

Introduction

Japanese Company introduced Lean after the Second World War. It was a time for most industries in Japan, especially the automotive industry. They were facing with shortages of raw material, financial and human resources. Eiji Toyoda and Taiichi Ohno of Toyota Motor Company pioneered the concept of Toyota Production System as a mean to overcome these shortages. The system was known as **Lean Manufacturing** in the United States.

Its basic idea was to eliminate waste. Waste was defined as anything that does not add values to the end products from the customer's perspective. Its objective was to improve business operations and to be more competitive. The objective was to improve business operations and to be more competitive in the market. This would be achievable through the implementation of various Lean Manufacturing tools and techniques. This could be achieved through the implementation of various Lean Manufacturing tools and techniques.

Quickly following the success of Lean Manufacturing in Japan, other companies and industries, particularly in the US, copied the system. According to Womack and Jones the word 'Lean' denoted a system that utilised less input to create the same output as those created by a traditional mass production system, while increased varieties for the end customers.

Lean is to manufacture only what is needed by the customers, when it is needed and in the quantities ordered. The manufacture of product is done in a way that minimises the time taken to deliver the finished product, the amount of labour required and the floor space required. The process is done at a lower cost but with the highest quality of finished product.

CTRM AC Lean History

CTRM AC started its Lean Programmes since June 2003. A Self-Managing Team was one of the pioneer programmes, focusing the manufacturing department. On 5th August 2004, Datuk Rosdi Mahmud, CEO of CTRM officially launched the Lean Programme to be part of CTRM working culture. Since then, Lean was practiced through awareness training, especially for the operations personnel. The training was important, as all personnel must be made to understand Lean concept and Management's strategy.

Lean Promotion Office was responsible for the success of this programme. It was a tough challenge as it was not an easy task to change the traditional working culture to lean thinking. Every personnel are different in their character, behaviour and thinking. These are not obstacles for the LPO team, but they took it as an opportunity to make Lean as company work culture by end of 2015.

CTRM-AC Lean Philosophy

- Waste Elimination
- People Engagement
- Process Focus
- Result Driven
- Continuous Improvement

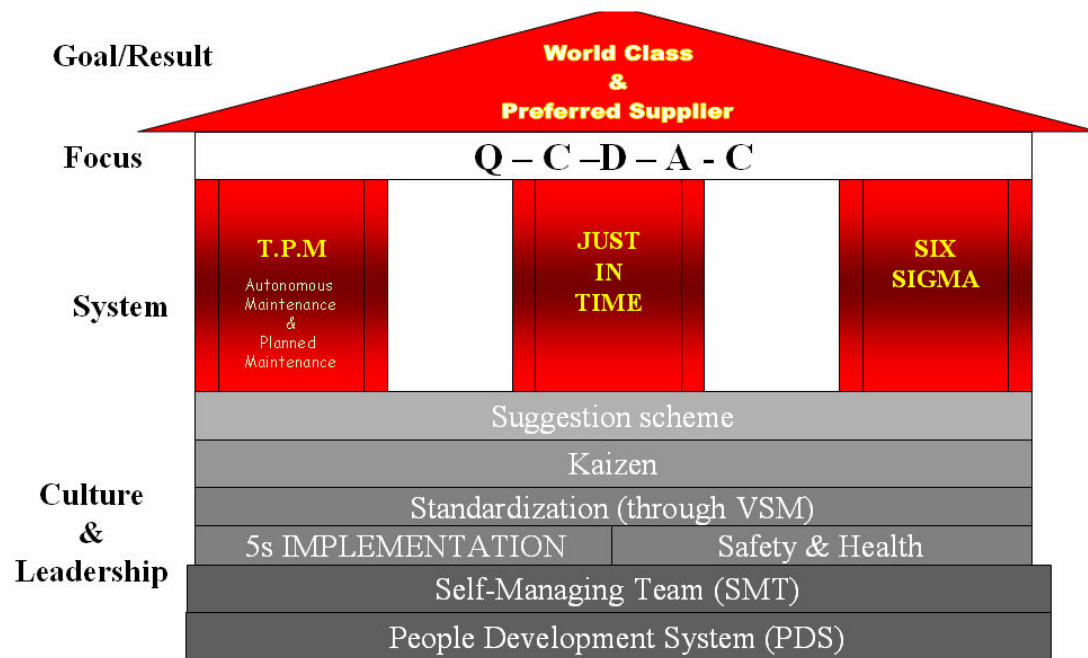
CTRM-AC Lean Principles

- Customer First
- Positive Human Values
- Maximizing Values
- Managing by Facts
- Effective Communication
- Competitiveness

CTRM-AC Lean Objective

- To achieve the company’s vision & mission towards profitable & sustainable growth.
- Top Management and leaders drive or support the Lean Enterprise System.
- To improve workforce empowerment through lean culture
- To develop and effectively utilize all company resources.
- To implement structured and goal orientated change management programs.
- To align company strategies for global challenges through KPI and industrial benchmarking.

CTRM-AC Lean House



People Development System (PDS) – Concepts

Objectives:

- To provide and promote workable programmes, activities and facilities for developing **Positive Human Values**.
- To instil knowledge and skills gaps at every level of Lean Organisation’s principal and all employees.

Self-Managing Team (SMT) – Managing Concept

Objective:

- To mature SMT members with cellular manufacturing at all operations area towards company's goals (*With support from other departments*).

5s Best Practices – Culture

Objectives:

- To promote 5S work culture in CTRM AC.
- To organise 5S productive programme throughout the company.
- To prepare CTRM Ac for 5S recognition/certification by NPC.

Health and Safety Environment – Culture

Objective:

To make CTRM AC a safer and healthier working environment for all by creating an accountable attitude plus mind set among its employees and employer on OSH standards and requirements through structured education and training, proper implementation and good cooperation.

Standardisation (Value Stream Mapping – Method)

Objectives:

- To identify the current flow of material and information in processes for a family of products.
- To highlights the opportunities for improvement that will most significantly impact the overall production systems.
- To demonstrates and decrease 11 elements of waste categories in the process.
- To be used as communications tool, strategic planning tool and change management tool.
- To show how things should work for the best competitive advantages.

Kaizen Programme – Method

Objectives:

- To develop Lean culture environment through improvement thinking.
- To provide standard improvement method activities for CTRM AC personnel
- To ensure all CTRM AC personnel participation in cost saving exercise towards company's goal.

Suggestion Scheme - Method

Objective:

- To encourage personnel's participation in giving improvement ideas.

Six Sigma Programs – Method

Objective:

- To expose and implement statistical tools wherever applicable.
- To produce cost savings by reducing MUDA (waste).
- To be a platform for systematic problem solving using DMAIC approach. (Growth in knowledge and skill)

Autonomous Maintenance and Planned Maintenance (TPM Programme) – System

Objective:

- To create an Excellence Work Culture through improving the Quality of Work and Equipments.

Just in Time (J.I.T) – System

Objective:

- To produce the right part at the right place in the right time.

Lean Activities:

Lean Training, Lean Project Presentation, etc (see pictures)

CTRM-AC Lean Project Collaboration and achievement:

1. Project with University Technical Malaysia Melaka (UTeM)
2. Received Gold Medal (3 star) in National Innovative Creative Circle Competition organized by MPC.