

## Is There a Doctor in the House?

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*Few businesses understand their transformation processes, resulting in inconsistent delivery of their brand promise. Here's how to remedy the situation.*

The popular FOX show “House” is problem solving in action. The doctors are constantly brainstorming, working to identify what is causing the apparent symptoms. They sift out irrelevant information as they quickly talk through a gazillion diagnoses that could explain the patient’s case, but don’t. Luckily for the patient, Dr. House can always think of a rare disease and substance in the patient’s home or work that explains the sickness. Dr. House is a consistently good diagnostician.

Just as Dr. House converts inputs (information, drugs) into outputs (life) of importance to his customer (patient), your business operational processes transform inputs into outputs of value to your market. That’s why customers give you money.

Unfortunately, few businesses thoroughly understand their transformation processes; therefore, few deliver brand promise consistently. Don’t be offended by that statement— consider it an opportunity to become more profitable. It is as true for service businesses as for product-based businesses.

The Ishakawa diagram (a.k.a. “fishbone” or “cause and effect” diagram) is one tool to boost understanding of your transformation processes, and ultimately your profits. There are three steps.

1. First, carefully define the problem statement (the “effect”) that you want fixed.
2. Next, use structured brainstorming to identify the potential cause(s) of that effect.
3. Lastly, work through those potential causes, examining each for the probability and nature of its impact on the effect to determine where to focus your initial activities.

Define controlled experiments to test and verify your conclusions. House’s white board conversation is his method for cause-and-effect thinking. The better you understand the problem, the easier eliminating it becomes.

As an example to using this method, let’s say you started a bakery. While you’re pretty good at making cookies one small batch at a time, you’re having trouble creating consistently good product for your retail business. You suspect the oven may be acting up.

Your initial problem statement might be “uneven oven temperature.” That may in fact be the problem your business needs to solve, but perhaps the real problem is more accurately described as “excessive variation in cookie texture within and across batches.” The “uneven oven temperature” statement reflects an assumption about how cookie texture and heat are related. You may get lucky; less variation in oven temperature may eliminate the cookie texture issue. Unfortunately, that problem statement leads you to ignore all other potential causes of the texture variation.

Definition of the problem statement is very important. A quick test: If you solve the problem statement, can you state precisely how your business will be better? As you’ve just answered that question to yourself, you’ve made an assumption. State it, and then test it for validity. If your oven temperature is even, are you certain that your product texture inconsistencies will disappear? If your response is “it can’t hurt,” you may be right, but you may also be wasting time fixing something that doesn’t really matter all that much.

After defining the problem, it’s time to begin potential cause identification. Rather than totally freeform, this brainstorming probes for causes by defined categories. In both service and product businesses the categories of Man, Machine, Method, and Material are a good start to initiate thinking.

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For our bakery, the potential contributors to inconsistent cookie texture could include:

**Man:** strength of person stirring batter

**Machine:** oven temperature; size of spoon stirring batter

**Method:** order in which ingredients are used; length of time mixing batter

**Material:** eggs of varying sizes, age of the eggs, temperature of the milk

As you examine each potential cause, you sift out the less likely and probably add potential causes previously overlooked. Capture data on those you believe most likely and then decide where to focus your immediate actions.

Don't let the category names of Man, Machine, Method and Materials smother your thinking. If you don't see how they apply to your business, change them. It is common to add Measure-

ment (e.g., oven calibration; "springiness") and Environment (no M, but includes factors such as ambient temperature and humidity). The point is to encourage a breadth of thinking most likely to resolve the issue.

As you increasingly comprehend your transformation processes, your customers will benefit from your increasingly reliable output, and your costs will likely decrease. House's patients typically leave the hospital cured through the cause-and-effect analysis of a group of doctors, each viewing the situation from a different angle. Similarly, your problems can vanish for good as you engage your team in disciplined cause-and-effect problem solving. As you gain increased understanding of your transformation processes, your delivery of the brand promise can become both easier— and more profitable. Doesn't that sound pretty healthy?



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