Implementing an Organizational Performance Measures System

Construction basics of an effective metrics framework



effective executives, efficient employees

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- *StrategyDriven* Insight

Companies employing an ERP system can typically automate up to <u>40 percent</u> of all metrics... real-time information, lower costs!

Driving Alignment and Accountability...

for achieving the organization's mission goals

Performance measures serve to align an organization's efforts to the achievement of its mission goals. They quantifiably monitor important characteristics of the company's products and services, the processes that create them and the environments within which they are created. Performance measures support managerial decision-making by providing useful information regarding:

- How efficient and effective are the company's processes
- If and where product/service improvements are needed
- If the company's customers are satisfied
- How environmental factors are affecting the company
- If the company is meeting its stated goals and values (corporate, cost/revenue center, and individual levels)

Performance measures best serve an organization when they are understandable, broadly applicable, uniformly interpreted, and economic to apply. They should cascade through an organization's hierarchy such that achievement of lower tiered performance goals support that of higher tiered goals that ultimately support achievement of the company's mission goals.

Characteristics of effective Organizational Performance Measures

An organization's performance measures system drives alignment to the achievement of it's mission goals. As such, these measures should cascade from the corporate to the individual level with each successive level supporting achievement of the next higher tier's goals. To achieve this, organizational performance measures themselves must share a common set of characteristics including:

 Organizationally Relevant: possessing a clear relationship to the effective, efficient achievement of the organization's mission goals and values

- Consistent Units of Measure: enabling direct correlation between higher and lower tiered performance measures and across the organization (between individual business units)
- Uniformly and Precisely Interpretable: holding a common meaning for personnel at all levels and throughout the organization
- Economically Measurable: having an efficient existing or creatable means of data gathering, presentation, and dissemination



Case Study

A *StrategyDriven* Advisor guided a Fortune 200 company's leadership team in assessing their organizational performance measures system; identifying monitoring and communication gaps and developing an improvement plan that included supporting system configuration upgrades.

Engagement Approach

Through a series of workshops and interviews, our advisor worked with senior organization managers to catalog existing performance metrics and reports, recognize gaps to industry leading practices, identify additional measures needed, and develop a phased approach to upgrading the utility's performance measures system. A company-wide metrics and reports governance program was also developed.

Value Delivered

An actionable performance measures system upgrade plan was created that, once implemented, provided executives and managers with the accurate and timely information needed to support effective decision-making. This comprehensive roadmap contained a step-by-step plan for establishing a fully integrated performance measures system supported by data collection and processing procedures, application configuration, program governance, and manager and employee training.

Other Case Studies

Based on our studies of several enterprise performance measures systems, *companies employing an enterprise resource planning (ERP) system can typically <u>automate up to 40 percent of all metrics</u>. Such automation yields several benefits including:*

- Real-time or near real-time performance data access supporting leadership decision-making
- Heightened availability of performance monitoring personnel to perform data analytics (rather than spending time on metrics production); converting data into useful decisionsupporting information
- Reduction in labor costs to produce periodically developed performance metrics packages, if used
- Elimination of the need for costly paper-based performance metrics packages (labor and materials)



Systems of effective Organizational Performance Measures

StrategyDriven Conceptual Metrics Design Model

An effective metrics system translates strategic mission goals into daily operations and then measures the effectiveness of personnel at meeting those goals. The conceptual model approach focuses on developing functional area metrics that bridge the strategy to operations gap.



StrategyDriven Corporate Metrics Framework

Effective executive dashboard and scorecard metrics are tied to the organization's strategic objectives. By associating these metrics with the organization's mission, vision, and values goals and then cascading them throughout the organization, a framework supporting increased alignment to the accomplishment of these goals is established.

The illustration below highlights the relationship between shareholder financial return and the day-to-day activities of organization members for an offshore drilling company. (Metrics for companies in other industries will vary.)



StrategyDriven Organizational Cost and Equipment Reliability Wireframe Examples

The following is a representative sample of cascaded cost and equipment reliability performance measures from the corporate organization to the regional hubs, individual rigs, and rig work centers for an offshore oil drilling company. (Metrics for companies in other industries will vary.)

Cost Measures Corporate Hierarchy Earnings Per Share Drilling Company Key Earnings Growth Performance Indicators Production Costs Regional Hub Operating and Maintenance Costs Fleet KPIs Capital Spending Inventory Value Overtime Costs Production Costs Individual Operating and Maintenance Costs **Rig KPIs** Capital Spending Inventory Value Overtime Costs Engineering Work Management Engineering Schedule Adherence Overtime Rate Maintenance Rework Maintenance Maintenance Productivity Maintenance Craft Utilization Overtime Rate Schedule Adherence Operations . Overtime Rate Illustrative Expediting Costs Supply Chain Inventory Value

Cost Wireframe Example



Equipment Reliability Wireframe Example



StrategyDriven Individual Performance Measures Examples

Conceptual appearance of individual performance measures based on StrategyDriven's leading practice metric stylesheet. (Not all metric features are shown.)

Forced Loss Rate Performance Measure Example



Superior Metrics: Hub Average Forced Loss Rate

Subordinate Metrics: Online Corrective Maintenance Backlog Emergent Work



Human Performance Events Performance Measure Example

Superior Metrics: Hub Human Performance Events



Subordinate Metrics: Production Dept HU Events Maintenance Dept HU Events

StrategyDriven Organizational Performance Measures System Coverage, Comparisons, Data Sources, Characteristics, and Assumptions

From a holistic viewpoint, an effective organizational performance measures system provides leaders with actual, comparative performance information by area; informing decisions regarding organizational focus and investment. Additionally, leaders gain insight to the quartile benchmark rankings, versus industry and/or corporate averages, of organizational performance across numerous cascaded operational areas.

Area Coverage

- Production / Operations
- Maintenance
- Engineering
- Online and Outage Work Management
- Supply Chain
- Training
- Human Resources
- Information Technology
- Finance and Budgets
- Marketing and Sales
- Safety and Human Performance
- Performance Improvement and Oversight
- Regulatory, Legal, and Environmental

Comparisons

- Industry / Market
- Company
- Division / Facility
- Department
- Workgroup / Section / Shift



Data Sources

<u>Internal</u>

- Operational Performance Data and Reports
- System and Instrument Readings and Logs
- Budgets
- Customer Relationship Management System Data and Reports
- Condition Reports
- Management Observations

<u>External</u>

- Market Reporting Services
- Financial Institutions
- Government Agencies

Characteristics

- Units (events, operations, instances) counted. May be weighted in proportion to the units' impact
- Count metrics roll-up. Weighted unit metrics analyzed by level with no roll-up
- Indices formulaically aggregate several underlying metrics. Inputs may or may not be weighted based on their contribution importance.
- Units are used once per metric.
- Metrics are normalized based on number of facilities, staffing level, etcetera.

Assumptions

- Consistent reporting / data gathering thresholds and methods
- Consistent causal analysis tagging / coding by a centralized group

Building effective Organizational Performance Measures

Performance Measure Types

Performance measures serve a critical decision-making role because they draw attention to the existence of parameters and/or trends requiring action to achieve desired outcomes. Likewise, they highlight progress made toward achieving an organization's goals and ultimately the fulfillment its mission.

There exists a wide range of performance measures. Situational needs and the added complexities associated with vertical cascading and horizontal sharing dictate the most suitable type to be used. Understanding each measure's unique applications, benefits, and shortfalls will aid in their appropriate situational application.

Categories

Decision-makers initiate actions to alter organizational performance based on both internal and external environmental changes. Performance measures unique to each of these environments provide leaders with the key information needed to make decisions that best serve their organizations.

Internal Performance Measures

These measures seek to quantify process and product/service information as well as identify critical environmental characteristics. Typical internal performance measures include:

- Input Measures: show the amount of personnel and financial resources used for a product, service, or operation
- Efficiency Measures: reveal the cost per product or service produced or operation performance
- Output Measures: portray units of production or number of operations performed and their quality versus predefined standards
- Explanatory Information Measures: highlight internal business environmental factors that may impact/influence the organization's performance

External Performance Measures

External performance measures quantify the receptivity and impact of a company's products/services on the external environment and the external environment's impact on the company's operations and sales. These measures further indicate whether or not a business is successfully fulfilling its mission. Typical external performance measures include:

- Outcome Measures: show results or impacts of the product/service provided or operation performance
- Explanatory Information Measures: highlight external business environmental factors that may impact/influence the organization's performance

Frequencies

Performance measure updates should occur within an operationally relevant timeframe. These timeframes are defined to allow sufficient opportunity to recognize and react to adverse conditions and business opportunities without imposing unnecessary maintenance costs. Typically, higher parameter changes rates or more consequential the impacts associated with exceeding an absolute threshold require more frequent performance measure updates.

Periodic

Periodic performance measures are characterized by their less frequent parameter sampling rate; often weekly, monthly, or annually. These measures are used to quantify and monitor slowly changing conditions for which management decisions and follow-up actions to alleviate adverse conditions, avoid undesirable consequences, and/or exploit opportunities can be made in an intermediate period of time.

Decision-making in an intermediate term implies that management has time to gather and analyze additional information in response to identified trends prior to taking action. Given the additional reaction time, less specific aggregated measures, such as indices and window indicators, often serve as periodic performance measures. These measures are commonly used at a workgroup or higher organizational level.

The following are common characteristics of periodic performance measures:

- Organization Level: operating crew, department, division, corporate
- Application Examples: human error rate, corrective action backlog, average customer satisfaction rating
- *Frequency:* weekly, monthly, annually

- Common Graph Types: bar graphs, window indicators, and indices
- Benefits: reduced monitoring costs
- Shortfalls: higher development and maintenance costs

Frequent

Frequent performance measures are characterized by their almost constant parameter sampling rate. These measures are used to quantify and monitor rapidly changing conditions, typically of an operational nature, where a response to adverse trends must be almost immediate to prevent realization of undesirable consequences.

Rapidly changing conditions complicate decision-making because they limit the amount of time to recognize the adverse condition, identify the appropriate response, and take the corrective action. Under these circumstances, decision-makers are often provided with procedures having a predefined set of actions to take once an adverse condition is recognized. Properly defined frequent or trend measures compliment these procedures by reducing the adverse condition recognition time thereby enabling a timely response. Frequent or trend measures are typically used at the operational level in an organization.

The following are common characteristics of frequent performance measures:

- Organization Level: operating systems, business processes, operating crew
- Application Examples: system operating parameters, deviations from business processes
- Frequency: continuous, per minute or hour, shiftly, daily
- Common Graph Types: line graphs, numeric
- **Benefits:** enable rapid response
- Shortfalls: high monitoring cost

Predictives

By their very nature, all performance indicators are measures of past occurrences. How then can these lagging indicators reveal a need for action or be used to predict future performance?

Triggers

In the first instance, performance measures are used as triggers for predefined actions. Operational measures trigger the implementation of operating procedures in response to equipment parameter changes. Environmental measures trigger the execution of business initiatives because the parameter monitored, such as interest rates, reaches a value that makes the initiative financially attractive.

The following are common characteristics of trigger measures:

- Organization Level: all operational through corporate
- Application Examples: interest rates, market demand
- Frequency: continuous or periodic
- Common Graph Types: any
- Benefits: highlight the need for action
- Shortfalls: incorrect triggers may drive inappropriate action and unnecessary cost

<u>Leads</u>

In the second case, one set of behavior and/or result measures is used as an indicator of the probable outcome of another measure. These indicators are commonly referred to as leading performance measures. They are characterized by their strong correlation to the measure for which they serve as a predictor. To make productive use of leading performance indicators, managers must be willing to preemptively act based on their output, often before an adverse trend or result is realized. Failure of an organization to use leading indicators can often result in delays of managerial actions to prevent adverse outcomes. In these cases, managers assume a reactionary position; responding to adverse performance trends rather than seizing a proactive position where action is taken based on leading indicators of performance to ensure adverse outcomes are not realized. The following are common characteristics of leading performance measures:

- Organization Level: all operational through corporate
- Application Examples: training correlated to work efficiency, human performance error rate correlated to consequential human performance accident rate
- Frequency: continuous or periodic
- Common Graph Types: any
- Benefits: enable proactive action resulting in the prevention of adverse results
- Shortfalls: imperfect predictor may drive inappropriate action and unnecessary cost

Intelligence

Performance measures can be grouped as those presenting refined and unrefined information. In their simplest form, performance measures present data as it occurs without added intelligence. More complex measures relate sets of data to further refine it and create additional meaning.

Indicators

Indicators are the simplest, most common form of performance measure; being unaltered, graphic representations of data. They often illustrate counts of event occurrences or display a numeric representation of system or process parameters. Since there is no prior manipulation of data put into these indicators, human intelligence must be applied during indicator interpretation to gain meaningful information.

While some indicators can be used individually to drive an action response, groups of indicators are frequently used to describe an overall situation and drive action based on integrated performance trends. Groupings introduce intelligence to indicators by implying relationships between them. Appropriate actions are then associated with various combinations of indicator trends. Common performance indicator groupings include sets of system performance parameters, collections of operational function indicators, and process or project control measures.

The following are common characteristics of performance indicators:

- **Organization Level:** all operational through corporate
- Application Examples: system operating parameters, units produced, number of deficiencies identified
- Frequency: continuous or periodic dependent on the data acquisition rate
- Common Graph Types: bar or line graphs
- Benefits: simple to construct, easy to maintain, broadly applicable
- **Shortfalls:** lack intelligence, often requiring interpretation

Indices

Indices are a special kind of performance measure that aggregates a collection of often dissimilar data to provide a unique perspective representing an overall condition. The aggregation of data adds complexity to indices beyond that of performance indicators. This challenge comes from the need to create a data combination scheme that supports the generation of credible, meaningful numeric information.

Indices are often accompanied by performance indicators representing the various component inputs to facilitate decision-making. When an index's value or trend suggests a need for action, the component performance indicators readily reveal the driver; giving decision-makers insight to the appropriate course of action.

The following are common characteristics of indices:

- Organization Level: equipment system, operating crew, department, division, corporate
- Application Examples: human performance index, consumer price index
- *Frequency:* continuous or periodic dependent on the data acquisition rate
- Common Graph Types: bar or line graphs
- Benefits: easy to read, provide a quick overview of performance including trends
- Shortfalls: require supporting data or indicators to reveal drivers of performance, greater difficulty to create and maintain

Windows

Window indicators are a less specific form of index. They are unique in that a color, associated with a qualitative performance summary, is used instead of a specific numeric value. Subsequently, there is a need for accompanying explanatory information to reveal the drivers of a window indicator's color. Whereas indices have the ability to show data trends, the more generic, valueless window indicators don't readily provide trend information. To compensate, a series of window indicators is often used to provide limited trending information.

Window indicators drive investigatory rather than corrective actions. Therefore, window indicators are used to characterize slowly evolving conditions where sufficient time exists to perform an investigation and select and implement an action prior to realizing adverse outcomes.

The following are common characteristics of window indicators:

- Organization Level: equipment system, operating crew, department, division, corporate
- Application Examples: equipment or system health, overall project performance
- Frequency: monthly, quarterly
- Common Graph Types: single or multi-window
- Benefits: easy to read, provide a quick overview of performance
- Shortfalls: lack trends, require background data to reveal drivers of indicated performance

Performance Measures Types Summary

In addition to driving organizational alignment, performance measures provide leaders with the critical information needed to make timely decisions. Selecting performance measures that support vertical cascading, horizontal sharing, and timely decision-making is not only difficult but vitally important to the overall success of the organization. Ultimately, a well selected and structured system of performance measures is key to delivering maximum value to stakeholders.



Performance Measure Selection

Performance measures serve as one of the most powerful drivers of organizational behavior. People respond to performance measures because they clearly establish standards and goals, provide routine and often public feedback, and are both generally and specifically consequential. A properly structured measures system aligns management decisions and workforce actions to the achievement of the organization's mission, vision, and values. Structured improperly, performance measures become one of the most destructive forces a company unknowingly unleashes upon itself.

Performance measure selection is a critical process because its outcome ultimately defines what executives, managers, and employees will work toward. To ensure members at all levels the organization work toward the same objectives, performance measures should vertically cascade from one hierarchical tier to the next. Similarly, horizontally shared performance measures facilitate cross organization collaboration via a comparison focused on enhancing overall organization performance.

Vertical Cascading

The first and most critical step in creating a performance measures system is defining the one or very few goals representing the organization's mission. All other measures within the system will be derived from this point, thus establishing the organization's performance focus and drive.

At a high level, identifying the body of performance measures comprising the organizational system involves the five simply stated steps listed below:

- *Step 1:* quantitatively define the organization's mission, ideally by one or a very few measures
- **Step 2:** identify all significant, measurable contributors to the organization's mission measure(s)
- **Step 3:** assign a weighting factor to each contributing measure such that the total weighting equals 1.0 or 100 percent
- **Step 4:** repeat Steps 2 and 3 for each subsequently identified measure until the measures identified are directly attributable to the lowest level workgroup or individual contributor

Step 5: examine the cumulative impact of each leg of the performance measure system; eliminating those that have low overall influence on the achievement of the organization's mission, vision, and/or values

While easy to state, these steps are far more difficult to implement. The following discussion elaborates on the methods for implementing this process.

Step 1: quantitatively define the organization's mission, ideally by one or a very few measures

The quantitatively defined organization mission becomes the anchor point from which all other goals are cascaded. Because it is exceedingly difficult to serve multiple masters, it is best to have a single measure representing organizational success. Therefore, when examining the mission statement, break it into logical pieces and define a goal for each segment. Then when performing Step 2, identify instances where some of these goals contribute to another such that one of the defined mission goals stands out as the singular measure of organizational success.

If after performing this analysis there is a compelling need to use more than one measure to define the organization's mission, then no more than three prioritized measures should be used. Organizational success is then defined as a function of the weighted combination of these three measures. The following weighting rules are suggested to create adequate goal separation for improved decision-making:

- total weighing point value of 10 points
- highest priority measure assigned 5 or more points
- at least one point difference in weighting exists between the second and third priority measures

Step 2: identify all significant, measurable contributors to the organization's mission measure(s)

Identification of contributing factors begins the cascading process. During this step, the selection team examines the definition of the parent measure(s) as well as brainstorming activities and events, based on experience, to identify the contributors and influencers of the parent measure(s). All identified contributors and influencers are recorded at this stage of the process.

When considering the broad range of contributors and influencers, the selection team may find it helpful to consider the following categories as described by Robert S. Kaplan and David P. Norton in their book *The Balanced Scorecard*:

- financial
- customer
- learning and growth
- process

Step 3: assign a weighting factor to each contributing measure such that the total weighting equals 1.0 or 100 percent

Assigning weighting factors to each contributing measure can be both a quantitative and a qualitative process. Where historical data is available, the mathematical correlations between parent and child measures can be identified and weighting assigned based on the relative strength of the correlation. If historical data is unavailable from within the organization, the selection team should seek correlation data between similar measures from external sources. In the absence of any relatable data, experience-based judgment will need to be used when assigning measure weighting.

Step 4: repeat Steps 2 and 3 for each subsequently identified measure until the measures identified are directly attributable to the lowest level workgroup or individual contributor

Repeating the process extends the cascading of measures throughout the organization. Continue the process until it is clear the lowest tiered measures defined are directly influenced by the decisions and actions of the lowest level workgroup or personnel within the organization.

Step 5: examine the cumulative impact of each leg of the performance measure system; eliminating those that have low overall influence on the achievement of the organization's mission, vision, and/or values

All measures are not created equally. Too many measures represents both an administrative burden and creates undesired noise through which decision-makers must filter to recognize those conditions truly impacting the organization. Too few

measures limit management's vision into organizational performance thereby hindering decision-making. It is critical that the balance between too many measures and a complete performance picture that supports managerial decision-making be achieved.

During this step, measures monitoring those items having a low overall contribution to the mission of the organization are eliminated. Starting at the lowest measurement tier, identify those measures having the lowest weighting as candidates for elimination. Similarly examine the next levels of measures identifying candidates for elimination. With the entire pyramid of measures visually represented and starting with the lowest measurement tiers, remove the identified low value measures ensuring a complete picture of performance remains. If the selection team believes decision-making will be hindered by the absence of a given measure, then that measure should remain. This becomes even more important at higher tiers of the measurement pyramid as removal there eliminates all child measures which could greatly alter the overall performance picture.

The selection team repeats this process until the balance is achieved.

Completeness Considerations

The process of vertical cascading can leave gaps in the performance picture created by the measurement system. At this point in the selection process, the overall set of measures should be evaluated against the following three perspectives:

- managerial decision-making
- workforce performance drivers
- organizational level alignment

Managerial Decision-Making

By their very nature, performance measures drive decisions; executive decisions regarding organizational direction, manager decisions between actionable alternatives, and employee decisions about effective behaviors. To support these decisions, the measurement system must provide a complete, timely, accurate picture of performance outcomes and drivers. Lacking one or more of these qualities could result in the following consequences:

Incomplete: failure to identify a condition requiring action, thereby precluding action resulting in the realization of adverse consequences

- Late: delay recognition of the need for action which in turn delays action resulting in the realization of undesired outcomes
- Inaccurate: drives inappropriate action or fails to prompt needed action either of which adversely impacts the organization or individual

Workforce Performance Drivers

Performance measures are a powerful management tool that drives employee behavior because they:

- clearly communicating results based performance expectations
- routinely reinforcing progress toward achieving established performance expectations
- periodically providing a realistic, comparative performance picture between workgroups

If not constructed correctly, however, performance measure systems can have an extremely adverse impact on the organization. This typically occurs when wellmeaning employees assume poor behaviors in order to realize positive performance measurement and instead create other more severe problems.

To avoid this outcome, the selection team should, for each low tiered performance measure:

- identify the behaviors employees might assume to achieve a favorable measured result
- brainstorm any undesired outcomes those behaviors may cause
- develop countering performance measures monitoring for the undesired outcomes

In many cases, these countering performance measures will already exist within the system. It then becomes important to ensure these measures are not eliminated during any one of the streamlining processes.

Finally, the selection team should review the performance measure system for the inclusion of measures that would reinforce mission critical behaviors. While many performance expectations are well served by managerial observation and feedback, some measures are needed for critically important results such as worker, environment, and equipment safety. Although these measures should already exist within the system, it is important to review the complete measurement set for their existence at all applicable levels again.

Organizational Level Alignment

To have relevant meaning to a member of the organization, a performance measure's outcome must be responsive to that individual's decisions and actions. If an individual is unable to influence a measure's outcome, he or she won't alter their behavior because of a lack of perceived value in doing so.

Once performance measures are vertically cascaded, the system should then be logically divided and assigned to the appropriate hierarchical tiers within the organization. Strategic Organizational Alignment Creation chart highlights the organizational responsibilities (activities and resulting products) of individuals at various organizational levels. Note that these responsibilities foster organizational alignment as does a well constructed set of performance measures.

Strategic Organizational Alignment Creation

Organization Level	Action and Result
Leadership (Board of Directors and Executive Team)	 defines the company's mission identifies measurable objectives supporting achievement of the company's mission establishes the strategy and policies by which the company will achieve its mission and objectives
Management (Senior and Line Managers)	 understands and internalizes corporate objectives, strategy, and policies establishes programs, budgets, and procedures to achieve corporate objectives within established policy guidelines establishes work standards which are broadly communicated and reinforced decisions visibly support corporate objectives
Policies, Practices, and Procedures	 activities, methodologies, and performance standards are defined and documented evaluation and control systems measure effectiveness of program, budget, and procedure implementation as well as enhance organizational learning training systems are established
Workforce	 executes company programs and procedures within defined standards

Organization Level Action and Result

The figure above shows activities and resulting products created at various levels within an organization that foster strategic organizational alignment.

Horizontally Shared

Having completed the vertical cascading portion of the performance measurement system development process, the selection team should now transition to assigning the measures throughout the organization. This process begins with the identification of the various divisions, departments, and work groups for which the measure is relevant such that the measure can be horizontally shared across the organization.

When examining the complete set of cascaded performance measures, it should become obvious that a few core measures are applicable to all business units or persons within the organization. These core measures often include items such as overhead and production costs, personnel staffing and retention, and the many project and production related measures that reveal the value contribution of the particular business unit, product, or activity. In cases where a measure is not broadly applicable, it is assigned to all business units for which it is logically associated.

Completion of this process establishes the horizontal sharing of performance measures and the comparative basis for assessing the relative value between business units, products/services, and people.

Final Pass Through

The ramifications to decision-making caused by omissions in the performance measures system are usually more costly than administrative burden of having a few too many indicators. Therefore, the selection team should conduct a final pass through of the system to assess the completeness of the performance picture. Any gaps identified are then filled by appropriate measures and logically tied to the vertically cascaded matrix. Finally, horizontal sharing of the measures is considered and additional assignments made where appropriate.

Performance Measures Selection Summary

The critical role performance measures serve makes their selection immeasurably important. These tools will shape the organization's behaviors and decisions which, in turn, will ultimately define its future. Those involved in the selection process will undoubtedly find it to be one of the most challenging and impactful assignments of their careers.

Additional Resources

Numerous other StrategyDriven articles provide elaborating information on performance measure selection including:

Best Practices

- Identify the Measures First
- Contextual References
- Diverse Indicators
- Predictive Performance Indicators
- Balancing Performance Measures
- Eliminate Low-Value Metrics
- Performance Metrics Inventory Database



Performance Measure Construction

Constructing organizational performance measures addresses the practical side of building vertically cascaded and horizontally shared measures based on the principles discussed in earlier documents. Because performance measures facilitate decision-making within an organization, their construction is highly influenced by the needs of executives and managers in making decisions regarding the parameters being reflected by the measures. Therefore the qualities described herein focus on enhancing performance measure interpretation to speed condition recognition and promote appropriate, proactive response.

This document does not address the complex statistical properties associated with some performance measures. Knowledge of these principles is best obtained through formal training.

Preparation

The performance measure construction process assumes that organizational performance measures have be largely identified and their types established. These two activities are needed to ensure selection of construction variables enhancing the graphic representation and comparison of information can be accomplished.

Construction

Performance measure construction begins with defining the type of graphic representation to be used. This often appears to be a natural fallout of the preparation process. Having defined the parameter, the sampling frequency and the refinement or intelligence to be applied, the most appropriate graphic type seems obvious. However, another key factor should be considered. Because performance measures ultimately serve the decision-making process, the graph type selected must be timely, easily read, and readily convey the need for corrective or proactive action based on the indicated condition and/or trend. Finally, considerations of esthetics should be subordinated to those features that drive decision-making and proactive action needs.

When selecting a performance measure type, it is important to understand what information is needed by decision-makers. Two key pieces of information commonly used by decision-makers are parameter values and trends. Some graphs lend themselves to more readily representing either a value or a trend in some cases to the exclusion of one or the other. Therefore, careful consideration as to which of these two needs is more important and if both are required should be given when selecting the graph type. Several graph types, including their ability to present values and trends, are described below:

- Pie Graphs: less frequently used than other graph types, it is the representation of choice when making snapshot (monthly, quarterly, yearly, etcetera) comparison of things totaling 100 percent. Pie graphs have moderate strength in presenting current condition information and provide no trend data.
- Window Indicators: represent status roll-ups; combining dissimilar data sets when knowing only present, overall conditions is important for decision-making. Unlike pie graphs, these periodic performance measures are not directly comparative in nature. Depending on the format used, window indicators may or may not provide trend information.
- Bar Graphs: commonly used performance indicators, typically representing count data for longer periodic time spans (weeks, months, quarters, etcetera). For this reason, bar graphs have moderate strength in presenting both current condition and trend data.
- Line Graphs: another commonly used representation typically displaying value related or value driven data that is continuous (by second, minute, hour, etcetera) in nature. They are often used when it is important to show condition and trend data over a shorter time period. Line graphs are less frequently used in a periodic case with time spans of greater than one month in data sampling.
- Combination Graphs: often used when two data sets are needed for decisionmaking that don't lend themselves to combination within an index or best serve the process when characterized individually. To enhance readability, these data sets are represented in different manners. In one example, value driven data represented by a line graph is combined with count data represented by a bar graph, such as when a stock's price (value driven data) is combined with share sales (count data) over a commonly defined timeframe.

By defining the type of representation to be used, the variables requiring definition for the graph's construction become obvious. These variables include:

- data characteristics
- units
- scaling

- update frequency
- thresholds

Data Characteristics

While this document is not about statistics or statistical analysis, basic data qualities must be clearly understood and properly used when making effective performance measures. These qualities include data types, aggregation of index data, and data quality.

Data Types

Two frequently used data types are numeric and category data. Numeric data sets can represent both continuous and periodic parameter or count data whereas categorical data represents count data only. Examples of numeric and category data include:

- Numeric: system operating parameters (pressure or temperature), stock price
- *Category:* project status, performance ratings

When using either numeric or category data, it is important to clearly define the parameter to be measured. Numeric data is the easier to define, often representing directly observable occurrences or values. Categorical data is more difficult to define as each typically represents a range or combination of conditions. When specifying the parameter to be measured, differing rules apply to each data type as follows:

Numeric

- a. identify the instrument or computer point from which the data is to be taken
- b. define the specific unit of measure
- c. establish the time and periodicity of measurement

Category

- a. identify the instrument or computer point from which the data is to be taken
- b. define the specific units of measure
- c. define the upper and lower parameter limits or the combination of conditions for each category
- d. establish the time and periodicity of measurement

Index Data Integration

Indices are composites of several performance indicators into a single unit of measure. Because they are composites, the data sets must be logically relatable. In their simplest form, they are a summation of the data sets. More complex indices, however, use various weighting scales in order to combine dissimilar measures.

Aggregating data sets to create complex indices is extremely challenging. After identifying the data to be combined, it is important to recognize the differing impact each contributor has on the overall performance outcome being portrayed. A weighting system is used to combine the dissimilar data sets and account for their impact differences.

When choosing the weighting system, it is important to first establish the overall importance or impact each data set has on what is being represented. In some instances, historical performance data exists which, when examined, will yield the sensitivity and therefore impact of each contributor to the overall index. In cases where historical data does not exist, consideration should be given to using weighting factors developed from the available data of similar industries or circumstances.

Index weighting systems share the following characteristics:

- combine dissimilar data in a manner that yields a logical, meaningful, and accurate indicator of performance
- convert each data set's units of measure to a common, combinable unit of measure
- weight each data contributor consistent with its impact to the overall index value

Performance Measures Accuracy – Degree of Certainty

All performance measures are subject to one or more factors that inject a degree of uncertainty into the information being presented. Because performance measures drive organizational decisions their subsequent actions, the amount of uncertainty which can be tolerated for each measure should be defined for each measure. Causes of inaccuracies include, but are not limited to:

- time delays in gathering and presenting data
- statistical variation associated with the sampling method used
- instrumentation errors

Compensatory measures can be implemented to appropriately limit a performance measure's uncertainty. Actions to limit uncertainty should directly address the root cause of the measure's uncertainty. Methods to alleviate the causes listed above might include:

- more frequent parameter sampling and display updating
- increased sample size or population sampling
- use of redundant instrumentation

Like unit ambiguity, the higher the level of performance measure uncertainty, the greater the time required to evaluate the information presented before taking action. Thus, as uncertainty increases, so does the delay time in taking action in response to an observed condition or trend. Therefore, conditions or trends requiring rapid response require highly accurate performance measures.

One Source of the Truth

In order for performance measures to be comparable, they must possess consistency in data input and manipulation. This suggests that data should be gathered from either a single source or using a single method and the same calculations applied to all compared data sets. In the special case when redundant measures are used to qualify or validate information presented about a single or highly integrated condition, data should be gathered, transmitted, manipulated, and displayed using similar equipment and methods.

<u>Units</u>

The purpose of unit selection is to provide clarity of meaning and enable performance measure comparison and translation across the organization. Selection of units of measure is critically important to the decision-making process as unit specificity or ambiguity directly correlates to the length of time executives and managers have to make decisions based on the parameters and trends of the given indicator. Considerations when selecting performance measure units include:

- recognizable
- scalable
- comparable
- translatable

One unit of measure commands examination before exploring the four key considerations of unit selection. This unit of measure is time.

Time is the unit of measure that is associated with all performance measures. Selection of the time unit is critically important because it impacts the ability of responsible managers to make decisions based on performance measure information. The time unit associated with a performance measure is largely determined by the measure's sampling frequency which in turn is driven by the needs of decisionmakers. Sampling frequency is discussed in greater detail later in this document.

Time is often represented in one of two ways. When dealing with frequent and some periodic measures, units of time will be expressed across the graph's x axis. In other periodic indicators, and always with representations such as pie graphs and window indicators, the time unit will be a general statement associated with the indicator's update frequency (monthly, quarterly, etcetera).

Selection of other units of measure seeks to balance the four key, competing factors.

Recognizable

Like time, the units of measure must be selected to enable timely condition and trend identification to support decision-making. In this instance, it is the specificity of the units that ultimately impacts the decision-making process.

Unit specificity or the degree of ambiguity directly relates to the amount of decisionmaking time allotted managers with respect to recognizing conditions and trends. The greater the unit ambiguity, the longer the time needed for causal analysis, thereby delaying action implementation. Thus, the degree of unit ambiguity directly relates to the decision response time associated with the parameter being monitored.

Scalable

Scalable units enhance readability of a performance measure in two ways. First, appropriately scaled units help the interpreter relate to the performance measure. In this instance, it is often difficult for an individual to perceive 1,000,000 different objects (scale of 0 to 1,000,000 with units of 1 object), relating to 100 units scaled by 1000 objects each (scale of 1 to 100 with units of 1,000 objects) is much easier to envision. Second, proper scaling enhances visual distinction of the conditions and trends that should trigger an action response. Here, too large a scale tends to flatten the graphic depiction and too small a scale creates overly sharp, indistinguishable changes. An appropriate scaling selection will enable the performance measure to be meaningful to the interpreter while providing a visual representation where actionable conditions are readily observable.

Comparable

Horizontally shared performance measures require equivalent units of measure to provide a comparable basis between products, business units, or individuals. This allows for direct, one-for-one comparison across the organization.

On some occasions, the units of measure associated with each entity are of such differing scale or the entities themselves appear so dissimilar that comparison seems inappropriate or unnecessary. When these circumstances exist, a percentage value can often be useful in providing the comparative basis.

Use of percentages as a unit of measure helps bridge the gap between dissimilar entities, whether the result of differences in product, size, or job function, because it establishes a common frame of reference through which the comparison can be made. This frame of reference is often based on the goal established by the performance measure, such as percent of capacity, percent of market share, or percent of profit.

Translatable

Interpreters should be able to see the direct relationship between vertically related performance measures, therefore, selected units need to be either the same or translatable. An easily translatable unit is one in which simple linear factoring can be applied to one measure to get another, such as multiplying hours worked in a set of lower tiered measures by average compensation rate to get the labor cost contribution to an overall budget metric in a higher tiered indicator.

Similarly, translatable units support the creation of aggregated measures such as indices and window indicators. Besides being translatable, the units should be logically related to each other; enabling meaningful aggregation of data such that the final grouping is understandable to the indicator's user.

<u>Scaling</u>

Proper scaling is highly important to the creation of performance measures because inappropriate or inconsistent scaling can distort the reader's perception of the data being presented. This occurs when conclusions are based on the shape of a curve, size of a bar, or other graphic feature which is highly influenced by the scaling selected.

Numeric Scaling

Optimally, all graphs will have a zero reference point to minimize data distortion. For example, if a particular performance measure had a y axis value starting at 10 (end of period 1), anchoring the first data point which over equal time periods progressed to 15 (end of period 2) and then to 20 (end of period 3), it may appear that there was doubling between periods two and three when the measured value went from 15 to 20. In reality, there was only a 33 percent increase in the actual value but because the

y axis was anchored at 10 rather than at 0 the relationship is not immediately obvious (see the Misleading Scaling Performance Measure Example below).

X Axis

The upper scale anchor of the x axis should be that at the highest point that is expected to be reported. For a graph that has time shown on its x axis reporting on an annual periodicity, demarked by months, then it is anchored by the twelfth month or December.

Y Axis

The y axis is more difficult to scale as a measured parameter might exceed the maximum range in a given monitoring period. Ultimately, y axis scaling should result in the maximum plotted value being between 75 and 100 percent of the scale selected. To determine the scale's upper limit, consider historical data altered by any factors that might change future outcomes. Select a value representing the highest, most likely,



Misleading Scaling Performance Measure Example

Real Change:

Time 0 to 1 = 5 units change

Time 1 to 2 = 5 units change

5 units change / 15 units original existing = 33 percent change



reasonable outcome. Set upper y axis scale limit such that this highest reasonable outcome would be to be plotted at a point equal to 75 percent of the maximum scaled value. This selection method applies to y axis scaling values above and below the x axis.

In the special case were performance monitoring is not needed above or below an absolute threshold, the absolute threshold should represent the upper y axis scaling limit.

Unit Spacing and Axis Sizing

Like numeric scaling, improper unit spacing can distort an interpreter's perception of an indicated condition or trend adversely impacting decision-making. Here, it is important that the spacing between unit increments be equal to prevent undesirable variances between the visual depictions of trends between different sets of data points. If a need for spacing differences exists, these differences should be demonstratively illustrated by symbolizing a break in the axis.

The physical length of an axis can alter the appearance of a performance measure. This becomes particularly impactful when the shape of a curve, height of a bar, or other graphic feature provided the basis for interpreting the data presented. Too long an axis tends to flatten the representation while too short often renders depicted changes indistinguishable. When selecting axis length, actionable conditions and trends presented should be obvious to the interpreter.

Finally, the axis of horizontally shared performance measures should be the same, ensuring a similar visual appearance thereby facilitating comparison. This may require several iterations to establish common axis sizing and may drive the need for use of percentages as units of measure.

Scaling Over Time

Graph scaling should not change between measurement periods to ensure continued comparability to historical information. If the scaling is changed, several actions should be taken to ensure continued proper interpretation of the performance measure including:

- indication of the point of change on the performance measure graphic
- inclusion of a description of and reason for the change included with the graphic and all associated reports
- addition of instructions regarding any changes to the method of results determination included with the graphic and all associated reports

Update Frequency

Measure update frequency is largely determined by the response time associated with actions driven by the performance measure. The data sampling frequency, which establishes the time basis of the performance measure, must be short enough that actionable conditions or trends can be identified early enough for action to be implemented prior to realizing adverse consequences or foregoing business opportunities. Conversely, sampling frequency must be long enough not to overburden the organization with the administration of collecting and interpreting the data. For this reason, frequent or trend measures are often automated and action responses proceduralized to reduce both the administrative burden and action response time.

Thresholds

Properly selected thresholds alert managers to adverse conditions with sufficient time for them to recognize and react to causal issues. To achieve this, performance measure thresholds should have the following characteristics (also see the Performance Measures Thresholds Example, next page):

- Absolute Thresholds: the conditional value above or below which operations or results are unacceptable
- Alert Thresholds: the conditional value above or below which timely action is needed to prevent exceeding an absolute threshold. Alert thresholds should be high enough to accommodate normal, acceptable operational variation without unnecessary organizational distractions while low enough to alert managers to adverse conditions with sufficient time for problem identification and resolution prior to the realization of unacceptable consequences
- Trend Threshold: a rate of conditional change above which managers would not have sufficient time to recognize and resolve problems prior to realizing unacceptable consequences

Presentation

Performance measures are of greatest value when they are easily read and interpreted. Below are some rules of thumb for enhancing performance measure graphics including:

- use of color
- line thickness
- font sizes

Performance Measure Thresholds Example



- graph sizing
- use of plotted values

Use of Color

While it will be seldom said that a performance indicator is riveting or that it grabs and holds the attention of its audience because of its lively color, there are some color rules that should be followed to provide clarity and enhance readability of a performance measure. Similar to any graphic representation, performance measures are often best presented on a light background with dark lettering and graphics. Additionally, colors should be distinctive or contrasting one to another. An effort should be made to not use highly similar colors that blend into each other as this makes the graphic image more difficult to discern particularly between different data sets. It is also a typical practice that there be uniformity in color between performance measures of a particular workgroup or organization so readers don't have to reinterpret the meaning of colors when going from graphic to graphic. This enhances the comparability of the graphics when evaluating them horizontally across or up and/or down vertically.

Readability can be further enhanced by color when the colors selected compliment or mimic the indicator coloring used by other bodies, namely regulators. In some cases, an organization will be subject to government oversight and as a part of that oversight, will have certain aspects of its monitored performance represented graphically in government maintained performance measures. These performance measures typically use a particular color coding which the affected organization becomes familiar. Subsequently, selecting colors aligned with these regulatory measures leverages the established color coding familiarity enhancing adoption and recognition of the metric parameters being conveyed.

If a more riveting look is still the goal, elegance is often achieved by using darker primary colors, blues, reds, and greens, with shadowing on the leading edge when creating representations such as bar graphs.

Line Thicknesses

There exist a few simple rules for when to alter line thicknesses from the graphing tool's default values.

Horizontal and Vertical Axis

Typically the default settings, which use a fine point line for the vertical and horizontal axis along with their associated tick marks, is appropriate.

Condition and Trend Lines

Condition and trend lines can be particularly difficult to read, especially when using color to denote different data sets. Therefore, it is often advisable to increase the thickness of a condition or trend line to a 3 point setting thickness from the typical default setting of 0.75 points. This will enhance the readability of the graph from a distance and allow the color selected to be more vivid.

Font Sizes

Font sizes should vary depending on the overall size of the graph being portrayed. General rules of thumb for graph sizes 3.5×5 and 4×6 inches are as follows:

- Title Line: 16 point font, bold
- X and Y Axis Unit Labels: 12 point font, bold
- X and Y Axis Tick Labeling: 10 point font
- On-Graph Data Point Value Labeling: 10 point font

- On-Graph Notes: 10 point font
- Legend Labeling: 10 point font
- Descriptions and Discussions Accompanying the Graph: 10 point font
- Footnotes: 8 point font

Font sizes for overhead presentations are often miss applied. Rules of thumb for overhead graphics are:

- Title Line: 28 to 32 point font, bold
- X and Y Axis Unit Labels: 24 point font, bold
- X and Y Axis Tick Labeling: 18 point font
- On-Graph Data Point Value Labeling: 18 point font
- On-Graph Notes: 18 point font
- Legend Labeling: 18point font

Note that overhead presentation fonts should always be of 18 points or greater to ensure readability at the back of a room.

Graph Sizing

Graphs should be sized to ensure readability at the most common distance from which the observer views the graph. When using 8.5×11 inch paper, it is most comfortable to place two 4 x 6 inch graphs vertically in the portrait orientation. For high density depictions, graphs no smaller than 3.5×5 inches placed in a two by two matrix in the landscape orientation should be used. These normal and high density plotting rules apply when using larger sheets of paper up to poster size. Remember, in all cases, graph sizes may need to be increased to accommodate greater viewing distances.

Use of Plotted Values

Whereas most performance measures use graphic representations to convey the intended message, there are some instances where it is difficult and necessary to discern the difference between data points on a graph. In these cases, it is advisable to plot the value of the data point on the graph. Plotted values should be placed immediately adjacent to their associated data point and spaced so as to not interfere with the graphic representation or each other.

Performance Measures Construction Summary

Thoughtful construction of performance measures helps create a vivid picture of organizational performance and accelerates decision-making. Alignment of measure characteristics enables vertical cascading and horizontal sharing which in turn focuses individuals on achieving the organization's goals and increases accountability.

Additional Resources

Numerous other StrategyDriven articles provide elaborating information on performance measure construction including:

Best Practices

- Common Construction Characteristics
- Get Data Directly from the Source
- Documenting Performance Measure Drivers
- Predefined Action Thresholds
- Multiple Action Thresholds
- Style Sheets
- Performance Measure Development Sheets



Performance Measure Alignment

Effective organizational performance measures are organizationally relevant and operationally complete; providing a clear picture of company performance relative to its mission, vision, and values. A well constructed performance measures system helps drive organizational alignment and provides managers with timely information about adverse conditions so action can be taken to prevent undesirable consequences.

Characteristics

Organizational performance measures should fundamentally serve to drive organizational alignment to the achievement of the business's mission. As such, organizational performance measures should cascade from the corporate to the individual level; becoming more specific with each descending organizational tier. Because each successive level of goals supports achievement of the next higher level of organizational objectives, performance measures must share a common set of characteristics including:

- Organizationally Relevant: having a clear relationship to the effective, efficient achievement of the organization's mission
- Consistent Units of Measure: enabling direct correlation between higher and lower tiered performance measures and across the organization (between individual business units)
- Uniformly and Precisely Interpretable: holding a common meaning for personnel at all levels of the organization

In truly aligned organizations, performance and decisions are driven by a common purpose. Companies having performance measures that are organizationally relevant, use consistent units of measure, and are uniformly and precisely interpretable are better positioned to achieve the vertical and horizontal alignment needed to achieve its mission, vision, and values.

A vertically cascaded performance measures system that is organizationally relevant clearly communicates and routinely reinforces performance and behavioral expectations to every member of the organization. Individuals at each organizational level assume responsibility for the measures which their actions and decisions effect. Over time, the measures reveal the impact of each individual's performance at their level of the organization. As these measures are rolled-up, the individual's

contributions, both positive and negative, to higher tiered goals and ultimately the success of the company become evident.

Horizontally shared performance measures having consistent units of measure that are uniformly and precisely interpretable enable comparison between products and services, divisions, departments, and individuals. Possessing these qualities and being cascaded from the organization's mission, the contribution of each monitored item to the bottom line becomes evident. This arms executives and managers with the critical information needed to make decisions relative to existing and new products/ services as well as individuals.

Decision-Making

A company's leadership team makes product and service decisions to maximize value and minimize cost. All products and services uniquely contribute to the organization's bottom line while at the same time consuming valuable personnel and financial resources, including important management time and attention. Subsequently, performance analysis aids in answering many questions including:

- Does a product/service contribute enough to the bottom line to warrant its cost in both resources and management attention?
- Under limiting resource conditions, which products/services should be continued and which should be eliminated?
- When considering development of new products/services, which offerings represent the greater reward potential and should subsequently be pursued?
- When considering development of new products/services, are the potential rewards sufficient when compared to existing offerings such that they should be pursued?

In the case of personnel, vertically cascaded, horizontally shared performance measures support leaders in holding individuals accountable for superior and inferior performance. First, measures help fulfill three key performance management functions including:

- clearly communicating results based performance expectations
- routinely reinforcing progress toward achieving established performance expectations
- periodically providing a realistic, comparative performance picture between workgroups

Next, the comparative performance information provides an information basis for rewarding top and appropriately addressing poor performers. Finally, performance data supports creation of teams with individuals having complimentary strengths and weaknesses.

Performance Measures Alignment Summary

Organizations achieve breakthrough success when they focus their products/services, workgroups, and individuals to the singular purpose of fulfilling the mission. A vertically cascaded, horizontally shared system of performance measures is a key contributor to this alignment. Additionally, they provide leaders with the information basis needed to make timely decisions regarding which value adding projects/services and individuals to pursue and develop and which to eliminate. Ultimately, it is through this alignment and these decisions that an organization will be able to deliver maximum value to its stakeholders.

Additional Resources

Numerous other StrategyDriven articles provide elaborating information on performance measure system alignment including:

Best Practices

- Vertical Cascading
- Horizontally Shared
- <u>Core Performance Measures</u>
- Performance Measures and Thresholds Aligned with Regulatory Standards
- <u>Align Metric Triggered Actions / Thresholds to Plans with Assigned Personnel and</u> <u>Due Dates</u>
- Annual Alignment Review



Implementing effective Organizational Performance Measures

System Implementation Challenges

Organizational performance measurement systems are complex constructs that significantly impact leadership decisions, employee behaviors, and management processes and systems. Consequently, there are often many people, process, and technology challenges associated with the implementation or significant upgrade of such monitoring systems. By understanding these potential risks, leaders can put in place mitigating instruments to reduce the overall organizational impact and increase the likelihood that the new measurement system will be accepted and have the desired positive impact on performance.

Acceptance of a new or upgraded performance monitoring system centers on metric and report accuracy. Executive, manager, and employee confidence in measurement accuracy is critical to establishing and maintaining the trust needed for the information presented to be used to support decision-making and to drive action. In our decades of performance measurement system implementation experience, challenges to organizational trust include:

Personnel Related Challenges

- Processes from which metric and report data is sourced are not rigorously followed
- Ongoing maintenance/development of metrics and reports are highly reliant on the knowledge and skills of a single individual
- Personnel maintain and gather metric and report data differently or from differing applications
- Document / Report coding is changed without a documented / communicated reason

- Many individuals do not understand system data structures and relationships. Consequently, they misinterpret reports and metrics
- Many individuals believe exceptions are used to artificially inflate reported performance; most notably because of the recoding that occurs to place previously counted objects into excluded categories

Process Related Challenges

- Metric development processes are not well defined
- Processes from which metric and report data is sourced are frequently changed
- Metric and report definitions are undefined or vaguely defined
- Metrics have numerous exceptions that makes individual metrics difficult to calculate and easy to manipulate; degrading the organization's confidence and trust in the performance measures

Technology Related Challenges

- There does not exist a single, organization-wide application for collection of non-system related data needed to generate metrics and reports
- Data warehouse not optimally configured for metrics and reports generation and data analytics
- Interface failures do not trigger an alarm or notification. Errors only become apparent in generated metrics and reports
- One-way interfaces prevent data transfers and complicates metrics and reports development
- Significant use of desktop spreadsheets and databases to combine and manipulate data into a usable form
- Needed data is not captured by supported systems and is instead resident in desktop spreadsheets and databases
- Needed data is not widely accessible for use in ad hoc reports

- A data historian is not used to capture point-in-time data snapshots
- Systems are not configured to capture the date-time of data changes
- Some data fields do not have sufficient security to prevent inadvertent changes resulting in erroneous reporting
- Systems are not configured to capture the identity of the individual making data changes
- Organizational and equipment hierarchies are not accurately reflected within the enterprise resource planning system

Every organization's circumstances are unique. By assessing current state conditions for the existence of these underlying challenges during the organizational performance measure system development/upgrade project, leaders position themselves to mitigate these risks. Such mitigation often translates to the degree of implementation success and the system's overall return on investment.

Additional Resources

Numerous other StrategyDriven articles provide elaborating information on how to avoid/address many of the challenge points above including:

Principle

It's All Integrated

Best Practices

- System Development
- Use a Multidiscipline Team to Develop the Performance Measurement System
- One Source of the Truth
- One Change at a Time
- Map Performance Measure Ownership
- System Approval by the CEO



Post System Implementation Challenges

A performance measurement system's complexity and organizational impact can bring with it many people, process, and technology challenges post implementation. For several months following a system go-live or significant upgrade, the organization adjusts its processes, procedures, and behaviors so to achieve the best possible reflected performance. This evolution is not without its costs or problems.

Several common challenges arise during the go-live phase of a new or significantly upgraded organizational performance metrics and reports system. Our decades of experience indicates that each can be anticipated and successfully addressed through upfront planning:

- Dissatisfaction with the System Users often communicate significant dissatisfaction with the implementation of any new application. In addition to end user involvement with the system's design and traditional change management communications and training, system driven performance improvement goals should be established at the project's start; comparing pre- and post go-live efficiency, data access, etcetera
- Dates and Times Matter Metrics and reports are largely driven by the date-time stamps associated with measured data as well as when data is pulled from supporting applications. Both need to be clearly documented and repetitively communicated throughout the measurement system's design and implementation phases
- Need for Initial Support Inevitably, the organization's performance as reflected by the new systems will differ from that of the legacy system because of differences in data used to derive the metrics and reports. Frequent, weekly questioning will arise regarding the accuracy of the new metrics and reports. A development staff should be in place to quickly assess and respond to these questions in order to protect the reporting system's legitimacy and maintain end user confidence
- Initial Data Cleanup Automated metrics and reports commonly reveal a significant number of underlying data errors that were largely unrecognized prior to the reporting system's implementation. A development staff should be in place to quickly identify and correct data errors in order to protect the reporting system's legitimacy and maintain end user confidence

- Pilot New Metrics and Reports When altering any aspect of a performance metric or report (underlying system, data source, definition, etc.), the resulting output is often different than expected. While some differences simply require data cleanup to correct, others drive end users to demand changes in the metric/report definition or design. From experience, the number of change request can be significant. Thus, it is often more cost effective to pilot new metrics and reports prior to implementing a fully automated reporting system
- End Users Always Want More Following implementation, end users frequently request additional performance metrics and reports be made available. Promptly assessing and delivering these, as appropriate, significantly helps organizational adoption of the new reporting system





Additional Resources

Numerous other StrategyDriven articles provide elaborating information on how to avoid / address many of the challenge points above including:

Principle

 <u>The Difference Between Personal Goals and Organizational Performance</u> <u>Measures</u> (Talent Management Principle)

Best Practices

- <u>Define Success First</u> (Project Management Best Practice)
- Predefined and Reinforced Data Standards
- Data Clean-up
- Ad Hoc Reports First, Automated Metrics Second
- Run New and Old Performance Measures in Parallel
- Documented and Retained Causal and Action Intelligence
- RACI Matrix
- Broad Communication
- Automated Notification of Responsible Individuals

Warning Flags

Data Source Manipulation



www.StrategyDriven.com/Sevian-Organizational-Performance-Measures-Program

StrategyDriven's line of Sevian Business Programs represents fully developed, immediately implementable, best practice programs based on our decades of business management and operations experience. Leaders implementing these programs gain access to the aggregate experience of dozens of leading companies without incurring the high costs of benchmarking, research, and development.

Organizational Performance Measures Program

Performance measures serve to align an organization's efforts to the achievement of its mission, goals, and values; monitoring key characteristics of the organization's products and services as well as the performance of the individuals and processes creating them. In doing so, these measures provide invaluable input to management decisions.

The Sevian Organizational Performance Measures Program provides the tools and information needed to establish a performance measurement system that is understandable, broadly applicable, uniformly interpreted, and economic to apply. Derived measures cascade through and across the organization's hierarchy; driving performance that ultimately supports achievement of the company's mission, goals, and values.



Learn more

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StrategyDriven regularly publishes unique points of view on the principles, best practices, and warning flags associated with performance monitoring and measurement systems.



Evaluation and Control Program Forum

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Learn more



Organizational Performance Measures Forum

Leading practices of companies successfully using performance measures to drive organizational alignment, accountability, and operational performance.

Learn more



Business Performance Assessment Program Forum

Methods for performing independent, objective, and selfcritical evaluations that reveal high value-adding improvement opportunities.

Learn more



Management Observation Program Forum

Focuses on establishing and executing a management observation program aligned with organizational values and mission goals that effectively modifies personnel and organizational behaviors for the achievement of superior results.

Learn more

Contact StrategyDriven



Nathan Ives Principal StrategyDriven Enterprises, LLC +1 678 313 0150 Nathanlves@StrategyDriven.com



Karen Juliano Vice President and Editor-in-Chief StrategyDriven Enterprises, LLC +1 678 810 0892 KarenJuliano@StrategyDriven.com

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Functional Performance Analysis Charts

StrategyDriven's Functional Performance Analysis Charts quantifiably assign industry benchmarking and internal performance data into standardized metrics; quantifying cascaded corporate, division, department and workgroup level performance against industry and company averages.

Process Performance Analytics

StrategyDriven's Process Performance Analytics quantitatively diagnose process compliance, target common industry challenges, and identify resource and time-dependent execution constraints.

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StrategyDriven's Organizational Capabilities Analytics quantify an array of workforce performance, experience, staffing, demographic, and other data to develop a rich picture of organizational capabilities by business unit, division, department, and workgroup.







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At StrategyDriven, our seasoned business leaders deliver real-world strategic business planning and tactical execution best practice advice – a blending of workplace experience with sound research and academic principles – to business leaders who may not otherwise have access to these resources.

StrategyDriven experts personally advise business leaders, facilitate client efforts, and provide execution resources in the following areas:

- Strategic Planning Facilitation
- Organizational Performance Measurement System Implementation: StrategyDriven works with you to assess and improve your performance measurement system; yielding metrics and reports that are operationally relevant, organizationally consistent, and economically implemented. The resulting system helps improve managerial decision-making, organizational alignment, and individual accountability.
- Program and Project Management
- Operations and Operational Risk Management
- Performance Improvement Program Implementation
- Business Process Optimization





StrategyDriven Enterprises, LLC 1720 Mars Hill Road, NW Acworth, Georgia 30101

(678) 810-0892

ContactUs@StrategyDriven.com

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