

## The impact of refinement on the accuracy of time-driven ABC

Recently, time-driven ABC has been developed as a cost modelling technique in which transaction times (that is, times required for particular occurrences of an activity) are calculated using time equations. This paper develops a model of the error structures in time-driven ABC and examines the impact of adding terms to time equations on the accuracy of estimated transaction times. The results provide some fundamental insights into the balancing of errors when refining time equations and lead to some general recommendations that may be followed in the design process of a time-driven ABC system to enhance the accuracy of times calculated by means of time equations.

**Key words:** Time equation; Activity-based costing; Costing accuracy; Costing errors; Mathematical model.