

Changing Demand for Office Accommodation by Contemporary Knowledge-Intensive Firms

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INTRODUCTION

Office buildings, like all commercial property, secure and sustain value from function – providing successful, cost-effective platforms for business.

Over recent years, economic and other forces have dramatically changed the nature, structure and operations of business. The environment is likely to remain volatile into the future.

This situation presents challenges for fixed assets such as real property but potentially these contemporary changes also offer opportunities to better integrate those assets into business activities.

The rise of what are known as knowledge-intensive firms and their particular use of office buildings are important and relatively recent features of all of this.

Typically, the comparative advantages, value and potential of such firms are based on the development and application of intellectual property by the firms and their staff. Some of these firms are involved in software development, information technology and communications but they extend across many areas as diverse as engineering, components of biotechnology, education, media, design and consulting. Their common thread is the importance of ideas generation and application and, as part of that, the creative input of their staff as a core activity of that firm.

Over past decades, offices were largely used to direct, organise and manage production activities and services that were **physically remote** from that office. A defining characteristic of the new wave of knowledge-intensive firms is that the economic “production activity” occurs in this office – the raw materials being the skills, know-how and innovation of the individuals and firms and the confluence of these ideas in a team environment.

This subtle but fundamental change in the structure, objectives and “production characteristics” of these firms change the demands and configuration of property and property related services that they now require.

The overall drivers of any commercial undertaking in a capitalist economy remain risk-managed return on investment and wealth accumulation. Whilst there have been major changes in business parameters and operations over recent years, these capitalist drivers remain unchanged. The suggestion by many in the late 1990s that somehow there was a whole “new economy” has proved demonstrably incorrect (Senge et al. 2001; Tabb 2001). Rather, what is now largely recognised is that the

fundamental economic and business goals are now being pursued in quite different economic, business and indeed social environments. This has significant potential impacts on the fixed assets that accommodate these firms.

It is commonly held that fixed assets such as real property have difficulty in accommodating change. However, a number of key writers in the area (Brand 1994; O'Meara 1999; Pawley 1998) would all contend that, provided fundamentals of adaptable design are built into the asset and it is well managed strategically and operationally, real property has a demonstrated ability to be flexible and to evolve over time to meet changing demands.

It is, of course, a prerequisite of such change strategies that the specific short and long-term demands of this new generation of tenants can be clearly identified.

Whilst a number of studies have been published into overall demand parameters of office tenants, little research is known to exist that examines the particular accommodation demands of knowledge-intensive firms.

There would appear to be now a significant knowledge gap for commercial property managers and owners. In US studies, Florida (2002) established that such knowledge-intensive and creative occupations represented about 15% of the work force. Tapscott (1997) stated that about 60% of all US jobs being created could be reasonably defined as within knowledge-intensive firms.

Whilst Australian statistical evidence is more difficult to secure, the Queensland Department of State Development and Innovation in 2005 identified 7,500 such firms in that state with consistent growth rates in excess of 5% p.a.¹

Doctorate research by this author has been underway for several years and one important component of that has been a detailed, original study of 36 knowledge-intensive firms in the rapidly growing South East Queensland region in Australia to ascertain the emerging accommodation priorities for tenants of this type.

This research paper summarises that component of the work. It arrives at a number of conclusions that may demonstrate that this growing sector of the commercial tenancy market has different demands which astute owners, managers and analysts should now consider.

PREVIOUS RESEARCH

Whilst much has been written on the drivers and direction of the contemporary economic and business environment, less has been forthcoming on the linkages between the emerging new generation of firms and their demands upon, and priorities for, their physical environment.

O'Meara (1999) and Week (2002) both recognised that to simply consider the physical, built environment as passively providing "floor space, time and location" was to understate its potential role and importance in supporting the tenants' businesses. Rather, O'Meara believed that, particularly for these new knowledge-intensive companies, commercial property had the opportunity to establish a value-

¹ Unpublished data obtained from Department of State Development and Innovation, September 2005.

adding position that could secure long-term tenant loyalty and acceptable rental levels. She saw these opportunities as including:

- provision of workplace environments, layouts and configurations that are most conducive to a team environment and to team/individual relationships on which knowledge-intensive productivity depends;
- providing a setting and an image (“front window”) to the wider community and clients, suppliers, partners and competitors alike as to the nature and image of the firm in an environment where relationships matter more than ever; and
- within the firm, creating a physical expression of the direction, ethos and approach of the organisation.

Houghton and Sheehan (2000) were critical of the owners and designers of office buildings who continue, often unwittingly, to produce office accommodation based primarily on the past demands of large-scale corporations with a number of management layers and Taylorist work practices. Demonstrably, the current environment favours much smaller scale, adaptive firms where flexibility and adaptability times are critical.

Mitchell (1995) recognised particularly the critical role that ICT advances and the use of the internet have had in the nature of business. He noted that it has fundamentally changed the trading sequence and has provided many more options to workplace location as alternatives to formal offices, and particularly Central Business District locations.

For all of that, however, both Pawley (1998) and Week (2002) noted that, for knowledge-intensive firms particularly, the human and creative need to meet and to develop ideas was arguably more important than ever. This, they believed, would secure the long-term future of offices but this would depend on property’s ability to evolve and to secure integration with new technologies, particularly ICT.

Certainly, this was brought out in Holland’s Australian property market analysis (2004) which indicated for over five years a steady increase in both new construction and refurbishments, together with healthy overall take-ups by tenants. Interestingly, that analysis indicated that, in most capital cities and particularly Sydney and Melbourne, practically 50% of office space was located outside the CBD and that continued to represent a very high growth area.

As regards survey information and data collection, considerable work has been undertaken, particularly through the Property Council of Australia. Most of these, however, analysed production and absorption rates and overall market conditions and directions rather than the analysis of demand.

The BOMA/ULI 1999 study – “What Tenants Want” (1999) did attempt to analyse and prioritise upcoming tenant demand. Whilst it concentrated principally on building services and facilities, it did recognise the growing priority of high quality ICT facilities that were well integrated with the building.

Earl and Fendt (2000) undertook a commercial market-wide study in the Brisbane CBD into upcoming tenant demands. They particularly recognised the volatility and

level of change across the market and, again, the high priority being placed on quality ICT services.

Both the BOMA/ULI study and Earl and Fendt predicted a rise in the use of hotelling, hot-desking and similar IT-enabled office facilities. However, there are strong counter views. Leaman (2003) and Horan (2000) for example, noted that the lack of take-up of such facilities was a recognition that, whilst ICT is now vitally important, its real value was in a subtle alliance with the office practices important to knowledge-intensive companies, rather than dictating the agenda.

Finally here, Short (1996) and Houghton and Sheehan (2000) recognised a dichotomy in trading levels that was now evolving. They noted that many of these typically small, knowledge-intensive firms operated in two distinct planes. The first was intensely local where the physical environment, staff, their strategic alliances with like-minded companies and their location and its ambience, services and identity were critically important. From there, their marketplace was almost always global. Consequently, regional, state or national identities or markets were, in many cases, of limited interest or priority.

METHODOLOGY

The purpose of this study was to identify from a number of key informants, the emerging accommodation priorities of high-growth, knowledge-intensive firms in South East Queensland. It was qualitative and quantitative in nature.

This data collection does not purport to be a statistically structured survey but rather responses and observations from 36 key informants – in this case the executives of knowledge-intensive firms operating in South East Queensland and using commercial property in their activities.

Data collection was undertaken on a face-to-face basis with detailed questionnaires completed at interview. Interviews lasted approximately 45 minutes, and covered such areas as corporate planning and philosophy, business drivers, location priorities, building accommodation requirements, services and staff considerations.

The study needs to be seen in the context of overall PhD research which has also involved a wide literature review, workshops with industry groups and the analysis of a number of case studies.

From all of those, a number of likely priority areas were identified and a detailed questionnaire developed and workshopped through an industry reference panel. Development of the questionnaire structure was supported by professional market analysts.

A population of about 120 firms was identified with input from the industry reference group, the Property Council, the Department of State Development and Innovation, and property leasing agents. All firms were located in South East Queensland. Their level of development ranged from early start-up through to established and mature businesses.

All were demonstrably in knowledge-intensive areas ranging from software development and ICT to R&D spin-outs, consultancies and media firms. From that group, 36 firms were randomly selected. The majority (60%) were private companies, 6 (16%) were listed or unlisted companies, with the balance being made up of various partnerships, sole traders or wholly owned subsidiaries. About 70% had been in business for five years or less.

The size of the firms ranged from a staff of less than five for several of the start-ups to about 100 in the case of several of the more mature companies.

SUMMARY OF FINDINGS

Certain discernible priorities emerged and, in a number of key areas, these appeared to vary from what may have been thought anecdotally to be the case.

Some of the key findings are as follows:

(i) Relative importance of accommodation costs

Overall accommodation costs for these firms represented only a small proportion of turnover – in practically all cases between 4 to 7%. Whilst it was slightly higher for early stage start-up companies, such costs were typically well below human resource costs, product development and, in most cases, ICT costs when the amortisation of capital was also considered.

Because of this, there was a general observation from informants that they would not compromise overall business performance to secure incremental savings in rent. Even in the case of start-ups, it was noted that, whilst they were often very cash poor, they also typically occupied quite small amounts of space and the total dollar value for accommodation cost was quite modest.

This observation was reinforced by the fact that only one of the 36 firms represented had established a standard for office use density. Even in that case, the standard was not enforced.

Consequently, matters other than price do weigh heavily on their accommodation decisions.

(ii) Prioritisation of criteria in assessing efficiency and effectiveness of accommodation

As part of the study, the informants were asked to priorities and provide weighting (out of 100%) of criteria in deciding on the suitability of accommodation. The outcomes are as per Figure 1.

| Criteria | Average % weighting |
|------------------------------------|----------------------------|
| Total Accommodation cost | 27 |
| Location (proximity) | 19 |
| Building (image) | 15 |
| Occupied Space and features | 23 |
| Office Support services | 11 |
| Staff and social support | 5 |

Figure 1
Criteria in Assessing Overall Efficiency and Effectiveness of Accommodation

Whilst total accommodation cost was important, issues pertaining to the physical nature of the building (location, image, quality of occupied space and services) aggregated to more significance.

A particularly interesting component here was the relatively low importance placed by tenants on the provision of additional facilities for staff and their social support.

Much is made in the literature pertaining to knowledge-intensive industries regarding the importance of staff, and their intellectual property and social capital as the primary resource of the firm. Further, in one component of this survey, two staff-related indicators – “wealth creation for staff” and “development of our people and teams” – represented 30% of the stated driving force behind all company actions.

On the face of it, the responses shown in Figure 1 seem to contradict these firms’ previous affirmation of the importance of staff in securing the future of the business. It appears, therefore, that the support for staff, whilst perhaps taking other forms such as bonuses, equity offerings or recognition, does not seem to equate to wider consideration of services within the built environment.

(iii) **Volatility**

Despite the fact that most of the informants were reasonably happy with their current accommodation overall, 55% said they were unsure whether they would take up their subsisting lease options when available.

Most informants indicated that the nature of their business was such that business success rested on the market outcomes of products currently under development and/or the securing of future funding. This made planning and formal commitments over two years very difficult despite inducements that may be offered.

(iv) **Interest in purchasing additional services**

Anecdotally, it has been observed in the property market that such high-growth firms may be interested not only in leasing property but also in accessing a wide range of business-related services from the building owner, property manager or facilities manager.

No strong evidence of this was established in this research.

Informants were asked to rate the relative importance of additional services for their businesses if they were to be provided, on demand, at market-competitive rates. These are shown in Figure 2.

| Facilities / Services Proposed | Start-up / early stage – average out of 10* | Start-up / early stage – standard deviation | Established – average out of 10* | Established – standard deviation | Mature – average out of 10* | Mature – standard deviation | Overall (all firms) – average out of 10* |
|---|---|---|----------------------------------|----------------------------------|-----------------------------|-----------------------------|--|
| Conference / large meeting facilities | 7.6 | 1.7 | 7.4 | 1.6 | 4.7 | 3.2 | 6.7 |
| Office support facilities | 5.3 | 2.1 | 3.6 | 3.1 | 2.1 | 1.0 | 3.9 |
| Common server / IT | 6.7 | 2.7 | 3.6 | 2.0 | 2.0 | 1.1 | 4.5 |
| Hire of office equipment and facilities | 3.5 | 2.0 | 2.5 | 1.0 | 2.9 | 1.6 | 3 |
| Coffee shops / restaurants – social | 5.4 | 2.0 | 6.9 | 0.9 | 5.4 | 1.4 | 5.8 |
| Additional car parking | 4.5 | 2.9 | 4.9 | 2.3 | 4.7 | 3.0 | 4.7 |
| Child minding | 2.3 | 1.5 | 2.5 | 1.5 | 3 | 1.9 | 2.6 |
| Signage / profile | 3.7 | 2.5 | 5.0 | 2.0 | 3.7 | 2.2 | 4.1 |

[Note: 1 is the lowest rating / “no interest”. 10 is the highest rating.]

Figure 2
Interest by knowledge-intensive firms in purchasing additional services for their businesses

Overall, the interest in these firms accessing and using such facilities and services externally appeared relatively low and confined to facilities that would only be used only occasionally or that were of high capital value.

Standard deviations, however, in many cases were quite large, showing a significant variable response from one firm to another.

Another important observation here is that, even though the informants had earlier reinforced the importance of their staff to their business, there did not appear to be any great enthusiasm or high priority for providing staff-related services such as additional car parks or child minding facilities.

(v) **ICT provision and infrastructure**

Informants almost universally believed that ICT provision in a contemporary environment was a “not-negotiable” parameter in their accommodation choices.

Most considered that their particular needs were not unusual in a contemporary environment – access to high-speed broadband communication and security of systems rated particularly highly. However, they uniformly advised that accommodation that did not provide that standard of facilities in a reliable and cost-effective manner would simply not be considered for future accommodation.

(vi) **Central Business District locations**

Informants were then asked their opinion of a Central Business District location for their businesses. Across all developmental stages, a strong negative reaction emerged.

A very significant proportion (75% of all informants) advised that they considered a CBD location to have a negative effect on their business. Only 5% thought it of benefit, with the balance undecided. Those in CBD locations were largely there because of opportunistic leasing proposals rather than particular business advantage.

(vii) **Links with owners and property managers**

Informants here showed a distinct disconnect between property owners and managers and the tenants.

Some 72% of all informants said they had effectively no involvement with the property managers, except on perfunctory rent and building complaint matters. Only 25% thought the relationship was “about right” – where the owners and property managers actually had some understanding of the business and its needs and looked for opportunities to focus on those specific requirements.

(viii) **Increased integration of property assets**

The final section of this data collection attempted to test O’Meara’s (1999) theory regarding the various potential roles that the built environment could play in integrating into contemporary businesses.

On a scale of 1 to 10, each of the informants was asked to what extent the following statements were true of their business:

- that property and rent were seen really as an overhead and recurrent cost that needed to be minimised;
- that whilst cost was important, the accommodation provided a creative environment that aided the full potential of the work teams; and
- that whilst cost was obviously important, the built environment contributed significantly to the provision of creative space and also provided the image and the face of the business to the outside world, thus imparting the ethos, culture and overall approach of the organisation.

As regards the first observation, the overall response was only moderate agreement (5.9 out of 10 with a standard deviation of about 2).

On the second proposal, there was much stronger agreement, indicating that the firms, through all their development stages, could see that there was considerable advantage to be had in providing a creative space for the activities of the business, thus integrating property with those activities.

Over all 36 informants, the average response was a relatively high 7.8 out of 10 with a standard deviation of only about 1.2.

The third criteria provided more scattered responses across the development stages. Start-up and early-stage companies showed an average response at a fairly modest 5.2 out of 10 (standard deviation 2.2). Established and mature companies were somewhat higher at about 5.8 at a standard deviation of about 1.8.

PROPERTY RESPONSES

Over recent years, a number of specific property responses have emerged to meet the accommodation needs of knowledge-intensive firms. These include research and technology parks and incubator facilities.

Whilst the numbers accommodated in such facilities continue to grow, the proportion of the entire sector so accommodated remains relatively small. Most knowledge-intensive firms will continue to be accommodated in conventional office buildings.

Further research is necessary to provide definitive strategies that might be adopted by the owners and managers of these assets. However, based on this study, the general areas that might be considered, when addressing the accommodation needs of such firms, are as follows:

- Asset locations, within precincts outside of the Central Business District will be preferred;
- Flexibility is a key issue both as regards innovative lease arrangements and the adaptability of the physical space;

Brand (1994) recognises that, critical to this adaptability of the buildings, will be thoughtful design in the location of services and the relative ease of making rapid, simple modifications to fit-out and work spaces.

- There appears to be only limited opportunities in attempting to provide additional asset income from the sale of wider services to these firms, particularly in the areas of staff amenities;
- The provision of reliable, secure, logical and cost-effective ICT infrastructure is vital and, for practically all firms, will be a non-negotiable requirement;
- Innovative means of communication will need to be established between owners/managers and tenants to provide a better level of understanding of demand changes and appropriate responses;
- A fresh approach by property and facilities managers is required that will facilitate, rather than frustrate, those changing demands and natural evolution of the building.

CONCLUSIONS

As noted earlier, this analysis needs to be viewed in context.

It does not represent a statistical survey but rather presents the opinions of a number of key informants regarding accommodation priorities for contemporary, knowledge-intensive firms. Consequently, further, more detailed analysis would be required before such trends could be accepted, particularly across the wider property sector outside South East Queensland.

For all of that, however, some strong trends have emerged. These might require consideration by owners, managers and analysts in providing accommodation to such firms. These particularly relate to the following:

- within reason, the willingness of such firms to look further than simply the accommodation cost which may well be outweighed by locational and built environment issues;
- despite the fact that many firms may well be satisfied with their current accommodation, their need for flexibility is paramount and their willingness to make longer-term lease commitments, even to secure improved rental deals, is limited;
- there appears only modest interest in such firms being willing to rent or hire additional services from the building owner or manager;
- these types of firms show a very strong preference for non-CBD locations;
- despite their genuine understanding of the importance of human resources, they seem unwilling to demand unusual levels of social amenity and staff services;
- links and communication between tenants and owners and managers are quite weak and need improvement; and
- firms of this type genuinely see commercial property as more than simply a cost or overhead. Rather, they consider it as integral in producing an environment conducive to both group and individual productivity and to desirable corporate outcomes.

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