The impact of the physical workplace on performance: an introduction
Background

Working methods, places and spaces are increasingly the subject of close scrutiny. In large part due to technological advances but also the presence of five generations in the workplace, they are changing from employees’ and employers’ perspectives as both strive for progress and performance. By way of illustration, consider the following developments:

- **disappearing boundaries** - for a growing number of people, today’s work is much less a function of ‘place’ than ever before. Whereas many people were previously either ‘at work’ or ‘not at work’, more recently, work has become a matter of ‘time’ rather than ‘place’. That said, even notions of ‘working day’ and ‘working week’ are disappearing as many can and do work any place and any time. In this dynamic environment, employers and employees are necessarily faced with questions about the role and relevance of the physical workplace environment;

- **beyond work content** - just as traditional retail’s focus is increasingly on the ‘experience’ in the face of stiff online competition, so the workplace appears to be following a similar path. Employers are feeling the need to reinvent and reinvest in the workplace to differentiate it from their competitors’, also from employees’ homes and cafés. Employees are increasingly mobile, flexible and autonomous; they can work from more places than ever before;

- **combining places and spaces** - no longer an absolute necessity for a growing number of people, is the physical workplace becoming a rallying point for the culture of the organization, a place that employees only really go to for face-to-face dialogue and exchange with colleagues? If the locus is the key link, how is this achieved and maintained? By paying greater attention to employees’ wellbeing? By creating an environment that makes employees feel almost as if they are at home although they are at work?

The fusion of ‘spaces’ is a growing trend as home-like environments that are actually workplaces within café environments look to be a feature of the workplace into the future. Organizations are designing collaborative spaces like these to inspire employees and foster a culture or hub of co-operation and innovation. They seek to break up the working day with high quality interaction. A comprehensive range of services also offers individuals improved quality of life by helping them to harmonize their work and personal interests.

At best, the workplace is set to become a vibrant community or hub for employees, an environment characterized by services and amenity designed to improve their Quality of Life at work and indeed beyond.
Introduction

The purpose of this report is to serve as an introduction to organizations’ interest in the impact of the physical workplace environment on key performance drivers and their insights. To this end, we will consider:

- key themes concerning the impact of place on the performance of people
- workspace design approaches
- workspace benchmarking approaches
- technology-driven advances

People, place and performance

In a similar way to employees’ competence or their workplace equipment, the physical workplace environment contributes to the organization and quality of work. In this sense, it is a work ‘tool’, but it is also connected to employee motivation, performance, satisfaction and engagement. To isolate the consequences of the workplace environment alone on its users and therefore on the performance of the organization, is difficult. However, our sense of ‘space’ is connected to our sense of ‘self’ - the way we feel, behave and interact - and so by extension to the progress of individuals in the workplace and the performance of their organization.

By way of example, consider how a reduction in the surface area of desk space available to an individual may diminish their flexibility at work. The individual may perceive this desk space reduction as a worsening of their conditions, an indication of a diminution in the value attached to them by the organization. It may result in reduced satisfaction at work, lower motivation and individual performance. While the direct impact of such a change in the physical environment on the performance of the organization may be difficult to measure, its impact at least on employee satisfaction is within easier grasp.

The example above focuses on just one specific aspect of the physical workplace environment among others that feature significantly, for example: the degree to which one is able to personalize the workplace environment or control aspects such as lighting and temperature, see outside, see nature or receive natural light.
While a number of these aspects are well documented and used, the notion of control was recently considered in a new light in some detail in a Harvard Business Review article\(^1\) by three researchers at Steelcase (a specialist in office furniture). Their starting point was the natural rhythm of work - for many a collaborative venture - which includes both time together and time apart, alone. In particular, the authors argued that we should consider two headline dimensions of control (which they presented as aspects of privacy):

1. ‘information control’ - which is defined as the ability to control information about oneself; and, more importantly in this context of this report
2. ‘stimulation control’ - which is about the noises and other distractions that may rival work for our attention or sometimes actually help us to concentrate, depending on the nature of our activity in the particular moment.

The article introduced a workplace privacy model that is based on social, technological and physical considerations of outgoing information and incoming environmental stimuli before concluding with suggestions as to personal and organizational privacy strategies.

Seen as a complex and direct factor of employee satisfaction with indirect impacts on individual progress and collective performance, the physical workplace environment is much more than a cost. It is part of the organizational value creation model and should be considered as a resource or an asset whose value can be maintained or grown. With this in mind, in the next section we will consider the importance attached to different features of the workplace physical environment by design approaches.

**Workspace design approaches**

Much of the thinking and literature on the impact of the physical workplace environment is the product of organizations such as Steelcase, HOK (design, architecture, engineering and planning) and Gensler (architecture, brand design, consulting, interior design, planning and urban design, product design, sustainability). Their different approaches provide insight into how they understand the physical workplace environment’s impact on key performance drivers.

**A wellbeing approach**

The approach taken by Steelcase focuses on physical workplace design that promotes **choice** and **control** over **how** and **where** employees work. The aim of this approach is to make employees feel **empowered**, **engaged**, and to **reduce stress**. It comprises six ‘dimensions’ of ‘worker wellbeing’ that are underpinned by physical workplace environment design considerations to support performance drivers:

\(^1\) Balancing “We” and “Me”: The Best Collaborative Spaces Also Support Solitude; Harvard Business Review, October 2014
<table>
<thead>
<tr>
<th>Worker wellbeing dimension</th>
<th>Design considerations</th>
<th>Performance driver</th>
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| Optimism                  | • Allow choice and control over where and how people work.  
• Create spaces that allow personalization and individual customization, instead of tightly enforced workplace standards.  
• Offer settings and affordances that help employees feel supported in their work.  
• Design for transparency, so people can see and be seen, and build trust. | Foster creativity and innovation |
| Mindfulness               | • Create spaces that help people connect with others one-on-one and eye-to-eye, and not just through their technology devices.  
• Design areas that allow workers to control their sensory stimulation and choose if they want to amp it up or down.  
• Offer places that are calming, through the materials, textures, colors, lighting and views.  
• Create areas where people can connect with others without distractions or interference. | Fully engaged |
| Authenticity              | • Create spaces that help people feel comfortable to express themselves and share their ideas.  
• Incorporate informal, non-constricting environments with a home-like feel.  
• Design areas that help people connect their personal values to the brand values. | Really yourself |
| Belonging                 | • Create entrances that are welcoming with visible hosting for people who don’t work there routinely.  
• Provide ample and well-equipped spaces for mobile and resident workers to work individually or in teams.  
• Offer videoconferencing configurations that allow remote participants to see content in the room and on the walls, and to hear everyone equally.  
• Design informal areas for socialization, in person as well as virtually. | Connecting to others |
| Meaning                   | • Include spaces beyond the lobby that reinforce the brand, purpose, history and culture of the company.  
• Leverage vertical real estate to make thinking and progress visible.  
• Use technology to display real-time information.  
• Create an ecosystem of spaces that give people choices and empower them to work productively alone or together. | A sense of purpose |
| Vitality                  | • Design areas that give people choices for controlling the level of sensory stimulation around them.  
• Provide easily adjustable furniture to fit a range of sizes, needs and preferences and to promote movement throughout the day.  
• Include cafés with healthy food choices and displays.  
• Bring nature in with daylight, views, ventilation, patios, etc.  
• Support active, healthy lifestyles with centrally located stairways, outdoor walking paths, bicycle racks, etc. | Get up and go |
The other end of the telescope

In contrast to Steelcase’s approach, HOK believes that a ‘thoughtful’ knowledge economy workplace can support employee performance based on three factors drawn from the field of organizational psychology:

- **ability** - whether a person can do a task
- **motivation** - a measure of whether a person wants to do it
- **opportunity** - which is about accessibility to the right workplace conditions and environment

In this approach, health and wellbeing are ‘collateral’ benefits of ten fundamental workplace environment design elements to support work:

- **thermal comfort** - the right combination of temperature, airflow and humidity
- **access to nature, views and daylight** - people generally prefer to be surrounded by nature, which provides endless sources of variation and sensory change. It is important to replicate the instinctive bond between humans and other living systems in interior environments.
- **sensory change and variability** - a lack of visual stimulation during the day can dull the senses and affect a worker’s ability to stay alert. Access to daylight, window views to the outdoors, materials selected with sensory experience in mind (touch, visual change, color, pleasant sounds and odors), spatial variability, change in lighting levels, use of highlights, and moderate levels of visual complexity can help to avoid this.
- **color** - perceptions of color vary according to culture and life experiences. However, there are some generalizations about how color is likely to be perceived, either overtly or subliminally, in the workplace. Choice of color can be used to support, accuracy, focus, energy levels, calm.
- **noise control** - noise can enable or disable productivity, depending on individual preferences and the type of work being done. The key is the ability to control exposure to noise.
- **crowding** - feelings of being crowded are often associated with stressed and affect workplace satisfaction. Perceptions of space and feelings of being crowded vary by cultural background, individual preferences and gender.
- **human factors / ergonomics** - this is an area of workplace psychology that focuses on a range of topics including workplace safety, the incidence of human error, product design, human capability and human-computer interaction.
- **indoor air quality** - a factor of good health which has a direct impact on key performance drivers
- **choice** - the opportunity to use workspaces suited to different modes of work such as focused concentration or collaboration
- **employee engagement** - there is a direct link with worker satisfaction and it affects innovation and productivity
Beyond workplace ‘function’

By contrast to Steelcase’s worker wellbeing approach and HOK’s based on ability, motivation and opportunity, Gensler’s proprietary ‘Workplace Performance Index’ (the ‘WPI’) is founded on different work ‘modes’. Despite these differences, the four modes - ‘focusing’, ‘collaborating’, ‘learning’, and ‘socializing’ - require a degree of employee choice and control, aspects of the physical workplace environment that were also recognized as being important in the Steelcase and HOK approaches.

In pre- and post-occupancy assessment, the WPI measures time spent in each work mode alongside a breakdown of the spaces used and how effective those spaces are for supporting each mode. It measures the quality of 28 attributes of physical space such as layout, acoustics, privacy, light, air, and ergonomic comfort. The WPI is used to understand the values expressed by the workplace and opportunities to connect it better to performance drivers. It includes questions that help organizations connect workplace design to performance drivers such as employee engagement, satisfaction, and organizational commitment.

Stand-alone benchmarks

A number of the physical workplace environment elements seen above are included in stand-alone benchmarks, for example:

- The UK-based, increasingly international Leesman Index, is a measure of workplace ‘effectiveness’. It focuses on how workplaces support the work of employees and is not linked to any other service (e.g. consulting, architecture, workplace design, furniture etc.).

Launched in 2010, the Index measures the performance of office environments based on:

- how the workplace supports key work activities
- respondents’ perceptions of the workspace’s contribution to aspects of the organization such as culture and community, productivity, pride, image and environmental sustainability

The results are supported by analysis of:

- the physical features of the workplace e.g. furniture, storage and workspace personalization, amenity such as IT and audio-visual equipment, connectivity and reprographics, workspace diversity and environmental conditions such as light, sound and decor
- facilities services such as food service, hospitality, cleanliness, access and signage

The Leesman Index serves as a diagnostic tool for individual organizations and also allows them to benchmark themselves against others.
The French ‘ACTINEO’ barometre is a survey of 1,200 office-based workers last conducted in the Autumn of 2013. Its aim is to measure and help organizations understand the link between workspace organization and the satisfaction, engagement and wellbeing of workers. The first part of the survey tracks respondents’:

- type of workspace (e.g. individual office, open plan, no assigned workspace etc.)
- most common work activity (e.g. individual work, group work, project work)
- access to facilities including foodservice, meeting rooms, relaxation space and whether respondents make use of them
- views on the relative importance of the absence of noise, the quality of lighting, the quality of furnishing, air conditioning among others.

Respondents are subsequently asked to what extent they think the physical workplace environment impacts four key wellbeing and performance drivers:

- wellbeing
- efficiency
- motivation
- physical health

The second part of the survey tracks workers’ satisfaction in relation to the aspects of the physical workspace environment identified in the first.

Looking to the future

Much of the activity that is carried out in the physical workplace environment is about communication – whether in person, by phone or online – and this communication is thought by many to be a key factor of progress for individuals and the performance of organizations. Modern technology is providing new data-based ways to monitor actual communication behavior without recourse to surveys and the subjective perceptions of respondents. For example, wearable electronic sensing devices are already capable of:

- capturing face-to-face interactions
- extracting social signals from speech and body movement
- measuring proximity and location of users

When combined with network analytics and indicators of organizational performance, such technology is already helping organizations determined to understand in greater depth the keys to physical workplace environment design in terms of density, proximity of people and social nature. Viewed alongside workers’ responses to other items in more traditional survey-based assessments, a combination of actual behavior analysis and expressed preferences may help to provide a more complete picture than ever before.

ACTINEO is an organisation whose mission is to analyse and understand quality of life at work, gather and explain workspace best practice, act as a platform for all information on quality of life at work, to inform thinking and decision-making in the workplace.
Conclusion

The physical workplace environment is intimately linked to other dimensions of Quality of Life such as social interaction, the ease and efficiency with which people carry out work activities, and their health and wellbeing. The links are so numerous and varied that it is difficult to measure directly the physical workplace environment’s impact on performance, though worker satisfaction can give useful indications.

With this in mind, leading workspace design organizations use different approaches such as worker wellbeing, organizational psychology, and the essence of different workplace activities to shed light on the link between the environments they influence and the performance of organizations. A combination of health and wellbeing and performance drivers such as worker motivation, satisfaction and engagement are found in stand-alone benchmarks which include facilities services in their assessments.

To some, the key to performance is found in communication or social interaction. Recourse to a combination of modern technology and big data is allowing organizations to focus their attention on actual rather than reported behavior in their bids to design spaces to produce specific performance outcomes.

Given the rich and diverse discourse evidenced by this short report, there is good reason to consider that far from being a mere ‘cost’, the physical workplace environment is a remarkable multi-lever driver of performance.
Further reading

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