

# How to measure performance

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## Doing a good job?

By Sepp Gmeiner

It is amazing how many people do not have a good answer to the basic question, "how do you know if you're doing a good job?" The answer I get most often is, "Well, if the boss doesn't complain, I'm probably doing a good job." This is not the right answer.

So how do we know? The answer is in sports. How do we know who is doing well, and who does better? We keep score!

We could not imagine watching a hockey game and not seeing the scoreboard. How can we talk about a golf game without the score? The same thing applies to the work place and why we need a scorecard.

What you measure will get attention, and what gets attention will improve.

### Fine-tune your scorecards

Each company has already a scorecard. The profit and loss statement and the balance sheet are the ultimate measurements from a business point of view, but not many companies share their financial numbers with all their employees. Going back to the hockey game: it is no fun for the players or spectators if only the general manager and the owner will be informed of the outcome of each game. Everybody involved needs to be able to understand the score.

Before implementing measurements, we need to think through what is important for the company or for the department. We can measure company-wide issues, or issues specific to a work group or department. The more specific the measurement, the easier it is to assign individual responsibility. However, an inherent risk or problem with departmental measures is that it will lead to "local optimization." In some cases, this local optimization contradicts the overall performance. For example, if you measure the productivity of panel cutting and panel drilling, the panel-cutting group will optimize to bring the best results to their score. They may, for example, combine orders or change the sequence of orders to optimize. This could lead to an unfavorable sequence at the drilling machines or lead to shortages further downstream. This will cause the drilling score sheet to suffer at no fault of the drilling group. Therefore, in measuring performance details one must review the possible negative side-effects to the overall plan.

The first step in measurement is to select the subject. This selection must be in line with the short-term or long-term goals of the company.

If your selection is operations measures, you will be concerned with measuring for on-time shipments, on-time/complete shipments, days late shipments, replacement order lead times, production volume, productivity, machine up/down time (bottleneck), manufacturing lead time, machine utilization, inventory times and inventory days on-hand.

If your selection is quality, you will be concerned with re-work per day/week, scrap per day/week and damaged parts (counted according to reasons).

If your selection is human resources, you will be concerned with personnel turnover, median seniority, percentage of days out and number of suggestions submitted and implemented per month.

If your selection is safety, you will be concerned with decrease of time lost due to accidents,

decrease of time lost due to accidents per period and decrease in near-miss accidents.

If your focus is on finance, you will be concerned with sales and shipments per day, days of accounts receivable and days in cash cycle.

When looking at sales and customer service, you will be concerned with order booking per day and percentage of orders entered requiring no classification.

There is an ever-growing list of factors that could be measured. As those factors surface, we need to prioritize by asking, does this issue take precedence over other issues, or will this additional measure minimize the focus and efficiency of the other measures?

We should only implement a few measurements at a time. I have seen organizations with so many measurements that everyone was so busy with measuring that there was not enough time to manage the business.

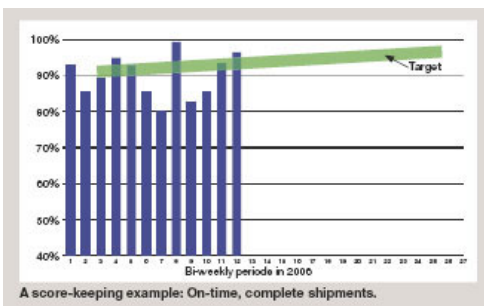
The second step is to determine the time period to be measured. Again comparing this with sports, we do not want to wait until the end of the month to find out the results of a game. The report should be as immediate as possible. For operations, monthly results are long but still meaningful. Alternatives include weekly or bi-weekly scores which is a good option. Shorter cycles, such as daily or per-shift reports, are meaningful as long as we measure a subject that doesn't have a longer cycle itself. For example, you cannot measure overtime hours on a daily basis since in most cases they are calculated on a weekly or bi-weekly cycle.

The third step is to select the source of data and how you calculate the score. If, for example, you select on-time/complete shipment as the subject, the basic formula is:  $\text{On-time} = \frac{\text{All orders shipped complete and on-time}}{\text{all orders due}} \times 100 \text{ percent}$ .

You also need to select the unit of measure. If you count orders in terms of dollars it will give you a different score than if you count just the number of orders. With the first measure you state: the bigger the customer order, the more important the customer. With the second measure you state: Each customer order has the same importance. Again, the outcome depends on the way you measure.

You need to decide how tough the score is to achieve 100 percent. If it is too easy the measurement becomes meaningless and you're wasting time and good will. In the same way, unachievable targets are de-motivating.

We should also pick things to be measured that the employees can relate to. To measure the number of cabinets or fronts per day in a kitchen cabinet company is more practical than the dollar value of production.



My personal favorites when starting a measurement program are the following three:

**On-time and complete shipment:**  $\text{On-time} = \frac{\text{All orders shipped complete and on-time}}{\text{all orders due}} \times 100 \text{ percent}$ .

**Volume:** Measured in cabinets, doors, square feet, dollars, or any other measure used already, counted daily or by shift and posted at least weekly.

**Productivity:**  $\text{productivity} = \frac{\text{output}}{\text{input}}$ . Output = volume. Input = labor hours (per week or bi-weekly — available from payroll)

The fourth step is to implement the measurement. It does not help just to post results. Like any other new initiative, it needs management's commitment. Management needs to demonstrate interest in

the measurement.

Ask, then act

Questions need to be asked as to how to improve, followed by action items. It is far more valuable that the company is committed to two or three measures than having a dozen measures that nobody cares about.

The final step is to sustain the measures and the system. During plant visits I often see abandoned measurement systems. For example, I often see the sign: "This facility worked ..... days without accident," but there is no number, only dust on it. We also see nice graphs, but a closer look shows they are from years ago.

Again, it is better to implement a small number of measures and sustain them than to start something big and run out of resources.

In a past project, after having a few single measures in place, the production manager of a sizeable furniture manufacturing company was sold on the concept. "Now," he said, "I don't have to wait for the boss to tell me how I am doing. I can tell him now how much better we are doing. It gives me focus on what is important."

In a company the manager needs to react to changing circumstances with corrective actions, the same way the coach of a team should make corrections.

In a company with all its complexity you need measurements to properly employ the available resources.

As a manager once asked me a long time ago: "Do you have the facts — or just another opinion?"