

TRAINING



Beyond tools and techniques

The importance of building leadership for the next generation of lean

It is people, their routine, leadership, vision and culture that make the difference between true lean companies and the ordinary. We often refer to Toyota's success because its run has been unabated and unmatched by manufacturing companies. Few people see the difference between leadership and exceptional results. Imagine no other similar manufacturing company has made profits every year since 1950; spare the blips of 2008 petroleum price hike and recession, and the recall following the hype of the foot mat and brake pedal incident!

People and their routines make big difference in lean companies. The reason why other companies have not been able to duplicate such results is because of their inherent nature. I don't think it is possible to duplicate the results of another company by simply imitating its tools and techniques. And this is true not only in attempting to imitate lean production, but elsewhere too.

In the early years of liberalisation when machine tool imports from Taiwan and Korea sold huge numbers in India because of their lower cost and perceived better quality; the machine tool association losing orders went to the government seeking protection by asking them to reduce duty on imports of components for

machine builders and increasing duty on the fully finished machine tools imported. An impractical idea and it did not work.

I made visits to Taiwan taking my head of accounts along so that we could study from our different perspectives what is it that they do better or differently. The answer was simple; our conversion cost was 50% of our selling price whereas in Taiwan it was 20-25% and that included warranty costs and profits! One could copy their design concepts and sources, but unless one matched their productivity it was hard to compete.

On coming back, we pegged our conversion a tad lower than Taiwan, thrashed out wastes and lead times, and beat them at their game. Such was the productivity improvement that not only did the competition not know what had hit them, but was rendered redundant in the years that followed.

Training companies and consultants who teach tools and techniques forget relationships. They teach people to imitate the tools and techniques originated elsewhere, but what they cannot teach them is to live the fundamental state of leadership as those who led their companies and transformed them to become lean. I

see companies across various segments of the industry and businesses focus on techniques, even designate positions such as director lean, engage consultants who are adept at teaching some tools templated from Toyota Production System (TPS), and yet when we see the results what strikes one's mind is the huge difference in comparison to what I call true lean results.

It is not possible to teach that fundamental state of leadership merely from text or power point modules, or games or exercises; unless the teacher has been in that position of leadership and lived that state, it is mere theory for someone else to practice. I know from stories of Toyota or even my work at Mysore Kirloskar that lean is a process of evolution and neither a quick fix nor a jig. But everyone is in a hurry to copy the outward appearance of lean companies but don't want to pursue the inner being of lean behaviours by changing their own to replicate lean culture.

The Maruti story is another good example that tells the difference between imitating the techniques and living the state of leadership (Ref:Business Today Feb, 2 2014). There are some telling facts that any total enterprise lean transformer will relate to; such as, Mayank's sabbatical from home, Ayukawa's aggressive posturing, Singh's, "I have images in my mind of all the parts of our factories. I can see what others do not." Sharing information with the workmen about the market, company, its performance, competition, strategy implementation et al is necessary, and the leadership has to involve itself to that level and more. That is why they are able to exceed their cost reduction targets consistently.

Working with a target of ₹351 per vehicle for April-November last year, they achieved ₹628 by the middle of December. When you multiply it by their annual production of 1.2 million that will tell you how and why their total manufacturing cost has fallen

nearly 40% over the past seven years. When Maruti introduced the K series of engines in 2008/09, its tool cost worked out to ₹185. Singh wanted it brought down to ₹22, which was the tool cost for the old engine. In five years it has come down to ₹25. (The old engine, though, has come down to ₹13) Such results are only possible when the leaders live in the fundamental state of leadership, and can motivate their team to also perform their routine (Kata) with dedication, passion and enthusiasm.

The lean manufacturing system requires highly capable people to build, maintain and keep improving it. Merely installing the methods as quick fix without appropriately developing the skills and aptitudes of people produces limited benefits, and the primary purpose of enhancing performance by increasing the capability of the people will be lost. At Mysore Kirloskar I invested the first two plus years improving our basic processes, eradicating problems at their grassroots level, training everyone and honing our respective routines, habits and skills. Leading the transformation on the ground, working a twelve to sixteen plus hour shift was normal for my routine.

Lean is a journey, not an event. By merely imitating the techniques is treating it as an event; and hence the reason why organisations with such attempts never reach the full potential to become a true lean company. Achieving the lean state is an evolution. Look at companies that have produced true lean results, and you will see they have been chipping away at it for a long time; that's how they evolve. This evolution happens over time and the speed is directly proportional to the rate at which their management and people are able to change their thinking and behaviour.

LEADING MYSORE KIRLOSKAR

I invested the first two years at Kirloskar, Mysore improving our basic processes, eradicating problems at their grassroots level, training everyone, honing our thinking, routines, habits and skills. Leading the transformation, working a twelve to sixteen plus hour shift was normal. Seeing me in the factory late nights was normal sight, the people in the night shift needed to be trained too and instructed on improved methods, pull and flow. One day after the night shift ended when the workmen saw me in my office working; came in sat down and said "we will stay here as long as you do" (sounds prophetic today).

Most of my day was spent in developing people, improving the basic processes, job methods and their instructions, visiting vendors, solving problems, designing changes, developing quality circles, solving problems, implementing action plans, design changes, process improvements, layouts changed often, improving the pull and flow, reducing throughput times, developing vendors, envisioning the future et al, and my paperwork got done at night since I was also responsible for marketing. Often doing a four day four countries kind of export marketing trips. This does not mean that I did it all myself, but I had to do this to develop a great team that could think and act like me, and produce those great results. My routine was intense and exciting too. If Ohno had slept in the factory on occasions, we have lived that state. I cannot impose this routine on my clients but I tell them that success does not come without sacrifices and honesty of purpose. I use the word sacrifice, but



honestly nothing was more intellectually exciting (journey) and satisfying (results). That is why success is a choice. And the choices we made in the face of great adversity helped develop our attitudes and routine to take on and live the lean journey successfully.

TRAINING

For example, Electronica Machine Tools discontinued its lean journey owing to change in ownership of the company. For a company that had claimed to be doing lean, found this second lean journey to be different. In the months when coached with focus on the culture adaptation, they displayed the ability to produce appreciable results in a short period of time and with speed (some data from the collection):

- ♦ Build time reduction 70 - 78% (simple to complex machines)
- ♦ Procurement lead time reduction 82 - 84 % (domestic & imports)
- ♦ Reduction in time to correct problems in manufacturing process 82 - 86%
- ♦ Reduction in number of suppliers from 341 to 141
- ♦ Build floor space reduced by about 30%
- ♦ Production inventory reduction by about 86 - 88% (while there still was some historic obsolete inventory, the production inventory had come down to about three week consumption level from the historic high of five and six months).

Although these changes were visible in less than a year, it would have taken time for the culture and alignment of thinking to have cemented in, and then the pace of continuous improvement would have galloped even further as the team blended in and gained momentum. Such results were possible owing to the involvement of the top leadership team.

Sigma Electric's success with lean lies in their understanding that lean is a cultural evolution and is visible in the passion for lean of both its president and production director. When the leadership asks lean practitioners, "tell us where and what else we can improve," that's tell all attitude hungry for greater improvisation and such attitudes are chased by outstanding results.

Single piece flow, connected operations, approaching a 5S score of 4, cellular organisation designed to meet takt times, visible flow, staying on track by monitoring hourly production targets, daily reviews done between internal suppliers and their customers, individual KPI's connected to plant KPI's, employee involvement in problem solving and continuous improvement. Over a period of nine months; monthly average die casting shots improved 37%, reduction in propane consumption by 36%, 33% improvement in OEE, and a lot more.

Where lean implementation is templated in a module of fixed number of days, the teach is likely to be the use of a set of tools for waste removal and solving allied problems. Consultants and trainers conduct seminars on tools for waste removal as it is one of the key tenets of the TPS philosophy.

Big changes are easily possible because most companies have a huge type one waste sitting there keeping everyone busy. Companies boast of the results they achieved from such programs and tend to plateau after being satisfied with the change. Yet when you think despite all this happening, no company has achieved the same level of consistent operational excellence as Toyota. It is worth looking at what these companies are missing.

We measure the process and results using six sigma, by shift-



Solving problems on Gemba.

ing to smaller batches we lean out the processes, moving processes closer to one another, eliminate unwanted steps, and the key performance indicators will go wild indicating results that were never thought possible. Then as time passes and with changes in organisation structure comes the bad news, the processes seem to degrade themselves with waste and variability creeping in again; the difference is between focus on tools rather than job methods, job routine and instructions as culture; and the difference between leadership taking hands on charge or subcontracting the responsibility.

Attitudes such as the desire to quick fix problems, thinking lean means tools, subcontracting the state of leadership responsibility to the middle are like removing the weeds but leaving the roots to reshoot. Lean success takes both the top leadership commitment and a culture for continuous improvement.

The change has to be in the culture, transforming the thinking away from individual numbers looking good to team numbers; improving value streams that deliver value across different functions delivering customer satisfaction. Changing cultures may not be as easy as conducting a tool implementation training program.

Cultures evolve slowly and changing them takes time; especially from individualism to collectivism. It takes willingness of commitment to this change. Otherwise every company that sports itself as belonging to the lean club today would have actually been one! If templates worked well, we would have only lean companies in the world today. That is why while one can learn so many things from TPS, since nobody else is Toyota, what one really needs to learn is 'when you are not a Toyota, then how to become lean'; and the answer really is beyond tools. ■



Sanjeev Baitmangalkar
Principal Consultant
Stratmann Consulting