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PRINCIPLES OF SUSTAINABLE DEVELOPMENT IN CONSTRUCTION CONTRACT LAW

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ABSTRACT

The construction sector plays a pivotal role in sustainable development, as the built environment significantly impacts environmental, social, and economic sustainability. This research employs a normative approach to investigate the integration of sustainable development principles, particularly social sustainability, into the procurement and delivery of public construction contracts. The construction industry has been slow to adopt sustainable practices, despite the growing recognition of the need for a more comprehensive approach to sustainability. To address this gap, this study examines the current state of social sustainability in public construction procurement and identifies the key drivers and barriers to its implementation. The findings suggest that while numerous countries have implemented policies to promote the integration of social principles in public procurement, the construction industry continues to lag behind other sectors in adopting sustainable practices. The construction sector is a crucial component of sustainable development, as it plays a pivotal role in shaping the built environment, which has significant implications for environmental, social, and economic sustainability.

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INTRODUCTION

The construction industry significantly contributes to environmental degradation, resource depletion, and social inequalities (Okoye et al., 2020). In response, sustainable construction has emerged as a prominent concept, emphasizing the need to balance economic, environmental, and social considerations in construction projects. Sustainable construction adopts a holistic approach that aims to minimize the adverse impacts of the built environment and promote the well-being of both present and future generations. A critical component of sustainable construction is social sustainability, which focuses on ensuring that the construction process and its outcomes benefit local communities, promote social equity, and enhance overall quality of life (Durdyev et al., 2018).

Sustainable construction encompasses a wide range of multifaceted strategies and practices. While developed countries have made progress in implementing sustainable construction principles, developing nations are still in the early stages of adoption. This study investigates the integration of social sustainability principles into the procurement and delivery of public construction contracts, particularly examining the drivers and barriers to implementation. In recent years, the construction industry in developing countries has faced growing pressure to adopt sustainable construction practices, as these nations grapple with the detrimental environmental and social impacts of rapid urbanization and infrastructure development. The construction sector is a crucial component of sustainable development, given its pivotal role in shaping the built environment, which has significant implications for environmental, social, and economic sustainability.

LITERATURE REVIEW

The concept of sustainable development has gained widespread recognition and importance since the 1980s, with the construction industry playing a crucial and central role in its implementation and practical application across the built environment. The construction sector has been a key driver in advancing sustainable development principles and practices, as the built environment significantly impacts environmental, social, and economic sustainability globally (Plessis, 2007).

Sustainable construction is a holistic approach that aims to minimize the adverse impacts of the built environment and promote the well-being of present and future generations. This approach encompasses a range of strategies and practices, including efficient resource utilization, reducing environmental impacts, and enhancing social equity and community well-being (Son et al., 2009). Despite the growing recognition of the need for a more comprehensive approach to sustainability, the construction industry has been relatively slow in adopting sustainable construction practices compared to other sectors (Montalbán-Domingo et al., 2018). Public procurement is a critical lever for driving sustainable construction practices, as governments can use their purchasing power to influence the construction industry and promote the integration of sustainability principles into the procurement and delivery of construction projects (Lingegård et al., 2021).

Social sustainability is a critical component of sustainable construction, focusing on ensuring that the construction process and its outcomes benefit local communities, promote social equity, and enhance overall quality of life. While developed countries have made progress in implementing sustainable construction principles, particularly in the areas of environmental sustainability and efficient resource utilization (Zhao & Ye, 2019), the adoption of social sustainability principles in construction remains a significant challenge, especially in developing nations (Ohiomah et al., 2019).

The construction industry in developing countries has faced growing pressure to adopt sustainable construction practices, as these nations grapple with the detrimental environmental and social impacts of rapid urbanization and infrastructure development. Sustainable construction is a holistic and integrative concept that aims to restore harmony and balance between the environment, economy, and society (Mutizwa-Mangiza, 2010). Agenda 21 for Sustainable Construction in Developing Countries sets early directions for different countries to implement sustainable construction strategies and drive research and development initiatives (Pocock et al., 2016).

METHOD

This study employed a qualitative, normative research approach to investigate the integration of social sustainability principles into public construction procurement in developing countries (El-Sayegh et al., 2020). It primarily relied on a comprehensive literature review of academic sources and policy documents to analyze the current state of social sustainability integration within the construction industry, with a particular focus on public procurement practices.

The literature review examined the key drivers and barriers to the implementation of social sustainability in construction, as well as the potential benefits and challenges associated with incorporating social sustainability principles into the procurement and delivery of public construction projects (Lou et al., 2023).

The findings reveal that while the construction industry in developing countries is slowly recognizing the importance of social sustainability, there are still significant barriers hindering its widespread adoption. The results of this study contribute to the growing body of knowledge on integrating social sustainability principles into the construction industry, particularly within the context of public procurement in developing countries (Yu et al., 2019).

RESULT AND DISCUSSION

The literature review revealed several key factors that influence the integration of social sustainability principles into the procurement and delivery of public construction projects in developing countries (Monyane & Awuzie, 2019). While sustainable construction has gained prominence in recent years, the incorporation of social sustainability into public construction initiatives remains a significant challenge, particularly in developing nations. The construction industry in these contexts is still in the early stages of adopting sustainable construction practices, with a greater emphasis on technical and environmental aspects rather than the economic and social dimensions of sustainability (Sev, 2008). The literature highlights several key drivers that have motivated the adoption of sustainable construction practices, including:

1. There is growing awareness and concern among government officials, industry stakeholders, and local communities about the environmental and social impacts of construction projects (Kamaruddin et al., 2020). International organizations and development banks have pressured for the integration of sustainable development principles into infrastructure projects. Governments are also motivated to address pressing social challenges like poverty, inequality, and social exclusion through strategic public procurement (Nassiry et al., 2023). Additionally, sustainable construction can create economic opportunities like jobs, skills development, and local business participation, benefiting community well-being and socioeconomic development (Loosemore, 2015).
2. Sustainable construction projects possess the potential to generate positive social outcomes, such as job creation, skills development, and enhanced community engagement (Sodangi, 2018). These projects can offer employment opportunities and vocational training for local workers, empowering communities and improving their socioeconomic well-being. Additionally, the integration of community participation and input into the construction process can foster a sense of ownership and investment, leading to improved social cohesion and overall quality of life for those affected by the projects (Gonzalez et al., 2020). However, the literature also identifies several key barriers to the widespread adoption of social sustainability principles in the construction industry, particularly in the context of public procurement (Shen et al., 2009).
3. A key barrier is the widespread perception that sustainable construction, particularly with a focus on social sustainability, involves higher initial capital expenditure (Adetunji et al., 2003). Procurement entities and construction companies frequently prioritize minimizing immediate costs over the long-term social and environmental advantages of sustainable construction (Nasereddin & Price, 2021). This short-term orientation, coupled with constrained budgets and resources, often hinders the integration of social sustainability criteria into procurement procedures (Azis et al., 2012).
4. A key barrier is the lack of comprehensive policy frameworks, unambiguous definitions, and quantifiable performance metrics to enable the effective integration of social sustainability principles into public construction procurement processes (Larsen & Jensen, 2019). While some countries have enacted policies to promote social principles in public procurement, the construction industry continues to lag in this area (Troje, 2021). The literature emphasizes the necessity for well-developed policy structures, clear terminology, and measurable performance indicators to facilitate the integration of social sustainability considerations into construction procurement (Ruparathna & Hewage, 2015).
5. A key obstacle is the insufficient awareness, expertise, and capabilities within the industry regarding the implementation of social sustainability principles in construction projects (Gurmu et al., 2022). Many construction companies, procurement entities, and local communities often lack a deep understanding of the benefits and practical methods for incorporating social sustainability considerations into their operations and decision-making (Valdes-Vasquez & Klotz, 2012). Capacity-building, training, and knowledge-sharing initiatives are essential to overcome this challenge and facilitate the widespread adoption of social sustainability in the construction sector.

6. The initial capital expenditure associated with sustainable construction can present a considerable obstacle for developing nations with constrained budgets, particularly when addressing the urgent needs for affordable housing and essential infrastructure (Reddy, 2016). Surmounting these barriers and successfully incorporating social sustainability principles into public construction procurement necessitates a multifaceted approach, encompassing policy reforms, capacity development, and collaborative efforts among key stakeholders (Adabre et al., 2020).
7. Insufficient knowledge and capabilities among construction industry actors, such as policymakers, procurement officials, contractors, and the general public, regarding the advantages and practical application of social sustainability principles in construction projects (Shurrab et al., 2019).
8. Construction initiatives frequently adopt a fragmented approach, prioritizing environmental and economic aspects over the integration of social considerations throughout the project life cycle (Kordi et al., 2021). Additionally, the absence of standardized definitions, performance metrics, and evaluation frameworks impairs the effective measurement and monitoring of the social impacts of construction projects, thereby hindering the incorporation of these principles into procurement procedures. Furthermore, resistance to change and the persistence of traditional procurement practices that emphasize short-term cost minimization over long-term social and environmental benefits pose significant challenges (Zoest et al., 2019).

Inadequate regulatory frameworks, procurement policies, and enforcement mechanisms hinder the incentivization and mandating of social sustainability criteria in public construction contracts. To address these barriers and further integrate social sustainability into the construction industry in developing countries, the academic literature proposes several key strategies:

1. Comprehensive and enforceable policies, regulations, and guidelines that prioritize integrating social sustainability principles into public procurement and construction industry practices are crucial (Sfakianaki, 2018). Clear definitions, measurable performance indicators, and robust evaluation frameworks can enable effective implementation, monitoring, and assessment of social sustainability outcomes in construction projects. Targeted training and capacity-building to enhance awareness, knowledge, and capabilities of key stakeholders, including policymakers, procurement officials, construction companies, and local communities, on the benefits and best practices of social sustainability integration is essential (Ohene et al., 2019). Collaborative and inclusive approaches engaging diverse stakeholders, such as local communities, marginalized groups, and civil society organizations, in planning, implementation, and monitoring can help address their social needs and priorities. Providing incentives, like subsidies, tax credits, or preferential procurement policies, can encourage adopting social sustainability principles and mitigate the perceived higher initial costs of sustainable construction, fostering private-sector participation (Shan et al., 2017). Knowledge-sharing platforms and disseminating best practices, case studies, and lessons learned can enable cross-country and cross-industry learning, supporting

the widespread diffusion of social sustainability innovations in the construction sector (O'Connor et al., 2016).

2. Implement comprehensive capacity development and training initiatives to enhance the knowledge and capabilities of key construction industry stakeholders, such as policymakers, procurement officials, contractors, and local communities, regarding the practical application of social sustainability principles in construction projects (Goel et al., 2020).
3. Cultivate collaborative partnerships and inclusive stakeholder engagement to foster a shared comprehension and commitment to social sustainability principles across all construction industry actors (Rohman & Hidayat, 2019).
4. Implement financial incentives and procurement policies that incentivize construction firms to adopt social sustainability practices (Xia et al., 2018).
5. Continuously monitor and evaluate the social impacts of construction projects to enhance social sustainability practices and ensure equitable outcomes for all stakeholders involved (Wang et al., 2018).

CONCLUSION

The integration of social sustainability principles into construction procurement and industry practices in developing countries is impeded by several critical obstacles, including insufficient awareness, expertise, and capabilities among key stakeholders, the perceived higher upfront costs of sustainable construction, and the persistence of fragmented approaches prioritizing environmental and economic factors over social considerations. Addressing these challenges necessitates a multi-faceted strategy that combines robust policy frameworks, capacity building initiatives, collaborative stakeholder engagement, financial incentives, and rigorous monitoring and evaluation mechanisms. Concerted efforts to surmount these barriers and effectively mainstream social sustainability in the construction sector can contribute to more equitable, inclusive, and socially responsible infrastructure development, ultimately enhancing the long-term well-being of communities in developing countries.

REFERENCES

- Adabre, M. A., Chan, A. P., Darko, A., Osei-Kyei, R., Abidoye, R., & Adjei-Kumi, T. (2020). Critical barriers to sustainability attainment in affordable housing: International construction professionals' perspective. *Journal of Cleaner Production*, 253, 119995.
- Adetunji, I., Price, A., Fleming, P., & Kemp, P. (2003, December). Sustainability and the UK construction industry – a review. In *Proceedings of the Institution of Civil Engineers-Engineering Sustainability* (Vol. 156, No. 4, pp. 185-199). Thomas Telford Ltd.

- Azis, A. A. A., Memon, A. H., Rahman, I. A., Nagapan, S., & Latif, Q. B. A. I. (2012, September). Challenges faced by construction industry in accomplishing sustainability goals. In *2012 IEEE Symposium on Business, Engineering and Industrial Applications* (pp. 630-634). IEEE.
- Du Plessis, C. (2007). A strategic framework for sustainable construction in developing countries. *Construction management and economics*, 25(1), 67-76.
- Durdyev, S., Zavadskas, E. K., Thurnell, D., Banaitis, A., & Ihtiyar, A. (2018). Sustainable construction industry in Cambodia: Awareness, drivers and barriers. *Sustainability*, 10(2), 392.
- El-Sayegh, S. M., AbdRaboh, T., Elian, D., ElJarad, N., & Ahmad, Y. (2022). Developing a bi-parameter bidding model integrating price and sustainable construction practices. *International Journal of Construction Management*, 22(11), 2191-2198.
- Goel, A., Ganesh, L. S., & Kaur, A. (2020). Project management for social good: A conceptual framework and research agenda for socially sustainable construction project management. *International journal of managing projects in business*, 13(4), 695-726.
- González, D., Henríquez, B., & Sierra, L. (2020, May). Evaluation of the Social Sustainability of Infrastructure Projects: A Case Study of Urban Road Improvement in Southern Chile. In *IOP Conference Series: Earth and Environmental Science* (Vol. 503, No. 1, p. 012002). IOP Publishing.
- Gurmu, A., Shooshtarian, S., Mahmood, M. N., Hosseini, M. R., Shreshta, A., & Martek, I. (2022). The state of play regarding the social sustainability of the construction industry: A systematic review. *Journal of Housing and the Built Environment*, 37(2), 595-624.
- Kamaruddin, T., Hamid, R. A., & Abd Ghani, S. (2020, May). Social aspect implementation in sustainable construction. In *IOP conference series: materials science and engineering* (Vol. 849, No. 1, p. 012036). IOP Publishing.
- Kordi, N. E., Belayutham, S., & Che Ibrahim, C. K. I. (2021). Mapping of social sustainability attributes to stakeholders' involvement in construction project life cycle. *Construction management and economics*, 39(6), 513-532.
- Larsen, N. B., & Jensen, L. B. (2019). Current work on social sustainability in the built environment. In *IOP Conference Series: Earth and Environmental Science* (Vol. 225, No. 1, p. 012063). IOP Publishing.
- Lingegård, S., Olsson, J. A., Kadefors, A., & Uppenberg, S. (2021). Sustainable public procurement in large infrastructure projects – policy implementation for carbon emission reductions. *Sustainability*, 13(20), 11182.
- Loosemore, M. (2016). Social procurement in UK construction projects. *International journal of project management*, 34(2), 133-144.

- Lou, C. X., Natoli, R., Goodwin, D., Bok, B., Zhao, F., & Zhang, P. (2023). A systematic literature review of research on social procurement in the construction and infrastructure sector: barriers, enablers, and strategies. *Sustainability*, 15(17), 12964.
- Montalbán-Domingo, L., García-Segura, T., Amalia Sanz, M., & Pellicer, E. (2019). Social sustainability in delivery and procurement of public construction contracts. *Journal of management in engineering*, 35(2), 04018065.
- Monyane, T., & Awuzie, B. (2019). Incorporating Social sustainability dimensions into infrastructure delivery systems: A qualitative analysis of stakeholders' perspectives. *Sustainability: The Journal of Record*, 12(5), 259-269.
- Mutizwa-Mangiza, N. D. (2010). A new role for urban planning in developing sustainable cities. *Journal of Resources, Energy and Development*, 7(2), 83-94.
- Nasereddin, M., & Price, A. (2021). Addressing the capital cost barrier to sustainable construction. *Developments in the Built Environment*, 7, 100049.
- Nassiry, D., Nakhoda, S., & Barnard, S. (2023). *Finding the Pipeline: Project Preparation for Sustainable Infrastructure*. Retrieved from; <http://newclimateconomy.report/workingpapers/workingpaper/finding-the-pipeline>
- O'Connor, J. T., Torres, N., & Woo, J. (2016). Sustainability actions during the construction phase. *Journal of Construction Engineering and Management*, 142(7), 04016016.
- Ohene, E., Nani, G., & Tetteh, M. O. (2019). Critical barriers to social sustainability: the quantity surveyors' perspective. *J. Archit. Environ. Struct. Eng. Res*, 2(3).
- Ohiomah, I., Aigbavboa, C., & Thwala, W. D. (2019, November). An assessment on the drivers and obstacles of sustainable project management in South Africa: A case study of Johannesburg. In *IOP conference series: materials science and engineering* (Vol. 640, No. 1, p. 012022). IOP Publishing.
- Okoye, P., Odesola, I., & Okolie, K. (2020). Evaluating the importance of construction activities for sustainable construction practices in building projects in Nigeria. *Journal of Sustainable Construction Materials and Technologies*, 5(2), 430-439.
- Pocock, J., Steckler, C., & Hanzalova, B. (2016). Improving socially sustainable design and construction in developing countries. *Procedia engineering*, 145, 288-295.
- Reddy, V. S. (2016). Sustainable construction: Analysis of its costs and financial benefits. *International Journal of Innovative Research in Engineering and Management*, 3(6), 522-525.

- Rohman, M. A., & Hidayat, Y. A. (2019, October). Understanding social sustainability criteria for public school building. In *IOP conference series: materials science and engineering* (Vol. 636, No. 1, p. 012022). IOP Publishing.
- Ruparathna, R., & Hewage, K. (2015). Sustainable procurement in the Canadian construction industry: current practices, drivers and opportunities. *Journal of Cleaner Production, 109*, 305-314.
- Sev, A. (2009). How can the construction industry contribute to sustainable development? A conceptual framework. *Sustainable Development, 17*(3), 161-173.
- Sfakianaki, E. (2019). Critical success factors for sustainable construction: a literature review. *Management of Environmental Quality: An International Journal, 30*(1), 176-196.
- Shan, M., Hwang, B. G., & Zhu, L. (2017). A global review of sustainable construction project financing: policies, practices, and research efforts. *Sustainability, 9*(12), 2347.
- Shen, L. Y., Tam, V. W., Tam, L., & Ji, Y. B. (2010). Project feasibility study: the key to successful implementation of sustainable and socially responsible construction management practice. *Journal of cleaner production, 18*(3), 254-259.
- Shurrab, J., Hussain, M., & Khan, M. (2019). Green and sustainable practices in the construction industry: A confirmatory factor analysis approach. *Engineering, Construction and Architectural Management, 26*(6), 1063-1086.
- Sodangi, M. (2018, April). Social sustainability efficacy of construction projects in the pre-construction phase. In *Proceedings of the institution of civil engineers-engineering sustainability* (Vol. 172, No. 2, pp. 57-67). Thomas Telford Ltd.
- Son, H., Kim, C., Chong, W. K., & Chou, J. S. (2011). Implementing sustainable development in the construction industry: constructors' perspectives in the US and Korea. *Sustainable Development, 19*(5), 337-347.
- Troje, D. (2021). Policy in practice: Social procurement policies in the Swedish construction sector. *Sustainability, 13*(14), 7621.
- Valdes-Vasquez, R., & Klotz, L. E. (2013). Social sustainability considerations during planning and design: Framework of processes for construction projects. *Journal of construction engineering and management, 139*(1), 80-89.
- van Zoest, S., Volker, L., & Hermans, M. (2020). Implementing a new procurement strategy: the case of social housing associations. *International journal of managing projects in business, 13*(2), 409-425.
- Wang, X., Lai, W., Song, X., & Lu, C. (2018). Implementation efficiency of corporate social responsibility in the construction industry: A China study. *International journal of environmental research and public health, 15*(9), 2008.

- Xia, B., Olanipekun, A., Chen, Q., Xie, L., & Liu, Y. (2018). Conceptualising the state of the art of corporate social responsibility (CSR) in the construction industry and its nexus to sustainable development. *Journal of cleaner production*, 195, 340-353.
- Yu, A. T. W., Yevu, S. K., & Nani, G. (2020). Towards an integration framework for promoting electronic procurement and sustainable procurement in the construction industry: A systematic literature review. *Journal of cleaner production*, 250, 119493.
- Zhao, W., & Ye, R. (2019, October). Research on sustainable development of construction industry. In *IOP Conference Series: Earth and Environmental Science* (Vol. 330, No. 2, p. 022104). IOP Publishing.