



FIG Working Week 2024

19-24 May

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Presented at the FIG Working Week 2024,
19-24 May 2024 in Accra, Ghana

TS02H: Smart Construction Approaches for Sustainable Development

Monday, 20 May 11:45–13:15
Damba 1
Chair: Bolaji Sotunde
Rapporteur: Gabriel Nani
Commissions: 10

Presenters:
Camele, D. et al. (12638)
Wiribare, E. (12616)
Nortey, P. (12424)
Akabudike, P. (12496)
Sarib, R. (12719)



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ESSENTIALS FOR GREEN BUILDING ADOPTION IN GHANA

SDG 11: Sustainable Cities and Communities

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INTRODUCTION

For sustainable development on a global scale, green building (GB) methods and practices are being used (Zhang, Wu and Liu, 2018).

Green building technology (GBT) adoption, however, is languishing in developing nations including Ghana (Djokoto, Dadzie and Ohemeng-Ababio, 2014).

Utilizing and promoting green building technology is essential in the construction sector (Huang et al., 2018)

As a result, identifying strategies to promote and implement GB is necessary.

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AIMS AND OBJECTIVES

The purpose of this research is to identify and analyze the promotion and implementation strategies for the adoption of green buildings in the Ghanaian construction industry

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LITERATURE REVIEW

Reduction of the Ghanaian building industry's environmental impact is deemed inadequate.

Rapid urbanization and population increase have a negative impact on Ghana's environmental efficiency (Ahmed, Hatira and Valva, 2014).

The building industry is embracing the sustainable development due to these environmental concerns.

Adoption of GBTs has been slow therefore, strategies must be expanded in developing countries to promote and implement GBs (Darko and Chan, 2018).

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LITERATURE REVIEW

Promotion strategies are essential for creating awareness and increasing the popularity of the GB concept.

Implementation strategies ensure the successful application and ongoing use of the GB concept

Identified promotion strategies take many forms which include: financial, regulatory, training, awareness, collaborations, etc.

Identified implementation strategies take many forms which include: regulatory, integrated design, awareness, certification, etc.

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METHODOLOGY

The population comprised of experts in GB practices in Ghana.

Strategies found during literature review was used to formulate a questionnaire for data collection

The strategies were ranked in descending order of importance using the mean score analysis.

Data validity was also ensured

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FINDINGS

Implementation Strategies	N	Std. Deviation	Mean	Ranking
Increasing knowledge and awareness to clients and the public	133	.712	4.44	1 st
Improving marketability of green suppliers	133	.769	4.35	2 nd
Developing green building rating systems	133	.691	4.32	3 rd
Using an integrated design approach in early phases to lower costs	133	.711	4.32	4 th
Promoting and rewarding green building practices publicly	133	.799	4.31	5 th
Provision of market incentives such as financial and preferential interest rates	133	.736	4.29	6 th
Creation of green building legislation and policies	133	.799	4.24	7 th

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FINDINGS

“Increasing environmental awareness among stakeholders” is the most effective strategy in promoting the adoption of GB in Ghana.

“Providing stakeholders with green technology education and training“ is also very necessary to make them acquainted in their applications to projects.

For the continuous use and adoption of GB in Ghana, “Increasing knowledge and awareness to clients and the public” is most effective.

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CONCLUSION

The success of green buildings in the Ghanaian construction industry depends on a variety of factors, including those that can be attributed to the government, clients, suppliers, researchers, financing institutions, designers and engineers, and professional bodies.





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SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals

Commission # 10

Commission's name: **CONSTRUCTION ECONOMICS AND MANAGEMENT**

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