

Optimization of Real Estate Industry Chain from the Perspective of Sustainable Development

Wangqi Wu

Northwestern University, 60208 Evanston, USA

wuwangqi0003@163.com

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Abstract: The purpose of this study is to comprehensively analyze the present situation of the real estate industry chain and explore the optimization strategy of the industry chain from the perspective of sustainable development. Through in-depth study of the main links of the real estate industry chain, the problems existing in the current industry chain are revealed, such as low resource utilization efficiency, great environmental impact and poor sustainability. In order to solve these problems, this paper puts forward a series of specific optimization strategies, covering land resources management and utilization, green building and ecological design, sustainable construction and construction management, green marketing and consumer education. These strategies are aimed at improving the resource utilization efficiency of the real estate industry, reducing the negative impact on the environment and promoting its long-term sustainable development. The results show that industrial chain optimization can not only bring significant environmental benefits, but also improve economic and social benefits, laying a solid foundation for the sustainable development of the real estate industry. Based on this, this paper puts forward a series of policy suggestions and implementation strategies at the government and enterprise levels in order to promote the green transformation of the whole real estate industry.

1. Introduction

In recent years, the real estate industry has risen rapidly and become an important pillar of the global economy. However, the rapid development has also caused problems such as excessive consumption of resources, serious environmental pollution and soaring housing prices, which has put the industry under pressure of transformation [1]. The traditional extensive development model gradually gave way to the development path of refinement, quality and greening [2]. On a global scale, the voice of sustainable development is growing, which has a far-reaching impact on the real estate industry [3]. This not only refers to reducing the damage to the environment in construction and use, but also requires efficient and recycling of resources in the whole life cycle of real estate projects [4].

For the real estate industry, sustainable development not only means reducing the damage to the environment in the process of construction and use, but also requires the efficient utilization and recycling of resources throughout the life cycle of the project [5]. The impact of this concept on the real estate industry is far-reaching. It urges developers and architects to fully consider factors such as energy saving, environmental protection and utilization of renewable resources in the design stage, and promotes the real estate industry to develop in a greener and more environmentally friendly direction [6]. At the same time, consumers pay more and more attention to the environmental performance of real estate projects, which further promotes the real estate industry's concern and investment in sustainable development [7].

The optimization of real estate industry chain is very important to improve the overall efficiency and quality. Optimization can realize the rational allocation of resources, reduce waste, improve the speed and quality of project development, meet market demand and help enterprises win in the competition [8]. Integrating the concept of sustainable development not only promotes the green transformation of the real estate industry, but also brings long-term economic and social benefits.

The adoption of green building technology and renewable energy can reduce operating costs, enhance market competitiveness, and at the same time shape the green brand image of enterprises and attract more customers. This transformation not only realizes a win-win situation for economy and environment, but also promotes the overall sustainable development of society.

2. Analysis on the present situation of real estate industry chain

2.1. The main links of the real estate industry chain

Land acquisition and development: Land acquisition is the starting point of real estate projects, involving the transfer of land use rights, land acquisition and demolition. The development stage includes land leveling and infrastructure construction, which lays the foundation for the subsequent construction.

Planning and design: Planning and design is the key to real estate project development, which determines the overall layout, architectural style and functional division of the project. Good planning and design can enhance the living comfort and market attraction of the project.

Building construction: Building construction is the process of turning design drawings into reality, involving the selection of building materials, the application of construction technology and the control of construction quality.

Marketing and sales: Marketing and sales are the key to realize the value of real estate projects. Through effective marketing and sales strategies, the real estate project will be sold to the target customers, realizing the withdrawal of funds and the acquisition of profits.

Property management and service: Property management and service is an important link after the delivery of real estate projects, including daily property management, maintenance, security and various services provided to owners.

2.2. The problems existing in the current real estate industrial chain and the necessity of optimizing the industrial chain

In the current real estate industry chain, the existing problems are shown in Table 1.

Table 1 Problems in the current real estate industry chain

| Main problem | Incorporate | Affect |
|--|--|--|
| Low efficiency of resource utilization | Waste of materials in building construction | Increased the development cost of the project. |
| | Excessive energy consumption | Causing unnecessary pressure on the environment. |
| | Inefficient utilization of land resources | |
| Great environmental impact | Produce a lot of construction waste | Have a serious impact on the environment. |
| | Dust pollution | |
| | Damage to the surrounding ecological environment | |
| Poor sustainability | Lack of long-term planning | Affected the living experience of the owners. |
| | Focus only on short-term interests | Increased the burden on society. |
| | Neglect the long-term operation and maintenance of the project | |

In view of the problems existing in the current real estate industrial chain, it is particularly necessary to optimize the industrial chain [9]. Optimizing the industrial chain can improve the utilization efficiency of resources, reduce the development cost of projects and improve the profitability of enterprises. By optimizing the industrial chain, the impact of the real estate industry on the environment can be reduced, and green and environmentally friendly development and operation can be realized. The optimized industrial chain can also improve the sustainability of the project and ensure the long-term stable operation of the project and the living experience of the owners. Therefore, from many angles, it is necessary to optimize the real estate industry chain.

3. Optimization strategy of real estate industry chain from the perspective of sustainable development

3.1. Land resources management and utilization optimization

In order to maximize the utilization of land resources, reasonable land planning and utilization strategies are very important. This includes detailed evaluation and classification of land, and making the most reasonable development plan according to the nature, location and surrounding environment of land. For example, for sensitive areas of ecological environment, priority should be given to protecting the ecological environment and limiting over-exploitation; For the central area of the city, we should improve the efficiency of land use and rationally plan the land for business, housing and public facilities.

The government should formulate green land transfer policies and encourage developers to pay attention to environmental protection and sustainable development in the process of project development. For example, environmental protection requirements, such as the use of renewable energy and the construction of rainwater collection systems, can be set when land is transferred to ensure that the impact on the environment during the construction and operation of the project is minimized.

3.2. Green building and ecological design

In the architectural design stage, priority should be given to energy-saving and environmental protection building materials. These materials not only have good thermal insulation performance, but also can effectively reduce energy consumption and reduce the impact on the environment. For example, the use of energy-saving glass, thermal insulation wall materials, etc.

Green building certification system is an important standard to measure whether a building meets the requirements of sustainable development. By applying the green building certification system, we can ensure that the building meets the environmental protection requirements in the design, construction and operation. This can not only improve the quality of the building, but also help to enhance the market competitiveness of the project.

3.3. Sustainable construction and construction management

In building construction, we should reduce waste, reduce material loss and waste discharge through fine management and scientific planning, and properly treat and recycle waste to reduce environmental pollution. At the same time, improving energy efficiency and resource recycling rate is very important for sustainable construction, such as using energy-saving equipment and processes, optimizing processes to reduce energy consumption, recycling waste water, waste residue and other resources to maximize the use of resources. The strategies for improving energy efficiency and resource recovery and utilization in sustainable construction are shown in Figure 1.

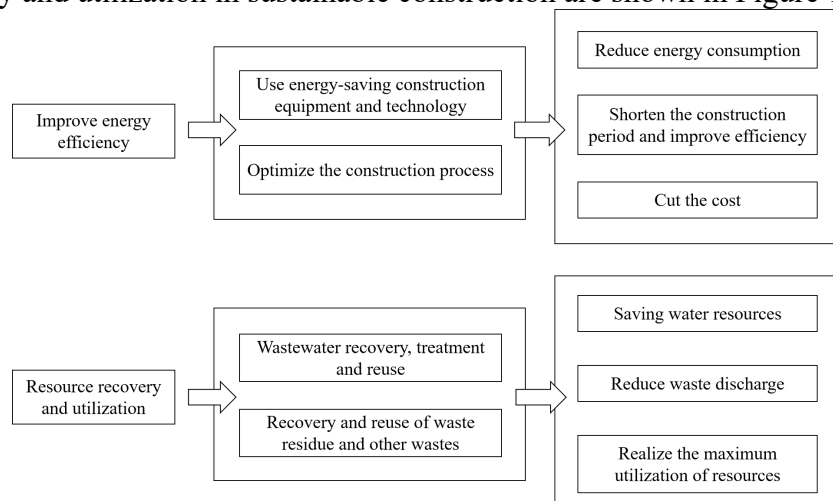


Figure 1 Strategies for improving energy efficiency and resource recovery and utilization in sustainable construction

3.4. Green marketing and consumer education

Through green marketing means, the market's cognition and acceptance of green buildings can be enhanced. For example, carry out green building publicity activities to popularize the advantages and benefits of green buildings to consumers. At the same time, we can cooperate with the media to jointly promote the concept and technology of green building.

In order to encourage consumers to choose green residential products, the government and developers can take a series of incentive measures. For example, the government can provide policy support such as housing subsidies or tax incentives; Developers can emphasize the environmental performance and long-term economic benefits of green buildings in project promotion to attract more consumers with strong environmental awareness.

4. Challenges and solutions in the process of industrial chain optimization

4.1. Support and restriction of policies and regulations

In the process of industrial chain optimization, the support and restriction of policies and regulations are factors that cannot be ignored. The government should increase policy support for green real estate projects, such as providing tax incentives and financial subsidies; At the same time, we should also strengthen the supervision and evaluation of the project to ensure that the project meets the requirements of environmental protection. In addition, it is necessary to establish a perfect system of laws and regulations to regulate the market order and protect the interests of all parties.

4.2. Trade-off between technology and cost

In the process of green real estate project development, the trade-off between technology and cost is an important issue. In order to achieve the goal of sustainable development, developers need to invest more money and technology to adopt advanced energy-saving and environmental protection materials and equipment; However, this will also increase the development cost and sales price of the project. Therefore, when weighing the relationship between technology and cost, it is necessary to fully consider factors such as market demand and consumer purchasing power and formulate reasonable pricing strategies to ensure the profitability of the project.

5. Long-term benefit analysis of industrial chain optimization

The optimization of industrial chain has brought remarkable benefits in environment, economy and society. Environmentally, green building technology and resource recycling reduce energy consumption and carbon emissions, and protect the ecological environment. Economically, green buildings reduce operating costs, improve energy efficiency and save costs, while the demand for green real estate projects increases, bringing sales opportunities and profits to enterprises. Recycling resources can also create new economic growth points. In society, green buildings not only improve the living environment and quality of life, but also enhance the public's awareness of environmental protection and promote the development of cities in the direction of green, low carbon and intelligence.

6. Policy advice

6.1. Policy suggestions at the government level

Strengthen policy guidance and supervision: The government should formulate clearer policies on green building and sustainable development, and strengthen the guidance and supervision of the real estate industry. Government authorities encourage enterprises to adopt green building technology and implement sustainable construction management by providing tax incentives, financial subsidies, and other policy measures.

Improve relevant regulations and standards: The government should establish and improve the relevant regulations and standards system of green building and sustainable development, and

provide a strong guarantee for the standardized development of the industry. At the same time, it should strengthen the supervision and inspection of the implementation of regulations and standards to ensure their effective implementation.

Strengthen publicity and education: The government should intensify publicity and education on the concept of green building and sustainable development, and improve the public's understanding and participation in environmental protection and sustainable development.

6.2. Enterprise-level implementation strategy

Actively adopt green building technology: enterprises should actively adopt advanced green building technology to improve the energy efficiency and environmental protection performance of the project. At the same time, government agencies strengthen exchanges and cooperation with outstanding enterprises to jointly promote the innovation and development of green building technology.

Strengthen internal management and training: Enterprises should establish a sound internal management system, strengthen the training and education of employees, and improve their understanding and practical ability of the concept of sustainable development. Through the implementation of sustainable construction management methods and life cycle management strategies, the stable operation and sustainable development of the project are ensured.

Pay attention to consumer demand and market changes: enterprises should pay close attention to consumer demand and market changes and adjust product strategies and service models in time. By providing green residential products and services that meet the needs of consumers, we can enhance the market competitiveness of enterprises and promote the sustainable development of the industry.

7. Conclusions

Through in-depth analysis of the current situation and optimization strategy of the real estate industry chain, this study draws the following important conclusions:

(1) Significant improvement in resource utilization efficiency: By optimizing land resource management, popularizing green building technology and implementing sustainable construction management, the resource utilization efficiency of real estate projects has been significantly improved. This is not only reflected in the effective use of building materials, but also includes the saving of energy and water resources.

(2) The environmental impact is obviously reduced: The wide application of green buildings and ecological design and the adoption of sustainable construction management methods have significantly reduced the negative impact of real estate projects on the environment. The construction waste is reduced, the pollution discharge is effectively controlled, and the damage to the surrounding ecological environment is greatly reduced.

(3) Industry sustainability enhancement: With the continuous optimization of all links in the industrial chain, the sustainability of the real estate industry has been significantly enhanced. This is not only reflected in the sustainability improvement of a single project, but also in the recognition and practice of the concept of sustainable development in the whole industry.

With the promotion of consumers' environmental awareness and the guidance of government policies, green buildings will gradually become the mainstream of the real estate industry. In the future, more real estate projects will adopt energy-saving and environment-friendly materials and technologies to achieve higher energy efficiency and lower environmental impact.

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