

## *How do we measure performance change?*

The methodology to measure performance change uses a five-steps process starting with understanding the workplace and its culture. The second step identifies the desired business results and the performance drivers that cause those results to be achieved. The third step quantifies a baseline performance. The fourth step synthesizes the data collected to elaborate optimized workplace strategies, and then, turns those strategies into implementation. The final step measures the performance improvements resulting from the optimized workplace.

### 1. Workplace Performance Diagnostic

The process starts by performing a [Workplace Performance Diagnostic](#), a consultative process aimed at establishing the existing broad business objectives and strategies that the new workplace needs to stimulate in order to maximize productivity improvements.

Using the [Balanced Scorecard](#) methodology developed by [Norton & Kaplan](#) at Harvard, the consultants identify the firm's corporate objectives, its corporate culture and themes, its vision, mission and values. The identified outcomes cover the four perspectives of the Balanced Scorecard: the Financial perspective, the Customer perspective, the Internal Process perspective, and the Learning and Growth perspective.

Through a series of interviews with key members of selected workgroups, the consultant validates the alignment of the workgroup objectives with the previously identified corporate goals and strategies.

This top-down, bottom-up approach leads to the development of a deep understanding of the workgroups operational strategies through observations of workplace usage and occupancy, work processes, technology employment, and organizational structures.

Based on this learning process, the consultants develop a plan for the elaboration of the workgroup Performance Balanced Scorecard to be created in the second step and from which a base line performance will be established in the third step. The Optimized Workplace Development will be created in the fourth step, and the resulting Performance Improvements will be quantified in the fifth step.

## 2. Identification of Business Objectives

The second step of the process, Identification of [Business Objectives](#), goes into a detailed analysis leading to the identification of several hundred specific performance drivers of a few dozen-business objectives for the workgroups. In turn, this analysis will stimulate the creation of new processes for continual improvement, development of new workplace designs, and the employment of new technologies - leading to increased performance and profits.

The process is adapted from the powerful Balanced Scorecard tool to measure corporate performance. Harvard's Norton & Kaplan observed that total performance measurement must contain four perspectives: Financial Perspective measured by return on investment & [Economic Value-Added](#) (EVA); Customer perspective measured by satisfaction, retention, market, and account share; Internal Processes perspective measured by quality, response time, cost, new introduction; and Learning & Growth perspective measured by employee satisfaction and information systems availability.

The Balanced Scorecard is further refined through the principle of "[disaggregation](#)" into three dimensions: objectives that are strategic in nature, objectives that are workplace driven, and objectives that support the individual worker.

Key members of the workgroup are coached by the consultants to identify the specific outcomes or results that characterize the workgroup Business Objectives for each of the Balanced Scorecard perspectives (Financial, Customer, Internal Process, Learning & Growth) and of the three performance dimensions (strategic, workplace, workers). The result is the identification of 12 classes of objectives. Within each workgroup, team members further identifies the leading indicators that are the key performance drivers contributing to the occurrence of each outcome of each of the four perspective and the three performance dimensions.

A clear understanding of the performance drivers will enable the development of new processes for continual effectiveness improvement and new workspace alternatives that support these new processes. It will also enable management to employ the technologies that enable the various workgroups to harmoniously and effectively contribute to the workgroup business results.

During a Design Session (augmented with individual interviews with key selected individuals) specific performance drivers for the workgroup, which cause the Balanced Scorecard's outcomes to be met, are identified. For each potential outcome, each team member identifies four or five essential measures (performance drivers) and establishes probable causal effects to the outcomes of the Balanced Scorecard.

For example, with 15 to 20 participants each contributing 2 or 3 objectives and 4 or 5 drivers of each objective, the resulting aggregates table might contain as many as

360 objectives and 1,400 performance drivers. This data is analyzed by checking for redundancy, testing the causality of drivers to objectives, and other data analysis tasks. The resulting Scorecard typically will contain 40 to 60 objectives and 150 to 200 performance drivers.

The Scorecard will guide the process of establishing a Baseline Performance Measurement. It will provide a clear understanding of the performance drivers that will achieve the desired productivity improvements. It will enable the development of new processes for continual effectiveness improvements in workplace productivity. It will direct the design of new workspace alternatives supporting these new processes. It will identify the new technologies enabling the workgroups to contribute effectively to the desired business results.

### 3. Baseline Performance Quantification

The third step is concerned with the quantification of the [baseline](#), or current level, of performance of the workplace. For each performance driver, there exists a metric and a data collection method.

In essence, the Balanced Scorecard objectives and performance drivers give a sharp focus and specific directions for the performance of an audit and measurement study. This study measures the effectiveness of the current workplace design, workplace standards, and employee perceptions. There are numerous data collection methods available. The following lists a few of the most common ones.

**[Time Utilization Study](#):** An observational study that measures how space is used over time, and compares the intensity of space utilization with type of activity and type of user. Its value lies in the identification of opportunities to maximize efficiency of space utilization. The study identifies time spent in and out of the office, degrees of individual and collaborative work as well as individual work content. An objective data is used to question perceived conventions of space use and can determine additional facility design issues.

**Workplace Performance Survey:** The survey addresses the particular performance drivers identified by the Balanced Scorecard. The survey results establish a detailed understanding of the essential work processes used by different staff groups, the relative importance and performance of aspects of the work environment, and how this differs by different types of workers. It highlights the appropriateness and adequacy of the existing work environment, in relation to its ability to support effective performance from different staff groups. It points to strengths and weaknesses of the technology supporting the staff and the work environment.

**Focus Groups and Personal Interviews:** Groups are queried on key performance drivers identified in the Balanced Scorecard. By combining consensus-driven comments with documented findings, cultural drivers are defined and prioritized. Results from workshops factor largely in establishing strategies for change. Interviews

are used to further define key issues at both staff and management levels as required.

**Video Ethnography:** An ethnographer adds a "show" to the "tell" on how people spend their time. The ethnography elicits in-depth responses to issues, providing better data for survey construction up front and filling in the blanks afterward by eliciting the reasons people had for their responses. In Focus Groups, video captures the tones, emotions and emphasis of individuals and the group - displaying the group process as it happens and revealing formal and informal modes of influence. The result is an enduring, compelling record of the knowledge of people in their work environment.

**Baseline Measure:** Using multivariate statistics, the dozens of variables on which data has been collected, are transformed into a rank ordering summary statistic. The choice of statistical method, which can range from a simple **heuristic** system to a complex neural network, will depend on the nature of the data and on the need for isolation of exogenous variables causing performance changes. The results identify the most prevalent activities, work styles, and attitudes and structures, with an aim towards prioritizing issues to be addressed in the solution strategy.

#### 4. Optimize Workplace Development

The Balanced Scorecard completed in the second step above, with its dozens of objectives and hundreds of performance drivers, lends itself to the development of specific strategies and tactics for performance improvements, forming a series of "Action Maps" to **Optimized Workplace Development**. A separate **Action Map** is developed for each of four performance elements, Workplace Design, Technology Employment, Process Improvements, Behavior Adaptation.

**Action Maps:** For each performance driver identified in the Balanced Scorecard, the consultant and workgroup members develop a set of actions aimed at improving those performance drivers. For each action, an accountability is identified and specific due dates are planned. Some of the actions will require new workplace strategies and design. Others will require the employment of new technologies. In turn, the new workplace design and the supporting new technologies will stimulate process improvements. This creates change, which require management and behavior adaptation. The action maps also includes tasks with accountabilities and due dates aimed at successfully managing those changes.

**Design Strategy:** From a careful examination of the Workplace Design Action Map a *design strategy* emerges. Similarly, examination of the Technology Employment Action Map leads to new technology deployment solutions that must be integrated into the physical environment. Finally, analysis of the Process Improvement Action Map derives new processes that require different physical layouts. Those new strategies are a synthesis of actions aimed at improving the performance drivers that causes objectives or business results to be achieved. Architects and designers

integrate these new strategies and transform them into a series of design solutions aimed at improving performance is the responsibility of.

## 5. Performance Improvement Quantification

The second step above performed a series of workplace assessment tasks aimed at establishing a baseline performance of the workgroup in the "old" workplace. [Quantifying the Performance Improvements](#) resulting from the new workplace essentially repeats the workplace assessment tasks in the "new" workplace. The tasks will include: Time Utilization Studies, a Workplace performance Survey, Focus Groups and Personal Interviews, and Video-Ethnography. Similar data is collected and changes in level of performance are identified. Using the same data reduction model as the workplace performance baseline measure, improvements in the overall performance of the workgroups are quantified.

Once the increase in worker performance is measured, it is necessary to check that the increased performance is not due to other factors. Besides workplace design solutions, process improvements, and behavior change training, worker performance changes can be the result of many different causes. Examples might include new management, better technology, changes in the economy, changes occurring with the clients, or changes in marketing strategy. Isolating the effect of various variables is a statistical process known as the "effect test".

**PdK Consulting**

**PdK Consulting** focuses on [Workplace](#) performance optimization and on measuring the resulting performance improvements.

Using the "[Balanced Scorecard](#)", PdK identifies work group performance variables and establishes baseline performance measures. PdK develops a Workplace Strategy and a detailed Action Map with accountabilities and schedules aimed at:

- Implementing strategies and tactics for high performance workplaces
- Developing processes for continuing improvements
- Deploying knowledge supporting technologies
- Enabling behavior changes increasing performance

PdK measures the resulting **performance improvements** (business results) on a simple linear scale via multi-variate statistical or simple heuristic models.

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