

Exercise Topic: What is Lean?

Exercise 1: What is lead time?

Exercise 2: What is the House of Toyota?

Exercise 3: Below are a number of activities or processes stated. Argue whether they are most likely value adding or non-value adding.

A. Waiting for a college application to be processed. It takes 10-15 working days.

B. Having a chef prepare your steak.

C. A car manufacturer needs 15 hours to switch from producing car type X to car type Y.

D. Asking a client who wants to subscribe to an email service for personal information such as : gender, date of birth, name, city and country of residence, how they heard about your email service etc .

Exercise 4: What is the difference between Six Sigma and Lean?

Answers on next page

Answers:

1. It is the time interval between initiation and completion of a process. That process could be anything ranging from baking bread to providing someone with a mortgage.

2. The House of Toyota depicts some of the more important elements that together make up the Toyota Production System. This Toyota Production System became known as Lean in the West. By analogy, the House of Toyota includes some of the essential elements of Lean.

3A. Non-value adding. Would you be willing to pay to have your application processed for 15 days? If your answer is 'yes,' would you pay more if they processed it even longer than that? That is doubtful and as such, we view this activity as non-value adding.

3B. Value adding. Would you pay for this? Yes. The main reason why people visit a restaurant is to have food prepared by the expert. That is what they pay for and as such it is value adding.

3C. Non-value adding. Regardless of whether there is a need to switch to model Y, it does not concern the client that the company needs 15 hours to switch. But what if the car manufacturer really needs that time? That does not change anything. The client is not willing to pay for their non-streamlined process to switch from producing something he does not want to something he does want. Within Lean, we have techniques to bring down this switching time as much as possible, thereby reducing the amount of time we spend on a non-value adding activity. One of these techniques is referred to as SMED and will be explained in another lecture.

3D. Non-value adding. These days, email services are mostly free in the sense that they do not require a monetary amount to be paid directly (some might argue that you do pay, via other ways, for instance, by allowing the company to use your information for marketing purposes, but that is a separate issue). If however, it were to be a paid service, what would you be willing to pay for? The ability to send and receive emails. Most other activities are not value adding. That includes providing very detailed personal information which for the most part, does not enhance the experience of sending and receiving emails.

4. Although a source of debate to this very date, we would say that Lean is a way of doing things, a way of thinking about business operations and design, a way of arranging, a way of thinking. In a nutshell, Lean is a philosophy. Six Sigma on the other hand, can be best described as a project that is intended to bring down variability in processes. This project follows a structure and this structure is the DMAIC structure. You can use many techniques and concepts in each part of DMAIC. Your mastery of those techniques can be expressed in a belt color, with black belts having the highest mastery and white belts having the lowest.