

**The Application of Transcendental Functions to Labour
Optimization in the Building Construction in Edo State, Nigeria**

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ABSTRACT The financial involvement in building structures (home ownership) currently tends to make them far out of reach for most civil servants and businessmen. This is largely because building construction is capital intensive and is not easily affordable by working class Nigerians. This paper examined the cost involvement of labour using transcendental functions. The study used both primary and secondary data. The primary data were collected from practical cost details obtained from the inception of selected building projects to their completion, while the secondary data were obtained from published information on labour productivity, output and efficiency in Journals and official statistics in Nigeria. The transcendental function was used to analyse and compare labour costs. The study found that labour cost in any building construction work is approximately 36% of the total cost of the project. It was thus concluded that government's concerted efforts at providing shelter are undermined by the rather prohibitive cost of erecting structures, a situation further exacerbated by high labour costs in Nigeria. The paper recommends that this cost can be reduced if the automated construction process, which involves a high degree of mechanisation is adopted.