

- ✓ Supply Chain Consulting
- ✓ Strategic Development
- ✓ Project Management
- ✓ Mobility Solutions
- ✓ Accredited Training
- ✓ Performance Management

A background image of a business meeting in a modern office. Several people are seated around a long table, looking at documents and laptops. The scene is dimly lit with a blueish tint, suggesting an evening or indoor lighting.

Lean TQM Toolbox Series

The Ishikawa (or Fishbone) Analysis

An Ishikawa Analysis diagram is commonly used to resolve complex problems that may have multiple causes by investigation and identifying all of the potential causal factors and their relationships

It is often used in design, manufacturing & product development to outline the different steps in a process, demonstrate where quality control issues might arise and determine which resources are required at specific times

The technique generally involves 7 steps:

Step 1. Involve all stakeholders who may be affected by the problem in an open meeting

Step 2. Nominate someone to lead the meeting and express the “Problem” in an agreed statement

Step 3. Brainstorm the major categories of causes of the problem. If this is difficult use generic headings:

- Methods
- Machines (equipment)
- People (manpower)
- Materials
- Measurement
- Environment

Step 4. Write the categories of causes as branches from the main arrow

Step 5. Brainstorm all the possible causes of the problem. Ask "Why does this happen?" As each idea is given, the facilitator writes it as a branch from the appropriate category.

Step 6. Again ask "Why does this happen?" about each cause. Write sub-causes branching off the causes. Continue to ask "Why?" and generate deeper levels of causes

Step 7. Analyse the diagram and agree strategies to address the root causes that have been revealed

Lean TQM Toolbox - Problem Solving & Root Cause Analysis Tools

The Ishikawa (or Fishbone) Analysis

An Ishikawa diagram (causal diagram) showing the causes of non-value added (NVA) time

