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Approach to Lean Leadership through Creating a Lean Culture

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Abstract— This paper focuses on the crucial aspects cultural change that need to be imbibed within the organization, The major role of senior management on key issues that sets an example to the bottom line for giving a boost up to 80% and rest only 20% tools are needed for implementation of a lean manufacturing system effectively in any organization. So their trainings, through mentoring, and benchmarking is crucial for providing basic valuable leadership assets for achieving a long term strategy to compete globally.

Index Terms—Lean Manufacturing, Leadership, Lean tools, Lean Culture, Lean implementation, Lean success, Trainings.

I. INTRODUCTION

Lean systems in general focus on tools and techniques, but in reality to create the culture to sustain the improvements and growth, human intervention with leadership angle cannot be ignored. It is the fact that only 20% support of lean system implementation is possible. So 80% of efforts by human intervention is a prerequisite for establishing governance arrangements that cross divisional boundaries, supporting a thorough, long-term vision of the organization's value-producing processes, and holding everyone accountable for meeting Lean commitments. Upper Management plays a crucial role to create a mindset that will lead to lean success.

II. HISTORY OF LEAN MANUFACTURING SYSTEM

Lean manufacturing is mastered at Toyota. But the roots of Toyota can be found in Henry Ford's system on line assembly. In the Ford system they manufactured automobiles in large quantities of standard designs. It made the system highly efficient, delivering a product with low cost. Cornerstone of the Ford system is the standardized product. This leads to the standard processes. Workers can be trained easily. Anyone can become a worker in the Ford plant within no time. They had to perform only a small part of the full job like tightening a screw or oiling apart. The moving assembly line made it possible to manufacture in the phase Ford wants not the other way around. In other words workers had to adapt to the speed of the conveyer. This will remove the personal element from the production line. The full system was in a harmonization with the rhythm of the assembly line. The same aspects bought Ford the efficiencies, created its downfall. People wanted vehicles to meet their requirements, not the other way around. So the main assumption of the system, standard product was not in demand anymore. Hence the systems had to change, but Ford refused to change. On the other hand Toyota executives who studied the Ford system managed to identify the problems that the system had. With the unique requirements of Japanese market they had to look for the ways to deliver a variety of products within short time periods. This leads to the unique Toyota Production System (TPS). Instead of the manufacturing and then looking for the market, Toyota designed a system to look at the market demand and deliver what they want when they want. This was known as the Just In Time or JIT manufacturing system. Toyota created a unique pull manufacturing system instead of the Ford push manufacturing system which then became the backbone of lean manufacturing

III. OBJECTIVES AND GOALS

- The main objective is to place organization strategically from competitive to leadership positions.
- The goals are to reduce unit cost by 50% or attaining six-sigma quality or increasing productivity by 40% without adding staff, equipment or space

IV. APPROCH

Leadership through culture change can be achieved through process focus with clear synergy from the Leadership standard working, visual controls and daily accountability (Fig 1).



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The organization should plan Change **Planning, Change Leadership, and Change Mobilization** Organization change management comprises planning activities, leading and mobilizing personnel. Since the entire organization is affected, cultural assumptions need to be addressed in order to ensure compliance with new organizational requirements. Communications need to be clear, frequent and Consistent, with a central location for 'accurate information dissemination'. Items that may need to be considered are:

- Coping with organization attrition,
- Identifying change champions,
- Developing a reward structure for new roles aligned to change.

V. PILLARS FOR CULTURE CHANGE FOR LEADERSHIP

A. TRAINING FOR LEADERSHIP

The importance of education and training, a key component of a successful change effort for an organization undertakes a transformation of a 'lean' operating model,

The goal in providing training is to ensure that:

- (1) The organization understands lean thinking and the value of a lean transformation
- (2) The organization understands the reasons for and breadth of making the change
- (3) The organization understands how to operate and manage in a lean organization.

The major focus again should be on materials and logistics with due inputs on all tool usage in practice for achieving the ultimate objective established.

B. MANAGEMENT ROLE

Senior leaders play a central role in Lean management. Their contributions are essential in:

1. Developing and implementing structures and processes that anticipate and respond to the difficulties of a Lean initiative that crosses internal boundaries;
2. Transforming commitments to change into actual change, supporting and sustaining new behaviors and practices;
3. Increasing the odds that process improvements survive the transition from project mode to the ongoing process;
4. Establishing and maintaining new, process-focused measures alongside conventional measures of results;
5. Creating conditions in which a sustainable Lean culture of continuous improvement can develop.

C. CROSS FUNCTIONAL TEAMS

Teams are established with proper KPI (Fig 2) to achieve their stated goals and objectives with timelines, with Sr Manager continuously espouse the virtues of teams. This will provide an opportunity for organizations to harness brain power of cross functional areas to collaborate better and effectively. These team's will be able overcome competitive barriers within self, to make crucial decision's on best methods acceptable for managing change that will absorb changing customer taste and technology evaluation perfectly .

Upon manufacturing survey analysis reflects only 2.5% teams are capable of self direction and empowerment to such activities, which is of grave concern for overcoming cultural barriers in present scenarios. According to the American Society of Training's survey of 230 Human Resource executives, cross-functional teams (CFT) are noted for achieving spectacular results like quality improvements in 72% of the companies, waste reductions of 55% on average, job satisfaction improved in 65% of the companies and finally, customer satisfaction improved 55% in the same surveyed companies.

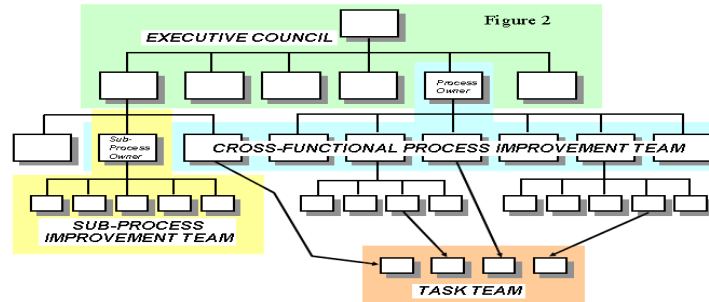


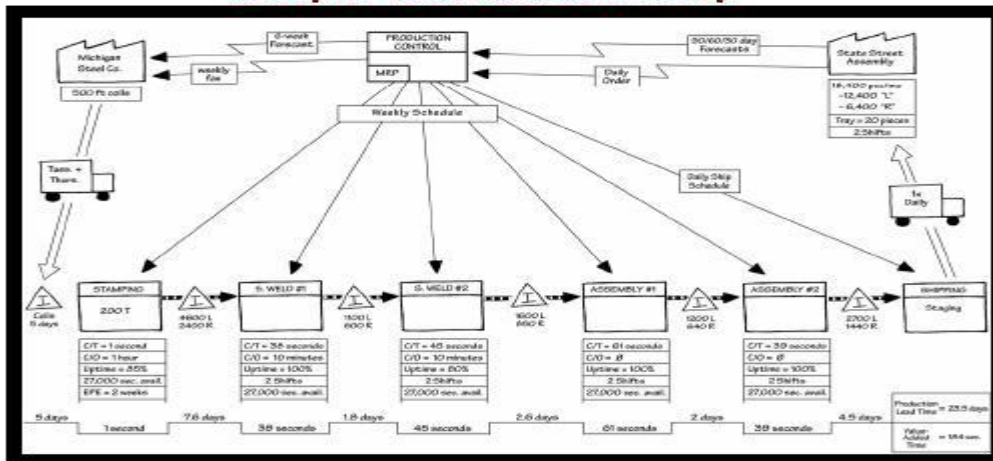
Fig 2 : Cross functional Team Organization

D. ORGANIZATIONAL COMMUNICATION

The next step is to Communicate, Communicate, and Communicate. People at all levels want to be informed and feel that they are wanted and needed. The only way to do so is to provide as much information to them as possible. Moreover, it is critical to provide them access to any information (sensitive or not within reason) they need to succeed than the most effective way of sending a message of 'two way communication', accountability, involvement, and progress to the organization.

E. PRODUCTIVE PROCESS IN WORKING

Sample Value-Stream Map



Stream line of the entire supply chain to meet product requirements to customer satisfaction will ensure wastage control also adds value to improve productivity.(Fig 3)

E. MEASUREMENT SYSTEM TO TRACK PROGRESS

A measurement system to track progress and a metrics system to change behaviors must be designed. The measurement systems should consist of the tools by which success or failure can be determined. This should be simple to read, easy to analyze and producible by those affecting changes. Many companies err here by using purely financial measurements produced by the finance department. While these measures are important, sole reliance on them will alienate the teams, drive the wrong behavior, and send the wrong message to future teams.

VI. LEAN TRANSFORMATION SHOULD ABLE TO ACHIEVE

The lean transformation is directed by guiding tenets such as:

- Positive, clear communications
- Ensure “no-blame” culture
- Work through cross-functional teams
- Staff involvement at every stage
- Process maps on display for comments



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- Remove non-value added steps, hand-offs, rework loops
- Agree design principles with all
- Fix the root cause, not the symptom
- Ensure solution supports departmental interfaces
- Incorporate Continuous Improvement

VII. MONITOR YOUR LEAN JOURNEY

Celebration of successes and acknowledgement of failures is the next step in the transformation process; this allows staff to be rewarded and recognized for success. Accordingly, this attention to results allows for failures to be accepted and reviewed for flaws. It is strongly recommended that punishment for failures be avoided as this will only serve to destroy faith and confidence throughout the different levels of associates and management within the organization.

Lean leadership should be able to generate culture, systems, and processes that will ensure a successful transformation to lean organization. Fig. 4



Fig 4: Lean Leadership working culture upon transformation

A. ANALYSIS OF MAJOR PIT FALLS DURING IMPLEMENTATION OF LEAN SYSTEMS

Some of these pitfalls of implementing lean are:

- Not involving the people who will actually do the work
- Not having the backing and continuous commitment from top management
- Not understanding why you need to change
- Not having a process owner of the change effort
- Not have a clearly identified need and reason for the change
- Not educating the ENTIRE work force
- Believing that “Your industry is too different to use these techniques”

Major concern is to have control over lead-time, if any failure affecting the process will create customer dissatisfaction. So workforce should be very careful which handling process right from raw material to finished goods. In practical happening in any organization there is heavy scope of failure of suppliers, processes, people to perform, machines to operate and most importantly, uninspired leadership

VIII. RESULTS AND ACHIEVEMENTS

Lean system has provided great achievement from all round strategic area's to keep the organization growing positively see Fig: 5



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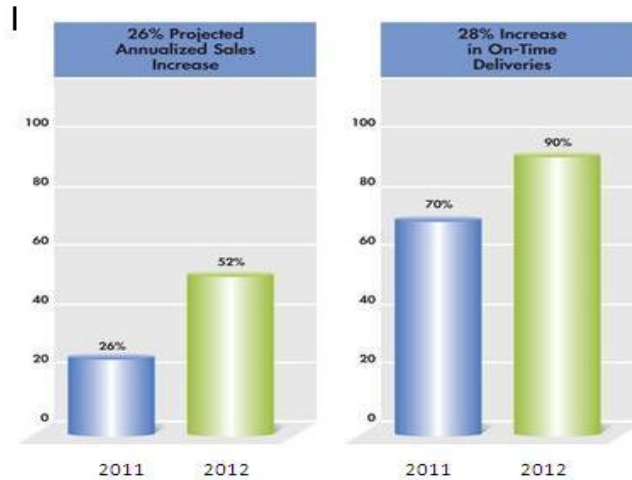


Fig 5: Results achieved due to lean system implementation

Leadership	Improved
Strategy	Improved
Communication	Improved
Wastage	Reduced
Motivation	Improved
Value added to the process	Yes
Accountability	Yes
Clear role and responsibly	Yes
Bottlenecks	Reduced
Understanding of the tools	Improved
Lean Certification to Sr. Management	Obtained
Lead time	Reduced
Space usage	Improved
Customer satisfaction	Improved
Inventory	Reduced
Cleanliness	Improved
Coordination	Improved
Availability	Improved
Continuous Improvement	Yes
Market share	Improved

IX. CONCLUSION

Now, with today's emphasis on globalization and "world class" status, answers to these questions provide the basis for successful business achievement. Lean management system is the storyline of approach for any successful organization. So if the organization's need to remain competitive globally also survives present recession while retaining the brand leadership.

The successful transformation journey in any organization may be difficult, but may lead to achieve the mantra for waste management, process management; lead time management is lean management. So management should have a blueprint customized plan for successful implementation and effective results in the long term. SME guidance and support on lean certification to manage personal will not only improve their understanding, but also keep the organization on track of continuous improvement to new achievements

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