

**EVALUATION OF GREEN DESIGN STRATEGIES IN THE DESIGN  
OF A SHOPPING MALL IN OGUN STATE, NIGERIA**

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**JULY 2023**

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**BY**

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE  
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THE AWARD OF THE MASTER OF SCIENCE (M.SC.) DEGREE IN  
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COLLEGE OF SCIENCE AND TECHNOLOGY, COVENANT  
UNIVERSITY, OTA, OGUN STATE, NIGERIA**

**JULY 2023**

## **ACCEPTANCE**

This is to attest that this dissertation is accepted in partial fulfilment of the requirements for the award of the degree of Master of Science (M.Sc.) Degree in the Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun State, Nigeria.

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**Signature and Date**

## **DECLARATION**

**I, EKUNDAYO, PEACE ADEDOLAPO (17CA022928)** declare that this dissertation was carried out by me under the supervisor of Dr. Abraham O. Owoseni, in the Department of Architecture, Covenant University, Ota, Ogun State, Nigeria. This research work has not been presented, either wholly or partly, for any degree elsewhere before now. All sources of scholarly information used in this research work were duly acknowledged.

**EKUNDAYO, PEACE ADEDOLAPO**

**Signature and Date**

## **CERTIFICATION**

This is to certify that this dissertation titled “**EVALUATION OF GREEN DESIGN STRATEGIES IN THE DESIGN OF A SHOPPING MALL IN OGUN STATE, NIGERIA**” is an original research work carried out by **EKUNDAYO, PEACE ADEDOLAPO (17CA022928)** in the Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun State, Nigeria under the supervision of Dr. Abraham O. Owoseni. This dissertation has met the required standard for the award of Master of Science (M.Sc) in Architecture.

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**Signature and Date**

## **DEDICATION**

I express my gratitude to God for His grace and the chance to successfully finish this research project. Additionally, I extend my dedication of this project to my family, who have consistently showered me with their unwavering love and support.

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## **LIST OF ABBREVIATIONS**

BEEC	Building Energy Efficiency Code
BREEAM	Building Research Establishment Environmental Assessment Method
CASBEE	Comprehensive Assessment System for Built Environment Efficiency
GB	Green Building
IAQ	Indoor Air Quality
IEQ	Indoor Environmental Quality
LEED	Leadership in Energy and Environment Design
REIT	Real Estate Investment Trust
SBIC	Sustainable Building Industry Council
USGBC	United States Green Building Council
WBDG	Whole Building Design Guide

## **ABSTRACT**

Green building serves as the cornerstone of sustainable progress in the field of construction and is widely regarded as an indispensable requirement within the industry. This study evaluated green building strategies and its effectiveness towards improving environmental sustainability in the design of a sustainable shopping mall in Ogun State, Nigeria. There are standard strategies and principles to be adopted in order to design a green building. These strategies had been applied to several building typologies such as hotels and museums. However, there was a dearth of studies examining the degree to which green design strategies were put into practice in shopping malls. In order to accomplish the aim of this study, a qualitative research methodology was employed. A structured observation and interview guide were used to gather data for this study. It was discovered from observing the green design strategies implemented in the shopping malls that most shopping malls did not completely meet the standards. It was deduced from the interviews that architects had a good knowledge of the concept of green building and its strategies but hardly implement these strategies in their building designs because of a wide range of factors. Several factors contributing to this included the limited implementation of green design practices in Nigeria and the considerable upfront expenses associated with designing and constructing environmentally friendly buildings. To address these issues, this study suggests the establishment of policies and regulations aimed at promoting the adoption of green design strategies, as well as the enhancement of public awareness regarding the advantages of such approaches.

***Keywords: Energy Efficiency, Environmental Sustainability, Green Building, Shopping Mall, Sustainable Development.***