

Assessment of Barriers Influencing the Adoption of Building Information Modelling in the Construction Industry, Lagos State, Nigeria

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Abstract : Building information modelling (BIM) is a process that starts with the development of a sequential 3D design and encourages data administration, organization, and visualization throughout the life span of a facility (drawings, construction, and supervision). The implementation of building information modelling has been slow in recent years, and this is due to some prominent barriers that hinder its adoption. In this regard, the study aims to examine the significant barriers that influence the adoption of building information modelling in the Lagos state construction industry. Data were gathered through a questionnaire survey with 332 construction professionals in the study area. Three online structured interviews were conducted to support and validate the findings of the quantitative analysis. The results revealed that interest (lack of awareness and understanding of BIM, absence of in-house BIM competent professionals, and unavailability of BIM competent professionals in the labour market), legal (lack of policies and regulations on copyright ownership and lack of enforcement from government agencies and industry leaderships) and professional (people's inability or refusal to learn new technologies and processes, waste in time and human resource and lack of clarity of professional roles in BIM) barriers are the major barriers influencing the adoption of BIM. The results also revealed that six final themes were generated, namely: finance barriers, industry barriers, interest barriers, leadership barriers, legal barriers, and professional barriers. Thus, there is a need for policymakers to design and implement policies (regulatory, economic, and information) to promote financial schemes to support construction firms and professionals and to reduce financial barriers. It is also important for the government to lay down rules and regulations that must be enforced among the construction professionals and firms in the Lagos state construction industry.

Keywords : BIM barriers, BIM adoption characteristics, construction industry, Lagos State Nigeria

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