## Team Assignment 2

## Case: Toyota Motor Manufacturing, USA, Inc.

## Available in case packet (PDF file); video of the Toyota plant is available under “Supplementary Materials” link that can be found below the link for the PDF file.

## This assignment does not assume knowledge of “Measurement and Analysis” concepts (Module 3 of the Process Improvement Coursera MOOC, and Module 7 of this University of Illinois course).

## General Guidelines

* This team assignment is worth 100 out of 1000 points, so 10% of your course grade.
* Please work with your assigned team to analyze this case and to submit one team report (one team member submits for the whole team).
* Each team member will have the opportunity to evaluate the participation of other team members at the end of the course.
* In evaluating this team assignment, we will consider the following aspects:
* Clear communication and organization (you may include tables, figures, and bulleted lists as needed).
* Use of proper grammar and absence of any slang.
* Application of concepts that we have discussed in this class up to this point.

## Case Specific Guidelines

Your objective is to describe and analyze the background and current situation for Toyota Motor Manufacturing (TMM) as described in the case reading. The guideline for this report is 1,600 – 2,000 words, including any figures and tables you include (as needed) and 1-inch margins all around. Use 2 line spacing. The length is a guideline and not a requirement or limit. Please list names of team members in alphabetical order of last name at the end of your report.

Please address the four equally weighted prompts (numbered 1 through 4 below) in your report, ensuring that your report addresses each sub question (numbered a through c) for each prompt. Mark your responses with headings (1-4) and subheadings (a-c). Although the length of each of the four main prompts (1-4) is expected to be roughly equal, the length for each of the sub questions (a-c) within each prompt need not be equal.

In framing responses, paraphrase in your own words rather than quoting text directly from the case reading.

**Prompts to include in your report**

1. Toyota Production System (TPS)
   1. Based on the case reading, connect the conditions in Japan to the birth of the “Toyota Production System” and its unique aspects.
   2. In your explanation, include your team’s understanding of the two guiding principles of Just in Time and Jidoka and the two assumptions of unpredictability and problems in the production environment.
   3. Analyze how these two things – the two main principles of TPS (JIT and Jidoka) and the assumptions about the production environment (unpredictability and problems) – are related in TPS.
2. Exporting TPS from Japan to the US
   1. Toyota was making its entry into US manufacturing in the 1980s with the new plant in Georgetown Kentucky. Describe the company’s actions for setting up the plant, highlighting what stands out as notable aspects of the ramp up.
   2. Include in your description what your team believes Toyota was trying to achieve with the way it was “developing human infrastructure”.
   3. How does the vision of then president of TMM, Fuji Cho, relate to the concept of competitive priorities (cost, quality…) from operations and supply chain management?
3. TPS techniques

The glossary toward the end of the case reading provides a description of some of the techniques that are commonly associated with the Toyota Production System (TPS) and the text of the case describes their usage. Please look for information from external sources and provide a brief description, like the ones provided in the case, for three additional techniques used by Toyota listed below. Note that you may find different spellings for these Japanese words because they are based on pronunciations of Japanese characters. Describe your team’s understanding of these three techniques. You may even find slightly different interpretations of these terms because they are loose translations of hard-to-translate concepts. Please remember to cite your sources for this information and provide a reference (details of the publication or address of webpage).

* 1. *Genchi Genbutsu*
  2. *Poka Yoke*
  3. *Hoshin Kanri*

1. Defective seats
   1. What effect has this problem had on the operations of the plant?
   2. What are the potential causes of the problem?
   3. What do you believe could have been done differently so far and/or what should they do now (with “now” defined as when the case was written)?