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Development of a Web-Based Knowledge Management Framework for Public-Private Partnership Projects in Nigeria

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Abstract

Public-private partnership (PPP) is a system implemented to improve the economic value of infrastructure outputs for the citizen of a country. Knowledge management (KM) has been seen as a way to develop successful and sustainable PPPs through constant learning and continuously improving the implementation of PPP processes. However, the presence of KM can hardly be seen on PPP project websites operated in

Nigeria. The study developed a web-based knowledge management framework for PPP projects in Nigeria. The study examined existing PPP websites in Nigeria and noted that they do not have knowledge management frameworks. The system design was achieved using a use case diagram, system block diagram, and activity diagram. The web-based system is designed for the general public to access PPP project details and documents to aid accountability and transparency and help plan future PPP projects in Nigeria. The ICRC Admin, contractor's firm, and consultants on PPP projects are to populate the PPP data on the web-based knowledge management platform. The web-based knowledge management platform has six (6) primary interfaces. The essential interface is the knowledge management interface that archives the PPP project documents and is made available to users of the platform.

Keywords

- Construction industry
- Document control
- Knowledge management
- Public-private partnership (PPP)
- Web-based systems

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References

 Ademiluyi, I.A., Raji, B.A.: Public and private developers as agents in urban housing delivery in Sub-Saharan Africa: the situation in Lagos State. Humanit. Soc. Sci. J. **3**(2), 143–150 (2008)

Google Scholar

2. Afolabi, A., Ojelabi, R., Tunji-Olayeni, P.F., Omuh, I., Afolabi, A.: Quantitative analysis of socio-economic drivers of housing and urban development projects in megacities. Int. J. Civ. Eng. Technol. **9**(6), 1096–1106 (2018)

Google Scholar

3. Olorunfemi, S.O.: Rural road infrastructural challenges: an impediment to agricultural development in Idanre local government area of Ondo State Nigeria. Ghana J. Geogr. **12**(2), 108–124 (2020)

CrossRef Google Scholar

4. Olusoji, A.: Health system in Nigeria: from underperformance to measured optimism. Health Syst. Reform **2**(4), 285–289 (2016)

CrossRef Google Scholar

5. Ojelabi, R.A.: Evaluation of government participation in public-private partnership procurement system for construction project delivery in Nigeria. Unpublished Ph.D. Thesis, Department of Building Technology Covenant University, Ota, Ogun State, Nigeria (2019)

Google Scholar

 Omoregie, M.J., Olanrewaju, O.I., Okorie, V.N.: Factors contributing to failure of public-private partnership in infrastructural development in Benin City, Edo State. Nigeria. J. Environ. Des. (JED) **14**(1), 126–133 (2019)

Google Scholar

 Li, Y., Wang, X., Wang, Y.: Using bargaining game theory for risk allocation of public-private partnership projects: Insights from different alternating offer sequences of participants. J. Constr. Eng. Manage. **143**(3), 04016102 (2016)

CrossRef Google Scholar

8. Cui, C., Liu, Y., Hope, A., Wang, J.: Review of studies on the public-private partnerships (PPP) for infrastructure projects. Int. J. Proj. Manage. **36**(5), 773–794 (2018)

CrossRef Google Scholar

9. Khanom, N.A.: Conceptual issues in defining public-private partnerships (PPPs). Int. Rev. Bus. Res. **6**, 150–163 (2010)

Google Scholar

10.Wojewnik-Filipkowska, A., Wegrzyn, J.: Understanding of public-private partnership stakeholders as a condition of sustainable development. Sustainability **11**(1194), 1–16 (2019)

Google Scholar

11.Ojelabi, R., Oyeyipo, O., Afolabi, A., Omuh, I.: Evaluating barriers inhibiting investors participation in public-private partnership project bidding process using structural equation model. Int. J. Constr. Manage. 1–10 (2020)

Google Scholar

12.Boyer, E.J.: Identifying a knowledge management approach for publicprivate partnerships. Public Perform. Manage. Rev. **40**(1), 158–180 (2016)

CrossRef Google Scholar

 Tupenaite, L., Kanapeckiene, L., Naimaviciene, J.: Knowledge management model for construction projects. Comput. Model. New Technol. **12**(3), 38–46 (2008)

Google Scholar

14.Nonaka, I., Toyama, R.: The theory of the knowledge-creating firm: subjectivity, objectivity, and synthesis. Ind. Corp. Change **14**(3), 419–436 (2005)

CrossRef Google Scholar

15.Davenport, T., Prusak, L.: Working Knowledge: How Organizations Manage What They Know. Harvard Business School Press, Boston (1998)

Google Scholar

16.Maqsood, T., Finegan, A., Walker, D.: Applying project histories and project learning through knowledge management in an Australian construction company. Learn. Organ. **13**(1), 80–95 (2006)

CrossRef Google Scholar

17.Korsvold, T., Ramstad, L.S.: A generic model for creating organizational change and innovation in the building process. Facilities **22**(11/12), 303–310 (2004)

CrossRef Google Scholar

 Teerajetgul, W., Charoenngam, C.: Factors inducing knowledge creation: empirical evidence from Thai construction projects. Eng. Constr. Archit. Manage. **13**(6), 584–599 (2006)

CrossRef Google Scholar

19.Isaac, D., Amaka, I., Ogwueleka, C.: Assessing the use of ICT systems and their impact on construction project performance in the Nigerian construction industry. J. Eng. Des. Technol. **14**(2), 252–265 (2016)

Google Scholar

20.Carrillo, P.M., Anumba, C.J., Kamara, J.M.: Knowledge management strategy for construction: key IT and contextual issues. In: Proceedings of CIT 2000, pp. 155–165, January 2000

Google Scholar

21.Egbu, C.O.: The role of IT in strategic knowledge management and its potential in the construction industry. In: Proceedings of the UK National Conference on Objects and Integration for Architecture, Engineering, and Construction, vol. 13, issue number 14, pp. 106–114 (2000)

Google Scholar

22.Afolabi, A., Afolabi, I., Akinbo, F., Misra, S., Ahuja, R.: Post-occupancy evaluation of building facilities in a university community using an electronic platform. In: Chillarige, R.R., Distefano, S., Rawat, S.S. (eds.) ICACII 2019. LNNS, vol. 119, pp. 351–361. Springer, Singapore (2020). <u>https://doi.org/10.1007/978-981-15-3338-9_40</u>

CrossRef Google Scholar

23.Afolabi, A., Afolabi, I., Eshofonie, E., Akinbo, F.: e-maintenance framework for strategic asset management in tertiary institutions. In: Misra, S., et al. (eds.) ICCSA 2019. LNCS, vol. 11623, pp. 266–277. Springer, Cham (2019). <u>https://doi.org/10.1007/978-3-030-24308-1_22</u>

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