

The Human Side of Lean - People Are Important and How To Address This

BRIEF

Lean is about people, their behaviours and how they think then act. This is a point so often overlooked and can thus be the long term downfall of lean programs. There is a solution, it is not new, and in fact was practiced right from the start of the emergence of "lean" in Japan.

INTRODUCTION

The importance of the human side of lean can be understood simply ... one short story.

One day Mr Shigeo Shingo, cofounder of the Toyota Production System (TPS), was explaining "*Baka-yoke*" to a young woman on the factory floor. *Baka-yoke* translated into English is "fool proofing devices". The young woman burst into tears, she started to cry. Mr Shigeo asked "Why are you crying?" "Because I am not a fool" the young woman answered. Right then and there, on the factory floor, Mr Shigeo changed the name to *Poka-yoke* which means "mistake proofing devices".

At the heart of every work system are people and their collective beliefs and behaviours, their work culture. In other words, you can have all the technology, machines, processes and systems, but in the centre of it all are the people who make it all work. Thus the value and importance of people, and the development of their capability, must be recognised in any improvement journey. If you don't, failure long term is inevitable.

Another good descriptor that highlights the importance of people is the definition of workplace culture being "the sum of people's habits in the way they go about their work". In all successful lean journeys there has been a culture change. If you accept the above definition, then people's habits (top management to worker) must change. This being the case, there will be pain along the way as none of us like to change habits!

Art Smalley defines the building blocks of manufacturing as the "4Ms" – Manpower, Machines, Materials, Methods. For Manpower he quotes "basic stability starts with a well trained workforce". A well trained workforce is a workforce that follows standard work. This being the case, how can you not have a "human side of lean". It is there, you must acknowledge it and act in a manner that befits its importance.

The early Japanese literature on Just-In-Time and Toyota from the 1970's & 1980's emphasized two underlying themes:

1. Eliminating Waste.
2. Respect for People.

Clearly the human side sits with Point 2. For a variety of reasons, the "respect for people" aspect of the TPS was mostly lost in the transfer of "Lean" out of Japan. This is one of the fundamental reasons why most companies do not get the improvements from "Lean" they thought they would. Improvement simply doesn't happen just via deployment of "Lean tools".

TRAINING WITHIN INDUSTRY

The 3 TWI “J” courses, Job Relations, Job Instruction and Job Methods provide a very important basis for a work team in a lean program that will be sustained. The TWI “behaviours” played a powerful shaping force very early in Toyota’s improvement journey. Long before there was value stream maps, kaizen events, pull systems etc. there were the TWI foundation elements on the Toyota work floor. These foundation elements gave stability and predictability in the work being done.

Art Smalley – Basic stability summary document

The 3 TWI “behaviours” and the associated “J” programs are:

- Respect for people – Job Relations.
- Standard work – Job Instruction.
- Continuous improvement – Job Methods.

The Supervisors of truly successful lean workplaces will have made JR and JI especially foundation elements of their daily work as leaders.

DEMING’S 14 POINTS, KEY PRINCIPLES FOR BUSINESS TRANSFORMATION

None of what is written above is new information. Additionally, all of Edward Deming’s 14 Key Principles for Business Transformation apply to Lean. Furthermore, of the 14 principles, 11 relate to the human side.

Many of the 14 principles (listed below) underpin what has already been said above in this article.

1. Create **constancy of purpose**.
2. Adopt a new **philosophy of cooperation**.
3. **Build quality into the product** in the first place.
4. **End** the practice of awarding business on the basis of **price tag alone**.
5. **Improve constantly, and forever**.
6. Institute **training** for skills.
7. Adopt and institute **leadership for the management of people**.
8. **Drive out fear** and build trust.
9. **Break down barriers between departments**.
10. **Eliminate slogans, exhortations, and targets**.
11. **Eliminate numerical goals**.
12. **Remove barriers that rob people of joy in their work**.
13. Institute a vigorous program of **education and self-improvement**.
14. **The transformation is everybody’s job**.

These 14 principles are just as applicable today as they were when Deming identified them in the 1940’s. So often we see something like this and think “Yes, they make sense. We should do that.” But then *how?* In particular how we do apply the ones that relate to the human side?

We will now look at how the TWI program provides a means, a method, for applying 9 of the 11 principles that are directly linked to the human side of Lean.

TWI AS A MEANS OF APPLYING MANY OF DEMING’S 14 PRINCIPLES

In TWI Job Relations (JR) there are 4 Foundations For Good Relations.

- The first is Let Each Worker Know How He/She is Doing.
- The second is Give Credit When Due.
- The third is Tell People in Advance About Changes that Will Affect Them.

- The fourth is Make Best Use of Each Person's Ability.

The actions driven by these JR Foundations For Good Relations support the following Deming principles.

1. Create **constancy of purpose** for the improvement of product and service, with the aim to become competitive, stay in business, and provide jobs.
2. Adopt a new **philosophy of cooperation** (win-win) in which everybody wins and put it into practice by teaching it to employees, customers and suppliers.
7. Adopt and institute **leadership for the management of people**, recognizing their different abilities, capabilities, and aspirations. The aim of leadership should be to help people, machines, and gadgets do a better job. (Leadership of production workers is generally poor across the world at present.)
8. **Drive out fear** and build trust so that everyone can work more effectively.
11. **Eliminate numerical goals**, numerical quotas and management by objectives. Substitute leadership.
14. Put everybody in the company to work to accomplish the transformation. **The transformation is everybody's job.**

In TWI Job Instruction (JI) the objective is to get everyone to follow standard work. More closely, to use the words delivered in the training, JI is the way to get a person to quickly remember to do a job correctly, safely and conscientiously.

If we look back at the Deming principles we will find two that can be implemented via JI.

6. Institute training for skills.
13. Institute a vigorous program of education and self-improvement.

The 6th is clearly applicable, underpinned by the fact that it is the skills that add value in work, not knowledge. Number 13 stems from the requirement in JI for a training timetable – who will be trained in what by whom by when and underpins TWI Program Development.

Do you recall Art Smalley's quote for manpower earlier in this article? For Manpower he quoted "basic stability starts with a well trained workforce". How will we achieve that? Via JI.

In TWI Job Methods (JM) the objective is to improve performance without spending a lot of money. More closely, to use the words delivered in the training, JM is a practical plan to help you produce greater quantities of quality products in less time by making the best use of the Manpower, Machines and Materials now available.

Again, if we look back at the Deming principles we will find 1 that can be implemented via JM.

5. Improve constantly, and forever, the system of production, service, planning, of any activity. This will improve quality and productivity and thus constantly decrease costs.

To achieve principle 5 above, a strict method of analysis and improvement is required. JM provides just that.

SUMMARY

Not only through the work of Art Smalley, but also people like John Shook, Jeffrey Liker and David Meier, it is very clear that long before the "tools of lean" that we know of today, there was recognition of the "human side of Lean". This human side can be largely applied via TWI. The basic TWI skills for the supervisor have not gone away as Toyota progressed to where they are now today. In fact, it is these basic skills, clearly with a human focus, that allow the higher level tools of Lean to be applied, sustained and thus make a difference.

Deming's 14 principles are equally applicable in Lean today as they were in 40's and 50's manufacturing. Of the 11 with a human element, 9 of them can be applied via TWI Job Relations, Job Instruction or Job Methods.