



## Are Your KPIs Tied to Value Creation?

By Kay Sever

KPIs (Key Performance Indicators) are a subset of measures tied to process performance, operational excellence and financial results. KPIs are often called “the most important measures” in any company.

When I am asked to help an operation improve performance, some of my first questions relate to KPIs:

- Have you defined KPIs? If so, what kinds of things do you measure?
- What departments have KPIs?
- What formats do you use for KPI reporting? If you use trend charts, what kinds of data are charted?
- When are KPI values / trends reviewed and by whom?
- Do employees have their own measures?

The answers to these questions tell me if existing measures are tied to value creation. Before we explore them, let’s review the concept of value creation.

When production machines are running, value (i.e., profit) is created as saleable product is produced. We measure this value in productive units, earnings, cash flow and ROI. Because production equipment is designed for value creation, it is logical to focus on measures tied to its performance. KPIs focused on machine performance are important, but they are not the only KPIs to monitor when tracking drivers of value creation.

### Look Beyond Your Equipment

Value (sometimes in the millions of dollars) is created when breakdowns, process upsets, poor quality and excess costs **are prevented**. Machines do not create this value – people do.

People execute tasks that require decision-making to create the best result under certain conditions. Some employees report for work but “go through the motions” just to get through the day. Through time, they have become disconnected from value creation for a variety of reasons, including:

- constantly changing priorities,
- mixed messages from management,
- being blamed for problems that they have no control over, or
- not receiving information they need to manage what they can control.

These employees are unaware of opportunities to create value as they perform their work.

When employees understand how value is lost, it is easier to **focus on value creation** and prevent or minimize events or inefficiencies that 1) interfere with machine performance or 2) result in lost margin, rework or delays). Examples include:

- a problem that could have been avoided,
- excess cost that could have been avoided or minimized,
- forfeited revenue that could have been collected,

- a delay that could have been avoided or minimized,
- process upsets that could have been prevented or minimized, or
- poor communications that delayed the start of production or the transfer of data or information.

If there are enough of these kinds of problems that go unsolved, **significant lost value can go undetected for months or even years.** To make it worse, these losses frequently remain hidden because of a heavy focus on machine performance. Sometimes expansion capital is even approved that is not really needed because problems like these hide existing capacity. But how does this involve KPIs?

### Value Creation and KPIs

Measures are like gauges - they provide feedback on how things are going. Measures tell us something about process performance. Measures can also *hide problems that interfere with performance.*

Example: You go to the doctor for a check-up because you are concerned about your heart. He takes your blood pressure, but does not measure your weight or your pulse, does not ask about diet or exercise and does not schedule an EKG. He tells you that your blood pressure is normal and that your heart is healthy. Would you be convinced that he had enough information to make this diagnosis with confidence? Your answer would be “no” because he did not measure other factors that could indicate a problem or the potential for a problem to develop. He may have missed an opportunity to help you lengthen your life because he did not measure other factors related to symptoms of heart problems.

Similarly, in the workplace, we often judge the health of a process on a single measure related to output, not on process potential or problems that reduce the output from what it could be if these problems did not exist. I am suggesting that KPIs can be used to help understand process potential and diagnose the problems that are preventing you from achieving higher levels of performance, lower costs and improved quality.

Example: Additional availability (and utilization) can be “discovered” through a “dissection” of these familiar ratios that so many people are held accountable for.

Availability is the net result of all maintenance downtime. Many operations view success with maintenance as achieving the highest possible availability. On the surface this may seem reasonable IF value-added maintenance for PMs and other scheduled work is not cancelled to achieve the overall goal.

Do your maintenance techs, maintenance superintendent, and general manager measure their maintenance success based on the performance of controllable value-added maintenance activities or on the overall availability achieved by canceling planned maintenance?

Dissection of overall availability into its components may reveal opportunity to improve total availability *without canceling or postponing planned tasks* to achieve the total availability goal.

### KPI Processes Linked to Value Creation

I have identified three processes that connect KPIs to value creation:

- The Selection Process
- The Formatting Process
- The Communication Process

#### KPI Selection

Participating in the process of selecting the most important things to measure *forever changes* the way employees view the importance of connecting measures to value. Parameters of the selection process include organizational level, processes to be tracked, desired learnings and resources for tracking and reporting.

The “owners” of the KPIs should be involved as much as possible in this process. Allow time for deliberation, discussion and careful thought because this work may be new to those being asked to do it. They may be used to reading reports and monitoring existing trends “on auto-pilot”, but may never

have thought about whether they are measuring the right things.

Desired learnings as a criteria for selection relates back to the earlier examples about heart health and equipment availability. What do you want to learn that your measures are not telling you?

Frequently, many measures are defined during the selection process. Making a long list is OK as a first draft, but a long list will do no good if there are insufficient resources for data gathering and reporting. Shorten the list to match resources.

To begin the process of KPI selection, focus on inputs, process, output, problems and losses. This approach raises awareness of:

- the connection between supplier and customer requirements and process specs.
- measuring problems to understand them better.
- understanding value lost, maybe for the first time.

### KPI Formatting

The format chosen for KPIs can facilitate their use as a key communication tool. It can also connect groups of process owners so that they have a better understanding of their role in a bigger process. There are two aspects of formatting discussed here:

Trending vs snapshot: Twenty-five years ago, every operational and financial report that crossed my desk was formatted using what I call a “snapshot” approach (i.e., how we did today, last week, last month, last year). Trending is an alternate format that indicates performance over time and adds light years of value when it comes to tracking and communicating improvement. Trending makes it easy for managers and employees to see at a glance if things are getting better or worse.

Chart variables: Once a KPI has been selected and charted, I recommend that four variations of that KPI be charted together: prior period, actual, budget and optimum or target (different than budget). Putting these four dimensions of a variable on the

same chart creates a perspective about where you have been, where you are now, where you plan to go, and the best you could do – all in one visual. This formatting approach is a powerful way to help employees quickly understand the state of improvement and remaining opportunity that has not been captured.

### KPI Communication

Employees cannot recognize improvement opportunities if they do not understand how a company defines opportunity. KPIs can be gauges for tracking opportunity, but can only add value if the workforce sees the trends that they can affect. Grouping the charts strategically creates a communication vehicle that is easy to understand and share with all the stakeholders in the process.

#### Grouping:

Some of you may be familiar with chart groupings (commonly called dashboard charts or cockpit charts). There is tremendous value in grouping charts to connect the audience with its role and contribution to value stream processes. Groups can also be created for departments that should be working together but aren't. In short, these charts can be constructed to facilitate “process orientation” and culture change.

Process orientation helps employees see how their job fits into “the big picture”. It also helps them understand their customers and suppliers and how they add value by meeting customer requirements. The power of using these charts to facilitate process orientation should not be underestimated.

Another use for these chart groups is measuring how well that administrative departments (purchasing, warehousing, marketing, accounting, etc.) support production, maintenance or each other. These charts can be effective in removing barriers between departments *if the culture is open to receiving feedback from other departments constructively.*

### Management involvement:

Strategies for KPI communications should be consistent across the organization. To maximize the overarching benefit of KPI tracking and reporting, management needs to lead the way. Every management team should have its own set of measures. Management should set expectations about the use of KPIs in communications and decision-making and should be the first to initiate this work. Consistent use and communication of these measures sets the stage for similar use and communications at all levels.

### **KPIs Can Reveal Opportunity**

*What you measure changes what you fix and what you talk about.*

- If you measure for throughput, employees will try to maximize throughput (maybe at a higher cost or lower quality). Unneeded expansion capital may be approved because existing capacity is often hidden with this focus.
- If you measure for cost reduction, employees will try to reduce costs (maybe at the expense of throughput or quality).
- If your KPIs are opportunity-based, employees will measure your improvement opportunities. These opportunities include machine performance, costs AND the problems that interfere with machine performance, add to cost and compromise quality.

By understanding the impact that problems have on the bottom line and on organizational performance, it becomes much easier to select the right KPIs for your organization.

### **KPIs Can Change Culture**

Real culture change begins with the free discussion and measurement of problems at all organizational levels.

If management behaves as if “Problems = Opportunities”, they create a comfort zone

for their entire workforce to tackle what really needs to be fixed.

When *managers and employees become comfortable measuring problems*, language at all organizational levels changes from finger-pointing to proactive and collaborative problem resolution; an improved bottom line and a new level of passion and enthusiasm are sure to follow.



NOTE: Kay Sever implements continuous improvement with a balance between improvement concepts/tools and the “people side of improvement”. She works with every organizational level and across functional areas to 1) identify hidden opportunities for improvement, 2) remove the barriers that hide opportunity and prevent effective execution and culture change, and 3) maximize the natural synergies that exist between production and all the departments that support it. She also coaches management teams on Improvement Leadership and helps them modify their management processes to drive and sustain process improvements and improvement initiatives. More detail about her services is available at her website: [miningopportunity.com](http://miningopportunity.com). She resides in Arizona and can be reached at 480-545-9095 or via email: [kay@miningopportunity.com](mailto:kay@miningopportunity.com).