

## DT - Week-4

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### Multi-Why Analysis

#### Multi Why analysis:

After having selected the How-Might-We statement, we need to find the latent needs of the customer. We need to dig deeper to determine the actual problem. Going deeper by several levels will lead you to the root cause of the problem.

For analysis, we adopt a method called **Multi-Whys**. This method is also known as **Toyota's 5-Why analysis**.

This was coined by Toyota in the 1970s, and the method became very popular among the workers in the factory.

Similar to curious children, we as design thinkers will ask a series of "Why"s but here the Whys will form a sequentially linked chain of logic.

In this simple but powerful method, the question Why is posed several times. Apply the Multi-Whys method in the following manner:

1. Take the HMW (How Might We) question as the starting point.
2. This HMW question targets a specific need of the users. Identify this need.
3. Ask Why (Level 1) the users have this specific need.
4. Determine the answer.
5. The answer from the current step forms the basis for the next level.

Simple Case:

One of Bala Sir's students is always late to class. It affects Sir's lecture's flow and also hampers the students' learning. Let us approach this problem by Multi-Whys.

#### 1. Level 1 :

**Why 1 :** Why is the student late to class?

**Answer 1 :** The student is late because he woke up late.

**Assumption 1 :** If the student wakes up early, they will arrive on time. If they wake up late, they will arrive late to class.

The HMW question at this juncture is:

*How might we wake the student up so he shows up on time to the class?*

#### 2. Level 2:

**Why 2 :** Why does he wake up late?

**Answer 2 :** Because he sleeps late.

**Assumption 2 :** If the student went to bed early, he would wake up early and would therefore, come to class on time.

The HMW question at this juncture is:

*How might we get the student to go to bed early so that they show up on time to the class?*

#### 3. Level 3

**Why 3 :** Why does he go to bed late?

**Answer 3 :** He has too many submission deadlines in the courses he has taken.

**Assumption 3 :** If he had fewer submission deadlines, he would sleep early. And if he woke up early, he would be on time for the class.

The HMW question at this juncture is:

*How might we reduce the number of submission deadlines for the student so he shows up on time to the class?*

We can go on with this type of line of questioning but we choose to stop because this is the level that Bala sir can influence and work upon on a personal and professional level.

Here, the performance parameter is the on-time performance of the student, and the control parameter is the number of submission deadlines.

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### Conflict of Interest

#### Conflict of Interest : The method

This technique is a follow up to the Multi-Why Technique.

The Multi-Why sheds light on the latent needs of the customer. Given that Design thinking is a structured approach, considering the product/service perspective must be a part of this process.

Each party (customer or provider) has their own perspective, and the inherent conflict between different perspectives needs to be resolved for an effective solution. If we solve the problem in the next phase without considering the provider's perspective, the solution may be a win for the customer but a loss for the provider.

To analyze the problem from both these perspectives (customer and provider), use the tool called **conflict of interest**.

#### ENV Model:

Conflict of interest can be represented visually by using an **Element-Name-Value (ENV) Model**.

Here, the object (or Human) where the change takes place is the **Element**.

The variable or the control parameter is the **Name**.

The ENV model uses the symbols ↑↓ to indicate opposing values or opposing states of the control parameter.

The values that Name takes are Value 1 (↑) and Value 2 (↓). The consequences of the changes in value lead to two possible scenarios. The desired result is the combination of the two positive consequences.