# Development of E-Tendering Models for Nigerian Public Procuring Entities

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**Abstract :** Public sector tendering has traditionally been conducted using manual paper-based processes which are known to be inefficient, less transparent, and more prone to manipulations and errors. However, the advent of the Internet and its associated technologies has led to the development of numerous e-Tendering systems that addressed many of the problems associated with the manual paper-based tendering system. Currently, in Nigeria, the public tendering processes are largely conducted based on manual paper-based system that is bedevilled by a number of problems such as inordinate delays, inefficiencies, manipulation of the tender evaluation process, corruption, lack of transparency and competition, among other problems. These problems can be addressed through the adoption of existing web-based e-Tendering systems which are known to address most of these problems. However, these existing e-Tendering systems that have been developed are not based on the Nigerian legal procurement processes and as such their suitability for local application is very limited. This paper is part of a larger study that attempt to address this problem through the development of an e-Tendering system that is based on the requirements of the Nigerian public procuring entities. In this paper, the identified tendering processes commonly used by Nigerian public procuring entities in the selection of construction sources are presented. A multi-methods research approach was used to identify those tendering processes. Specifically, 19 existing business use cases used by Nigerian public procuring entities were identified and 61 system use cases were prescribed based on the identified business use cases. The use cases were used as the basis for the development of domain and software conceptual models. The models were successfully used to guide the development of an e-Tendering system called NPS-eTender. Ripple and Unified Process were adopted as the software development methodologies.

**Keywords :** e-tendering, e-procurement, requirement model, conceptual model, public sector tendering, public procurement