

THE ECONOMIC VALUE OF SPACE

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INTRODUCTION

As building owners and property managers face the challenge of maximising return on their property investment, facility managers have a vital role to play, not just in the management of facilities, but more importantly, in adding value to the core and non core activities of the organisations who use and occupy them.

This new focus shifts emphasis away from facilities as a business investment toward facilities as a business tool, away from building owners towards occupiers, from cost of construction to ongoing occupancy cost management, responsiveness and user productivity.

It then follows that the challenge for facility management is the same challenge facing the organisation.

A facility can facilitate or constrain the organisation's ability to innovate, generate revenue and respond to change. The facility is a tool that can help to empower and motivate teams, attract high quality staff, and unlock valuable capital needed to fund growth.

How facilities add value and business advantage will largely be influenced by the business goals, customer values and competencies of the organisation, and is the true measure of the Economic Value of Space.

KEY MEASURES OF VALUE

Research commissioned by the Facility Management Association this year, which Resource Architecture was involved, measures the Economic Value of the industry as annual turnover. For example:

- > The Facility Management industry is estimated to turnover in excess of \$60 billion, which is 4.1% to Australia's Gross Domestic Product (GDP).
- > It employs both directly and indirectly 220,000 people
- > The total space managed is equivalent to an area covering 15 km x 15 km

While this estimate is comparatively less than the estimated turnover of the construction industry, it is not far behind:

- > The Construction industry is estimated to contribute in excess of \$78 billion 6% to Australia's Gross Domestic Product.
- > It employs both directly and indirectly 600,000 people
- > The Capital Asset Value of space is \$2,270 billion.

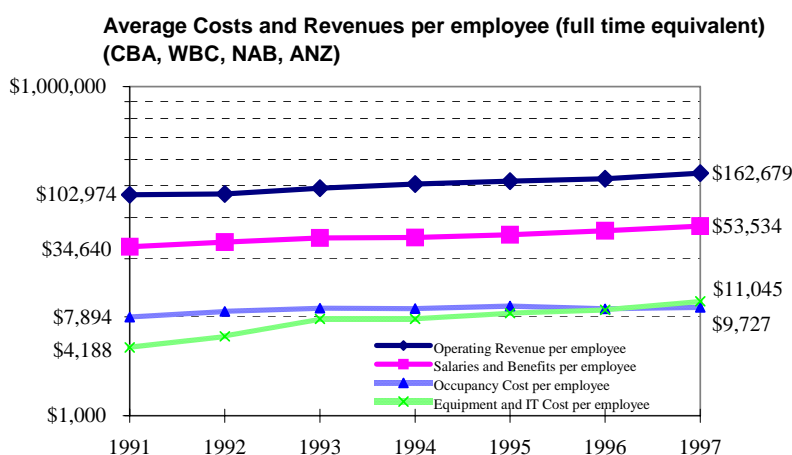
However, total facility related turnover at 10% of Australia's GDP is not an accurate reflection of the total economic value of space. What is being overlooked is the strategic contribution facility planning, design and management adds for those who occupy the space.

For example, the National Summit on Building Performance in Washington, DC, November 19, 1996 published the results of a survey on Facilities and Real Estate, answered by 300 senior vice presidents, real estate and facility executives, industry association leaders and government organisation heads.

- > Half of the respondents said that a high quality work environment could increase worker productivity from 10% to 20%. Another 16% believe worker productivity can increase from 21% to 30%.
- > 77% of respondents said that a high-performance workplace could decrease employee turnover.

If facilities can contribute to increased productivity and reduced turnover, then this increase in revenue must be added to the Economic Value of Space.

Research carried out by the Author of the top four Australian banks shows that revenue per employee is on average over \$160,000 per annum. This contrasts dramatically with salaries and benefits at over \$50,000 and occupancy cost at just under \$10,000 per annum.



According to these figures, an incremental change in revenue of 1% can have an impact up to 3 times greater than a 1% change in productivity or 16 times greater than a 1% change in occupancy cost. We calculate that over a ten year period (the typical life of an office fitout), total revenues generated from the facility will be more than **100 times** the cost of fitting it out.

Revenue is by far and away the biggest opportunity and the biggest threat to business performance, followed by staff costs, then technology and equipment, followed lastly by occupancy costs.

It is clear that there are greater opportunities to improve organisational performance overall through revenue enhancement and productivity improvement rather than through cost reduction. Therefore, the risk to revenues and staff productivity due to poor facility design and management is far greater than the expense of building or occupying space.

HOW SPACE CAN ADD VALUE FOR BUSINESS

Value is created within an organisation for two reasons:

- 1) To satisfy customer needs
- 2) To create profits for the organisation and stakeholders

Profit margins can be increased if a company either drives down the cost of products and services, or drives up the value (real or perceived) to increase the amount the customer is prepared to pay.

The strategic objective is to maximise the difference between value and cost, and to build value which customers perceive to be better than that offered by competitors.

According to Michael Porter¹, linkages between activities can be vital in adding value and in creating competitive advantage. This works on the principle that the value contribution of a chain of activities is greater than the sum of each individual contribution. Linkages exist within the organisation, and outside the organisation, with suppliers and customers.

Although it is customary in facilities management to consider every service or item of expenditure in isolation, the very existence of facility management as a modern discipline is based on linkages between people, process and place in organisations.

To support the new breed of facilities manager working at this interface, a new form of performance knowledge is needed, which combines sources of information that previously remained separated.

The manager at the workplace interface needs key performance control information from the core business to combine with the existing facility management information. The control information from the business must relate to the strategic goals of the organisation and cascade down to key performance indicators. The key performance indicators that are measured and monitored are applied to facilities management both in terms of the role of integration within facilities management and with respect to its relationship with the organisation as a whole.

The following four performance indicators are typically applied to core activities and offer clues for the facility manager for value creation and cost reduction:

- > **Customer relations:** How can facilities satisfy internal and external customer needs (perceived or actual)?
- > **Innovation and strategy:** How can facilities support product innovation and sustainable competitive advantage?
- > **Responsiveness:** How can facilities improve 'cycle times' in response to the changing business environment?
- > **Cost and reliability:** How can facilities reduce the cost of a product or service and reduce levels of risk?

¹ Porter, M. E. *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, 1985.

CUSTOMER RELATIONS

By customers I refer to both internal and external customers. For external customers, improved customer relationships can impact on their decision to purchase and or what they are prepared to pay for a product or service. For internal customers, staff and management, satisfaction can reduce turnover and improve morale, which in turn can reduce training cost and/ or generate increased revenue.

By addressing the forces which impact on competitive position and the criteria by which customers measure value, facilities can help organisations to increase market share. Facility attributes, which drive customer relationships include:

- > **Brand Recognition and Awareness:** Communicating to customers and staff the organisations values, core competencies and point of differentiation can help to position a product or service to make them more attractive to customers. At RMIT, Building 8 and Storey Hall were designed not only as cutting edge works of art, but as a marketing tool to attract new foreign students.
- > **Accessibility and Convenience:** - Customer proximity and facility location is traditionally the most important criteria in planning retail, hospitality, health and other service oriented industries, but is also important when planning office facilities. The more accessible, visible and convenient the location the greater the potential to attract new and retain existing employees.
- > **User comfort and satisfaction:** Greater levels of comfort and amenities can help to attract and retain valued customers and high calibre staff. It is well known among industry analysts that the physical workplace is one of the most commonly cited factors when people choose to leave or join an organisation.

STRATEGY AND INNOVATION

Organisations who are attempting to break into new markets, or simply fight off global competitors are increasing their efforts to develop innovative new products, which provide competitive advantage, and bigger margins.

Facility attributes, which drive strategy and innovation include:

- > **Space as a catalyst for strategic change:** If the workplace is the physical manifestation of corporate strategy through alignment of facilities with organisational objectives, culture, values and workstyles, then a significant opportunity exists to initiate broader based change in organisations seeking to improve performance. Organisational culture and resistance from the workforce are often the main barriers to change. The physical environment is one of the most powerful means to communicate change, whether it is a new culture as a result of a merger or acquisition, a new organisational structure, systems, or strategies.
- > **Space as incubators for innovation:** Organisations are looking to create work environments which support innovation and learning through introducing new ways of working, and integrating new knowledge based systems. An environment conducive to innovation is one that enables reflection, easy information exchange and diversity of styles. However the facility cannot make people learn, the focus is back onto the employee, how they exercise the mind, and interact with others.

- > **Create entry barriers for competitors:** Facilities can often provide a source of competitive advantage. Several IT companies in Australia promote 'lifestyle' within their work environments as a means of attracting high calibre international staff. Within the retail sector, Sam Walton, founder of Wal-Mart in the US, learned the importance of facility management after losing his first store when he could not renew his lease to remain in a favorable location. Wal-Mart pioneered a unique location strategy in small cities and towns by "spreading out/filling in". This can be described as acquiring sites beyond the fringes of urban growth to establish a flagship and then developing a store network as the customer base moved out, making it difficult for competitors to obtain a market foothold.

Workplace 'effectiveness' can be measured by way of a performance survey issued to users before and after a move. On past projects we have measured an improvement in user perceptions of workplace performance in a number of productivity related fields:

- > Alignment with Corporate Culture
- > Ability to get work done
- > Workplace Environment
- > Workposition layout
- > Ability to interact and access information

We have found that the results generally illustrate an increase in the levels of satisfaction from before and after. From our past experience an improvement of in excess of 10% is achievable.

RESPONSIVENESS

How quickly an organisation can respond to the changing business environment is the final frontier of business. The pace of change is ever increasing, and organisations that can restructure, expand, contract most quickly will have a strategic advantage in terms of capturing market share and revenue generation.

Within the service industries, hiring, firing and adjusting wages has traditionally been used to alter costs and maintain levels of profitability in response to fluctuations in economic activity. Since 1992, Staff numbers among the top our Australian Banks have decreased by more than 30,000 people. As you would expect, unit cost per employee would rise as the number of employees fall. While such cuts have an immediate impact on salaries and benefits, from our observation, organisations need a further 18 months to bring back occupancy cost per employee to what would be considered an acceptable level. As staff numbers decrease, organisations are left with a surplus of underutilised space which can cost about \$10,000 annually for each lost staff member.

As a result, facilities deny the very flexibility an organisation may need to boost revenues in the future. Interestingly, occupancy costs remain far more flexible than the cost of Information Technology and Equipment.

Facility attributes, which drive responsiveness, include:

- > **Level of user control / mobility:** The greater control a worker has over where and when they work, the more responsive they become to change. Alternative workplace / virtual office solutions mean that employees are less constrained by the physical workplace.

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- > **Layout versatility:** The versatility built into the environment as measured by the number of space standards adopted and the mix of standards on a floor. A 'one size fits all' approach will reduce the extent of physical reconfiguration required. In such a case, churn will be limited to the movement of people and associated administration and relocation costs.
 - > **Component flexibility / modularity:** Furniture based partitions and workstations are designed using a limited number of components, which can be re-configured to suit the maximum number settings.
 - > **Type of space:** the proportion of open plan and fully enclosed space may define the type of space in which the moves take place. The greater the extent of open plan the more responsive the space is to change.
 - > **Contingency Space:** If the pace of change is particularly rapid, the increased cost of contingency space can be off set by the revenue potential of new opportunities as they emerge.

Flexibility is key, but unless facility managers continuously monitor business unit requirements and capitalise on increased flexibility, the full benefit will not be realised.

COST AND RELIABILITY

Throughout this decade, organisations have been examining their use of space more carefully to reduce occupancy costs. Typical examples in the office sector include re-negotiation of leases, space intensification, teleworking and hotelling. Effectively, the lower the facility costs the Lower cost of providing product or service:

Facility attributes, which drive cost and reliability, include:

- > **Reduced cost of churn² :** If a change takes place to one work position it is likely to affect neighbouring work positions and possibly the entire floorplate. It is therefore necessary to consider and possibly rationalise an entire work group or floorplate even to implement the smallest change. Depending upon the volatility of the industry, it is not uncommon for the cost of churn to be as high as rent.
- > **Reduced capital cost:** Capital expenditure is always a key measure of value when making a purchase decision. But as this cost is so minor when compared to costs over the life of the fitout, the key question is how to maximise other benefits with the capital available. For example, a small investment can reap the greatest return if assessed carefully.
- > **Reduced occupancy costs:** This is a result of space efficiency and management of outgoings. Space efficiencies vary considerably from industry to industry. for example space efficiency within the financial services sector averages about 15m² per employee, whereas within the legal sector, the average space efficiency is 20 m² peer employee. Strategic considerations will determine the optimal space efficiency within any sector.

² 'Churn' is a term used to describe internal rearrangements undertaken by organisations to better accommodate their changing organisational and functional requirements

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- > **Reduced exposure to risk.** Facilities are both a resource and liability. The amalgam of risks which impact on facilities include those with a low likelihood but high impact such as terrorism, environmental disasters, accidents and sabotage, to those of high likelihood but low impact such as technological obsolescence, and changes in economic conditions, demographics and statutory regulations. Although the impact of any one workplace change event is relatively low, the cumulative impact over time can create a significant impediment or advantage to an organisation depending upon how it is managed. When there is a downturn in business activity, occupancy costs can escalate as a proportion of total cost. Where there is significant growth in business activity, market share and revenues may be stifled by a lack of available space in appropriate locations.

GETTING TO KNOW EVA

Facilities tie up valuable capital, which can be useful in maintaining a required capital asset base for borrowings, but can be detrimental if the funds could be used to generate higher returns elsewhere. Before we invest in new facilities we must ask ourselves whether we can obtain a better return on assets through divesting our facility capital into other core-business related investments. The decision to invest capital into facilities will depend largely on where the organisation's products lie in their lifecycle.

When new industries start up, companies often struggle to fund capital projects or provide reasonable accommodation for staff as they have only their own limited resources to fund growth. During the start up phase, cost is the most critical issue.

As companies gear up for growth, the critical issues become liquidity (not cost). Investment in property ties up valuable capital and facility managers have to justify capital investment in the same terms as do other investments.

As industries mature, competition intensifies, margins are cut, and costs are again under pressure until eventually an industry shakeout eliminates those players who are less competitive.

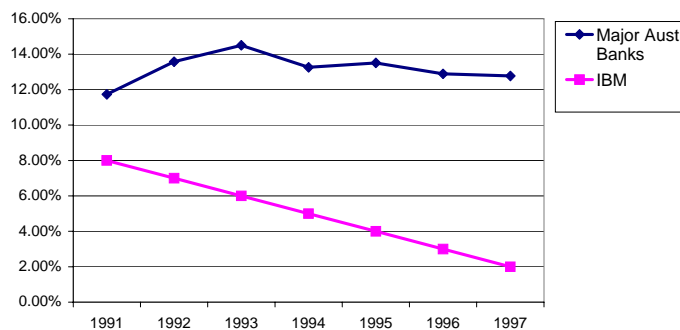
It is only when companies have consolidated their market share that they can afford to invest in capital projects. However, these companies often become big and slow to adapt to the changing business environment. Eventually, principal products and services move into decline and these companies will have to invest in new growth opportunities. Once again, liquidity becomes a key factor.

One key question that arises is whether the organisation should have capital invested in facilities at all if their core business lies in anything other than property management. In the current highly competitive business environment, companies can no longer afford to expend resources on activities in which they are not expert: competitive advantage could be lost to those that hire experts to assist them.

Suitable measures of economic value are required to assess investment decisions over the life of any facility project. What is needed is a value measure that measures both cost efficiency and revenue.

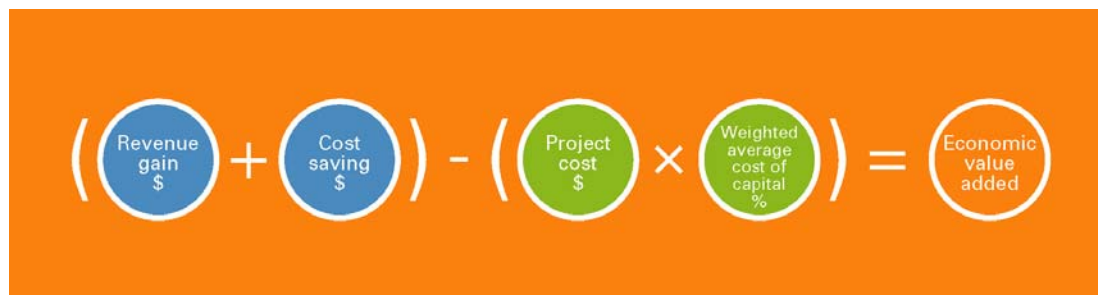
IBM in the US measure occupancy and technology cost as a percentage of total revenue. Lee Dayton, IBM's vice president for corporate development and real estate attributes their reduction in occupancy and voice/IT cost as a percentage of revenue from 8.8% in 1992 to 4.2% in 1997 to their aggressive introduction of Alternative workplace initiatives among its sales force globally. In contrast, research by Resource Architecture shows that in 1997, Occupancy and IT/voice (equipment) cost as a percentage of annual revenues of the top four Australian banks averaged over 12%.

Occupancy & IT/voice cost as percentage of total revenue



Another more sophisticated financial performance measure which is rapidly being adopted globally is "Economic Value Added" (EVA). In very simple terms it measures the total profit in any given year less a charge for the amount of capital employed. If the result is positive then Economic Value is created.

This can be expressed in the following formula:



Understanding how space can generate revenue and cost savings is the key to measuring Economic Value.

Measuring revenue is not always easy. One of the most common methods used is to measure worker effectiveness by user survey or management consensus.

CONCLUSION

A facility manager needs information from the core business to combine with the facility information. The core business information must relate to the strategic goals of the organisation, product lifecycle and competitive position. Measures of facility performance should be linked to core business measures of performance.

A key challenge for the facility manager over the next decade, whether in-house or contracted out, is to start to create performance measurement systems which relate to core business performance and to identify those facility management activities which add value or reduce cost to the organisation's product or service.

Focusing on those actions which add value to a product or service can help to identify all the other actions which only add cost or add little value: anything which adds cost without value should be eliminated. In addition, those actions that do add value must be benchmarked regularly to see if they are adding the maximum value compared with other alternatives.