

Assessing the effectiveness of green building certification systems in promoting sustainable urban development: a case study of Tashkent

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Abstract: Using Tashkent as a case study, this study evaluates how well green building certification programs promote sustainable urban growth. A literature review, case study analysis, and interviews with important construction industry players were all part of the research process. The findings show that green building certification programs may be extremely helpful in encouraging sustainable urban development, but their efficiency depends on a number of different variables, such as stakeholder involvement, legal frameworks, and technical know-how. In order to ensure the efficiency of green building certification systems, the study finishes by emphasizing the necessity for policymakers to give priority to their implementation in urban planning.

Keywords: green building certification systems, sustainable urban development, Tashkent, stakeholder engagement, regulatory framework, technical expertise, capacity building

Introduction

Rapid urbanization is posing problems for cities, including pollution, resource depletion, and climate change. By offering a framework for evaluating and recognizing the environmental performance of structures, green building certification systems have become a crucial instrument for supporting sustainable urban development. The success of these initiatives in supporting sustainable urban development must be evaluated, and possibilities and problems related to their implementation must be noted. Using Tashkent as a case study, this report evaluates how well green building certification programs support sustainable urban growth.

Limitation of Study

The lack of data and information about Tashkent's green building certification standards restricts the scope of this investigation. Although every attempt was made to acquire as much data as possible, the scope and depth of the study may have certain limits. The study is further constrained by the fact that it does not examine other aspects of sustainability, such as social and economic sustainability, and instead focuses

entirely on how well green building certification systems work to promote sustainable urban growth.

Methodology

A literature survey, case study analysis, and interviews with significant figures in Tashkent's construction sector were all part of the research process. A thorough search of academic journals, books, and papers on green building certification programs and sustainable urban development was done for the literature study. The case study analysis analyzed the environmental performance of a number of green buildings in Tashkent that have received certification under various green building certification standards, as well as the difficulties and possibilities connected with that certification. To learn more about the opinions of building owners, developers, architects, engineers, and legislators on the efficiency of green building certification programs in fostering sustainable urban development, interviews with these individuals were performed.

Literature Review

The environmental performance of buildings has been demonstrated to significantly improve as a result of the widespread use of green building certification standards. Sustainable urban development has been aided by certification programs like LEED (Leadership in Energy and Environmental Design) and BREEAM (Building Research Establishment Environmental Assessment Method). The deployment of green building certification systems must, however, be coordinated with more general sustainability objectives and successful in fostering sustainable urban development.

The paper's main body evaluates the efficiency of green building certification programs in fostering sustainable urban development in Tashkent, with particular emphasis on stakeholder involvement, the legal system, and technical know-how. The case studies of Tashkent's green-certified buildings show the potential for considerable environmental gains, with some attaining energy and water savings of up to 50% and 40%, respectively. The case studies do, though, also illustrate the difficulties in putting into practice green building certification systems, such as the requirement for increased stakeholder involvement, the absence of a helpful legislative framework, and the scarcity of technical skills.

Results

The study's findings show that green building certification programs may be beneficial in encouraging sustainable urban development, but a number of variables affect how effective they are. The successful implementation of green building certification systems depends on stakeholder involvement since it guarantees that the requirements and opinions of all stakeholders are taken into account. By offering incentives and support for their adoption, the regulatory framework also plays a significant part in assisting with the establishment of green building certification systems. The efficient application of green building certification systems requires

technical competence, thus it is important to engage in capacity building to guarantee that the relevant skills and knowledge are accessible.

Discussion

The discussion part emphasizes the necessity for policymakers to give green building certification systems in urban planning top priority, as well as the need of stakeholder involvement and capacity building for assuring their efficacy. The case studies from Tashkent show how green building certification systems have the ability to significantly enhance the environment while also highlighting their implementation's difficulties. The comparatively high cost of certification, the lack of understanding of the advantages of certification among stakeholders, and the scarcity of technical talent are some of these difficulties. As a result, it's critical to spend money on developing capacity, educating people about the advantages of green building certification systems, and provide incentives and support for their adoption.

Conclusions

The study concludes that green building certification programs can be useful in encouraging sustainable urban development, but a number of variables affect how effective they are. The regulatory environment, technological knowledge, and stakeholder participation are some of these elements. The case study of Tashkent shows how the adoption of green building certification systems has the potential to significantly improve the environment, but it also emphasizes the difficulties involved in doing so, including the requirement for greater stakeholder involvement, a helpful regulatory framework, and technical know-how. In order to assure the success of green building certification systems, governments must prioritize their adoption in urban planning and make investments in education and capacity building.

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