

# THE ECONOMIC STRATEGY OF GREEN BUILDING'S: A SHORT REVIEW

Gervasoni Leisa, University of Guam

## ABSTRACT

*Green design and technology in buildings, which can reduce negative environmental impacts, has been identified as a critical step toward global sustainable development. Aside from technological advancements, economic viability is critical in encouraging the design, construction, and usage of green buildings. According to climate change research, small improvements in building, sustainability can have a significant impact on greenhouse gas emissions and energy efficiency in the economy. Costs and Benefits for Developers, Investors, and Occupants investigate whether the cost and benefits of green buildings can be quantified financially. Green buildings can now be built at a cost comparable to traditional structures, with investments recouped through operational cost savings and, with the correct design features, a more productive workplace.*

**Keywords:** Economic, Sustainability, Green Buildings.

## INTRODUCTION

The built environment and sustainability are inextricably linked, and public awareness of "green" construction has risen dramatically in the last decade. This illustrates the potential for real estate to play a role in environmental protection. Buildings and related construction activities, for example, account for nearly a third of global greenhouse gas emissions. The use of raw materials and energy in the construction and operation of buildings accounts for roughly 40% of global consumption. Influential climate mitigation policy analyses have found that the built environment has a lot of potential for reducing greenhouse gas emissions. As a result, tiny improvements in a building's sustainability, or more particularly, the energy efficiency of its construction, can have a big impact on its current energy use and life-cycle energy use. The relevance of energy efficiency in buildings is expected to expand even more in the future decades, based on projected patterns in urban growth in industrialised countries and urbanisation in developing economies (Enkvist et al., 2007).

According to several studies, green construction can save money by increasing staff productivity, enhancing health and safety, and lowering energy, maintenance, and operational costs. Energy, water, maintenance/repair, churn, and other running costs are often cheaper in sustainable buildings. These cost savings don't have to come at the expense of larger upfront expenses (Newsham et al., 2009). Although green buildings are slightly more expensive to build than non-green buildings, their lower operating and maintenance costs make them significantly more cost effective in the long run. This means that certified buildings are easier to rent because they are less unused, which saves money for real estate owners and operators. They can also be rented for a higher price, which is offset by tenants' lower energy, water, and heating usage (Glaeser et al., 2010).

Green buildings are aimed to lessen the built environment's total impact on human health and the natural environment by: Using energy, water, and other resources efficiently. Protecting the health of the building's occupants while also increasing employee productivity. Waste, pollution, and environmental deterioration are all being reduced. It improves the health and comfort of the occupants. According to research, greater indoor air quality (low CO<sub>2</sub> and pollutant conc. and high ventilation rates) can result in up to an 8% boost in

performance. Green buildings are more expensive to rent. Researchers at Maastricht University discovered that efficient buildings attract three percent higher rates when comparing lease agreements involving Energy Star buildings to lease agreements including non-Energy Star buildings (Kotchen, 2006). Tenants are more interested in green buildings. Green construction strategies are ones that produce durable, low-maintenance, energy-efficient housing and make the best use of existing infrastructure while minimising the impact of development on the environment and enhancing the health, safety, and well-being of people. Buildings with greater sustainability credentials will be more marketable as investors and occupiers become more aware of and concerned about the built environment's environmental and social implications. Furthermore, there is a proven link between green building characteristics and the ability of these buildings to attract tenants and command higher rents and sale prices in some markets (Asset Value). Risks associated with sustainability can have a significant impact on rental income and the future value of real estate assets, affecting their return on investment. Regulatory hazards, such as required disclosure, building rules, and laws prohibiting inefficient constructions, have become increasingly obvious in countries and towns around the world (Risk factors).

## CONCLUSION

According to climate change research, tiny improvements in building sustainability can have a big impact on the economy's energy efficiency. Green building has gotten more attention as people have become more aware of global warming and the extent of greenhouse gas emissions in the real estate industry. The economics of these more sustainable building methods, as well as the private returns to recent large-scale investments in energy-efficient office buildings, are examined in this research. Green buildings can have a positive impact on the environment (at the building or city scales) by generating their own energy or promoting biodiversity, in addition to reducing or eliminating negative impacts on the environment by using less water, energy, or natural resources.

## REFERENCES

- Enkvist, P., Naucler, T., & Rosander, J. (2007). A cost curve for greenhouse gas reduction. *McKinsey Quarterly*, 1, 34.
- Glaeser, E.L., & Matthew, E.K. (2010). The greenness of cities: Carbon dioxide emissions and urban development. *Journal of Urban Economics*, 67(3), 404-18.
- Kotchen, M.J. (2006). Green markets and private provision of public goods. *Journal of Political Economy*, 114(4), 816-834.
- Newsham, G.R., Mancini, S., & Birt, B.J. (2009). Do LEED-certified buildings save energy? Yes, but. *Energy and Buildings*, 41(8), 897-905.