

Enhancing Environmental Efficiency in Administrative Spaces and its Relation with Energy According to Green Pyramid System GPRS - Bibliotheca Alexandria Case Study -

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Abstract:

Environmental sustainability standards play an important role in raising the level of building performance and providing a better human life. Sustainability is a response to environmental degradation and lack of resources. Many bodies and organizations have emerged that are working on evaluating green buildings to ensure ecological compatibility. The systems of assessing green buildings differed among themselves depending on the different conditions of each country, and despite the various climatic factors, they are similar in the goals and strategies followed in the sustainability of green construction. The commitment to the application of these standards helps to improve the efficiency of the internal design performance of the administrative building. The BA building has been analyzed and seeks to achieve a balance between performance, environment, and resources.

The search problem:

The omission of some designers in Egypt of Environmental Strategies and ways to rationalize energy consumption in administrative spaces

The importance of research: the study of strategies to achieve environmental efficiency in interior design.

The aim of the research: is to know the mechanisms and considerations of achieving comfort of all three types. Research assumptions: The eco-comfort system can be achieved by improving energy efficiency.

Search parameters The search limits are: Objective limits: studying environmental standards and analyzing their elements and their impact on energy consumption in administrative spaces. Temporal and spatial boundaries: analysis and evaluation of the Bibliotheca Alexandrina building in the current period.

Research methodology: The research methodology focuses on the descriptive and analytical approach through the following:

- Studying the impact of architectural formation in achieving the environmental comfort system and the factors affecting energy consumption.
- Analysis and evaluation of the elements and determinants of the green pyramid evaluation system at the Bibliotheca Alexandrina building.

Results:

- Architectural formation affects the quality of the internal environment and the achievement of human comfort.
- The ideal working environment contributes to raising the performance and efficiency of employees within the organization and raising their productivity level.

Recommendations:

- The need to pay attention to environmental sustainability strategies, as they work to mitigate environmental pollution caused by human activities.
- Preservation of ecosystems, knowledge of various climatic factors, and the use of energy-saving devices to reduce energy consumption while achieving human needs.

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