

Analysis and Prospect of High Quality Development Requirements for Green Buildings in China

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Abstract. At present, the whole world is facing the situation of increasing energy shortage and environmental deterioration. More and more people begin to pay attention to the protection of the ecological environment, and the concept of harmonious development between man and nature has gradually penetrated into the hearts of the people. Whether it is the consumption of resources or the destruction of the environment, it is closely related to the building. Therefore, the idea of "green building" emerged as the times require. This kind of building has obvious ecological environmental protection goals and means. Green building technology plays an important role in global energy saving, emission reduction, resource saving and environmental protection. In the green building market, governments, consumers, and developers are the main players in the green building market. Their attitudes towards green buildings and market behavior have profoundly affected the development and development direction of green buildings in China. From a practical perspective, the development of green buildings still faces many problems that need to be solved urgently. China's green buildings have already developed in quantity, and the next step will be qualitative improvement.

Introduction

At present, the world is facing multiple crises, such as the increasing shortage of energy, the increasingly serious pollution of the ecological environment and the dramatic increase of population. The situation of environmental deterioration is grim, so it is urgent for people to find a solution [1]. More and more people begin to pay attention to the protection of the ecological environment, and the concept of harmonious development between man and nature has gradually penetrated into the hearts of the people. How to balance economic development, resource development and environmental protection is an important problem to be solved urgently in this era. Whether it is the consumption of resources or the destruction of the environment, it is closely related to the building [2]. Therefore, the idea of "green building" emerged as the times require. This kind of building has obvious ecological environmental protection goals and means. China's economy is developing at a high speed, and the speed of urbanization in China is accelerating. In the future, China's large housing demand is still very strong [3]. The traditional extensive architectural development model has not adapted to the strategic requirements of China's sustainable development. In this context, transforming the urbanization development model and vigorously developing green buildings has become the only way for China's construction industry reform and development [4]. The development of the construction industry should contribute to the national economy and promote low-carbonization of the industry from multiple angles.

In the green building market, green building technology plays an important role in global energy conservation, resource conservation and environmental protection [5]. As the basic force to solve the crisis of sustainable development of buildings, the speed, breadth and depth of its development have achieved remarkable results [6]. In the past, housing was just a place to provide shelter for the people. Today, people have more environmental health and quality assurance needs for housing. In the green building market, governments, consumers, and developers are the main players in the green building market [7]. Their attitudes and market behaviors towards green buildings have a profound impact on the development status and direction of green buildings in China. Initially, green technology emerged as an individual without considering the impact of each other, and many

problems appeared in the actual application process [8]. For example, the distribution and configuration of multi-system superposition, the data acquisition of operation performance and so on. Despite the booming period of green building, the development of green building still faces many problems to be solved urgently from the practical level. China's green buildings have developed quantitatively, and the next step is to face qualitative improvement.

Constructing a Green and Harmonious Eco-city Area

Green building is closely related to residents' health and living environment, which mainly considers the environmental factors generated by the building. The development of green building is the extension of ecological economy. Eco-economy is to coordinate human living environment with natural ecological environment. In a sense, green building is the best harmonious mode between modern human life style and nature. Green building is a complex system, in addition to the characteristics of ordinary projects. It also has the characteristics of cross-specialty, multi-level, multi-stage and multi-objective. Building energy consumption is not only the energy consumption of the building production process, but also the operating energy consumption of the building consumption process. Promote green building technology innovation and promote energy-efficient buildings throughout the life cycle of the building. In order to meet the requirements of green building energy conservation and emission reduction, the goal of sustainable development of the construction industry can be achieved. Green buildings and healthy buildings are the cells of an eco-city and the basis for the city to remain resilient. Promoting the development of green buildings is to promote a greener and more harmonious development path for ecological urban areas.

Land has always been the carrier of the emergence, development and continuation of human civilization. Achieving its rational use has always been an important proposition to solve the survival and development of human society. If the economic development takes into account more social ecology. Then it will increase the cost of economic development and reduce the efficiency of economic development. In the process of market development of green buildings, whether it is the main body in the early, middle or late stages. Their marketing strategies and methods for the promotion of green buildings are ultimately aimed at the same subject, that is, consumers. Green building requires more and more automation and intelligence of the system [9]. It has the characteristics of complex system, huge volume and variable parameters. Make the building control system become the leading role in the operation.

The core of water-saving technology in green buildings is to improve water-saving rate and utilization of non-traditional water sources, while ensuring water safety of different water quality grades. The development and promotion of green building is the trend of development in the future, and the central and western regions must coordinate in the process of development. To avoid a series of follow-up development problems, bring regional polarization development to the development and progress of green buildings. The interrelationship of each stage is manifested in the fact that each phase begins at a time when the previous phase has not yet fully ended. In terms of space, the work content of each stage is different. The work in the previous phase is completed and the work in the next phase begins. In order to successfully complete the technology, strengthen the communication between the participants, and start work early, each stage also has a certain overlapping relationship in space. The temporal relationship between the various stages of green building technology is shown in Figure 1.

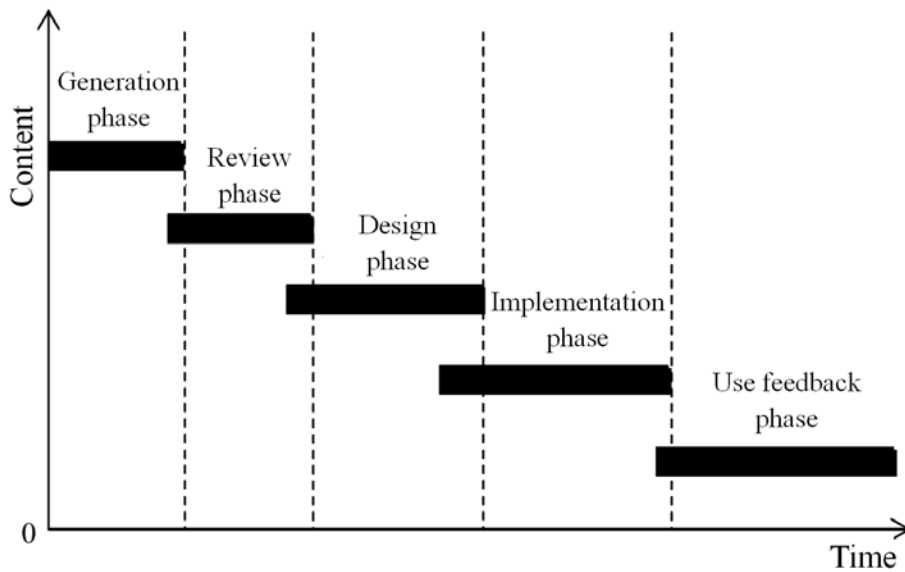


Fig. 1 The temporal relationship between the various stages of green building technology

The life process of green building technology development refers to the whole process of technology production, circulation and consumption. The value of technology is realized through the operation of its life process. The development and promotion of green buildings need a healthy market atmosphere. At present, the development market atmosphere of green buildings in China is poor, and a complete development system has not yet been formed. Many enterprises develop green buildings only to get financial incentives after declaration, as a marketing gimmick. When a large number of indicators are used in buildings that consumers do not agree with. Because of the principle of maximizing their own benefits, consumers will not pay for it. This is also the main reason for the growing contradiction between developers and consumers in the market. At present, research on the development of green building technology is less likely to be carried out for the entire life cycle. The development of the green building industry has gradually entered a deformed shape, making the development of green buildings seem to be only a competition for enterprise resources. In the process of green building technology development, people often only care about the final result of technology, while ignoring the other stages of technology.

Problems in the Development of Green Building

With the maturity of the market economy and the needs of social development, the development direction of green buildings has gradually shifted from the first public buildings to residential buildings. Although green buildings have ushered in a period of vigorous development, from a practical perspective, the development of green buildings still faces many problems that need to be solved urgently. If the technical indicators of green buildings in the market are not recognized by consumers, the function of green buildings will not meet the needs of consumers or there will be a large amount of excess functions [10]. These green buildings cannot be digested by the demand side, resulting in the market not being able to continue to develop. Because the indicators of green building have their own classification standards in the minds of consumers. As a result, some indicators are easily favored by consumers, while others are not recognized by consumers. At present, the actual development of our country mainly focuses on the development and construction of new green building projects, while the green transformation projects of existing buildings are rarely carried out. The development of green building can not be achieved overnight or by a few enterprises alone. It needs a complete legal system to adapt to the rules in order to play its role effectively.

The generation stage of green building technology is the stage of conceiving and nurturing green building technology. Technology began at this stage. The main work is about the preliminary idea of green building technology and the production of technology prototype. Design logo management project is not scientific and accurate, which brings great constraints to market

development. Make its logo difficult to play its due role, and even cause market chaos. Technology embryo is the preliminary exclusion of various ideas of technology. The idea of initial formation of technology is based on personal subjective experience. Then the technology produced by the prototype is more realistic and scientific. From the beginning of the popularization stage, China's green buildings have gradually moved towards quality maturity, and have long been famous internationally. This marks the correctness of China's concept of adhering to sustainable development and building a beautiful ecological city. The development of green buildings should be based on evaluation criteria. Local governments need to propose corresponding countermeasures for the development of green buildings based on local local characteristics. As far as the current situation is concerned, local governments have not yet implemented a comprehensive implementation system for green building standards.

The behavior recognition system collects the user's building environment preference data and behavior law data through the fuzzy calculation of the building intelligent control system. The current new era is an era of green development. This era background is an extremely important opportunity for companies that are deeply involved in green businesses. The specific process can be shown in Figure 2. Firstly, the minimum spanning tree is obtained, then the loop is controlled according to the condition, and the edge with the largest weight is partitioned. If two clusters are needed, only one of the longest edges needs to be cut off.

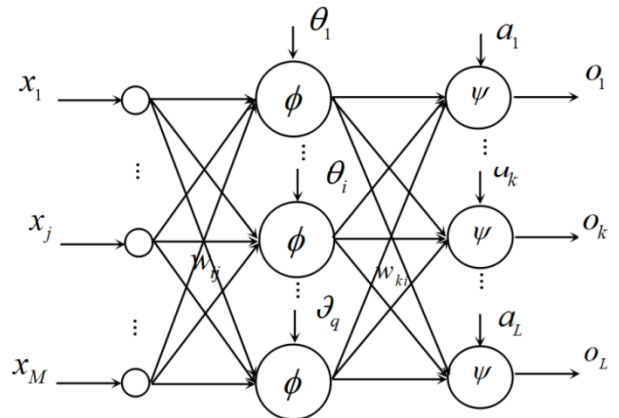


Fig. 2 Spanning tree process

Green building developers' decisions are guided by maximizing their own interests. As a result, some functions of buildings on the green building market cannot meet consumer requirements. The green building technology review phase is aimed at screening the technology left over from the previous phase. In the actual sense, it will be further analyzed and researched. The main result is the research feasibility report of technical feasibility. As far as the green building market is concerned, the central government formulates relevant policies, regulations and national standards according to our national conditions, and the local government should respond positively to the call of the central government. Building is a major energy consumer, and its impact on the environment can not be ignored. To formulate relevant development plans and policies and measures at the national level, top-level design should be carried out first. Put forward scientific, feasible direction and reasonable development goal. At the same time, according to the development situation, timely adjustment of the supporting system to ensure that less detours, which has played a very good guiding role.

Conclusion

Green building is still in the early stage of development in China, and it is a new concept for the construction industry. Compared with traditional buildings, green buildings have obvious differences in technical use. As a traditional industry with a long history, energy consumption and waste discharge can not be ignored. Among these consumption and emission, a considerable part is due to the unreasonable design, construction and use process. This paper summarizes and analyses the research progress of green building, and studies the connotation, technology development and integration of green building. In view of the lack of consideration of user factors in existing

research, a green building strategy based on users is proposed. In the green building market, there are many stakeholders. The government should give full play to its role as a market regulator to achieve a balance of interests and a rational allocation of resources. The research on the development of green building technology is a systematic project involving a wide range of multidisciplinary theoretical support and multi-angle analysis. The industrialization of green building technology is an important part of its development. It is of great significance for the research of industrial development and the research of green building technology market.

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