

Influence and Practice of Green Building Economic Benefit on Real Estate Development

Zhenyun Zhu, Jiaqi Min, Liju He and Yu Wang

Anhui University of Finance and Economics, Bengbu, 233030, China

Abstract: With the improvement of living standards, people pay more and more attention to green buildings, environmental protection and ecological balance. The economic benefits of green buildings will also bring new impetus and direction to the construction industry. This paper mainly studies the influence and practice of the economic benefits of green buildings on real estate development, analyzes the economic benefits of green buildings, and briefly expounds the measures, methods and development planning directions to ensure the economic benefits of green buildings, hoping that the economic benefits of green buildings can promote the development of real estate and effectively improve the economic benefits of green buildings.

Keywords: Construction industry, Green building, Economic benefits, Real estate.

1. Introduction

The concept of energy conservation and environmental protection is deeply rooted in the hearts of the people, and the strategic strategy of sustainable development is also the primary development goal of our country. The emergence of economic benefits of green buildings means that China is paying more attention to ecological environmental protection[1]. The economic benefits of green buildings will gradually replace the traditional building industry model, rationally utilize resources, protect the environment, ensure the stability of the ecological environment, build houses in a reasonable space, reduce the negative impact brought by other external factors, and further enhance the significance and role of economic benefits of green buildings. In the future construction process, green building models will be adopted.

2. Overview of Economic Benefits of Green Buildings

Green building is a brand-new concept of building development, with the main purpose of reducing pollution and prolonging building life, sustainable development and environmental protection as the development goals. In the whole building environment, resources are saved as much as possible, pollution is reduced, and a suitable living environment is provided for the people. At the same time, the space is rationally planned, the spatial dimensions between buildings are coordinated, and the harmonious development between man and nature is promoted. With the acceleration of urbanization in China, people are beginning to realize the economic benefits of green buildings and the importance of environmental protection. The demand for buildings is not only comfortable, but also green. Therefore, when building buildings, most real estate developers use green building design methods to reduce construction costs, take green buildings and safe living as the main production objectives, remove complex building methods, and give full play to the concept of green buildings[2]. Improve the utilization rate of natural resources, emphasize energy conservation and emission reduction, reduce environmental pollution, and create a comfortable and healthy living environment for the people. Even though the concept of economic benefits of

green buildings in China is still in the development stage, many problems need to be solved, but with the development of the industry, it is urgent to establish the concept of green economic benefits[3].

3. The Impact of Economic Benefits of Green Buildings on Real Estate Development

3.1. Overall Life Cycle Cost

By analyzing the economic benefits created by green buildings, we can draw the conclusion of saving energy. The economic benefits of green buildings have far-reaching influence on the overall real estate development. Focusing on the development direction of green building concept and the service life of green buildings, we should make reasonable planning for the initial monitoring and later project operation of green buildings to achieve the initial expected goal. Attention should be paid to the development of green building projects, showing the awe and protection of nature, and paying attention to the early development of green buildings, so as to better carry out the follow-up work.

3.2. Technical and Economic Analysis of Construction

Compared with traditional building technology, green building needs more advanced technical means and advanced equipment and materials, but the cost is actually very low. At present, the development of green economy in China's construction industry is actually not complicated, and technology also has certain support[4]. China has a vast territory, a large population, different living environments in the north and south, and different building conditions. We should design according to the local environment, climate, weather and geographical location, give full play to the advantages of green buildings, apply nature to buildings, and integrate economy with green, which is in line with the current development concept.

3.3. Create Personal Economic Benefits

Green buildings can not only maintain the stability of the ecological environment, but also protect people's health and

provide people with a healthy and livable living environment. By using green building materials, toxic substances in the room can be reduced, or pollutants and chemicals in the room can be absorbed by green building materials, and toxic gases such as formaldehyde in the room can be reduced. The built houses can be used without purification, which greatly creates a convenient environment for people [5].

3.4. Comprehensive Benefit Analysis

The essence of green building is actually to minimize the consumption of natural energy, which is what we expect. The earth's energy will be exhausted one day, so the saved energy must be saved. The impact of buildings on the natural environment should be controlled to a minimum, so as to achieve pollution-free and sustainable development. The social benefits of green buildings should be comprehensively analyzed in all aspects. The early-stage cost of green buildings is much more than the later-stage maintenance cost, so the early-stage construction cost must not be saved, so the construction can be completed at one time, the problems of material waste and cost increase can be reduced, and the energy saving can be realized by scientific means to promote the improvement of economic benefits.

4. Main Measures to Ensure the Economic Benefits of Green Buildings

4.1. Direct Incremental Economic Benefits

Many diversified methods have been applied in the traditional building mode, including not only maintaining the structure of the building, but also some other equipment, which leads to the increase of operating costs. However, the advantages of the maintenance structure of the green building are very obvious, and its energy saving effect is at least one third higher than that of the traditional model, which can ensure the full utilization of energy, reduce the burden on users and achieve the purposes of environmental protection and cost reduction. Users in green buildings don't need to use heating and cooling equipment frequently, and they don't need to buy air-conditioners, because the green buildings themselves have a good effect of regulating temperature, realizing warm in winter and cool in summer, further reducing energy consumption and other expenses paid by house owners. At the same time, the materials of green buildings are cheaper than traditional materials, and the construction cost is lower than that of traditional models, thus reducing the cost of purchasing houses again.

4.2. Economic Benefits of Recycling

Recycling is also a kind of green building technology. Effective recycling and secondary utilization of various wastes, especially alloy products, can improve the economic benefits of enterprises, and the recycled wastes can be made again and applied to the building process, which can reduce the consumption of non-renewable energy and save considerable expenses for builders. The scope of recycling also includes water resources. The recycled water resources are reused to wet floors, irrigate crops, mix cement, etc., so as to improve the use efficiency of water resources and reduce the extra expenses of users. In green construction, it also includes the use of solar energy, wind energy, heat energy and tidal energy, especially solar energy, which can not only be used for heating, but also for generating electricity. Solar water heaters have been applied in most communities in

China, greatly saving the consumption of electricity.

4.3. Eco-economic Benefits

Low-carbon life concept is also a part of environmental protection. The excessive emission of carbon dioxide in traditional building projects does not meet the requirements of China's green development. At the same time, it is also possible to determine whether the building mode is a traditional mode or a green building mode according to the emission of carbon dioxide[6], and use the comparison method to analyze the impact of green economic benefits on green buildings. Another method is to analyze the benefits of economic law by market value. At present, the concept of green building in China has attracted the attention of most consumer groups, but in fact, it is more of a gimmick. It is empty in the form of green building, but has no connotation of green building. Blindly improving the greening degree of buildings to mislead consumers does not achieve the concept of green building in essence, and it will also cause damage to the surrounding ecological environment[7]. The real application of green building concept is to use green building materials in the building process, avoid waste of resources in the building process, and integrate with the natural environment. After the completion of the building project, there is a complete maintenance system, which can significantly improve the ecological benefits of the building project.

4.4. Impact of Environment on Incremental Economic Benefits

Green building materials, green construction technology and other environmental protection measures are used in green buildings. By integrating with the natural environment, plants can absorb a lot of carbon dioxide and produce oxygen, reduce the greenhouse effect, purify the surrounding air, create a livable and comfortable living environment for human beings, ensure people's mental health and improve people's living standards[8].

4.5. Economic Benefits of Operation and Management

Before, during and after the use of green buildings, it is necessary to have a complete management system and monitoring system, to ensure that all equipment is in a monitoring state, and to maintain the equipment regularly. Once problems occur, they can be solved in time, so as to reduce the maintenance cost, comprehensively manage the quality and reduce the operating cost.

4.6. Avoiding the Risk of Green Building

Reasonably avoiding the risk of green building can protect consumers' rights and interests. There are always risks in the implementation and operation of green building projects, and there are strict requirements for building materials and operation management. Intelligentization is also one of the development trends of green building. However, the current level of intelligence in China is at the initial stage, which further enhances the risk of property management. Developers should solve the above problems and reduce the construction cost of green building. It should be designed according to the construction environment and geographical conditions to avoid rework caused by construction mistakes and promote the sustainable development of green building industry.

5. Practice of Economic Benefits of Green Buildings

5.1. Green Energy Management

In the process of building construction, a lot of resources need to be applied. If resources cannot be used reasonably, it will lead to waste of resources, increase construction cost and reduce construction efficiency. Therefore, it is necessary to control all materials and large-scale equipment in the construction process, strengthen the management of resources and equipment, and regularly maintain and overhaul large-scale equipment to avoid the delay of construction period caused by mechanical damage.

5.2. Green Management of Water Resources

In the process of building construction, water resources need to be used, and the consumption of water resources is large. During construction, we should strictly control the use of water resources, use water equipment with small flow, turn off unused taps in time, and regularly clean and maintain water equipment to avoid blockage and damage of machinery. We should make rational use of water resources at the construction site, store water resources in time in rainy days, mix cement or water foundation with rainwater, realize the recycling of water resources, and avoid water waste[9].

5.3. Application of Green Building Materials

Green building materials are the most intuitive embodiment of the green concept of green building engineering. Using green building materials in the building process can maximize the effect of energy conservation and environmental protection, which can not only save the construction cost, but also improve the economic benefits of real estate developers. However, at present, most of the green building materials in China are in the initial research and development stage, and only a small part of them are applied to market buildings[10]. However, with the continuous development of science and technology in China, more and more green building materials will certainly appear. This requires the government and the state to reasonably control the market inflow of green building materials, prevent the large-scale flooding of green building materials, and clean up the unqualified green building materials from the market in time to ensure that all green building materials used in green buildings meet the building standards and market requirements.

5.4. Reduce Pollution in The Construction Process

In the process of traditional building, pollution is inevitable. Generally speaking, there are water pollution, light pollution, waste gas pollution and dust pollution, etc. However, in the process of green building construction, we can try our best to avoid these pollutions, set up corresponding protective measures, and strictly supervise the construction units to prevent pollution in the process of building and affect the daily life of the surrounding residents.

6. Development Planning of Green Economy

6.1. Refine Real Estate Economic Development and Management Objectives

The real estate industry is one of the major development industries in China in the future, with a good development prospect, and the management goal is to guide the direction of real estate economic activities and play the role of command and control. Relevant departments should carefully study the direction of real estate economic development and the planning of real estate market, meet the demand of real estate market supply, help and cooperate with real estate companies to formulate scientific and reasonable economic development goals, and promote the sustained and stable development of real estate industry. The formulation of real estate management objectives should be combined with the local economic development, matched with the local economic conditions and policies, adjusted and changed, guided and standardized the development of the real estate market, made the real estate market open and transparent, prohibited all lawless elements from exploiting loopholes to seek improper benefits, and ensured the stable development of the real estate industry.

6.2. Make the Economic Development Goal of Real Estate Long-term

As a kind of real estate, as well as a special necessity, real estate is an important product and basic guarantee for the development of contemporary people's life. Therefore, to scientifically formulate the economic development model of real estate, we should not only combine the local development situation, development needs and the reform of market economy, but also adjust measures to local conditions, be far-sighted, make considerations and plans for the future, and pave the way for the coordinated economic development of various industries. In recent years, with the continuous development of China's economy and trade, the urbanization process is gradually accelerating, and the real estate market economy is changing with each passing day. How to ensure the stable development of the real estate economy and ensure that the market will not be disturbed by various external factors, we must make changes, conform to the development requirements of the times, formulate a scientific and reasonable real estate economic development plan, and set a clear development goal for real estate companies. It is necessary to implement national policies and requirements, formulate scientific and effective measures, solve various problems in real estate management, and do a good job of risk warning for possible problems in the future. Economic development planning of real estate needs to start from the perspective of local and urbanization construction, and a series of policies issued by the state should provide goals and directions for the formulation of economic development planning of real estate, which is also the logistical support for real estate development. The development of real estate industry, market economy and urbanization process are closely related. Adjusting the relationship among them is conducive to the long-term development of real estate economy. During this period, the government should do a good job of regulation and control, establish a series of housing security measures, prohibit real estate speculation and make the development goal of real estate economy

sustainable.

In order to better promote the transformation of China's real estate industry, government departments should actively play their role, standardize the development direction of the real estate market, and give the real estate industry certain preferential tax policies and support measures to guide developers to build a greener, more environmentally friendly and sustainable real estate business model. Training and education should be carried out for real estate development to encourage the development of environmental protection and green economy mode of real estate industry. Real estate-related industries should also take the initiative to activate various high-tech technologies, reduce the use of non-renewable energy, reduce construction costs and promote the coordinated development of real estate economy, ecological balance and market economy. For enterprises that choose green buildings, the government should give some assistance and support, and for the masses, it should increase the housing subsidy, so as to increase the housing purchase rate.

6.3. Make the Development Goal of Real Estate Economy More Transparent

The stable development of China's real estate industry is closely related to the transparency of its economic objectives. Transparency refers to the internal transparency, financial transparency and supervision transparency of enterprises. In order to promote the sustained and stable development of China's real estate economy, the real estate industry should not only create a reasonable development path, but also strengthen the supervision of the real estate industry by the state and government in addition to giving policy and financial assistance, so that the economic development objectives of the real estate industry will not deviate from the expected objectives. Relevant departments should also do a good job in supervising real estate enterprises, including debt repayment, work details, etc., guide all aspects of real estate development, unify the development goals of real estate development and market economy, make green buildings better integrated into the real estate industry, and provide a strong guarantee for promoting the coordinated development of China's ecological environment and economic development.

7. Conclusion

Green building is one of the main building patterns in China, and it is also the development trend of China's construction industry in the future. The integration of the concept of economic benefits of green building will have a profound impact on real estate development. Therefore, we must take all-round measures, make all-round analysis in the

development process, actively implement the development mode of green buildings, and minimize the influence of all external factors. In the process of real estate development, it is necessary to maximize the utilization rate of space, reduce the adverse impact of construction technology and construction materials on the ecological environment, actively adopt green construction technology and construction materials to prolong the service life of buildings, bring new development impetus to the real estate industry, continuously optimize China's ecological environment, and promote the sustainable and healthy development of the real estate industry.

References

- [1] Editorial Board of this journal. Focusing on digital building and sharing cutting-edge progress [J]. China Construction Informatization,2022(18):23-25.
- [2] Editorial Board of this journal. Exploring Systematic Digital Transformation to Facilitate High-Quality Development of China's Construction - Opening Ceremony of China Digital Construction Summit 2022-City Summit Held in Guangzhou[J]. China Construction Informatization, 2022 (16): 8-11.
- [3] Liu Hongwei. Digital Transformation Empowers High-Quality Development of the Industry--Side Notes on the Opening Ceremony of China Digital Construction Summit 2022-City Summit[J]. China Survey and Design, 2022(08):73-74.
- [4] Guo Fangyi. Order in disorder--Talking about dialectics in digital architecture language[J]. Art Market,2022(07):106-107.
- [5] Liu Hongwei. Digital transformation of the survey and design industry is imperative--Documentary of China Digital Architecture Summit 2021-Design Salon[J]. China Survey and Design, 2021(12):65-67.
- [6] Planning for digital layout Digital Building and Smart City Summit held in Tianjin [J]. Smart Manufacturing,2021(04):20-21.
- [7] Zeng Siyuan. Application and development trend of digital architecture in the context of construction industry 4.0 era[J]. Housing and Real Estate,2021(21):41-43.
- [8] Liu Qian. Digital architecture--Building a "new infrastructure" for digital transformation of construction industry[J]. Software and Integrated Circuits,2021(05):70-71. DOI:10.19609/j.cnki.cn10-1339/tn.2021.05.031.
- [9] Zhong Huaying,Xu Mengwei. Characteristic adaptation conversion and integration of digital models and built entities in digital architecture implementation [J]. Contemporary Architecture, 2021(03):43-45.
- [10] Liu Gang. Digital construction platform constructs "new infrastructure" for digital transformation of industry[J]. China Survey and Design, 2020(10):31-34.