



## **Differences in Theory & Practice** **Punish the Bottom Line**

### **TRACKING VARIATION TO IMPROVE RESULTS**

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Several years ago, I sat next to a National Football League Assistant Coach on a plane, and had a conversation about kicking field goals and all the variables that influenced whether or not the kick was good. There were many potential factors, such as how far back the ball was, how much to the left or right of center, the snap, the hold, the kick, the wind, the condition of the field, etc.

How well the kicker and holder understood and managed the variables – some controllable, others not – affected the likelihood of making the field goal.

I remember thinking that field-goal kicking involved more variables than I had originally thought – similar to trying to solve work or process-related problems. Read on for some interesting perspectives on the importance of studying variation.

*Bill Conway*

Bill's story about the variables associated with kicking field goals relates extremely well to situations we encounter every day.

Recently, an engineering firm modified their bid review process, adding a meeting to review risks before approving new project agreements. In theory this would add no more than a day to the proposal development cycle time, but in practice the new review process sometimes added a week or two causing the firm to lose millions of dollars of business.



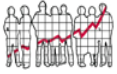
A few years ago, we visited a bakery where we were shown skids of product that could not be shipped because it was under-weight. To reduce the quantity of under-weight product, the bakery scaled up their recipes costing them extra sugar, flour, fruit, etc. What's more, they faced fines from state health departments for selling product with more calories than had been declared.

There is no question about it: variation in a product or service can take a big bite out of profits. While cost models often do not do deal with variation well, variation unfailingly impacts the bottom line.

Like the field goal kicker, we need to identify the major variables affecting our results.

The process for making breakfast pastries had several major opportunities for variation in weight: cutting the dough, braiding the dough, adding the fruit, and applying frosting. Each introduced its own range of possible variation, so by the time the pastry arrived for packaging, the potential weight range was quite substantial.

But once the weight issue was targeted for correction, it was relatively straightforward to identify, measure, and improve control over the variables in the production process. Measurements at different points in the pastry production process identified key points of variation. For example, the frosting application introduced a substantial amount of variation. They learned that the nozzle became more thickly coated with frosting as the job progresses,



so they were able to test ideas about reducing the coating: using ambient temperature to reduce the viscosity, varying the nozzle diameter, increasing frequency of nozzle change-outs, and other possibilities.

Outside the production line, identifying and controlling variation can be more challenging but also even more impactful. A CEO of a training company once told me that if a prospective customer checked one reference, they won the contract 20% of the time, if the customer checked two references, they won the contract 37% of the time, and so on until if the customer checked six references, they always won the job. They could increase their success if they could influence the variable “number of references checked.” They found they could influence the number of references checked by increasing the number of references provided, regardless of how many references the prospective customer had asked for. They increased their sales substantially by identifying and managing this key process variable.

This CEO was an exception. Outside of production, few business processes have been studied to identify the key variables affecting success.

The struggling engineering bid process is a good example of how unrecognized variation in important variables can impact the results. While the firm’s bid process is documented and repeated numerous times by highly qualified engineers, it varies greatly from one instance to another. Where does it vary most often? What are the impacts of these variations? Which are controllable? How can the firm control the key process variables? No clue. Lots of data is collected about win rates, margins, etc., but no information is collected about how the process is executed. That is, they have results measurements, but no process measurements. This situation makes it very difficult to manage and improve the results.

*“In theory, practice and theory are the same. But in practice, they’re not.”*  
—Yogi Berra

One can always just go out there onto the field and give that football his or her best kick and hope for a field goal. But to increase your success rate, you need to identify the key variables, learn how the process variation affects the results, and find out what you can do to systematically influence the key process variables. Once you know the questions to ask, gathering the information may be easier than you think.

“In theory, theory and practice are the same. But in practice, they’re not.” Yogi Berra once observed. Find out where your business practice varies from the theory and what variations are having the greatest impact on your success. Controlling these variables will move you closer to your goal line.