Defining & Delivering Effective Key Performance Indicators (KPIs)

Key Performance Indicators (KPIs) provide organizations with a high-level snapshot of the health of the business through a set of agreed-upon measures that reflect progress toward achieving corporate goals. These metrics give executives and managers the ability to focus on what matters most to the company.

KPIs are a vital starting point for performance improvement processes because they demonstrate whether a business is in line with its strategic objectives. Aligning all levels of an organization (business units, departments and individuals) with clearly defined and cascaded targets helps create accountability and track progress. Another top benefit of KPIs is the promotion of collaborative planning across the organization to ensure everyone is operating from the same page. KPI analytics tie in corporate goals down and back up through the enterprise to regional and operational levels.

Looking to gain a better understanding of KPIs? Click one of these topics to explore KPI concepts, best practices, and effective implementation strategies.

- ✓ **KPI Planning: Collaborate Around Clear Goals**
- ✓ **Top 5 Attributes of Effective KPI Systems**
- ✓ **Balanced Scorecards with Financial & Operational KPIs**
- ✓ **Grouping Your KPI Measurements**
- ✓ **Importance of Cascading KPIs**

Key Performance Indicator Planning

Collaborate Around Clear Corporate Goals

Clear corporate goals are important, otherwise vague objectives will create impractical perspectives and metrics. The alignment of KPIs with organizational strategies and goals is the key to realizing bottom-line impact

When deploying performance metrics, we must begin with the end result in mind and focus on what we want as outcomes of our work processes. This often presents a challenge since we do not work as a set of isolated departments, but in coordination with others. Processes that begin with an individual or department are continued or completed by others. So, how do we effectively measure outcomes when a single individual or group is not controlling all the key steps? How can individuals see what the effects of their improvements are if these get lost in the noise of company management reports? Build collaboration into performance measurement from the very beginning when designing your metrics and work to align performance indicators with company objectives.

Break Away From Department Silos

Business processes tend to be segmented, and many departments are collecting silos of information that produce metrics used only for the sake of measurement. These silos reinforce divergent opinions of company performance and limit a common understanding of what new behaviors are needed. So, a major factor in implementing performance measurement is changing the way performance is measured and reported and how people view success within their own processes. Change of this scale may require a multi-phase approach as teams come on board to shape and support new processes.

Involve All Stakeholders

Consider your current performance indicators and who sets them: What is currently measured? Are these aligned with company objectives? If not, this lack of connectivity causes dissatisfaction with management reports and criticism of managers who simply “manage by the numbers.” To solve for this, “map” front-line activities all the way up to corporate goals and get buy-in from all stakeholders (your executive- to plant-level lines of management). Establish KPIs that cascade down to monitor all these activities and get a comprehensive look at your supply chain. See page 6, the Importance of Cascading KPIs, for further information.

What Well-Crafted KPIs Should Do For You

At a high level, the KPIs an organization sets up should be structured to accomplish the following. Keep these points in mind when developing a KPI system.

- Address all aspects of performance results in the areas of customer satisfaction, product and service performance, financial and marketplace performance, supplier and partner results, operational performance, and performance relative to competitors.
- Reflect an enterprise perspective rather than stove-piped functional or business-focused views.
- Support strategic goals and describe the targeted performance in measurable, comprehensive and relevant terms based on valid data.
- Be deployed to the organizational level which has the authority, resources and knowledge required to take necessary action.
- Cascade throughout the organization, empowering your employees and promoting positive action (often via linked compensation).
- Not be overwhelming to manage (they should not require full-time employees to monitor them).
- Include both financial and non-financial measures.

Top 5 Attributes of Effective KPI Systems

Qualities That Better Enable Businesses to Meet Performance Goals

A KPI system backed by a central repository of customer, supply chain and financial data helps you more easily manage metrics that are unified around a corporate strategy map.

Effective KPI systems have some key traits and best practices in common, making them more valuable to key stakeholders from the executive office down to the individual plant level. Effective KPIs are ones that eliminate departmental barriers, use a central repository of enterprise data to drive metrics, measure progress across the company, leverage exception management to proactively monitor for issues and have a closed-loop process for defining, executing, and evaluating business strategies.

Eliminating Departmental Barriers

Regardless of the specific performance criteria that's central to your immediate or long-term business goal, each key performance indicator should be structured so it connects to the duties of everyone at the company and, as such, eliminates departmental barriers. Keep KPIs simple and attach them to your company's mission, customer experience and/or financial performance so you can better maximize employee understanding on how to contribute. When coupled with incentive programs that reinforce behaviors that work toward attaining KPIs, high employee engagement usually results.

Central Repository

Having a central location to collect, store, and report KPI data makes it much easier to manage metrics that are unified around a strategy map. Summarize and focus the detailed data you deal with every day into something that's coherent for management to help ensure synergy and attainment of corporate goals. Using data from such a repository to support the generation of KPI metrics lets you very effectively score performance against objectives, monitor progress in real time, provide drill to detail capability, generate cause-and- effect models and, most importantly, measurably improve the bottom line.

Performance Measurement

With perspectives aligned to corporate goals, KPIs should be shared with internal and external stakeholders via dashboards. A dashboard is the instrumentation panel of your business, where various gauges indicate the health of the business in terms of parameters that are critical for the success of business strategy. Within the dashboard, KPIs gives executives enhanced analytical insights, showing not only the current levels of performance against each KPI, but providing the capabilities to create "what-if" scenarios and exception reports which are immensely helpful in giving vital information to executives to initiate necessary corrective (or proactive) actions.

Exception Management

Exception management ensures that performance issues (e.g., low inventory to open orders, increasing days' sales outstanding, trending decreases in product-specific sales, etc.) are rapidly identified and the appropriate individuals are notified to further investigate what's causing the anomalies. That's powerful because it gives employees the responsibility to make decisions based on the regular analysis of KPIs directly tied to their job function. Plus, it can help to reduce managerial load and allow managers to spend their time more effectively in areas where it will have the most impact.

Closed-Loop Process

A closed-loop process defines strategies, executes those strategies, and evaluates performance to determine if the strategy was successful or requires change. Effective scorecarding and exception management are powerful catalysts for making the need for change visible and the opportunity for improvement clear, helping to close the loop in the performance management cycle and to replace the "blame culture" that often sprouts when areas of low performance are revealed.

Balanced KPI Scorecards

Use Financial & Operational Metrics For Well-Rounded Analysis

KPIs that achieve a balanced scorecard of metrics are ones that incorporate several different perspectives and cascade from the corporate level all the way down to individual plants or warehouses.

Defining effective KPIs that are optimal for a manufacturing business doesn't have to be difficult so long as you realize what information will and won't help you determine if your company is meeting its goals and objectives, and that you understand the interdependencies of KPIs in meeting those goals. In the preliminary stage, hold regular meetings of key stakeholders representing all core business areas to discuss, fine tune and ultimately come to a consensus on KPIs. The challenge is to incorporate metrics that provide a realistic and balanced view of the business. Many companies launch performance management initiatives solely with financial KPIs; but such measures alone cannot be acted on. Operational side KPIs add balance and actionable metrics, helping companies see problems coming up through the supply chain so they can make necessary adjustments "on the fly" – either at the corporate, regional or ground level.

Value Delivered By Operational KPIs

Non-financial measures give a closer link to long-term organizational strategies. Financial evaluation systems generally focus on annual or short-term performance against accounting yardsticks. They do not deal with progress relative to customer requirements or competitors, or other non-financial objectives that may be important in achieving profitability, competitive strength and longer-term strategic goals.

Operational measures can be better indicators of future financial performance, too. Even if the ultimate goal is maximizing financial performance, your financial measures may not capture long-term benefits from decisions made now.

Also, your mix of measures should provide insight about managerial actions. Managers must be aware of how much success is due to their actions or they will not have the signals they need to maximize their effect on performance. Because many non-financial measures are less susceptible to external noise than accounting measures, their use can improve managers' performance by providing more precise evaluation of their actions.

Metrics For A Balanced KPI Approach

Here's a representative selection of operational metrics that analysts in the manufacturing sector have found most valuable to their KPI strategy.

Supply & Demand Planning

Capacity Utilization	Number of Supply Sources
Cash-to-Cash Cycle Time	Production Plan Adherence
Forecast Accuracy	Supplier Fill Rate
Inventory Carrying Cost	Supplier On-Time Delivery Performance
Inventory Days of Supply	Supply Chain Finance Costs
Number of End Products / SKUs	

Manufacturing Performance

Asset Turns	Overhead Cost
Average Plant Wide Salary	Total Build Time
Indirect to Direct Labor Headcount Ratio	Value-Added Employee Productivity
Inventory Accuracy	Warranty & Returns
Inventory Cycle Counting Accuracy	Yield
Machine Wait Time	

Order Fulfillment, Delivery Performance, & Customer Account Management

Days Sales Outstanding	Incoming Material Quality
Number of Orders Not Delivered Complete	Order Entry & Maintenance Costs
Delivery Performance to Customer Request Date	Order Fulfillment Costs
Delivery Performance to Scheduled Commit Date	Perfect Order Fulfillment
End of Life Inventory	Transportation Costs
Field Finished Goods	Unit Cost
Fill Rates	

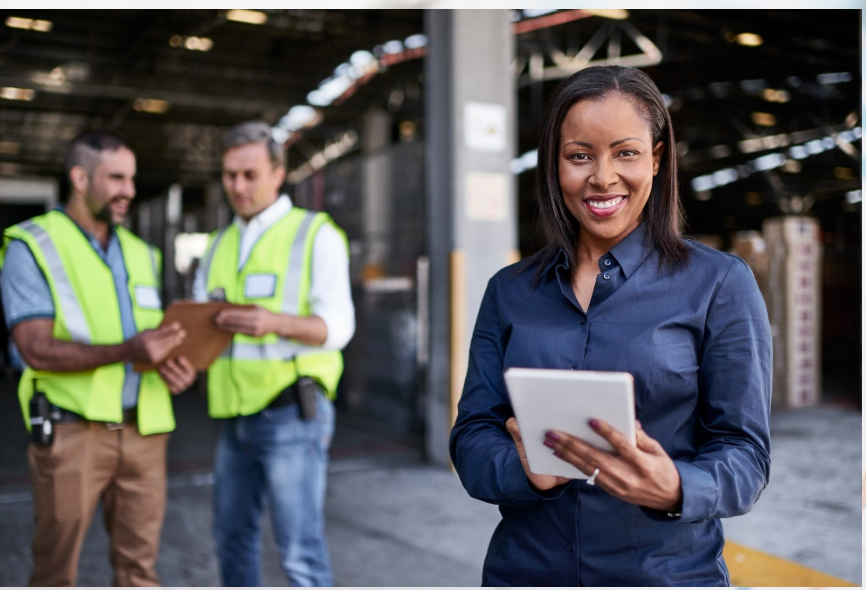
Grouping Your KPI Measurements

Capture Internal & External Industry Perspectives

Your KPI metrics should account for customer, financial and process-related views of the business, along with measurement factors like cost, productivity and quality.

A successful KPI strategy captures a broad set of insights about your enterprise, giving you layers of analytical views to explore. Customer-oriented views measure the ability of an organization to provide quality goods and services that meet customer expectations, such as retention, profitability, satisfaction and loyalty. Financial views measure the economic impact of actions on growth, profitability and risk from shareholder's perspective, such as net income, ROI, ROA, cash flow. And operational views measure the internal business processes that provide quality control and eliminate waste (such as Six Sigma and Lean).

Another important consideration is the selection of appropriate measurements to capture operational performance over time and then relate the KPIs to internal business and external industry benchmarks. The following summary reflects common measurement groupings that can be employed by manufacturing organizations to account for those needs.



Recommended Measurement Groupings

- **Productivity:** Employee output (units / transactions / dollars), uptime levels and how employees use their time (sales-to-assets ratio, $ revenue from new customers, sales pipeline).
- **Quality:** Ability to meet and / or exceed the requirements and expectations of the customer (customer complaints, percent returns, DPMO – defects per million).
- **Profitability:** Overall effectiveness of the company in generating profits (profit contribution by segment / customer, margin spreads).
- **Timeliness:** Completion point in time (day /week / month) of management and employee tasks (on-time delivery, percent of late orders).
- **Process Efficiency:** Effectiveness of the company in quality control and best practices to streamline operational processes (yield percentage, process uptime, capacity utilization).
- **Cycle Time:** Time (hours / days / months) required by employees to complete tasks (processing time, time to service customers).
- **Resource Utilization:** Effectiveness of the company in leveraging resources such as assets and investments (sales per total assets, sales per channel, win rate).
- **Cost Savings:** Success of the company in achieving economies of scale and scope of work to control operational and overhead costs (cost per unit, inventory turns, cost of goods).
- **Growth:** Ability of management to maintain a competitive economic position (market share, customer acquisition / retention rates).

Importance of Cascading KPIs

Develop KPIs That Are Meaningful Across The Enterprise

Cascading KPIs are analytics that tie corporate goals down and back up through the enterprise to the regional and operational levels.

Management teams understand how important it is to tie the metrics they are using at the corporate level all the way down to the ground floor to give them more enhanced visibility and transparency into what is happening throughout the enterprise. There has to be agreement on the definition of metrics to be used, with acknowledgement that different departments will have different needs. For instance, manufacturing might be more interested in a production grouping of the data; sales may be interested in data tied to a brand; and marketing may look at the product category level. Companies have to ensure that they encompass all of the different ways that their people need to look at and relate to the KPIs based on how they do their jobs.

How KPIs Can Cascade

For a company that is focusing on revenue growth and profits, their KPIs could cascade down to focus on weekly customer shipments, order fill rates, backlog metrics and accounts receivable.

At the **regional level**, the KPIs may focus more on how they tie in with the overall plan, and not so much on the customer or product level. That means a regional executive who is responsible for five plants would want to look at the key elements of what makes each plant operate efficiently. Metrics would be designed to look at on-time fill rates or what the plant's capacity is compared to the backlog. For the executive at the **corporate level**, KPIs would leverage that regional data to incorporate it into performance metrics that ties everything together from a revenue and expense standpoint.

A **sales manager**, on the other hand, could use an executive dashboard of KPIs to determine if they're in danger of not hitting the order fill rates for a big box retailer, which may subsequently result in them being penalized with compliance fees.

Likewise, a **logistics manager** may determine through KPIs that the reason a team isn't hitting the order fill rates is because they don't have the packaging material or maybe they have a problem with a specific machine. Both the sale and logistics managers, while further downstream, can quickly take action to remedy the situation before the order fill rate (and profit) is more adversely affected.

Get Comprehensive Views Of Your Supply Chain

Companies that emphasize downstream customer-related measures rather than upstream financial indicators give teams helpful visibility to schedule operations more efficiently while enhancing their working capital. This method provides a significant advantage over the traditional, historical-view approach. Consider that typically, by the time a company sees something wrong with some key financial metrics, it is too late to do anything about it because the money has either been spent already or the product has already been sold. By first exploring operational inefficiencies and improvement opportunities via cascading KPIs, firms can be more proactive and ensure their metrics present a comprehensive and accurate portrayal of supply chain performance.

Silvon's Stratum BI solution offers built-in analytics for measuring performance across the enterprise, a secure Data Hub for managing multi-source data used to drive your reporting and analytics, and tight integration with 3rd party apps like Power BI and Excel to provide ultimate BI value.

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