Performance by Design

A methodology for building a "great workplace"

By Gérald de Kerchove and Charles E. Grantham

PdK Consulting
50 Palm Avenue
San Rafael, Ca 94901
GdeKerchove@PdKConsulting.com
www.PdKConsulting.com
T: (415) 453-6902 – F: (415) 456 9041

ABSTRACT

The design and construction of effective workplaces involves more than facilities management concerns. If done right, it requires an integration of technology, organizational and business acumen. However, getting all these disciplines to work in harmony has been a difficult problem. This paper details a proven, reliable design methodology, which accomplishes this key integration task for corporate real estate executives.

Introduction

> *"Perhaps you consider office space secondary to the nitty-gritty process of innovation. Well, at IDEO we consider it one of our premier assets…. Creating great office space may be one of the hardest parts of the innovation puzzle. It doesn't happen simply by hiring forward-thinking architects or leasing cool buildings"*

Tom Kelley, CEO of IDEO, in his book "The Art of Innovation" goes further describing a number of ways that IDEO has adopted to create workplaces that work and look great. He talks about building neighborhoods, thinking in terms of teams, creating playful, flexible foundations that evolve, creating team icons, and telling stories about the workers and the company. Kelley's ideas are all very good. However, they only tell part of the story.

In this article, we will describe an explicit, reliable methodology for building a *great workplace* and measuring the resulting business improvements.

Scholars, students of the knowledge workers, from Duffy to Grantham, from Vischer to Morris, from Stephenson to Roulac, have concluded that the modern workplace cannot be designed successfully in isolation from technology considerations, patterns of social interaction, and effective business processes.

In "Excellence by Design" Michael Joroff and the rest of the SPORG team at MIT goes on to describe the four critical dimensions of the workplace:

> *"Conceiving the Workplace as a strategic element in the enterprise requires a shift in how we view the workplace itself…the workplace as a strategic element of the organization is more than this: it depends upon the internal compatibility – indeed, the active mutual reinforcement – of spatial, organizational, financial, and technological arrangements…These dimensions are interdependent and in a dynamic relationship with one another. A change in one demands change in others.*

From a business perspective, Don Cohen and Lawrence Prusak in "In Good Company" make the case for the importance of "Social Capital". It adds another key dimension to the successful workplace:

> *"Space and time for people to gather and make connections with one another are the seedbed and sunlight of social capital. If you want people to connect, to talk, to begin to understand and depend on one another, give them places and occasions for meeting, and enough time to develop networks and communities. Social capital needs breathing room–social space and time–within work and surrounding work."*

The building of "great workplaces" that supports innovation, that encourages knowledge capital growth, that stimulate social capital generation, requires a multi-disciplinary approach. Ethnographers describe the culture and analyze the networks; sociologists identify communities of practice and social networks; organizational psychologists examine motivation and satisfaction; management consultants develop performance measures and design strategies; architects and designers transform the strategic designs into great workplaces.

However, all of these separate disciplines need to have their input integrated under a single, unified design umbrella. There needs to be way each can participate and collaborate. We believe that umbrella is the methodology by which goals are set, assessments are made and the results are audited.

Methodology or “How to Make It Happen”

The methodology to build a great workplace uses a five-steps process.

1) Assess the workplace and its culture.
2) Identify the desired business results and the performance drivers that cause those results to be achieved.
3) Quantify baseline performance.
4) Synthesize the data collected to elaborate optimized workplace strategies.
5) Audit performance improvements.

1. Workplace Performance Diagnostic

The Workplace Performance Diagnostic is 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 approach developed by Norton & Kaplan at Harvard, the consultants identify the firm’s corporate objectives, its corporate culture, and its corporate vision, mission and values. The identified outcomes cover the four perspectives of the Balanced Scorecard:

- **Financial** - measured by ROI and Economic Value-Added (EVA)
- **Customer** - measured by satisfaction, retention, market, and account share
- **Internal Process** - measured by quality, response time, cost, new introduction
- **Learning and Growth** - measured by employee satisfaction and information systems availability

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.

2. Identification of Business Objectives

This step performs a detailed analysis leading to the identification of specific performance drivers of a few dozen-business objectives for the workgroups. This analysis stimulates 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.

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 groups of objectives.

Table 1

	Strategic	**Workplace**	**Worker**
Financial	*Group 1*	*Group 2*	*Group 3*
Customer	*Group 4*	*Group 5*	*Group 6*
Internal Process	*Group 7*	*Group 8*	*Group 9*
Learning & Growth	*Group 10*	*Group 11*	*Group 12*

A clear understanding of the performance drivers enables the development of new processes for continual effectiveness improvement and new workspace alternatives that support these new processes.

During a Design Session, specific performance drivers for the workgroup 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.

Table 2: Example of 1 Objective with 5 Performance Drivers

Objective	Drivers
A. Increase job satisfaction and staff retention/acquisition	1. Design of workplace that is attractive, bright, dynamic, contemporary, well lit, ergonomic, clean, with highest possible ceilings, maximum access to daylight views, clearly demonstrating a competitive edge 2. Define workplace standards allowing maximum individual choice and control (trading bookshelves for storage, choice of computer placement, optional keyboard tray, task light, etc.) 3. Enable "work anywhere & any time" by allowing telecommuting, flex time, and by providing plug and play network access from any workstation, drop-I stations, touch-down station, meeting area, booths, kiosks, and remote access 4. Enable staging of events such as job opening parties, international food fairs, ethnic art exhibits, multi-cultural conferences, community and employee sponsored venues 5. Design space that promotes creativity, interactivity, innovation, and group learning

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.

Overwhelming at first, this large body of data is at the root of why knowledge workers performance has seemed so mysterious for so long. In our desire to simplify, management has typically attempted to reduce performance to a set of 5 or 6 key variables. Human behaviour is much more complex and refuses to be pinned down to such an overly simplistic model. Fortunately, the field of multi-variate statistics is here to help. From regression analysis to neural networks, various modelling technique exists to reduce hundreds of variables to a manageable set.

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. Several tactics are available:

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. The study identifies time spent in and out of the office, degrees of individual and collaborative work as well as individual work content.

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.

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 these workshops are used to establish strategies for change.

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. 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.

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 analysis method, ranging from a simple frequency display to neural network analysis, will depend on the nature of the data. The results identify the most prevalent activities, work styles, and attitudes and structures, with an aim towards prioritising issues to be addressed in the solution strategy.

4. Optimize Workplace Development

The Balanced Scorecard completed in our second step 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". A separate Action Map is developed for each of four performance elements:

- *Workplace Design*
- *Technology Employment*
- *Process Improvements*
- *Behavior Adaptation*

Action Maps: For each action, an accountability are 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.

Table 3: Action Map Example

Desired Outcomes	Performance Drivers	Actions	Who	Date	Data	Account-ability
Reduce Real Estate Costs →					Life Cycle Total Occupancy Cost	Corporate Real Estate (CRE)
	Create Activity Based Workplace standards supporting autonomy, interaction, confidentiality, and knowledge transfer	a) Organize "research" field trip to Best-in-Class facilities	CRE	12/1/01		
		b) Identify and describe explicitly each of the "activity settings" to be supported in Workplace	Operation	12/1/01		
		c) Create with design firms and furniture manufacturers detailed specifications for each activity setting	CRE	3/31.02		
		d) Create pilot project	CRE	6/30/02.		
	Proactively adopt superior safety and ergonomic standards aimed at reducing need to re-configure to conform to prospective regulations	a) Meet with Risk Management and Ergonomic consultants to identify best practices and direction of ergonomic research, and to anticipate prospective regulations	CRE	10/31/01		
		c) Establish ergonomic and safety standards for 2002	CRE	12/31/01		

Design Strategy: A *design strategy* emerges from a careful examination of the Workplace Design Action Map. 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

5. Performance Improvement Quantification

Our last step repeats the second step of data collection and quantification. Again, we use: 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.

Conclusion

Building “great workplaces”, workplaces that increase performance, requires a rigorous methodology, which acknowledge that performance increases can only result from behavior changes. The methodology fully recognizes and capitalizes on the interactions between work practices, technology, and space. A multi-disciplinary approach leads to holistic solutions with demonstrable and measurable business performance improvements.

Why do we care? Simply because “great workplaces” are *very profitable workplaces*.

For example, A software company adopted the methodology we describe to design a new workplace for its 1,600 software developers. It saw its annual profit increase by $3.045 per developer or nearly $ 5 million. The ROI for the new workplace exceeded 131% with a payback of less than 10 months.

And, A national financial service institution consolidated field offices into regional centers. The resulting benefits are estimated at $151,150,000 over 10 years. The payback is 14 months.

The bottom line is that there is a bottom line. Traditional corporate real estate executives are used to managing their operations based on reduction of cost per square foot as a key metric. This won’t work any longer in our new economy. Corporate Real Estate executives need a ‘value added’ metric to show how their efforts are creating value for the company—not just conserving resources.

RESOURCES

- Duffy, Francis (1997),**The New Office** by (Conran Octopus Limited) www.degw.com
- Grantham, Charles (2000**) "The Future of Work",** McGraw-Hill. www.thefutureofwork.net
- Morris, Langdon (1995**) "Managing the Evolving Corporation",** VanNorstrand Reinhold. www.kmlab.com
- Roulac, Stephen (1999**) "Ethics in Real Estate",** Research Issues in Real Estate, V. 5. www.roulac.com
- Stephenson, Karen (1998) **"What Knowledge Tears Apart, Networks Make Whole",** Internal Communication Focus, 36:22-5. www.netform.com
- Vischer, Jacqueline C. (1996) **"Workspace Strategies "Environment as Tool for Work"** Chapman & Hall biubeu@wn.net
- Joroff, Michael L., Horgen, Turid H., Porter, William L., Shon, Donal A. (1999) **"Excellence by Design – SPORG",** John Wiley & Son http://sporg.mit.edu/info
- Kelley, Tom (2001) **"The Art of Innovation",** Currency-Doubleday
- Prusak, Lawrence, Cohen Don (2001) "**In Good Company**" Harvard Business School Press