

DEVELOPMENT OF GREEN BUILDING AND ECONOMIC STRATEGY

Urunbaev Saparbek Samatovich

Senior Lecturer Tashkent University of Architecture and Construction

Abstract

The article discusses provides information on the benefits of green building construction, construction-related savings including increased employee productivity, reduced health and safety costs, and savings on energy, maintenance and operating costs.

Keywords: economy, sustainability, green buildings, green construction, climate change, green building strategy, energy, efficiency.

Introduction

Nowadays, the environment and construction are closely related to each other, and public awareness of "Green Economy" and "Green Building" has increased dramatically in the last five years. This shows how real estate can play a role in protecting the environment. For example, buildings and related construction activities account for nearly a third of global greenhouse gas emissions.

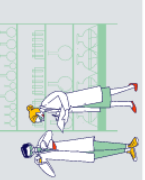
This article begins by discussing the benefits of green building construction.

Meanwhile, the European Union's "EU Generation Fund" is helping to revive construction in Western Europe, with the construction sector expected to expand by 7.9 percent in 2023, according to growth forecasts. Italy benefits from more than 196 billion euros in construction projects, and 48% of this is spent on the development of buildings and related construction activities. For example, 68.9 billion euros are earmarked for ecological transition, and 40 percent of this amount (29.3 billion euros) is intended for energy efficiency and modernization of existing buildings. It is committed to reduce CO2 emissions by 55% by 2030, and to 0 by 2050.

It would be safe to say that the countries of the developed world are competing with each other to develop their industrial economy. This is undoubtedly the cause of climate change, one of the biggest problems for humanity at the moment. Europe alone recycles 30% of the world's construction industry waste and 40% of greenhouse gas emissions.

Analyzes of the ongoing public policies to mitigate the effects of climate change show that the development of green building projects creates great opportunities for reducing greenhouse gas emissions. As a result, construction can have a major impact on alternative energy use.

The relevance of energy efficiency in buildings is expected to increase in the next ten years in industrialized countries and in countries where urban population growth is developing.



The economic strategy of green building allows achieving economic efficiency by meeting the population's demand for affordable housing, improving the health and safety of users of green buildings, and reducing energy, maintenance and operating costs.

Energy, water, maintenance, repairs and other external costs are often cheaper in sustainable buildings. These savings are not necessarily offset by higher initial costs.

Although green buildings are slightly more expensive to construct than non-green buildings, their lower operating and maintenance costs make them significantly more cost-effective in the long run. This means it can save money for property owners and users. They can also be leased at a lower cost than non-green buildings, with costs offset by tenants using less energy, water and heating.

Analysis of literature on the topic

Therefore, the green buildings under construction are aimed at reducing the overall impact of construction on human health and the natural environment and efficient use of energy, water and other resources.

New facilities designed according to the principles of green building. Heerwagen (2001) found significant increases in productivity. As a result, it can be seen that the workers' "General feeling towards the environment" has increased by 60 percent.

As Kats (2003) notes, various research findings on "Green Building" show significant effectiveness in the commercial and educational sectors.

Wyon (1996) estimates that providing workers with +3°C temperature control in buildings increases work efficiency by 3-7 percent.

Fisk (2002) estimates that health problems are one of the main causes of productivity decline. For example, allergies, lack of sleep, feeling tired.

Absences due to health problems are referred to in the literature as "sick leaves", meaning that employees are absent or need to leave work early due to a specific health problem. Research shows that sick leave is one of the main sources of productivity.

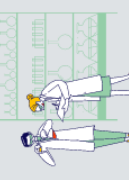
Since people spend an average of 80-90 percent of their time in buildings, it is one of the main factors to ensure high indoor air quality in green buildings. Based on research by World Factors, indoor air pollutant concentrations and high ventilation rates can increase by 8 percent in green buildings.

Many key business sectors, such as developers, bankers and appraisers, seek to understand and use green building performance in a systematic and monetary manner.

World experience shows that in the future it is more expensive to rent green buildings. MAACTRICHT University researchers found that energy star buildings attract three percent higher rates compared to leases of green buildings, including non-green buildings.

Research Methodology

Logical comparison, generalization, scientific observation, systematic approach, statistical and comparative analysis methods were used in the research process. Correlation and regression



methods were also used to evaluate the influence of various factors on the economic development of green construction.

Although several industry and research groups have attempted to quantify it, the long-term relationship between the first benefits and costs added in construction needs to be analyzed in greater depth. A favorable business environment and time are required to participate in this study.

For this reason, the benefits of green building construction are that in the construction economy, increased employee productivity, reduced health and safety costs, and savings in energy, maintenance and operating costs can provide significant short-term benefits to the future value of real estate assets. This has a positive effect on the investment income of business representatives interested in construction.

Analysis and Results

Summarizing the research carried out in foreign countries, it can be noted that now mandatory and regulatory old building regulations, laws that constitute inefficient construction and construction processes with a high negative impact on the environment are becoming more and more evident in countries and cities around the world. Therefore, research shows that one of the main strategies for the development of green buildings is to increase the positive impact on the environment by encouraging biodiversity in the production of green buildings. More specifically, green building strategies are those that produce energy-efficient housing and make the most of existing infrastructure while minimizing the impact of development on the environment and improving human health, safety and well-being strategy. Today, the use of raw materials and energy in the construction and operation of buildings accounts for approximately 40 percent of global consumption.

Summary

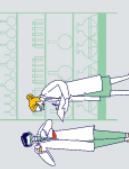
The concept of green economy is an important factor of modern world development aimed at maintaining stability and natural resources.

First, the development of green construction implies the transition to the use of energy-efficient technologies, reducing the release of harmful substances into the atmosphere and water resources, as well as increasing the efficiency of the use of natural resources.

Reducing the release of harmful substances into the atmosphere and water resources is also an important direction of the green economy. This is achieved through the implementation of clean technologies and processes, as well as strict control of emissions and pollution of water and air systems.

In our republic of green construction, increasing the efficiency of using water, energy or natural resources at the scale of a green building or a green city is also important. This can be achieved by introducing technologies and methods aimed at increasing the efficiency of resource use and reducing their consumption.

Second, green building helps spur innovation in clean technologies and infrastructure, which in turn helps create new jobs and grow the economy.



Green technology innovations include the development and implementation of energy-saving devices, the improvement of waste management systems, the development of environmentally friendly materials, and many other aspects. These innovations not only help reduce our environmental impact, but also create new markets and business opportunities.

In addition, the development of green building serves to create new jobs in the green technology sector and related industries. This includes the design, manufacture, installation, maintenance and management of green technologies and infrastructure.

Third, this concept includes a revision of construction and production models with respect to sustainability and environmental responsibility, which is a key element in preserving natural resources for future generations.

We believe that an important aspect of green building construction is that it also creates opportunities to change old building codes that mandate and regulate, laws that create inefficient construction, and construction processes that have a high negative impact on the environment.

The results of various researches on "Green building" in the fields of education, the organization of lessons on the topics of "Sustainable development and green building" creates a foundation for the formation and development of green construction skills and concepts in students.

Green building is an important step towards the development, construction and organization of sustainable and environmentally friendly buildings. However, the advantages of green building construction are that in the construction economy, increased employee productivity, reduced health and safety costs, and savings in energy, maintenance and operating costs contribute to a significant reduction in the future value of real estate assets, but also new markets and it also creates business opportunities. Only then it is possible to preserve natural resources and ensure the well-being of future generations.

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