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### Data Article

# Survey data on digitalization of building procurement process by architectural firms in Abuja, Nigeria



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#### ARTICLE INFO

##### Article history:

Received 7 May 2018

Received in revised form

5 August 2018

Accepted 29 August 2018

Available online 5 September 2018

##### Keywords:

Digital technologies

Building procurement

Architectural firms

Survey

Abuja

#### ABSTRACT

This data article describes the dataset on the digital technologies and applications used by architectural firms in the delivery of building projects. The data set was sourced through a questionnaire survey of 75 registered architectural firms in Abuja, Nigeria. The survey was conducted between December 2017 and January 2018 in the study area. The data, which were analyzed using descriptive statistics, contain the characteristics of architectural firms in Abuja that participated in the survey, the different stand-alone and integrated data acquisition, creation, processing, storage and communication/exchange technologies, applications and tools and intelligent systems the firms use in building procurement process. In addition, the advantages and challenges associated with the use of digital technologies in the procurement of building projects by architectural firms in the study area are also presented in this dataset.

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### Specification table

|                            |  |
|----------------------------|--|
| Subject area               | Architecture and Construction  |
| More specific subject area | Information technology adoption in architecture and construction   |
| Type of data               | Tables and Figures   |
| How data was acquired      | Survey   |
| Data format                | Raw and analysed   |
| Experimental factors       | Cross-sectional survey of registered architectural firms in Abuja. The architectural firms and respondents were selected using a combination of purposive and random sampling techniques.  |
| Experimental features      | Only one respondent in each architectural firm participated in the survey. Stand alone and integrated digital technologies used to support the execution of intra and inter-firms building procurement activities were investigated. |
| Data source location       | Abuja, Nigeria   |
| Data accessibility         | Both the proposed data and analysed results are shared in this article   |

### Value of the data

- The dataset is valuable as it contains information on the key aspect of building procurement process that lends itself most to the application of digital technologies and tools in architectural practice in the study area.
- The dataset is also valuable in revealing the benefits and challenges that come with the digitalization of building procurement process by architectural firms, and thus provides insight into the e-readiness of architectural firms in a developing country like Nigeria.
- The data shared in this article can contribute to further research on the possible strategies for overcoming the challenges that come with the use of digital technologies in the delivery of building projects by architects in Nigeria.
- The dataset can be used to benchmark architectural firms in Nigeria with their counterparts in other countries on the use of digital technologies, tools, and processes.
- Other researchers on this subject can also derive some benefits from the questionnaire instrument shared via this article.

## 1. Data

In this article, three data files are shared. These are the questionnaire file, the Statistical Package for the Social Sciences (SPSS) file and the file containing Tables and Figures. The questionnaire file contains the research instrument used in the extraction of the dataset from participants in the survey. The questionnaire instrument contains a set of questions describing the characteristics of the architectural firms such as their ownership structure, age, the number of employees, number of offices in Nigeria, the different types of professionals services rendered, by them, categories of clients the firms renders services to, ownership of functional website and their access to the Internet services. The characteristics of the firms that participated in the survey are displayed in [Table 1](#).

Although previous studies [1–3] have investigated architectural firms in Nigeria, none of them attempted to examine the extent of digitalisation of the building procurement process by registered firms. Moreover, a previous study [4] has identified the various applications of digital technologies, applications, and tools in the procurement of construction projects via a systematic review of research literature. In view of the foregoing, and in addition to the characteristics of the firms, the questionnaire instrument also had questions on the various digital technologies, applications and tools the firms use in the acquisition, creation, processing, storage, display, and communication/exchange of

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