

Thinking on the innovation mode of real estate economic management under the low-carbon mode

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Abstract: The aim of this thesis is to explore the thinking of innovative models of real estate economic management in a low carbon model. The concepts of low carbon model and real estate economic management are defined and outlined, and the impact of low carbon model on real estate economic management is analysed. From the perspective of theoretical foundation, the support of theory for the innovation model of real estate economic management under the low carbon model is explored. Promotion and application strategies are also proposed. Through the study of the innovation model of real estate economic management under the low-carbon model, useful thoughts and experiences can be provided for achieving sustainable development and building a low-carbon society.

Keywords: low carbon model; real estate; economic management; proposed

Introduction

In recent years, global climate change and environmental pollution have become increasingly serious, and low-carbon economy has become one of the important ways to solve global environmental problems. As one of the industries with large energy consumption and carbon emissions, it is of great practical significance and value for the real estate industry to carry out economic management innovation in a low-carbon mode to reduce energy consumption and carbon emissions. However, there is still relatively little research at home and abroad on the innovation of real estate economic management under the low-carbon model, and there is a lack of systematic and in-depth exploration. Therefore, it is necessary to conduct an in-depth study on the innovation of real estate economic management under the low-carbon model and explore a low-carbon economic management model suitable for the real estate industry, so as to provide theoretical and practical support for sustainable development and the construction of a low-carbon society.

1. The current situation and problems of real estate economic management under the low-carbon model

More and more real estate enterprises under the low-carbon model are beginning to pay attention to environmental protection and sustainable development, actively adopting green building technologies and energy-saving and emission reduction measures. Some advanced enterprises have achieved a reduction in energy consumption and carbon emissions by introducing renewable energy, optimising building design and using environmentally friendly materials. At the same time, the government has also introduced a series of policies to encourage low-carbon development, providing support and guidance. However, there are still some problems with the economic management of real estate under the low-carbon model.

Firstly, although green building and energy saving and emission reduction technologies have been widely used, in practice, some enterprises still have certain misconceptions about the understanding and application of green buildings, focusing only on the superficial green logo and neglecting the overall sustainability and environmental benefits. Secondly, some enterprises face technical and economic challenges in implementing low-carbon models. The high cost of green building and energy saving and emission reduction technologies has put pressure on the investment and operation of enterprises. In addition, the management of the real estate economy under the low-carbon model faces problems such as inadequate policies and regulations, insufficient market demand and insufficient social awareness. The government lacks uniform standards and regulatory mechanisms when formulating policies, making it difficult for enterprises to operate in a low-carbon mode in a standardised and sustainable manner. The market demand for low-carbon buildings is still relatively low, and there is a lack of sufficient market incentives. At the same time, public awareness of the low carbon model needs to be further enhanced.

2. The theoretical basis of the innovation model of real estate economic management under the low-carbon model

2.1 Environmental protection

One of the core objectives of the innovation model of real estate economic management under the low-carbon model is to protect the environment. Environmental protection theory puts forward the idea of harmonious coexistence between man and nature, emphasizes the impact of human activities on the natural environment and puts forward the principle of reducing environmental pollution and ecological damage. In the real estate industry, by adopting green building design and energy-saving and emission reduction technologies, energy consumption and pollutant emissions can be reduced, and the adverse impact on the environment can be reduced.

2.2 Sustainable development

The low carbon model of real estate economic management innovation is closely related to the theory of sustainable development. The theory of sustainable development emphasises the balance and coordination of the economy, society and the environment. In the real estate industry, the low-carbon model achieves a win-win situation in terms of economic and environmental benefits by reducing carbon emissions and resource consumption. At the same time, the low-carbon model also focuses on social responsibility and improving the quality of life and comfort of residents.

2.3 Green Building

Green building theory is an important theoretical basis for the innovation of real estate economic management under the low-carbon model. Green building emphasises on minimising the negative impact on the environment during the design, construction and operation process. Through the use of environmentally friendly materials, energy-efficient equipment and renewable energy, green buildings can achieve efficient use of energy and reduce carbon emissions. At the same time, green buildings also focus on the comfort and health of the indoor environment to improve the quality of life of residents.

2.4 Energy conservation and emission reduction

The theory of energy conservation and emission reduction is the key theoretical basis for the innovation of real estate economic management under the low carbon model. Energy conservation and emission reduction emphasise the reduction of energy consumption and carbon emissions through technical means and management measures. In the real estate industry, the goal of energy saving and emission reduction can be achieved by optimising building design, improving equipment efficiency and enhancing energy management.

2.5 Low carbon economy

The theory of low carbon economy proposes a feasible path to achieve economic growth and environmental protection by reducing carbon emissions and energy consumption. The innovation model of real estate economic management under the low-carbon model is based on the concept of low-carbon economy, and promotes the sustainable development of the real estate industry by introducing low-carbon technologies and management tools.

3. Influencing factors of the innovation model of real estate economic management under the low-carbon model

3.1 Policy support

The government's policy support is crucial to the innovation of real estate economic management under the low-carbon model. The government can provide economic incentives and financial support through the introduction of relevant regulations and policies to guarantee

the implementation of the low-carbon model by enterprises. The government can also promote the application of low-carbon buildings and energy-saving and emission-reducing technologies by setting up low-carbon standards and certification mechanisms. For example, the government rewarded the earliest assembled buildings in Beijing with lower requirements for pre-sale certificates for commercial properties.

3.2 Technological innovation

Technological innovation is an important driver of innovation in real estate economic management under the low-carbon model. The introduction of new green building technologies, energy-saving and emission-reducing equipment and intelligent management systems can improve the energy use efficiency and environmental performance of real estate enterprises. At the same time, technological innovation can also reduce the cost of low-carbon buildings and improve market competitiveness.

3.3 Market demand

Market demand is an important factor driving innovation in real estate economic management under the low-carbon model. As public concern for environmental protection and sustainable development increases, the demand for green buildings and low-carbon products is also increasing. Real estate enterprises need to adjust their business strategies according to market demand and introduce products and services that meet the low-carbon model to satisfy consumers' needs.

3.4 Corporate Awareness and Sense of Responsibility

The awareness and sense of responsibility of enterprises play an important role in the innovation of real estate economic management in the low-carbon mode. Enterprises need to establish an awareness of environmental protection and recognise the importance of low-carbon management to their sustainable development. At the same time, enterprises also need to assume social responsibility, actively promote the application of low-carbon models and cooperate with all parties to jointly promote low-carbon development.

3.5 Financial support

Financial support is a necessary condition for the innovation of real estate economic management under the low-carbon model. Banks and financial institutions can provide loans and financing support to reduce the financial pressure on enterprises to invest in low carbon buildings and energy saving and emission reduction projects. In addition, financial institutions can also incentivise enterprises to implement low-carbon models by developing green financial products and services.

4. Application strategies and practice cases of the innovation mode of real estate economic management under the low-carbon mode

4.1 Universal adoption of assembled buildings

The widespread adoption of assembled buildings is an important initiative to promote innovation in the construction industry. Assembled construction is a construction method in which building components are prefabricated in a factory and then transported to the site for assembly. Compared to traditional on-site construction, assembled buildings offer higher quality control, faster construction and lower resource consumption.

In order to popularise the adoption of assembled buildings, a number of approaches are needed. Firstly, the government can introduce policies and codes to encourage and support the adoption of assembled buildings. The government can provide tax incentives, subsidies and rewards to encourage developers, construction companies and individuals to adopt assembly building techniques. The government can also develop relevant standards and codes to ensure the quality and safety of assembled buildings.

The construction industry can strengthen the research, development and promotion of assembled buildings. Construction companies can invest more resources and manpower to carry out research, development and innovation in assembly building technology. At the same

time, construction companies can carry out publicity and promotion activities to popularise the advantages and value of assembled buildings to the market and consumers. The construction industry can also strengthen cooperation with related industries to improve the supply capacity and quality of materials and equipment for assembled buildings.

4.2 Energy conservation and emission reduction

Energy saving and emission reduction is an important strategy for economic management innovation in real estate under the low carbon model. This includes reducing energy consumption by improving building insulation, optimising heating, ventilation and air conditioning systems, and using energy-efficient equipment and lighting. At the same time, intelligent energy management systems are used to monitor and regulate energy use in real time and improve energy efficiency. For example, the Potsdamer Platz in Berlin, Germany, is a low-carbon building project that uses geothermal energy and solar energy for heating, which makes efficient use of energy and reduces carbon emissions through the use of underground energy and renewable energy.

4.3 Resource recycling

Another strategy for innovation in real estate economic management under the low-carbon model is resource recycling. This includes minimising waste generation during the building design and construction process, and separating, recycling and reusing waste. At the same time, reliance on finite resources is reduced through the use of renewable and sustainable materials. For example, the Greenland Huaqiang Plaza in Shenzhen, China, a low-carbon building project developed by a real estate company in collaboration with a research institute, has achieved a reduction in energy consumption and carbon emissions by separating, recycling and reusing waste.

4.4 Intelligent management

Intelligent management is one of the key strategies for economic management innovation in real estate under the low carbon model. This includes the introduction of information technology and intelligent systems to realise the monitoring and management of energy, water resources, indoor environment, etc. Through data analysis and intelligent decision-making, the optimal use of energy and the minimisation of carbon emissions can be achieved. For example, the Rockefeller Centre in New York, USA, has adopted an intelligent energy management system to monitor and control energy consumption, achieving optimal use of energy and reducing carbon emissions.

4.5 Community involvement

Community engagement is an important strategy for innovation in low carbon real estate economic management. This includes communicating and working with community residents to understand their needs and opinions, and increasing their environmental awareness and participation through community education and engagement activities. At the same time, working with communities to promote the implementation of low-carbon models to achieve sustainable community development. For example, the Tate Modern in London, UK, actively communicated with residents in the neighbourhood to understand their needs and opinions during the construction process, and disseminated the concept of environmental protection and sustainable development to the public through educational activities.

5. Conclusion

The application of innovative models of real estate economic management under the low-carbon model can promote the development of the real estate industry towards a more environmentally friendly and sustainable direction. Through government policy support, technological innovation and market demand, real estate companies and other relevant stakeholders can adopt a range of strategies to achieve innovation in real estate economic management under a low-carbon model. This will bring many benefits, including reduced carbon emissions, energy savings, improved indoor environmental quality and enhanced quality of life for residents. Only with the joint efforts of the government, enterprises and the community can real estate economic management innovation under the low-carbon model be fully promoted and applied to achieve the goal of sustainable development.

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