



Strategic Blueprint: Balancing Cost-Effectiveness with Support for Corporate Change & Flexibility

by: Jay L. Brand, Ph.D.

A theoretical look at business trends, the value of space, and how changes in organizational workstyles affect office design, this paper discusses how to achieve a flexible balance between fixed and adaptable workspace elements.

In recent years, organizations have increased their attention to facilities management — due in large part to a perceived need for increased consolidation in the procurement, specification, and project management of corporate office environments. As the cost of corporate real estate remains high, many companies consider facilities in terms of organizational efficiency and cost-cutting initiatives. However, this approach may need fundamental revision to keep up with the torrid pace of change within the knowledge economy.

In many corporations, the traditional view has been that in order to improve the bottom line, facilities costs must be kept to a minimum. One effect of this approach has been to increase the density of workers within office environments. Quite literally, many organizations measure building performance or efficiency in terms of how many workers they can accommodate with the least amount of floor space or technology support.

While this approach serves to maximize short-term returns on investments and assets, if the impact of employee turnover, absenteeism, and less-than-optimal productivity are included in the measurement, the perspective that facilities costs represent mere red ink changes dramatically. If turnover or absenteeism drops — or productivity increases — even a few percentage points, the positive impact on the bottom line can be substantial, depending on company size. Over a ten-year period, the costs of employees' salaries and benefits will be fully five to 13 times the costs of the initial investment in construction, furniture, interior furnishings, and equipment, plus building operations and maintenance, depending on proportion of leased to purchased real estate. The fact that personnel costs still represent the primary corporate expenditure — well ahead of facilities costs — suggests the need to treat space as an investment rather than as overhead. The potential for bottom-line impact from facilities has much more to do with support for knowledge work than with merely trimming costs.

The Evolving Workplace

In addition to this salient re-alignment of cost structuring, other developments within the knowledge economy have dramatically altered today's office environment challenges. A broad change in emphasis from internal to external issues represents an important fundamental shift still ongoing within many organizations. This means that the drivers of corporate change reside largely outside the corporations themselves and thus remain fundamentally beyond their control. This requires companies to stay in close touch with broader societal trends, as well as implementing and managing their own internal processes and dynamics. In short, what will drive change within the corporations of tomorrow will be more a function of opportunities anticipated and identified than of careful executive vision and strategic planning. Correctly noticing and responding to unfolding market developments and challenges requires a nimble organizational structure arrayed around empowered functional units rather than a rigid hierarchy of formal control.

This sea change from primarily internal to external considerations places a great deal of demand on the flexibility and adaptability of the environments in which people work. As dynamic customer preferences for new designs and services continue to replace corporate strategic planning as the primary determinant of internal product development cycles (as well as other previously predictable internal processes), office tasks have become much more diverse compared to even a few years ago. Organizations have flattened to reflect the new pace of change. As a result, the responsibilities of individual workers and work teams have broadened considerably. Among other related demands such as ubiquitous technology support, all these evolving influences have yielded unwieldy churn rates, or employees moving each year. Even for businesses in normally conservative sectors such as banking and insurance, churn rates commonly range from 60 to 100 percent.

To make matters worse, technology continues its mind-boggling rate of innovation, requiring a sophisticated infrastructure of power and cabling that must adapt to the onslaught of new, ever-more-powerful work tools. Corporations dare not leave their downsized workforces without these tools, lest one or more of their increasing responsibilities suffers a

drop in productivity. Not only have the number and variety of jobs that each worker must accomplish increased dramatically, but cross-functional teams are increasingly common as well. Such work and task variety demands great flexibility from the physical environment. Individual offices must co-exist with team areas and acoustic environments must not preclude space for vital visual symbols, continuous creation and coordination of the spatial representation of work processes, and shared work objects and goals.

Implications for Facilities Planning and Office Design

Supporting this shifting ocean of organizational priorities can be a nightmare. No longer can drywalled offices be constructed to correspond to the boxes in an organizational chart. Even panel systems designed to support the organizational structure and requiring professional installation must eventually give way to options that respond to the dynamic functional needs of the people using the space, regardless of their official designation or department. The work that actually occurs within office spaces may bear little resemblance to the structure of the organization. Instead, organizations must consider the rate and nature of these changes within their companies and intentionally plan environments flexible enough to adapt — without requiring costly downtime and inordinate installation charges for moves, adds, and changes.

What is the best way to accommodate this kaleidoscope of change within corporate social, technological, and environmental systems? How can strategic planning for the future be balanced with the need to support shifting work patterns, styles, and needs? It goes without saying that the more infrastructure that can be permanently installed can cut costs over the long term. But that assumes that no major changes in the layout or configuration of offices, with their accompanying power and cabling

needs, will occur. In today's corporate world, that is rarely a safe assumption.

What's the solution? Any plan for a new environment should involve the key constituencies that will be affected by the new installation or retrofit. Open communication is essential to ultimate success. To obtain buy-in for the corporate vision, everyone who will experience the transition must be given the rationale for the new environment and an opportunity to provide comments and feedback through at least a representative. This can be done with regularly monitored intranet bulletin boards, focus groups, monthly meetings, or other interventions. Ideally, this largely psychosocial process results in general acceptance of a clearly articulated goal for the new corporate environment, its ultimate purpose, and meaning for the organization and its constituencies.

The Behavioral Function Chart

Informed by detailed observation of the areas affected by the move, an accurate understanding of work processes, styles, and functions of the people involved, and corporate strategy, a behavioral chart of the organization should be constructed.

Rather than a CEO or executive, this chart is topped by the company's mission statement. At the next level are broad missions and goals corresponding to major sectors of the business, such as "expand operations in Asia" and "increase sales in Mexico." Below that should be more focused, detailed accounts that flesh out how each of these objectives will be accomplished. The most active change-driven level within the behavioral chart should involve cross-functional teams — ideally, strategic allegiances between corporate segments to identify or address some threat or opportunity. The bottom of the chart should contain the day-to-day activities of individual employees.

It should be possible to draw a horizontal line through this chart above

which relatively little short-term change will occur, but below which a great deal of change might be expected. Typically this line can be drawn immediately above those functions defined by the spontaneous activities of cross-functional teams and other short-term alliances. Determining where to draw this line is the critical step, since the natural functions defined just above the line will be the most informative about how many natural divisions can be reflected in the relatively permanent design of the physical environment. Power and cabling needs will also be suggested by this exercise. Below this line will be those processes and activities that can be expected to change frequently. These functions must be supported, perhaps with multiple-use spaces and very flexible environments and few, if any, private offices — although movable partitions for acoustic or visual privacy might be included.

A behavioral function chart can be completed relatively quickly or more thoroughly, depending on the tradeoffs between the importance of obtaining accurate and reliable information and the time and costs of this more in-depth approach. At the very least, three questions should be addressed to directors, managers, and supervisors, as they represent the formal levels most likely to surround where to draw the line between relatively permanent and impermanent corporate processes:

1. What are the three to five work groups, teams, or departments within the organization with which your group interacts most frequently (in order of the frequency and importance of these interactions)?
2. What are the two or three most critical external constituencies around which your group's activities are organized or directed?
3. Describe and, if possible, give an example of a typical interaction between your group and the other groups mentioned in questions one and two.

Question one will provide minimal information about appropriate alignments and co-locations for functional work groupings. Question two will provide clues regarding the unfolding alliances among perhaps slightly different functional arrangements. And question three will provide information regarding the work tools, processes, and technologies that the relevant environments will need to support. If it becomes necessary to go beyond a cursory overview of behavioral functions within the organization (and it usually does), formal work process analysis, readily provided by consultants or commercially available software packages, as well as focus groups that include a representative cross-section of members from as many affected constituencies as possible can usually provide more fundamental information about how, when, and why people work independently or collaboratively. Ideally, formal and informal observational techniques can supplement these data collection processes, since some important behavioral interactions cannot be adequately explored through introspection.

Flexible Support for Dynamic, Multiple Workstyles

One suggestion that has received a great deal of attention in planning office spaces for very fluid team environments includes the following elements:¹

- Inspiration and renewal
- Meditation and focus
- Techno-pit
- Farmer's market
- Home base

These elements would determine quite large space designations or neighborhoods, perhaps separated by flexible spine walls that could integrate with multiple systems and office types. Inspiration and renewal areas should ideally involve external views or vistas with natural accoutrements that involve

visual and acoustic variety and complexity, such as fountains and plants. Meditation and focus areas could be featured within inspiration and renewal areas, but with more restricted boundaries, such as seating arranged around a fountain. Techno-pits would be equipment-intensive, interactive-technology centers featuring support for a number of work tools and processes. Farmer's market areas would be characterized by support for large displays to allow idea immersion and interactive, multi-media experiences of developing projects or products. Finally, home base spaces would allow the personal control, identity, and display of traditional offices. These could be kept small and open on one or two sides to promote space efficiency.

How these relatively large functional arenas would be developed and integrated could be uncovered in the development of the behavioral function chart. Some organizations may need combinations of these broad functional divisions, such as a farmer's market integrated with a techno-pit. Discovering what people actually need day-to-day would improve the layout and design of such environmental flexibility. Adaptation could occur within and across work groups, allowing for support of a wide range of work activities. Individual workers would experience variety throughout the work day as they meet the changing demands of independent and collaborative work. It would be important to allow workers to personalize their individual office spaces within home base areas. Collaborative areas such as a farmer's market should support the coordination and continuity of multiple projects and project-relevant displays within the same area to conserve space while preserving task-relevant contexts over project lifespans. This can be accomplished with layered whiteboards and tackboards, as well as flexible interactive display and storage tools that allow easy translation of information from individual to group work areas.

Any integration or combination of these design concepts would provide all the key elements of a productive corporate office environment. With flexibility provided in the variety of available environments, fewer moves, adds, and changes would be

necessary. Evolving teams and workstyles could all be supported without constantly reconfiguring office layouts and floorplans. Mobile components and work tools within some of these areas would allow workers to meet their changing functional needs. The trick to keeping track of such furniture and equipment involves defining a larger space metric than at the level of individual offices. The scale of the areas defined for tracking inventory could be these larger functional units or groupings, rather than individual workspaces.

The Strategic Blueprint

Ideally, office environments should include a kit of parts and work tools that can evolve at the level of individual workers and cross-functional teams to accommodate their changing interests and priorities. Specifically, work tools such as mobile storage units, re-configurable tables, adjustable multiple work surfaces, adjustable and user-friendly seating, modular panel systems that can accommodate increasing technology support, spine walls compatible with a number of different systems, and team areas integrated with and considerate of the privacy needs of individual workers can leverage the space as an investment in the knowledge workers of today. The work areas resulting from such innovation can respond cost-effectively to the inevitable changes occurring in virtually every sector of an enterprise.

Without this flexibility to adapt to the complexities that continue to engulf the larger economy, space can represent a significant drain on organizational performance and productivity. The key is to understand and support the behavioral functions that coalesce and disperse within the office environment, rather than supporting individual workers or their departments. The costs of moves, adds, and changes, along with the effects of downtime and turnover on productivity can be realistically controlled only with an eye on the future needs of office environments. The only constant

is change — anticipate it, design for it, keep up with it — and prosper as a result.

References

Thanks to Tim Syfert for these ideas.

- Aamodt, M.G. (1996). *Applied Industrial/Organizational Psychology*. Pacific Grove, CA: Brooks/Cole.
- Adams, P.C. (1995). A reconsideration of personal boundaries in space-time. *Annals of the Association of American Geographers*, 85, 267-285.
- Apgar, M. (May-June, 1998). The alternative workplace: Changing where and how people work. *Harvard Business Review*, 121-136.
- Auld, C.J., & Case, A.J. (1997). Social exchange processes in leisure and non-leisure settings: A review and exploratory investigation. *Journal of Leisure Research*, 29, 183-200.
- Barua, A., Chellappa, R., & Whinston, A.B. (1997). Social computing: Computer supported cooperative work and groupware. In G. Salvendy (Ed.), *Handbook of Human Factors and Ergonomics*, 2nd ed., pp. 1760-1782. New York: John Wiley & Sons.
- Bickman, L., & Rog, D.J. (1998). *Handbook of Applied Social Research Methods*. Thousand Oaks, CA: Sage.
- Brill, M., Margulis, S.T., & Konar, E. (1984, 1985). *Using Office Design to Increase Productivity, Volumes I & II*. Buffalo, New York: Workplace Design and Productivity, Inc.
- Celentano, D.D. (1991). Health issues in office work. In G. M. Green & F. Baker (Eds.), *Work, Health, and Productivity*, pp. 127-141. New York: Oxford University Press.
- Colarelli, S.M. (1998). Psychological interventions in organizations: An evolutionary perspective. *American Psychologist*, 53, 1044-1056.
- Corn, J.K. (1991). Historical perspective on work, health, and productivity. In G.M. Green & F. Baker (Eds.), *Work, Health and Productivity*, pp. 19-29. New York: Oxford University Press.
- Davis, S., & Meyer, C. (1998). *Blur: The Speed of Change in the Connected Economy*. Reading, MA: Addison-Wesley.
- Darrouzet, C., Stucky, S., & Wild, H. (1994). *The Social Affordances of Engineering Space: How Engineering Groups Make Use of Space*. Menlo Park, CA: Institute for Research on Learning.
- Drucker, P.F. (August 24, 1998). The next information revolution. *Forbes ASAP*, 47-58.
- Evans, G.W., Johansson, G., & Carrere, S. (1994). Psychosocial factors and the physical environment: Inter-relations in the workplace. *International Review of Industrial and Organizational Psychology*, 9, 1-29.
- Fisher, L.M. (1998). Inside Dell Computer Corporation: Managing working capital. *Strategy & Business*, 10, 68-75.
- Galbraith, J.R. (1997). The reconfigurable organization. In F. Hesselbein, M. Goldsmith, & R. Beckhard (Eds.), *The Organization of the Future*, pp. 87-97. San Francisco: Jossey-Bass.
- Gehlmann, S.C. (1992). Individual differences in employee stress as related to office environment and individual personality factors. In J.C. Quick, L.R. Murphy, & J.J. Hurrell, Jr., (Eds.), *Stress and Well-being at Work: Assessments and Interventions for Occupational Mental Health* (pp. 225-234). Washington, DC: American Psychological Association.
- Green, G.M., & Baker, F. (Eds.). (1994). *Work, Health, and Productivity*. New York: Oxford University Press.
- Gulasch, M. (September, 1998). Making the new workplace work. *Facility Management*, 50-58.
- Guzzo, R.A., & Dickson, M.W. (1996). Teams in organizations: Recent research on performance and effectiveness. *Annual Review of Psychology*, 47, 307-338.
- Harrigan, J.E. (1997). Architecture and interior design. In G. Salvendy (Ed.), *Handbook of Human Factors and Ergonomics*, 2nd ed., pp. 964-986. New York: John Wiley & Sons.
- Hendrick, H. (1997). Organizational design and macroergonomics. In G. Salvendy (Ed.), *Handbook of Human Factors and Ergonomics*, 2nd ed., pp. 594-636. New York: John Wiley & Sons.
- Ilgen, D.R. (1999). Teams embedded in organizations: Some implications. *American Psychologist*, 54, 129-139.
- Kelly, K. (1994). *Out of Control: The New Biology of Machines, Social Systems, and the Economic World*. New York: Addison Wesley Longman.
- Koulopoulos, T.M. (1997). *Smart Companies, Smart Tools: Transforming Business Processes into Business Assets*. New York: Van Nostrand Reinhold.
- Latané, B., Liu, J.H., Nowak, A., Bonevento, M., & Zheng, L. (1995). Distance matters: Physical space and social impact. *Personality and Social Psychology Bulletin*, 21, 795-805.
- Moos, R.H. (1996). Understanding environments: The key to improving social processes and program outcomes. *American Journal of Community Psychology*, 24, 193-201.

- O'Neill, M.J. (1998). *Ergonomic Design for Organizational Effectiveness*. Boca Raton, FL: Lewis Publishers.
- Pacanowsky, M. (1995). Team tools for wicked problems. *Organizational Dynamics*, 23, 36-51.
- Price, S. (August, 1997). Facilities planning: A perspective for the Information Age. *IIE Solutions*, pp. 20-22.
- Propst, R. (1968). *The Office: A Facility Based on Change*. Elmhurst, IL: The Business Press.
- Rasmussen, J., Pejtersen, A.M., & Goodstein, L.P. (1994). *Cognitive Systems Engineering*. New York: John Wiley & Sons.
- Remland, M.S., Jones, T.S., & Brinkman, H. (1995). Interpersonal distance, body orientation, and touch: Effects of culture, gender, and age. *The Journal of Social Psychology*, 135, 281-297.
- Robinson, D.T., & Balkwell, J.W. (1995). Density, transitivity, and diffuse status in task-oriented groups. *Social Psychology Quarterly*, 58, 241-254.
- Rosenblatt, B. (1995). *New Changes in the Office Work Environment: Toward Integrating Architecture, OD, and Information Systems Paradigms*. Norwood, NJ: Ablex Publishing Corporation.
- Ryburg, J. (1995). *Strategic Planning: Best F.M. Practices*. Ann Arbor, MI: Facility Performance Group.
- Salvendy, G. (Ed.) (1997). *Handbook of Human Factors and Ergonomics*, 2nd ed. New York: John Wiley & Sons.
- Shalley, C. E. (1991). Effects of productivity goals, creativity goals, and personal discretion on individual creativity. *Journal of Applied Psychology*, 76, 179-185.
- Stanney, K.M., Maxey, J.L., & Salvendy, G. (1997). Socially centered design. In G. Salvendy (Ed.), *Handbook of Human Factors and Ergonomics*, 2nd ed., pp. 637-656. New York: John Wiley & Sons.
- Steele, F. (1986). *Making and Managing High-quality Workplaces: An Organizational Ecology*. New York: Teachers College Press.
- Sullivan, C. C. (July, 1996). Offices as communications tools: Space planning in the 1990s. *Buildings*, pp. 28-36.
- Tatum, R. (May, 1998). Stepping stones to productivity. *Building Operating Management*, 54-60.
- Van Delinder, T. (May/June, 1997). Creating a progressive office environment. *Facilities Management Journal*, pp. 18-22.
- Wah, L. (November, 1998). Welcome to the edge. *Management Review*, 24-29.
- Zalesny, M.D., & Farace, R.V. (1987). Traditional versus open offices: A comparison of sociotechnical, social relations, and symbolic meaning perspectives. *Academy of Management Journal*, 30, 240-259.