Title of Article: Neural Network And Econometric-Based Utility Parameter Model For Cost Management of Building Projects (Accepted for Presentation)

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Abstract: The aim of the study is to develop a project cost center utility parameter-based econometric model that incorporates econometric parameters using neural network. Construction cost of residential building projects was used in this study. Random sampling technique was used to select projects completed between 2009 and 2011, and were examined for their cost centres validity. Final construction cost (As-built cost) of selected four hundred (400) projects were further modified with econometric factors like inflation index, cost entropy and entropy factor and were used to form and train neural network Back propagation neural network algorithm used. Probability technique was used to generate risk impact matrix and influence of entropy on the cost centres. In this study a parametric model similar hedonic models was generated using the utility parameters within the early and late elemental dichotomy. The developed model was validated through comparative analysis of the econometric loading attributes of the variables involved, using Monte Carlo technique of SPSS software by extracting the resultant contingency coefficient. This attribute would help client, project team and contractor manage cost of construction, also, it would enable a builder or contactor load cost implication of an unseen circumstance even on occasion of deferred cost reimbursement and help.