

THE FIVE “WHY’S” OF ROOT CAUSES

HOW TO STOP THE PROBLEM DOMINO EFFECT

— TONY YODER, CPTO

When problems occur, it is rare that they happen in isolation. Accidents don't just happen—the fender bender you saw on your way to work was caused by something. In the same way, problems in your business don't just happen, they are caused by something. The best way to fix these problems is to address their ultimate causes, known in Lean as “root causes”.

Busy managers like to take shortcuts. The quickest way to address quality issues is to simply inspect products more, tighten quality standards, and tell line workers to “be more careful”. This may lead to temporary improvements in quality, but it is also expensive, increasing rework rates and requiring extra labor to do the inspection. The Lean Process shows us a better way— to identify the most important factors that lead to a problem and to change those factors in a way that makes them lead to a better outcome. Here's an example: a metal tool manufacturer is having problems with their open-end wrenches being slightly too small. The simple solution is to have an employee take a caliper to every wrench, rejecting the ones that are out-of-spec, passing only the good wrenches to be packaged and sold. The best solution is to identify the root cause, in this case it is a nickel-plating process that is applying excess layers of coating to the wrenches and address the problem there. A simple adjustment to the nickel-plating machine fixes the problem.

Identifying a root cause can be more difficult than you might think. Processes can be chaotic with thousands of different things that can (and often do) go wrong. It takes a lot of expertise and experience to think through complicated processes and it often takes many different people in communication with each other to achieve a collective level of expertise

and experience high enough to effectively diagnose a root cause. Without a proven technique, the process of identifying root causes sometimes feels like trying to find a needle in a haystack. Luckily, the Lean Process has a simple and effective method of doing this.

The “5 Why’s” is simply asking the question “Why?” multiple times until a root cause is identified?

Usually done in a group setting, a problem statement is written down and then we simply ask “Why did this happen?”. The answer to that question will lead us to another “Why did this happen?”. It most often takes around 5 questions and subsequent answers to finally dig deep enough into a problem to identify the root cause of that problem.

It's important to remember that it's rare to get to a root cause in less than 5 steps and it's very tempting to stop asking “Why?” too early in the process. Identifying root causes can also tend to make people uncomfortable, especially when the root cause of a problem is an issue within the management or culture of a business or when the root cause takes a large investment to fix. In order to be effective, management and ownership need to commit to the idea of continuous improvement and follow-through with action to help fix the root cause.



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EXAMPLES ON BACK

PROBLEM

Customers aren't able to quickly reach customer service via telephone.

WHY 1:

The phones are busy when customers call.

WHY 2:

Employees are using phones for personal calls during breaks.

WHY 3:

More phones are available for employee use than phone lines are available.

WHY 4:

Old office phones are moved to public areas without regard to the total amount of available phone lines.

ROOT CAUSE:

There is no fixed line telephone network for outgoing calls.

PROBLEM

Outbound LTL Shipments are being delayed

WHY 1:

Pickups aren't being scheduled as soon as shipments are ready.

WHY 2:

LTL pallets are being placed in the warehouse with truckload items without shipping manager's knowledge.

WHY 3:

Shipments that are supposed to be shipped LTL aren't properly labeled on the production paperwork.

WHY 4:

The inventory management system doesn't currently allow shipments to be labeled by shipment type.

ROOT CAUSE:

User-defined fields aren't being properly used in the inventory management system.

PROBLEM

Inaccurate Data

WHY 1:

Data is missing and not entered in a timely manner from a segment of the business.

WHY 2:

Persons responsible for input do not recognize the need for urgency.

WHY 3:

Data input is delayed until there is a larger batch.

WHY 4:

Key persons don't recognize the importance of accurate, timely data for integration with other data streams to make informed decisions.

ROOT CAUSE:

Leadership has failed to communicate the critical importance of timely and accurate data.

Problem

1. Why

2. Why

3. Why

4. Why

Root Cause

Contact the author to share your solved problem or get more information on this method.



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