly, can turn around a dying company. The cost of reinventing wheel is very high today. The basic premise in inculcating learning environment is "No one knows everything and everybody knows something". It produces wonders in organization where knowledge is respected and an environment is created where people feel like sharing knowledge and ideas. If the contribution of individual in spreading knowledge is identified and rewarded, then sharing of knowledge is inculcated as a culture in organization and it also give rise to creation of synergistic team work which is necessary to any lasting success.

Recognition to people is the biggest motivator in today's world and a pat in back works wonders. Everyone wants to excel in their work and right kind of ambience & structured process will motivate people to push frontiers, get engaged with peers, subordinate & stake holders, build relationship and trust. The resultant collaborating efforts will ensure that nil or minimal time is wasted on unproductive activities. The productivity is bound to zoom as the people will look forward to such work place every day where they work in happy frame of mind. Today's business needs this kind of involvement from employees as then the product or services will be unmatched and different from competition. The destination in such a situation becomes irrelevant as the journey itself becomes more meaningful. The target thus will be a by-product and it will be nothing else but excellence as Gandhi had put it "As the means, so the end"

The above effort will improve capability of a business in terms of human and technical capital and will impact emotional and physical aspect of business. Thus, the optimum utilization of resource of Man, Machine and Material will happen automatically through improved methods. The need to keep creating urgency through setting of new goals is highly important as it will keep pushing the team forward and provide adhesive to team work even in case of adverse situations and also help consolidating gains on consistent basis. The gains itself becomes motivator many times, propelling people to seek more gains thereby developing a culture of excellence where doing right is done first time and repeated every time. Routine review/follow up through structured process in a transparent manner will be a tool to sustain gain and club this with joyful work ambience, we have winner in our sleeve. Such people will help create technology,

invent processes and find markets to keep organization miles ahead in the business under all conditions.

Key Practices followed in implementation

Involvement & Engagement of floor workmen:

Involvement of floor workmen and all stakeholders are important for any change management to succeed consistently. For any change to take place, acceptance is equally important along with quality of solutions. The principle of participative management is helping in increasing knowledge sharing practices. Regular meeting of workmen teams along with management staffs are conducted at various levels, i.e. at location and at Zone. Participation of top management of HQO-O&D is generating interest and awareness among floor employees of locations.

Knowledge Sharing Practices & Data Analysis by Projects teams :

In the current year, meeting of all location's teams have been conducted at all Zones wherein the workmen and floor officers have presented their gains and have shared their constraints/issues in presence of GM-O&D and Zonal Heads. The utilisation of TAS data, usage of various automated reports and experience sharing of time and motion study have led to the identification of root causes. Other participating locations are also contributing in identifying solutions by sharing their views and their experiences, which has helped the location in implementing appropriate solutions. Action Plans are made by each location in the review for both short term and middle term for which regular monitoring is done by HQO and Zones.

Mentorship:

To handhold the locations which are not doing too well, mentors are identified by participating zones among themselves. Location In-charges and Officers of installations who are doing well and Zonal Managers are visiting such locations who need assistance. The results have been encouraging as many locations have been able to turnaround their performances in 1-2 months only. We plan to induct workmen also in the mentor role, which will get more buy-ins and will fasten the progress. The mentorship concept had also added to the motivation of select employees.

Recognition:

To generate motivation among all locations teams and employees, UtkrishtContest is being conducted every

year and the winner locations from all zones/across India are recognized by top management.

V. CONCLUSION

We have observed significant improvement in all leading parameters. Tabulation are as follows.

Parameter	Unit	Base	13-14	14-15	15-16	16-17	17-18 (Jan)
TT Cycle Time	Minutes	104	79	66	53	45	44
Bay Filling Rate	LPM	480	562	634	715	844	982
1st TT Filling Start	Mints from scheduled start	34	27	22	17	16	17
TTs Despatch in first 2 hrs	TTs per Bay	1.3	1.7	1.8	2.1	2.3	2.4
CAT-A Dealer Satisfaction	%		Nov (13)-37.4%	66%	86%	94%	96%

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