

## The Business Case for Sustainable Office Buildings

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The market for sustainable commercial buildings is gaining momentum in the design and construction arena, however development and investment in these buildings by the private sector is limited (Reed & Wilkinson, 2005). It seems there is limited information available detailing the financial viability of operating new or refurbished sustainable buildings and relatively little research has been conducted into the impact of sustainability on the market value of commercial buildings. To-date much of the emphasis has been placed on owner-occupied sustainable commercial buildings, however the majority of buildings are owned by investors. Clearly if the progress and uptake of sustainable buildings is to develop within the property market, it is essential the links in the relationship between *market value and sustainability* are identified and understood in order to progress investment in sustainable office buildings.

Currently the market for sustainable buildings in Australia and New Zealand is being encouraged through government legislation and policy, however investment by the private sector has been relatively slow to develop partly due to the lack of proof confirming the economic viability of sustainable buildings. As yet the absence of detailed market evidence, sales data and lease transactions of sustainable buildings have restricted the amount of reliable evidence as to whether sustainable buildings are feasible (Lutzkendorf and Lorenz, 2005). One approach to justify sustainability is to model payback periods or increased value through reduced operating expenses, or alternatively apply hypothetical adjustments to valuation equations to allow for claimed sustainable benefits. However the lack of concrete evidence about the correlation between value and sustainability leaves the investment industry wondering and unsure of the financial benefits of sustainability (Madew, 2006). Although some research undertaken into the valuation methodology of sustainable buildings has developed the concept of the impact of sustainability on value (Boyd, 2005; Lutzkendorf et al., 2005; Sayce et al., 2005), there is an ongoing need for detailed analysis in this area.

This paper presents the results of research conducted into the relationship between the elements of sustainability and their relationship with the market value of an office building. The paper aims to provide an insight into the rapidly evolving area of sustainability and office buildings, with the emphasis placed on the valuation process that seeks to assess a hypothetical purchaser's perspective of this relationship.

[Note: The lead authors' doctoral thesis is focused on investigating the relationship between market value and the impact of sustainable attributes in commercial office buildings. A three-pronged approach is being used to investigate this relationship, investor surveys, valuer surveys and examination of market data. This paper provides the initial findings from the investor surveys.]

## Introduction

At present it appears there is limited information available about the financial viability of operating new or refurbished sustainable buildings. Overall relatively little research has been conducted into the impact of sustainability on the market value of commercial buildings. To-date much of the emphasis has been placed on owner-occupied sustainable commercial buildings, even though the majority of the buildings are owned by investors.

This paper investigates the financial business case for sustainable buildings from an investment perspective. The emphasis is placed upon the importance of using existing valuation methodology to accurately assess the financial viability of sustainable buildings in the current marketplace. An extended study is being undertaken of buildings in Australia and New Zealand, including the perceptions of investors and valuers towards sustainability and value. This paper reports on the initial findings of the first stage of research that was undertaken in New Zealand in 2007.

## Investment Drivers for Sustainable Buildings

There has been substantial research into the design and construction of new sustainable buildings and the benefits from these buildings, particularly socially and environmentally. However it has been argued there is an apparent “lack of mechanisms to align environmental and social issues with economic return” (Lutzkendorf and Lorenz, 2005, p.215). The lack of connection between sustainability and economic return affects the main stakeholders who invest in the property market, namely large financial, banking and superannuation vehicles who are the key drivers within the property market.

In many ways it may be perceived that the case for sustainable buildings are being pushed by the demand side of the market, such as from the occupiers. Existing research tends to use the ‘circle of blame’ reasoning shown below in figure 1, where it may be argued that the occupiers and their demand for more sustainable space will break this circle and increase the take-up of sustainable buildings within the market.

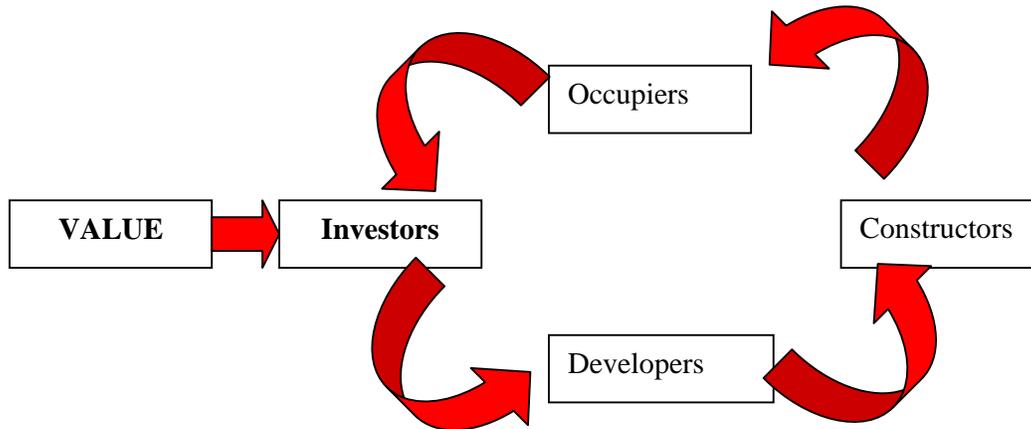
**Figure 1. Circle of Blame**



(Source: Upstream, <http://www.upstreamstrategies.co.uk/> 2006).

However some sectors of the investment community, given the right drivers for sustainable buildings, may take it upon themselves to develop and invest in sustainable buildings. For this to happen a solid business case should be developed where the financial benefits of sustainable buildings are fully understood by the investment sector in the market. Hence changing the ‘circle of blame’ in figure 1 to the diagram in figure 2 where the determination of the investment value of sustainable buildings enables the investors to break the circle of blame. Resulting in a flow-on effect through the development chain to the occupiers.

**Figure 2. Modified ‘Circle of Blame’**



(Source: Author).

Investment elements that need to be answered for the determination of value, from an investor’s and developer’s perspective, are based on the key drivers of investment as listed below:

- Market value
- Internal Rate of Return (IRR)
- Net Revenue
- Net Present Value
- Sale Price
- Yields

Whilst the development and construction of sustainable buildings is increasing, predominately these buildings are being developed either by owner-occupiers or by developers/investors with special agreements between the government or similar tenants. In addition, the provision of monetary or other types of government incentives are encouraging certain sectors of the property industry to develop sustainable buildings. However, the private sector is still hesitant about the viability of sustainable buildings away from the government supported leases and owner-occupiers. The government’s views on the viability of sustainable buildings is inherently different to that of the private sector, where the governments in both New Zealand and Australia are trying hard to prove the financial viability of sustainable buildings through a number of publications. However it was argued in ‘A Report to California’s Sustainable Building Task Force’ (Kats, 2003), that governments see the benefits of sustainable buildings more through social and environmental benefits with some regard to financial. On the other hand the private sector “may be less likely to care about health and environmental impacts and hence might perceive lower financial benefits of building ‘green’”. In addition, because of higher capital costs and hurdle rates, future financial benefits are discounted more heavily by private entities than by public ones, which in turn potentially further reduces the perceived value of future green building financial benefits for the private

sector. These differences help explain the significant disparity between public and private sector adoption of green building design” (Kats, 2003, p.84).

Property or real estate is a debt investment that primarily involves an initial capital outlay in return for a fixed periodic income over a predetermined period, whereby at the end the capital outlay will be returned (Robinson, 1989). This is a similar type of investment to long-term deposits, government bonds, debentures and mortgages. The uptake of property as an investment vehicle has increased substantially in recent years as the security of property is considered higher than that of shares. Also, the ‘baby boomer’ generations’ wealth and compulsory superannuation (in Australia) has increased the need for long-term secure investments with generally higher returns than government bonds. The escalation of the property market in recent years has heightened property as a pure investment vehicle, resulting in property investment decisions tied ultimately to the bottom line of the operating income over the period - the main emphasis is placed on the net present value of the property asset. Capital growth and an ongoing income are often the primary concerns of investment in property. However, when making decisions as to the type of investment in the property industry investors tend to use a number of methods to determine the best investment type. Most commercial investors look to valuation methodologies that determine net present value, internal rates of return, market value and yields.

Previously it has been argued that the investment market participants “have been relatively late in taking up the challenges imposed by sustainable development” (Lorenz, 2007, p.6) - it was further suggested that a number of aspects require further research to accelerate the uptake of sustainable buildings in this sector. One of these areas is a financial business case and risk reduction. From a global perspective it is apparent that the investment community requires financial evidence of a business case for sustainable buildings to accelerate investment in sustainable buildings. This can be sought through the certainty of determining the value of any property investment; however the current lack of information and substantial data analysis into sustainable buildings makes investing in sustainable office buildings very risky in terms of financial reporting.

Although some developers and investors have taken the risk of investing in sustainable buildings, the financial returns are still yet to be fully transparent and this uncertainty is restraining the investment community. Likewise the valuation process is “unable to specify and price accurately all current and future influences on the value of the asset” (Adair and Hutchinson, 2005, p.254), consequently resulting in making it more difficult to identify and adjust factors to allow for the risk that could be inherent in sustainable buildings. Many of the major investment institutions are cautious of the risk and uncertainty around the investment of sustainable buildings, as the financial business case for these buildings has not been conclusively determined as yet by the valuation profession. In turn this restricts the investment in sustainable buildings. The investment industry requires significant financial evidence to progress forward in the investment of sustainable buildings, although this has not yet been achieved by adapting or modifying valuation methodology to better evaluate sustainable office buildings. Lorenz (2007a) supported the view that evidence on the economic advantages of sustainable property investment is needed to persuade business practices, to inform the public debate and to transform the markets for sustainable buildings. Investors need to know their return on investment, the expected income stream and what the market value or sale price of their asset is going to be. All of these factors impact upon investment decisions, and sustainable buildings need to be proven financially viable before the investment community as a whole successfully endeavours to develop and invest in sustainable buildings.

## Market Forces

Investors and developers need to know the extent to which sustainability is impacting property worth if they are to respond effectively to sustainability issues (Sayce and Ellison, 2003). This will require an analysis of how market value is determined for commercial office buildings. 'Market value' is defined by the International Valuation Standards Committee (IVSC) as "the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion" (IVSC, 2005).

Conventional office buildings are currently appraised through conventional proven valuation approaches. To prove the financial benefits of a sustainable building are maximised, investors need to be able to compare valuation appraisals of sustainable buildings to that of conventional buildings in order to identify the financial viability and to correctly make economic investment decisions. In New Zealand, as in other countries, the property market has matured to a point where the determination of market value is by the assessment of the present worth of future income streams of the building, rather than by cost considerations (Emary, 1997). In Australia and New Zealand the discounted cash flow technique has commonly been used for determining the market value of office buildings through the analysis of cash flows of the property over a period of time (Armitage 1997). Industry valuers undertake current valuation practice by the calculation of the present value of future income streams, which in turn determines the market value of the property. Investors, owners, developers and lending institutions rely on the valuation reports produced by valuers that state the market value of the asset. The crucial nature of decisions made in the finance industry requires a standardised methodology for the determination of a property's market value.

Assessing the market value of income producing assets is commonly undertaken through two methodologies: (a) capitalisation of income approach and (b) the discounted cash flow (DCF) approach. The determination of market value, whether using the capitalisation or DCF approaches, relies heavily on the current market rents and yields of comparable properties. A valuer undertakes a range of comparative analyses of other properties when identifying market rents and yields for the subject property. Thus key determinants of market value depend greatly upon the property market climate. However the valuation community rely heavily upon comparable evidence to determine the market rents and consequently identify market value. However this heavy reliance on comparable evidence has been criticised widely (Aldridge, 1989, Burton, 1992 and Crosby, 1997) and the increasing shortcomings of this reliance upon comparable rents is a key issue when identifying market rent for sustainable buildings. There is a lack of evidence documenting rent transactions in the New Zealand market due to the limited number of sustainable buildings. In turn this makes it inherently difficult for valuers to assess an appropriate market value for sustainable buildings. There are also a variety of potential shortcomings evident when assessing conventional buildings for a market rent which are highlighted by Whipple (1991), Crosby (1992) and Teale (1995). Thus a valuer needs to ascertain other market variables to assess whether the market evidence being used is appropriate for comparison - some of these variables include: the level and availability of stock, vacancy levels, quality, landlord or tenant market, economic determinants, market pessimism and willingness of tenants' to pay rental levels dependent upon tenant requirements.

Changing occupier requirements suggest that a focus upon sustainable space is an increasing prerequisite. The results published by Jones Lang LaSalle highlighted a significant change in market perception amongst the occupiers, whereby the majority of occupiers across Asia Pacific are willing to pay more for sustainable space. (Jones Lang LaSalle, 2007). Lorenz (2007) concluded that the financial benefits for sustainable buildings needs to be included within the property valuation process, suggesting this could be identified through gauging the

gradual changes in market participants' perceptions for favouring sustainable buildings. When investigating the financial case for sustainable buildings, market rents are only one element of the valuation equation. Thus the investor's and developer's perception of sustainable buildings is equally important as they influence the market for sales and investment decisions. Therefore the initial investigation was to identify the market perceptions from the viewpoint of owners, investors and developers.

### **Research Methodology - Investor and Developer Market Perception in New Zealand**

The market perception of sustainable buildings in New Zealand is still at its relative infancy. Although elsewhere in the world sustainable buildings have been developed for some years, particularly in the US, UK, Canada and Australia, New Zealand has not taken the opportunity of developing sustainable buildings until recently. The development of the New Zealand Green Building Council (2006) and the rating tool *Green Star NZ* (2007) for commercial offices has been an integral part of kick-starting the New Zealand property industry's development of sustainable buildings. However it appears that some developers and investors alike are questioning the value of these sustainable buildings.

Initial findings of the investor and developer surveys undertaken in New Zealand have led to a number of insights into the relationship between sustainability and office buildings, although the findings stated here are only preliminary. The surveys were undertaken between June and September 2007 and involved interviewing key property investors and developers in the New Zealand market. Participants were asked nine unstructured questions relating to their organisation or company's key investment priorities and perception of sustainable buildings.

### **Data Collection and Analysis**

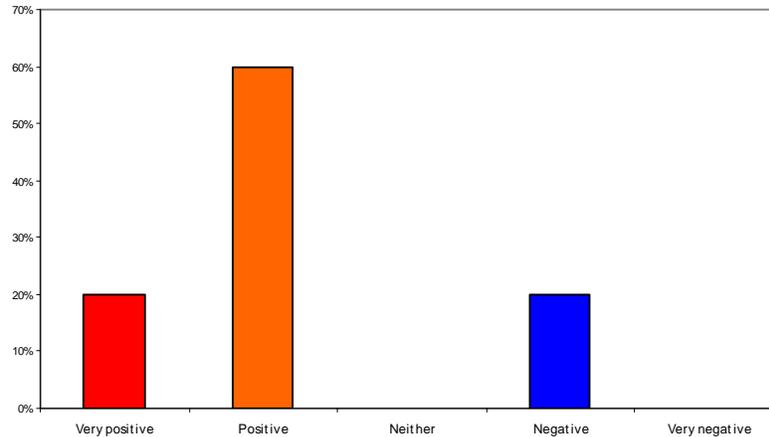
From the outset it was apparent that the survey responses conducted in New Zealand were quite varied and requires further research to bring conclusive results from this type of survey, however the general consensus for all respondents were relatively similar. Provided there is an economical business case identified for sustainable buildings, *all interviewees would actively pursue sustainable buildings for their portfolios*. However the priority of sustainable buildings as an investment vehicle varied widely in the current market. The resounding response was a need for the value case from an investors' financial point of view, using standardised market techniques for identifying the value of investment in sustainable buildings. Although a small number of respondents would invest and develop 'green' or more sustainable buildings regardless, they believed that this would be the only way forward in New Zealand.

#### **Question 1. What is the company/organisation's perception of sustainability with regard to buildings?**

The overall perception of sustainability for the majority of the companies and organisations interviewed was that sustainable buildings could meet the demands of the occupier market, which has the potential to deliver a market driven return to the investor. Figure 3 below presents the distribution of responses with an overwhelming majority being positive, and although there was no middle ground, there were some negative views. On further discussion it was identified that optimising and reducing the use of utilities, particularly where tenants were on gross leases, provided the owner or investor with substantial savings. In addition, efforts undertaken by landlords to reduce operational expenses were recognised by tenants and consequently were reflected in better tenant retention rates. Overall the perception of sustainable buildings was positive and notably more enthusiastic if sustainable buildings provided not just marketing and differentiated position of their asset. There was also the potential for increased rents and reduced operating expenses. With sustainable buildings at such a generally immature market level in New Zealand it appears it will take time and in-

depth research to identify these benefits sufficiently for valuers to rely on, which in turn will be reflected in valuation practice.

**Figure 3. Investor Perception of Sustainable Buildings**

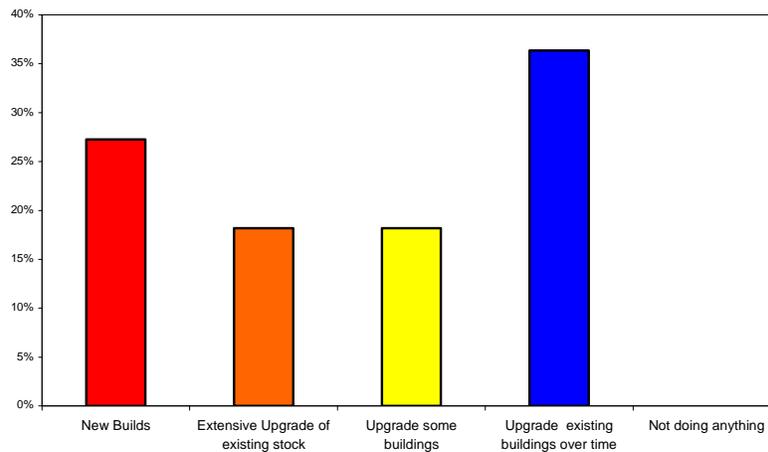


(Source: Author's dataset)

**Question 2.** *How is your company/organisation incorporating sustainability into the commercial property portfolio?*

The survey findings demonstrated that all participants interviewed were implementing some form of sustainability into their portfolio – see figure 4. There was a relatively even distribution over the four categories of implementing sustainability into their portfolios. The distribution was spread across ‘new building’ development, ‘major upgrades of existing buildings’ and ‘ongoing upgrading of assets’. All of the respondents claimed they were implementing some level of sustainable initiatives into their portfolio. Figure 2 also confirms the different priorities of investors and developers in regards to sustainable buildings. The majority responded that the focus on existing building stock was to create sustainability asset plans to allow the incorporation of sustainability slowly into their office buildings. In these cases major initiatives are planned for implementation with tenant movements. In addition the sustainability plans were used to demonstrate to tenants the direction for the building in upgrading the building to become more sustainable.

**Figure 4. Investor/Developer implementation of Sustainability Initiatives**



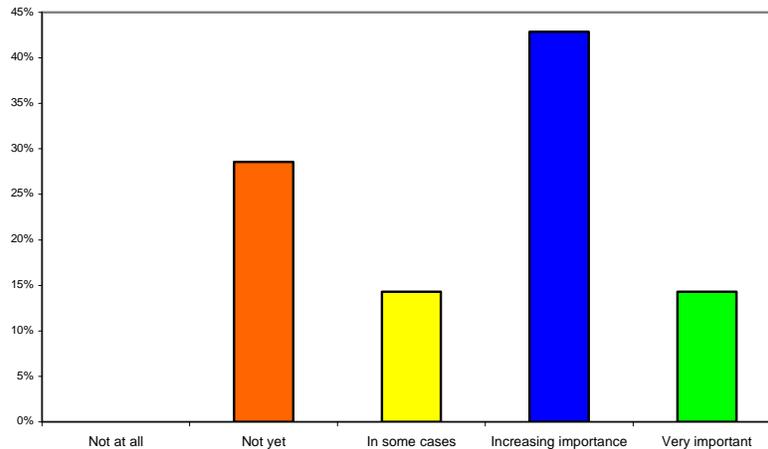
(Source: Author's dataset)

The 'drip feeding' of sustainable initiatives appeared typical across all survey participants, however this was particularly focused amongst owners who had large multi-national or government tenants with demands which were very important and initiatives that were timed with potential lease expiries. Therefore the implementation of sustainable initiatives should meet tenant demand whilst maximising returns. Initiatives being undertaken were focused upon practical decisions and achieved paybacks for both landlord and tenants. In essence by incorporating sustainable initiatives into the building, even though in a long-term plan, still enabled assets to remain competitive in the currently demanding and changing investment market. The focus of retaining their existing tenants or being able to attract better tenants was a key focus. However to go ahead with investment in sustainable buildings or by implementing initiatives it had to make economical sense for the investor where a demonstrated payback and return on investment was required.

**Question 3.** *Are sustainable office buildings an important part of your portfolio?  
Is investing in sustainable buildings a consideration for your portfolio?*

The responses focused upon the importance of sustainable buildings within the participants' portfolios and are summarised in figure 5. About one-third of respondents (29%) believed that sustainable buildings were not yet very important to their current portfolio. Nevertheless these respondents believed that within their company or organisation the importance would increase significantly over the next few years as the market matured. A larger proportion of respondents (43%) believed that sustainable buildings were important and this would steadily increase over time. Interestingly only 14% of respondents believed that sustainability was currently very important to their portfolio, while the remaining 14% of respondents expressed that only in some areas within their portfolio sustainability was important. When questioned further about their response, it appeared that the importance was dependent upon the tenants in occupation and the need to retain them.

**Figure 5. The importance of Sustainable Buildings in their portfolio.**



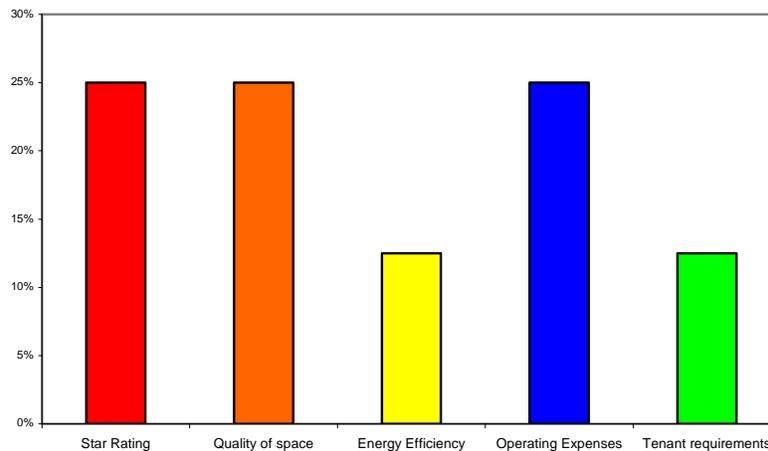
(Source: Author's dataset)

There was also discussion as to whether sustainability was a fashion or a fad, and whether sustainability may in fact be obsolete within a few years. However the majority of the respondents believed that as long as there was a solid economical business case from the investment and development perspective, then sustainable buildings would become 'the norm' and make up the majority of portfolios in the future. Although sustainable buildings are a relatively new phenomenon in New Zealand, all respondents agreed that the importance of sustainability would escalate as the office market matured in New Zealand. "Sustainability is no different to other technological advances that have been made over the years, like air conditioning and BMCS controls" as commented by one of the respondents. Overall the move towards the increasing importance of sustainability across the portfolio was a key ongoing objective for the companies or organisations that took part in the interview.

**Question 4. What aspects of a sustainable office building is the most important and why?**

When identifying the most important aspects of sustainable buildings, the overwhelming response to this question was the financial business case for sustainable buildings. The development or upgrading of the building must have a sound financial return. However where the respondents saw a financial return accrued through different aspects of sustainable buildings. Approximately one quarter of respondents, as shown in figure 6, believed that having a star rating for their building would differentiate their asset in the market that would assist to attract or retain tenants and meet tenant requirements. Thus they would see higher rents and returns from that building. Equally, 25% of respondents believed that the quality of space was key to ensuring the financial return of sustainable buildings, although quality of space is a typical determinate in traditional real estate since the changing dynamics of sustainability on the quality of space has created a whole new category.

**Figure 6. The most important aspect of a Sustainable Building.**



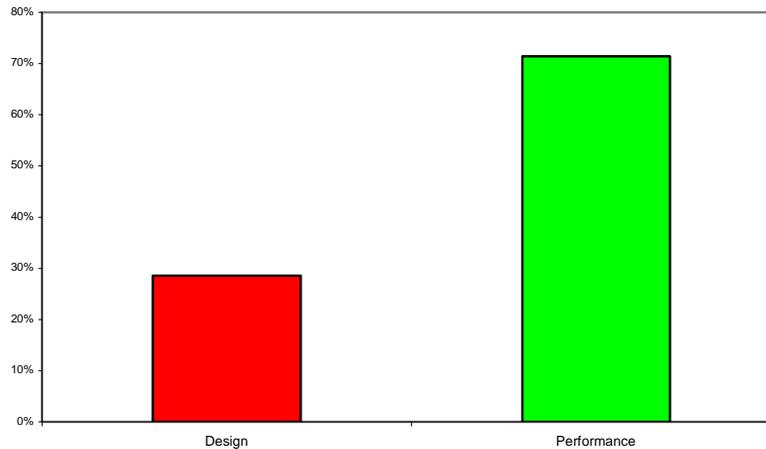
(Source: Author's dataset)

Finally, the other 25% of respondents believed that financial returns from sustainable buildings would accrue through the reductions made in operating costs. However, some respondents noted the importance of having gross leases or at least semi-gross leases with performance requirements for both owners and tenants to ensure financial benefits to accrue to the owner or investor. Priorities around energy efficiency alone were bought up by 12.5% of respondents and this was identified as a key area where significant saving could be made and financial returns can be delivered to both owners and tenants. Although overall operating expenses could be reduced through having more sustainable buildings, the focus was placed upon energy as the key area where substantial savings could be made. Finally, 12.5% of respondents indicated that meeting tenant requirements would result in the desired financial return. By responding to tenants' demands and needs, higher rents could be achieved thus providing a better net income for the owner. Through reduced energy costs and by being able to charge higher rents for the better quality space, the value was identified to be a joint benefit for both tenant and owner. The overwhelming response from investors was that there was a need to match the requirements of the tenants and by providing this, investors recognised the benefits over both the short-term and long-term that they would receive as the owner of the building. Although all respondents expressed different opinions about where the financial benefits would mainly accrue from, all believed that more information and research needed to be done in this area to identify the key financial benefits of sustainable buildings.

**Question 5.** *Would preference be given to a 'design rated building' or a building that actually demonstrates environmental performance?*

As shown in figure 7 below the majority of respondents (71%) preferred a building that has a demonstrated performance over a design rated building. The design rating perception from the majority of investors was that it would be short-lived, particularly in a New Zealand context. This is because the New Zealand Green Building Council is intending on releasing an 'In-Use / Performance' tool that would rate a building's in-use on a performance benchmark scale. However investors thought that a design rating on the building enhanced the marketing campaign credibility in the current market because it was third party validated and provided market recognition. Until the performance rating tool was released, this initial design rating would be useful for ensuring tenant pre-commitment.

**Figure 7. Preference for investment in ‘Design Rated’ sustainable buildings or buildings that demonstrate sustainable performance.**



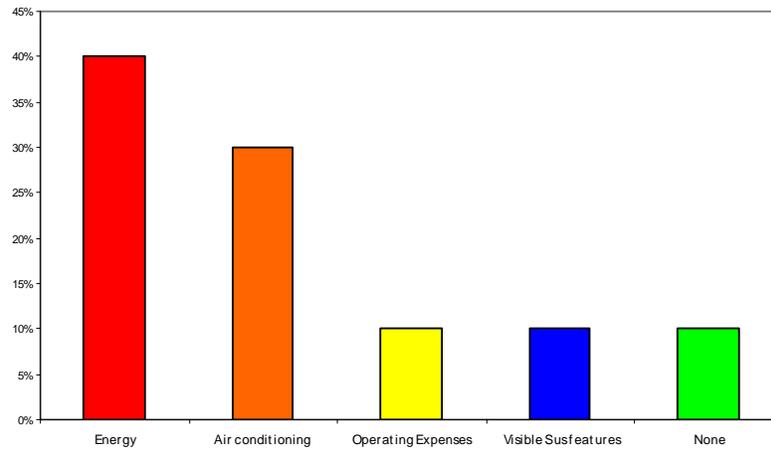
(Source: Author's dataset)

A key comment was that whether the office building was rated or not rated, there was still a need for the building or development as a whole to make financial sense. Importantly the sustainable initiatives that were implemented must represent a benefit to the owner, potentially through definite payback periods, performance goals, reduced operating expenses and the ability to charge a better rent whilst meeting tenant requirements. This in turn provides a viable financial basis. By committing to the tenants requirements that had beneficial results for both the tenant and landlord on a 'total occupancy cost' (TOC) basis, the implementation of sustainable initiatives within their portfolios would be a key consideration. "Simply because it (sustainability) makes financial sense" was a common phrase reiterated throughout the interview by many of the respondents who are already reaping the benefits of having implemented sustainable initiatives into their building portfolios.

**Question 6.** *What aspect of a sustainable office building do you believe has more financial benefits?*

Financial benefits were clearly identified in figure 8 where the focus upon energy efficiency was the key area with the greatest financial impact. Rising power costs, increasing price of fuel and the potential of carbon taxes has invoked a renewed interest in trying to reduce the energy consumption of buildings. 30% of respondents believed that the greatest savings could be made through the air conditioning requirements of the buildings and efficiencies could be achieved from upgrading and making equipment more sustainable. Respondents indicated that as long as the sustainable initiatives that were implemented resulted in reduced operating expenses and the payback was not too long, those initiatives would be the undertaken. However a common perception was that sustainable initiatives, which had the most visibility to tenants and enabled better tenant satisfaction, were seen as a better option, mainly because of the tangible value it could add to the building from a tenant's perspective. However a common insight was to create "whatever is easiest and adds value the fastest" element of sustainability.

**Figure 8. Aspect of Sustainable Buildings that will have the greatest financial impact.**

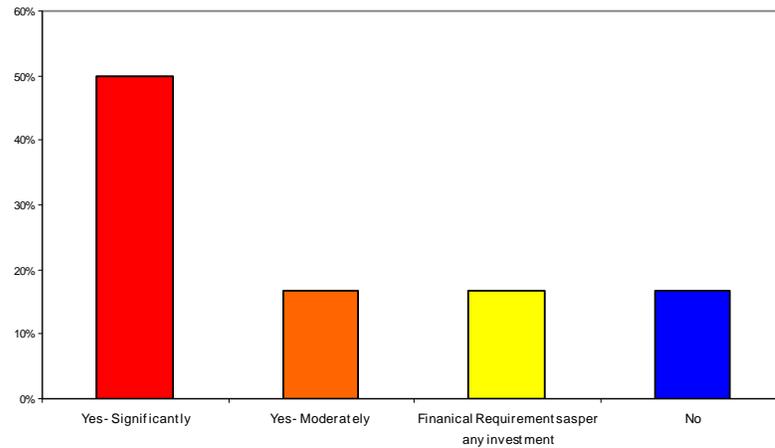


(Source: Author's dataset)

**Question 7.** *Would your company/organisation pay a higher purchase price for an office building with sustainable attributes?*

When asked about investing in sustainable buildings and whether they would consider paying a higher purchase price, 67% of respondents answered 'yes' as shown in figure 9 below. This positive response was split between 50% believing they would pay a considerably higher price, whilst 17% paying a moderately higher price. However respondents had varying reasons for why they would pay a higher purchase price. One investor commented that "yes, certainly, it would be purely pragmatic driven as our expectation is that a sustainable building will command higher rents, therefore we would pay a higher purchase price". Another took the view of lower operating expenses equated to a higher net revenue and therefore a higher purchase price. Overall 17% of respondents stated that sustainable buildings would be subject to the same financial requirements as all other investments, and no special adoption of analysis techniques would be used when analysing a sustainable asset for investment. Note there was also a hesitation in the 17% of respondents since they thought to hold back and watch the market develop before investing in the market for sustainable buildings - however they would be implementing initiatives within existing stock, although not purchasing sustainable office stock at higher prices.

**Figure 9. Willingness to pay a higher purchase price for a Sustainable Building.**

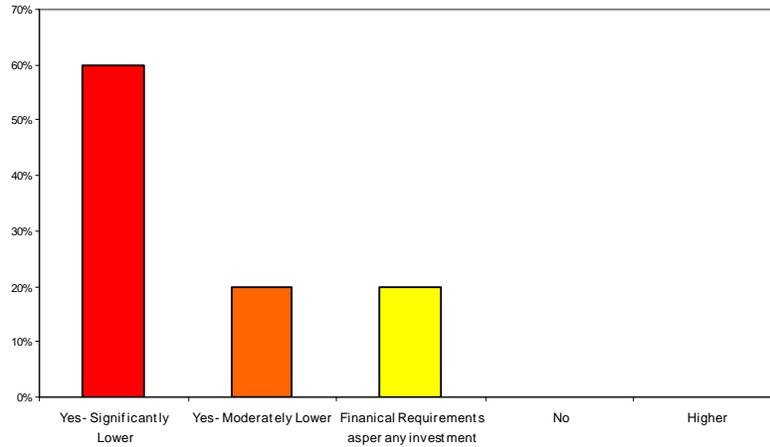


(Source: Author's dataset)

**Question 8.** *Would your company/organisation accept a higher or lower yield for a sustainable office building in comparison to conventional investments?*

In some respects the responses to this question (see figure 10) were similar to the responses from question 7 where 80% of respondents indicated they would pay a lower yield. This was split between 20% of respondents willing to pay a lower yield and 60% willing to pay a significantly lower yield for a sustainable building. The remaining 20% of respondents insisted that the investment meet the same financial requirements as any other investment that would be considered for inclusion in the portfolio. However in light of this seemingly unanimous response this question provoked varied reasoning from participants. The slightly negative views on the yields questions were “to be looking at below market yields for a sustainable building it would really be dependent upon the type of tenants that were occupying the building and the long term outlay required by the building” and “as long as the IRR (Internal Rate of Return) remained at benchmark levels for the company the yield being slightly lower would not be an issue as long as the IRR was steady”. More positive respondents took the point of view that “thinking ahead, costs are only going to increase so you are better off with a more efficient building that will not require upgrading in the near future”. Another participant commented that “the company would go lower than market because rental rises will continue to occur, particularly as new development comes on line ensuring that new benchmark rental levels are set and reflected in the rent reviews, whilst existing stock (with no sustainable initiatives) will see rental levels potentially stagnating”.

**Figure 10. Willingness to pay a lower or higher yield for a Sustainable Building**

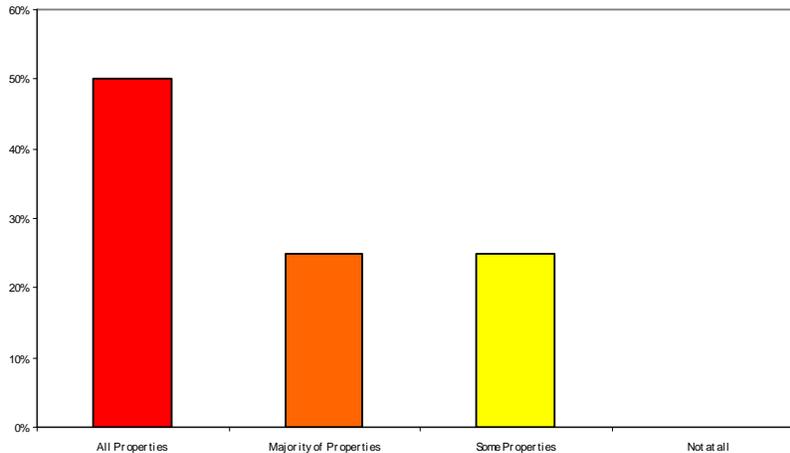


(Source: Author's dataset)

**Question 9. Where does the future lie for sustainable building in the portfolios of New Zealand investors?**

The response was unanimously “everywhere”. All respondents believed that in the future all of their portfolios would include sustainable buildings. Figure 11 highlights the spread of responses, whereby 50% of respondents believed that all their properties would be sustainable buildings, and 25% believed that the majority of their portfolio would be sustainable or have sustainability upgrade plans underway. Particularly where investors had a large proportion of existing stock, these buildings would be slowly redeveloped and refurbished. Many talked about creating sustainability plans that could be implemented in and around the tenant to a certain extent, whilst major upgrades would be timed in with tenant lease expiry. The final 25% commented that some of the portfolio would be sustainable, however the number of buildings would be dependent upon the tenants in occupation and their on going sustainability requirements, if any.

**Figure 11. The incorporation of Sustainable Building within their portfolios in the future**



(Source: Author's dataset)

## **Concluding comments**

Overall the perception of the investor and developer markets in New Zealand was that sustainable buildings will play an important part in property portfolios in the future. Although uncertain of the value and market for sustainable buildings currently, investor and developer optimism was certainly identified. However, their uptake and investment in sustainable buildings would be accelerated if evidence for the financial case for sustainable buildings were proven.

New Zealand investors and developers seem to be embracing sustainable buildings in a different way to other worldwide property industries. The inherent traits of New Zealanders as entrepreneurs, in addition of having the benefits of watching the development of sustainable buildings elsewhere in the world over the last decade and identifying the benefits accruing to market leaders worldwide, has resulted in the optimistic mindset and increasing adoption of sustainable buildings in the local market. This response in New Zealand has been accelerated by the release of the benchmarking tool (e.g. *Green Star NZ*) being the first and only sustainable rating tool for commercial buildings in New Zealand.

## **Value Case – Further Research**

The property sector represents the world's largest industry yet appears reluctant to adopt sustainability. However in New Zealand there seems to be a quite positive outlook currently towards sustainable buildings. Although the majority of investors still remain hesitant to invest in sustainable buildings as they lack the tools to identify the investment benefits. It has been argued there are no 'real' incentives to invest in sustainable buildings as most of the benefits accrue to the occupier rather than the investor (Lawther et al, 2005). To further discourage the investment community there are currently only "inappropriate financing models which focus predominantly upon immediate financial return, or lack of access to capital" (Lawther et al, 2005, p.58) in addition to other unsuitable cost and payback related tools.

It appears that the valuation industry has not yet fully identified the added value to sustainable buildings, and the sustainability of a building is not yet reflected within the valuation process. At times this may restrict investors from identifying the financial benefits of sustainable buildings and consequently inhibit the investment and development of such needed infrastructure. A common thread throughout the interviews undertaken so far in New Zealand is the resounding need for more information on the financial impact of sustainable buildings from an investor's point of view. The investment communities need evidential proof, analysis tools and methodologies that identify and prove the impact of sustainability on market value so as to make correct investment decisions on sustainable buildings. In particular in more developed markets of Europe, Lorenz (2007) comments and emphasises the need and "the key role of valuation professionals and the valuation process itself in achieving a broader market penetration of sustainable (building) construction." Once value is identified within sustainable buildings, then this should result in the demonstration to all within the property industry and those also in the investment and banking industries the value of sustainability.

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