

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF QUANTITY SURVEYING

AN INVESTIGATION ON THE LEVEL OF MECHANISATION
AND ITS EFFECTS ON PROJECT SUCCESS IN ZIMBABWE'S
CONSTRUCTION INDUSTRY

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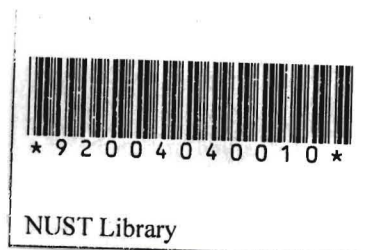
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A Dissertation Submitted

In Partial Fulfilment for the Degree of
Bachelor of Quantity Surveying (Honours)

Supervised by

Mr R. Muungani



Bulawayo, Zimbabwe

Year 2014

Abstract

Local contracting companies in Zimbabwe have encountered several hindrances in completing their construction projects. Time overruns, cost overruns and low quality levels have affected most, if not all, construction projects. The study therefore sought to investigate on the level of mechanisation and its effects on project success in Zimbabwe's construction industry. The study investigated on the various factors affecting mechanisation, determined the level of mechanisation in Zimbabwe's construction industry and assessed the effects of mechanisation on project success. To achieve the above objectives, a field survey involving a sample of fifty projects was conducted, centering on two operations: excavations and concreting, with the aid of questionnaires. The data was analysed using ranking, means and Pearson's test of correlation. The study revealed that the level of mechanisation in excavation operations was above average and that in concreting operations was average. It also revealed that finance has a significant influence on the level of mechanisation in the industry and that the size of a project has a significant influence on the level of mechanisation at project level. It further revealed that the level of mechanisation has a significant influence on quality standards achieved in the two construction operations under study. The study concluded that there is a strong need for measures that will improve the level of mechanisation in the industry. The study recommended the introduction of a plant mobilisation fund by clients, including government, incentives on importation of construction plant and an effective and functional lease market for construction plant and equipment as some of the measures that will improve mechanised construction.