A Review on Building Information Modelling in Nigeria and Its Potentials

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Abstract : Construction Industry has been evolving since the development of Building Information Modelling (BIM). This technological process is unstoppable; it is out to the market with remarkable case studies of solving the long industry's history of fragmentation. This industry has been changing over time; United States has recorded the most significant development in construction digitalization, Australia, United Kingdom and some other developed nations are also amongst promoters of BIM process and its development. Recently, a developing country like China and Malaysia are keying into the industry's digital shift, while very little move is seen in South Africa whose development is considered higher and perhaps leader in the digital transition amongst the African countries. To authors' best knowledge, Nigerian construction industry has never engaged in BIM discussions hence has no attention at national level. Consequently, Nigeria has no "Noteworthy BIM publications." Decision makers and key stakeholders need to be informed on the current trend of the industry's development (BIM in specific) and the opportunities of adopting this digitalization trend in relation to the identified challenges. BIM concept can be traced mostly in Architectural practices than engineering practices in Nigeria. A superficial BIM practice is found to be at organisational level only and operating a model based - "BIM stage 1." Research to adopting this innovation has received very little attention. This piece of work is literature review based, aimed at exploring BIM in Nigeria and its prospects. The exploration reveals limitations in the literature availability as to extensive research in the development of BIM in the country. Numerous challenges were noticed including building collapse, inefficiencies, cost overrun and late project delivery. BIM has potentials to overcome the above challenges and even beyond. Low level of BIM adoption with reasonable level of awareness is noticed. However, lack of policy and guideline as well as serious lack of experts in the field are amongst the major barriers to BIM adoption. The industry needs to embrace BIM to possibly compete with its global counterpart.

Keywords : adoption, BIM, CAD, construction industry, Nigeria, opportunities