
SOCIO-ECONOMIC INDICATORS AND BUILDING COSTS: A NEW ZEALAND TREND AND CORRELATION ANALYSIS 2001- 2013

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Trends in the building costs are influenced by some socio-economic factors (SEFs) which are external to the project environment. However, in practice, estimators of building costs only focus on the immediate project cost variables. The influence of the SEFs on the cost estimate and its underpinning variables is scarcely considered. This is primarily due to a gap in the knowledge of which SEFs significantly influence building costs and the extent of the influences. This study aimed to bridge the knowledge gap by examining the time series trends in the socio-economic indicators (SEIs) and the building costs with a view to ascertaining which SEIs correlate significantly with (and if possible, are predictors of) the annual changes in the building costs over a 12 year period – 2001 to 2013. The study adopted the archival research method and acquired data from two sources: The Rawlinsons construction handbooks and the databases maintained by the Reserve Bank of New Zealand and the Statistics New Zealand. Data were analysed using the SPSS time series modelling and Student T tests. Results showed that out of the 18 SEIs analysed in the study, only 7 were reliable predictors of the building cost trend over the study period. Results of the Student T tests of significance provided the basis for segregating the factors into two influence groupings: “High” to “Very high” escalators, and “High” to “Very high” de-escalators. The greatest impacting escalator was found to be employment rate (full-time equivalent, construction sector); while the greatest de-escalator was the real gross domestic product (construction sector). It was recommended that construction cost estimators should monitor future movements in the identified 7 SEIs to gain understanding of correlational effects on building cost estimate over a given forecast horizon for a project. This would ensure more reliable cost estimation.

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Word count: 300