Delivering and managing high productivity, low cost workplaces: A data driven perspective

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ABSTRACT

After years of education from within and outside the real estate industry, executives recognise that the workplace is a tool they can deploy to enhance the performance of their people, attract and retain talent and impact their environmental footprint. At the same time, corporate real estate and facilities management (CRE&FM) teams are under pressure to save money. These emergent workplace expectations are often seen as conflicting with the goal to reduce operating costs. This paper explores the extent to which these expectations — implementing high-specification activity-based work settings and at the same time reducing costs — may in fact be the yin and yang of the workplace: perhaps, rather than being conflicting, they are in fact complementary. Through applied research and using data-driven approaches and models, it challenges some fundamental thinking about how a corporate real estate (CRE) organisation is structured; it considers how people's behaviours influence their demands of the next generation workplaces; and it explores what this means for CRE operating models and the technology to support them.

Keywords: data-driven, CRE&FM organisation, productivity, workplace planning, customer satisfaction, cost management, efficiency and effectiveness

INTRODUCTION

For the last 40 years' car manufacturers have been developing microprocessor based Engine Control Units (ECUs).

In the US, the development of ECUs was driven by regulation, specifically the Clean Air Act amendment.[1] The act required controls on hydrocarbon and carbon monoxide emissions which in turn drove auto manufacturers to evolve the hybrid analog/digital ECUs into fully digital, mappable units that could be mass-produced and configured for individual engines. These early ECUs depended on less than a dozen sensors measuring factors like air flow, coolant temperature, speed and exhaust gases.

Before ECUs, the performance of an engine was at best assessed at an annual service and — for those that availed themselves of the opportunity — occasional 'tune-ups'. ECUs changed the landscape by moving from a periodic, one-time fix, to a continuous fine-tuning based on real-time conditions from sensor data.

Even though the ECUs' initial objectives were reducing emissions, an important by-product of this was increased fuel-efficiency: quite simply burning less fuel produced lower per-mile emissions. This can be seen

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starkly by looking at the dramatic increase in fuel economy in 1980 and 1981 (see Figure 1).

These innovations — along with lighter materials, tyre technologies and others — have helped contain and then reduce the running costs of cars over the subsequent 37 years, even as the demand for performance grew.

However, the potential of these units to go beyond emission control was quickly appreciated: in 1992 the first distance sensing technology was introduced that added LIDAR distance sensors to the ECU inputs, and by the mid-1990s this tech-nology was used to produce the first adaptive cruise-control systems. Today, as level 5 autonomous vehicles are on the verge of production, cars contain over 500 sensors; their driving systems alone are expected to require over 30 sensors.[3]

In workplaces there has been sustained pressure to reduce costs. As the second largest expense of most corporations after their staff, real estate is an obvious focus when an organisation needs to manage costs, especially in a period of low-growth where increasing revenue is challenging.

It is therefore no surprise that we have seen CRE&FM functions scrambling to fit sensors to their office space in the hope of the workplace equivalent of better fuel economy: higher utilisation.

Alongside this pressure to reduce costs, there has been a transformation in our under-standing of productivity. While productivity remains hard to measure, corporations have recognised that the growing number of knowledge workers are one of the most important assets in their organisation, and over the last decade or so the proposition that their value is greater than the value of technology[4] has been largely accepted.

This paper considers how the explosion in the availability of data about staff and work-places has begun to transform what is possible; and it postulates that the ability to 'fine-tune' our workplaces — and dramatically impact 'performance' or productivity — based on real-time sensor data requires a fundamental re-imagining of both our workplace expe-rience and the organisation, strategy and operations of the CRE&FM function.

COST/EFFICIENCY

Optimising costs starts by understanding those costs. In a typical corporation, these costs will include the 'overhead' costs of operating the CRE&FM function, together with property specific costs, often expressed in terms of Total Occupancy Cost (TOC). Definitions of TOC vary from company to company, but generally break down into the following four categories:

- Real estate costs — including rent and service charges;
- Facility operations — including security, cleaning and catering;
- Insurance and taxes; and
- Financial costs — including depreciation and amortisation.
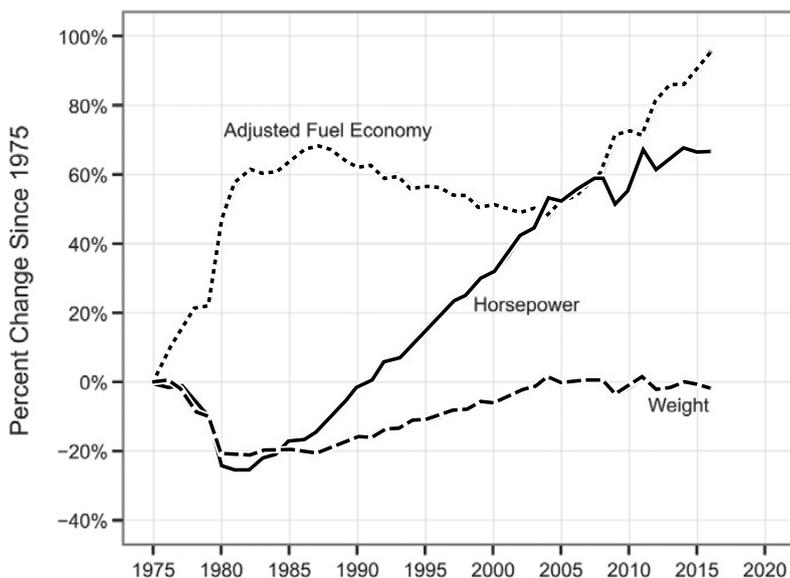
Figure 1   Change in adjusted fuel economy, weight, and horsepower for manufacturing years 1975–2016[2]

To manage these costs, it is necessary to identify and measure three key aspects of each:

(1) **Demand**: each of these costs will have one or more demand drivers — ie real estate costs will be partly driven by the amount of space needed; catering costs will be partly driven by the number of people using the services.
(2) **Service level**: in most cases, the cost can also be influenced by choosing the quality required — for example a more comprehensive insurance cover will cost more than a less comprehensive cover; more regular cleaning will cost more than infrequent cleaning; prestigious class A office space will cost more than class B space.
(3) **Agility**: this indicates how quickly a cost can react to changes in either the demand or quality. For example, rent is typically assumed to lack 'agility' — it is time consuming and expensive to change the amount of space that has been leased due to the need to refit and potentially move or sublet space. Cleaning on the other hand can be adjusted relatively quickly with minimal disruption and little to no one-time cost.

Some examples of classifying cost types in this way are illustrated in Figure 2.

Cost Type	Demand	Service Level	Agility
Rent	Space (sqm)	Office Class; Location; Flexibility	Leased space is low Co-working is high
Catering	Headcount	Subsidy; selection; wait time; fit-out	Medium to high
Cleaning	Space (sqm)	Depth; frequency	High

Figure 2   Examples of key aspects of cost types

Having established these distinctions, it is possible to lay out an approach to cost optimisation by establishing the true demand, optimising service levels and establishing the required agility.

True demand

Understanding demand is vital in delivering the right amount —space, energy, food, etc.

Establishing the true demand that is driving a cost requires data. Just as with emission control in the automotive industry in the 1970s and 1980s, it was not the absence of engineering and controls that prevented progress but the ability to measure specific conditions in real time and adjust those controls accordingly. Even the early ECUs were able to forecast engine needs to a limited extent — for example by delivering a richer gas/air mix when the engine was cold.

Similarly, in an office context, there is no shortage of variety of available fixtures and fittings or technology to support activity-based working or services that can be delivered in or around the workplace.

However, the design of the space, technology and services is often undertaken based on policies, or simplistic models developed by an enterprise. These 'rules of thumb' have been established over decades and handed down — as if from generation to generation — as received wisdom that guide workplace design. Whether it is the magic 0.8 desks per person sharing ratio, 15sq. m/160sq. ft Gross Internal Area (GIA) per person or office energy consumption of 9kWh/day/person,[5,6] these numbers are a problem for the CRE&FM world for two reasons:

(1) **They are context-less**: they have all been derived by large scale aggregation across hundreds of thousands or millions of people, and so whilst they have academic legitimacy, that does not mean they apply in your specific building with your specific workforce; and

(2) **They are old**: 15sq. m GIA per person hasn't changed very much in more than a decade; 9kWh/day/person was calculated in the UK based on 2006 data. Yes, it is true to say that in certain contexts — for example global tech start-ups or North American offices — there have been reductions in office space;[7] other areas have become of wider interest and are therefore subject to more rigorous scrutiny — for example environmental reporting. However, in general, these are historic and the automobile equivalent of not only stating power in numbers of horses, but thinking that '4 horses' is still pretty powerful and a '6-horse carriage' is state of the art, whilst our 1,479 horsepower Bugatti Chiron sits in the garage.

Just as with ECUs in cars, the only way to make a dramatic impact on the efficiency of our workplace is to use data gathered from the office itself, in real time. This data must be measured:

- Continuously — to avoid statistical variance problems when interpreting the data;
- Consistently — so that both the measurements and the context can be interpreted the same way in all cases; and
- Systematically — to ensure the same correctional heuristics and analytics can be repeatedly applied.

In practice, these requirements are why survey-based utilisation studies are no longer adequate. To achieve the analytics our workplaces now need, the technology must be operationalised: in other words, linked such that people obtain personal benefit from using their technology consistently — for example, having their badge-swipe for building access automatically check them in to their workstation reservation.

It should be noted that most offices already have the necessary sensor technology in place to support — when used in concert with each other — the majority of demand measurement use cases. For example:

- An effective conference room and workstation reservations system (that includes manual or automated check-in) provides granular space demand/intended use and actual use data;
- Physical access control systems (security badge) provide reasonably good total occupancy data;
- Network connections from fixed PCs, laptops and mobile devices can provide very useful zone/density information; and
- Point of Sale (PoS) data from the cafeterias provides vital insight into service demand.

True demand can and must be measured continuously and robustly; this requires leveraging existing and — in some cases — new sensor technology to monitor space, energy and services demand and use.

Optimising service level

Most of the contributory costs in a building are influenced by the implicit or explicit service level. That service level might be manifest in the quality (furniture and fixture finishes; type of coffee), timing (cleaning frequency; work order time to complete), personalisation (sit/stand workstations; staffing levels) or other factors.

Determining the appropriate service level typically consists of establishing a viable minimum — often referred to as the 'hygiene factor' service level — and then agreeing how far beyond that the service level should be taken.

Hygiene factor service levels are essentially the table stakes: go below the hygiene factor and you will be risking breaking regulatory requirements or facing a revolt from the workplace users. But there is also a risk of going too far — establishing a service level that is not only very expensive but that

actually has a negative impact on the user experience, as noted below.

If we consider the example of restroom cleaning, there is quite literally a hygiene level of service: the restrooms must be clean (see Figure 3):

- When the service level is very low — below the hygiene factor — there is a clear negative impact on the user experience, and this will be manifest by high levels of service requests, user complaints and even reputational impact;
- As the service level (and cost) increases — perhaps with a more frequent restroom cleaning schedule — the user satisfaction enters a neutral impact zone: users essentially cease to notice the service because it meets their needs but is unremarkable. For some of the costs, optimisation means finding the lowest service level cost that achieves this invisibility of the service;
- As more is invested in the service level, the user satisfaction impact gradually increases, and — often times — becomes a quantifiably positive impact: users leave positive comments about the restrooms being fresh, clean, no queuing etc. For some costs we can justify investing to this level of service even though the rule of diminishing returns applies;
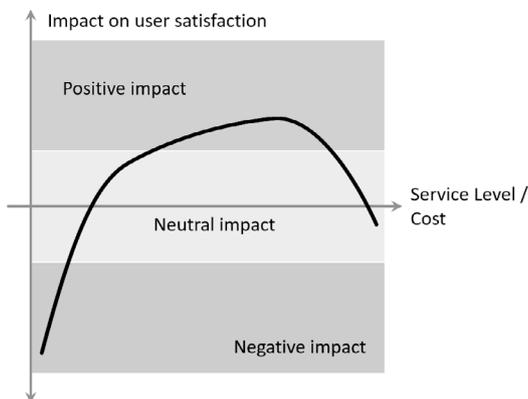

Figure 3   Service level impact on user satisfaction

- Finally, on the right side of the illustration, as service levels increase still more, we see an initially counter-intuitive result: user satisfaction actually begins to decrease. Why is this? In our restroom cleaning example, imagine what increasing the service level beyond the point at which it is already receiving unprompted positive feedback from the users might actually look like. What more can be done? Likely the answer would be to clean even more often, and clean deeper. That would necessitate more staffing during the work day; the users would inevitably interact more with the cleaning process and staff; there may be more restroom closures or partial closures for cleaning; however clean and fresh the restrooms become, the process of delivering that experience is increasingly visible and potentially impactful on the users — someone unable to use the restroom or having to wait to use the restroom because of the cleaning process will likely feel negatively about their experience no matter how clean the restroom is.

Service-level management is becoming increasingly important, particularly as the 'high-touch' co-working spaces offer hospitality that often far outstrips what is available within a corporation's own space.

Adjusting Agility

The third factor to consider when evaluating the contributory costs of a building is its agility: ie how quickly could this cost be adjusted.

This question is often considered rather simplistically by classifying the costs into just two types: fixed costs and variable costs. This has some utility but overlooks the fact that in the CRE&FM industry the agility of costs is becoming more fluid.

What were once considered fixed costs are increasingly becoming more agile. This is clear in many of the facility management

related costs, where service levels that were once fixed for the duration of a 3–5 year contract are now becoming flexible with the client having the ability to shift the service level in response to their changing needs and priorities.

However, it is also becoming possible in the costs that have been traditionally considered fixed, ie rent. Over the last 50 years, temporary offices have become serviced offices which have in turn become business centres[8] and now co-working spaces and 'space-as-a-service'.

This transition (albeit at the real estate industry's glacial pace) is making even the most fixed of these costs — those associated with the legendarily illiquid real estate — more agile.

WeWork has raised awareness and a lot of hype around short-term flexible space. British Land in the UK is bringing their own short-term shared office space offering to the market.[9] These all provide corporations with alternatives to long leases and with those alternatives comes the greater agility in the cost of space, and the services that can be incorporated within and around that space.

The need for a cost to be agile is driven by: (i) the variability of demand; and (ii) the uncertainties of the future that require flexibility. In cases where there is high variability (that can be predicted by good data and analytics), or a high degree of uncertainty about the future, the impacted costs are good candidates to seek improved agility. That might mean that the per-unit costs increase, but — providing the data is used to continuously adjust the demand — the overall impact is likely to be a cost saving. This might mean using more flexible space to allow adjustments of the 'rent' costs month-to-month based on occupancy data, or anticipating food service demands to reduce the waste on, say, Fridays when it is known there are far fewer customers.

PRODUCTIVITY/EFFECTIVENESS

Now that we have explored the efficiency of the workplace through a map of costs and the three key factors required to manage them — demand, service level and agility — we will look at the effectiveness of the workplace.

Knowledge workers are the largest single group in our workforce (for example 48 per cent in the US) and make up the majority of office workers.[10] Measuring knowledge worker productivity is universally recognised as being difficult. However, there is an established body of work that correlates wellbeing with productivity[11] — it is no surprise that well (fit, happy) people are more productive.

We also know that knowledge workers spend half their time on interactions.[12]

A study of 800 individual papers and 35 meta-analyses from 1990–2013[13] shows that there are six factors that correlate with productivity, which are, in order of strength of correlation:

(1) **Social cohesion**: psychologically 'safe' environments, with judicious risk taking making exchange of ideas more likely;
(2) **Perceived supervisory support**: teams feel more satisfied in their work, with praise given in times of need, building a positive motivational climate;
(3) **Information sharing**: where teams utilise each other's distinctive knowledge to improve decision making and team performance;
(4) **Vision and goal clarity**: that sets clear direction and improves focus on team priorities;
(5) **External outreach**: proactive engagement with outsiders improves the team's ability to interpret signals and shape external opinion; and
(6) **Trust**: reliance on the character, ability, strength, or truth of someone or something and confidence that the actions of others will be beneficial (or at least not harmful).

Another important factor in today's knowledge economy is innovation. There is a belief that innovation and serendipity (a 'happy accident') are closely related — amongst many others, Deborah Mills Scofield suggests that serendipity feeds innovation.[14]

If we draw some of these threads together, we can see that the largest group of our workplace users are knowledge workers who spend the majority of their time on interactions (including those serendipitous, innovation driving interactions) and whose productivity is most influenced by social cohesion.

What does this mean for our workplaces?

According to the most recent Leesman review[15] only 57 per cent of employees surveyed agree that their workplace enables them to work productively. But, as Tim Oldman explains, this average masks 'more dramatic extremes': the highest performing offices have 97 per cent of the surveyed employees agreeing whilst the lowest have just 15 per cent.

When we consider the time spent on interactions and the need for social cohesion, we can begin to draw out how the workplace can influence productivity. Of course, workplace is one of many factors as the Center for Evidence-Based Management research[16] clearly shows, but it nonetheless has a role to play.

An effective workplace can help to build social cohesion in several ways. By providing the right balance of private and social spaces, our workforce can more easily manage their exposure to one another. This helps individuals achieve their preferred level of interaction, acknowledging that there will be diversity in these preferences — for example, introvert needs versus extrovert needs. It also fosters a sense of personal control, which is a deep need for people.[17] This must not be confused with giving people privacy and 'personal space':

the workplace can and must also bring teams together around collaborative areas that effectively support interactions, and — perhaps even more importantly — foster the serendipitous meetings between individuals and teams that incite innovation.

WORKPLACE — THE NEXUS OF EFFICIENCY AND EFFECTIVENESS

Balancing these two drivers — for highly efficient workplaces that are also highly productive for our people — creates several tensions.

The workplace needs to recognise the diversity of the workforce and accommodate both their individual preferences and the variable demands of their work.

Activity-based workplace design goes a long way to enabling that choice, but the transitions between activities remain challenging.

It is vital that activity-based workplace design is informed by continuous data that simplifies these transitions from one activity to the next in real-time. The data must also record the historic demand and be able to use that to forecast, and consider, the users' intent.

Unassigned seating — brought in to address the widely-held belief that utilisation of traditional assigned space is around 30 per cent — has been effective in improving utilisation, and hence 'cost per head'. Unless these new workspaces — or accompanying policies — are causing more people to come in to these workplaces, then the fact remains that 70 per cent of the time our workforce is working outside of our core, long-term leased space. However, CRE&FM functions remain largely focused on this internal space.

Intention, and its impact on perceived availability vs actual utilisation

A good example of users' intent is conference room booking. Organisations have

been measuring conference room utilisation for many years now — initially by 'clipboard surveys' and more recently using sensor technology to measure actual use. This is how we know that most corporations have twice as much conference room space as is required.

So how can it be that the perception of conference room space is that there is not enough?

The answer lies in understanding the way people behave, and in particular the way in which their expressed intent varies from their actual behaviour.

When it comes to conference rooms, most people do not form their opinion about whether there is enough conference space based on reading the utilisation reports, or walking around the conference suite: they form their opinion based on how hard it is for them to find a room for the meetings they want to schedule. Furthermore, most technologies measure the utilisation of space (ie how much it is used); the user does not care about this — their interest is solely in the availability of space (ie whether it is free at the time they need it).

That means their perception of conference room space is not based on the real utilisation, but instead on their perception of availability based on the reservations that exist at the time they try to book a room. At first glance, you may think these two things are sufficiently similar for the distinction to be academic. However, research conducted by Zurich Insurance Group with Cambridge Architectural Research showed that only 50 per cent of the time did the reservation status agree with the actual use.[18] The remaining 50 per cent of the time the conference rooms were either booked but not used, or being used even when they were not booked.

It is therefore no surprise that the perception of conference room space does not align with the measured utilisation of that space.

This gap — between the actual utilisation of space and the perceived availability — critically impacts workplace design and execution. The data and evidence that is used to determine the workplace — whether that is size, service capacity, or energy needs — must recognise the impact of perception on determining behaviour and satisfaction.

Yin and yang

In the face of these challenges — getting good demand data and interpreting it sensibly, understanding perception and its impact on workplace design, finding the 'sweet-spot' for service levels and leveraging the agility of the core cost elements — it is easy to see why many organisations choose to divide and conquer these issues.

It is easy to develop a portfolio strategy that looks at relocations to lower cost areas or negotiating rent concessions, or cater for an 'average building occupancy level'.

However, such an approach potentially falls short in both efficiency and effectiveness.

To develop the most compelling workplace strategies, it is necessary to embrace the holistic nature of the workplace and recognise that traditionally siloed functions within CRE&FM are no longer sustainable.

Earlier we considered the restroom cleaning example, and how it was possible to spend too much and achieve a service level that actually lowered user satisfaction, and — based on what we have discussed — therefore also productivity.

The same pattern can be seen replicated across the cost base. Cleaning may be a relatively small part of the TOC, but what about the larger costs like rent?

To reduce rent costs we can do one of two things: (i) reduce the cost per sq. m of space; or (ii) reduce the amount of space required. The former we can change with the traditional methods of location and negotiation. The latter can be achieved by right-sizing the office space based on good, continuous data.

All too often though, these decisions are disconnected: the amount of space required is still being based on historical rules-of-thumb metrics like 15sq. m GIA per person, and yet the real estate team considers it has done a great job because they have a great cost/sq. m or have negotiated some considerable concessions or inducements. This approach is double trouble, because not only is it leaving a very significant cost saving on the table through space efficiency (likely to be in the 20–40 per cent range), but it is also creating a space planning conundrum: what do we do with all this 'excess' space?

Space planners end up inheriting far too much space based on implied occupancy that will never be achieved, and this excess of space has to be paid for. It is no wonder people spend time wandering around searching for colleagues to collaborate with — these offices are typically two to three times bigger than they need to be. These spaces are often so sparsely populated that the vital interactions that are fundamental to our knowledge workers' day, to innovation and to productivity, become awkward: staff simply do not meet serendipitously as they navigate these cavernous and underpopulated buildings.

These 'too large' spaces bring other problems too. People prefer 'visual selection' when it comes to activity-based workplaces — ie they will choose a space that they can see (and see that is available) in preference to a space that they cannot see (and do not know whether or not it is available). The larger the space, the more likely lines of sight will be obscured, and the proportion of the spaces an individual can 'visually select' from diminished. This in turn contributes to the perception of lack of availability, even in these spaces where there is such significant over supply.

This alignment between more efficient (ie smaller, cheaper) spaces and more effective (ie interaction-friendly, high productivity) spaces may be counter-intuitive but it is a pattern that potentially repeats across the workplace. However, as has been shown, achieving both lower costs and higher productivity requires taking a data-driven and holistic view of the workplace.

ORGANISATIONAL STRUCTURE AND OPERATING MODELS FOR CORPORATE REAL ESTATE FUNCTIONS

Traditional CRE&FM organisations are simply not set-up to enable such a view. It is common to find the top-level of CRE&FM separated into real estate, facilities management, projects, environmental and physical security. This separation of these teams acts as a barrier to the approach required. Real estate teams are not leveraging the real-time data available to the facilities team, who in turn are not collaborating as closely as they could with physical security because there doesn't seem to be the need; environmental managers are working tirelessly to reduce energy consumption by 1–2 per cent when the portfolio as a whole could be reduced by more than 20 times that (with a commensurate energy use reduction); the projects team is all too often engaged to design space with very little behavioural data and within a building envelope that has already been chosen by real estate.

In addition, almost no one seems to be focused on the 70 per cent of time our workforces spend outside our offices.

To break down these barriers, a different mindset must be adopted. In the past, organisations have focused on the cost of real estate. This focus inflates the perceived value of the real estate team to the CFO, as they account for the largest part of the CRE&FM budget.

It may be beneficial to take a more balanced view: retain a close watch on cost but recognise the interplay with productivity, introduce a people-centric perspective that

informs workplace needs and is more aligned to the Chief Human Resources Officer (CHRO). Underpin this with real-time, automated data and analytics that provides not only decision support but also continuous monitoring of the efficiency and effectiveness of the workplace.

To organise this way, these silos need to be broken down. Inevitably any new structure introduces its own organisational bias, so care must be taken to recognise how any structure might meet the organisational objectives.

One possible structure is illustrated in Figure 4. Here, the CRE&FM function is broken down into just three teams:

• **Workplace technology** partners with IT and both communicates the needs of the workplace and brings technology innovations to the workplace;

• **Community curation** partners with HR and works to promote social cohesion and interaction within the workplace (both internal long-term leased space and more flexible short-term/co-working spaces) alongside other cultural and leadership initiatives within the enterprise — for example, talent attraction and retention or home working;

• **Workspace and service management** is responsible for the design, operation and change of the workspace itself including the services delivered within it, and provides the leadership that delivers on a holistic strategy across customer experience, long- and short-term leasing, co-working/third-space, flexible space planning, and energy efficiency. It interfaces with both the business as a customer/consumer and the CFO.

There are numerous variations and alternatives to this organisational structure. The key characteristic of such an organisation is its ability to place individual CRE&FM managers and leaders in a position where they can access and leverage data and information from all aspects of the workplace to inform decisions that directly and simultaneously impact both efficiency and effectiveness, and the skills and tools to engage their peers and customers in the business.

Such an operating model also requires a more modern approach to forming and re-forming teams. It is unrealistic to expect individuals to possess the range of skills required to execute well within any of these teams — expert data analysts may not have catering expertise; the best transaction managers may not be aware of the latest workplace technology; community curators may not be aware of the big picture of talent acquisition.

To address this teams should be structured for diversity, not similarity. For example, putting all the real estate experts in one team makes no more sense in this new model
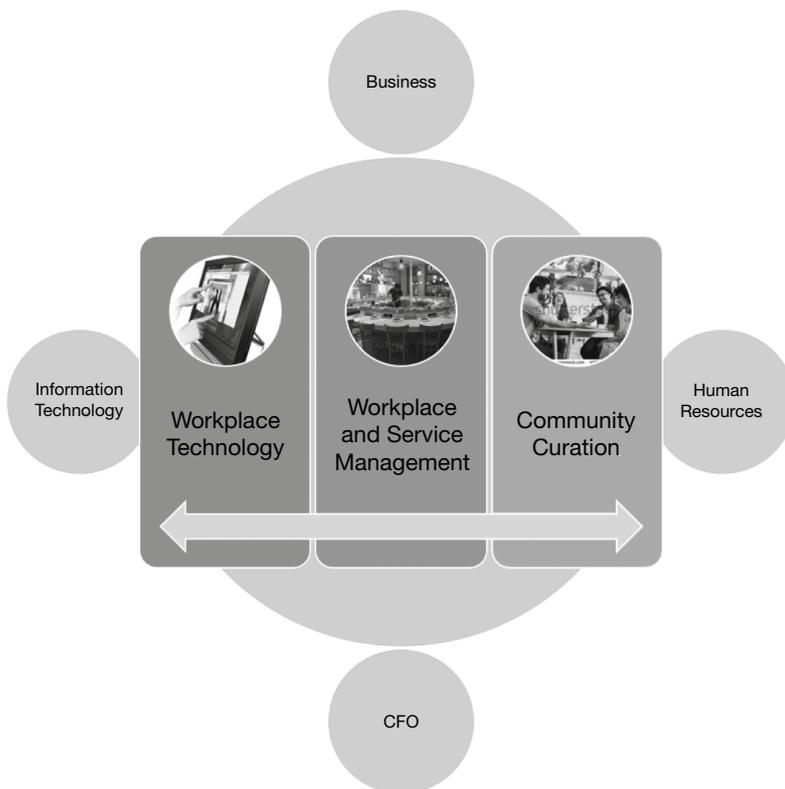
Figure 4   Possible future organisational structure for CRE&FM

than putting all the men in one team or putting all the millennials in another team. Inevitably, individuals with the same professional, cultural or societal backgrounds will find ways to collaborate and learn from each other — whether through shared interests, communities of practice or healthy competition.

Teams need to be formed based on the output required, and that requires the ability to adjust the composition of these teams continuously in response to the demands. Yet when we look around we see a team of project managers; another team of analysts; and another for finance.

General Stanley McChrystal discusses some alternatives to organising this way.[19] He recognises that rigid hierarchies of command and control are no longer fit for purpose in an ever more complex and less predictable world. Efficiency alone is no longer an adequate goal to achieve success. He proposes the need for a true *network* of people who can collaborate in a much more fluid, adaptable way with individuals with specific expertise or experience moving in and out of teams as required. He also identifies two critical factors that must be present for success:

- **Shared consciousness** across the entire function that allows people to have a similar frame of reference for their individual actions and decision making processes. McChrystal advocates strict, centralised forums for communication to achieve this; and
- **Empowered execution** which involves the decentralisation of managerial authority.

The principle here is to have great leaders who can inspire and rally the team around not only shared vision and goals, but a shared sense of what it is all really about, and who we really are. It also requires control to be relinquished to a large extent: once people

are able to take their particular expertise and experience, informed by well understood data and interpreted from within this *shared consciousness*, they must also be *empowered* to execute, free to take any implied actions.

This kind of transformation is no small feat. It requires great leadership and very likely less management than many CRE&FM organisations have today.

Organisations have begun exploring some of these ideas. Zurich Insurance Group's Shared Services function explored how to move to a network similar to that suggested by McChrystal. They also worked on the idea of community curation (although before the term 'curation' was widely used). These activities delivered specific, and often very significant successes, and created a level of cross-discipline engagement and collaboration that was unprecedented. However, corporate changes resulted in a refocusing on efficiency and many of these initiatives became politically unacceptable.

CONCLUSIONS

It is time to break away from the received wisdom and re-organise our CRE&FM functions to fit more easily within a modern people-centric corporation.

By partnering IT through workplace technology and HR through community curation, the fabric underpinning the culture of an organisation can be created. Focusing explicitly and measurably on the impact these partnerships have on the productivity within the business and the bottom line of the CFO can build momentum for workplace innovation rather than resistance.

This change is dependent on evidence-based decision support. Fortunately, most of the data required already exists, but investments are likely to be needed in collating and harnessing this data as well as educating the CRE&FM team on how to exploit it. One-time analytics to support projects are okay, but the goal has to be real-time,

continuous analysis across the entire portfolio that not only support analytics but can measure the 'workplace health' continuously.

Traditional thinking about fixed vs variable costs needs to be re-examined, and the unprecedented and increasing demand for flexibility in all things embraced. The choices available are overwhelming, but with a good understanding of the cost factors (demand, service level and agility) and a joined-up strategy that links each cost to the effectiveness and productivity benefits, selecting what works in each enterprise is possible.

The use of data and evidence to drive decision making must not be confused with centralisation of control — quite the opposite: better data must drive decentralisation of managerial control, but must also be part of an extremely transparent way of working.

The challenges of making such an organisational transition are significant. The example structure provided is deliberately designed to at least fit within the existing organisational footprint of a traditional CRE&FM function. But the change requires big-picture thinking and inspiring leadership with clear vision; it demands that managers climb out of their trench and open their eyes to the holistic nature of today's workplace; and it requires relinquishing control in favour of collaboration and empowered execution with delivery partners who have their own challenges to deal with.

However, for those willing to tenaciously embark on the journey, the rewards of satisfied customers and a grinning CFO are available today.

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