

# **History Matches Cause and Effect**

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The purpose of this document is to show how estimates are used to navigate.

## **History Is Organized by Time Period**

History is organized by time period. Time periods are required for estimating, and estimating (or confidence) is the purpose of history.

Reports from all systems measure confidence for estimating. So, reports from all systems are organized by time period for three basic measurements in reports: effectiveness, control and efficiency.

The financial reports are a good example of this measurement for estimating. The balance sheet represents the objective benchmark or effectiveness, and the flow statements representing the activity measurements or efficiency benchmarks. To measure the control of activity towards an objective, income statements match cause and effect or expenses and revenue by time period.

There are estimates involved in the matching of cause and effect. A navigator does the same thing. He navigates based on estimates. History matches cause and effect. Matching requires estimates, and estimates require time periods.

## **Estimates are used to Match Cause and Effect**

History matches cause and effect. For example: a navigator records history and matches cause and effect based on estimates. If he is a little off course, he wants to turn back to course. He is matching cause and effect. He is estimating the effect his turn (his point-in-time decision to turn) will have over time so he can get back on course and then head for the objective. In fact, he may turn two or three times before he takes another measurement. The turns are indirectly related to the measurements, but the estimates are directly related to the measurements.

## **Matching Requires Estimates**

Because errors in the estimate are distributed over time, the longer the period between measurements, the better the estimates. It is easier to estimate the use of a capital expenditure over a long time period than over a short period. When I purchased my car I had a better idea of how long I could use it than when I would use it. The longer I plan on using it the less impact any error in my estimate of how long I will use it will have on my planning. Over time I can estimate my normal habit of using my car. Even if I plan on changing my habit, I can still use my history over time to plan and control that change.

## **Estimates are used to Cause better Effects**

The navigator uses his position measurements to estimate the effect of his turns. His measurements give him relationships (rates and factors) he can use to plan his turns.

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### **Estimates are used to Evaluate Measurements**

He is also measuring his position by measuring the control he has over the measurement process. In other words, to be reliable for decision making his information must make sense with what he knows about his business and his other information. The more it makes sense, the more control or confidence he has over the measurement process.

### **Balance Estimates and Progress Measurements**

There are estimates involved, and the longer the time period for the next measurement, the more you know about your estimate of the cause. But, the longer the time period, the less you will know about your position or effect.

### **History Matches Cause and Effect**

The purpose of this document is to show how estimates are used to navigate. Good estimates take time normalize. We check the things like the stock market over time. We navigate with estimates based on historical reports over time. To match cause and effect, we measure effects by time period. Estimates directly related to those measurements then help us make changes that will improve future effects. In other words, we use time period history to help us get where we want to go.