

## **CONSTRUCTION ENGINEERING MASTERS DISSERTATION ABSTRACT**

### **The TCPI; a valuable tool for Portfolio Managers or just another metric?**

The purpose of this research was to investigate methods to better support project budgetary decisions by Portfolio Managers, focused on project orientated design and construction businesses. Portfolio Managers are accountable for ensuring appropriate budgets are in place and providing accurate financial reporting and projections for the projects they oversee; this is done through synthesizing and drawing conclusions from descriptive and financial reports, usually in limited timeframes. One of the tools that can be used to do this is Earned Value Management (EVM); this research investigates whether a specific EVM metric, the 'To Complete Performance Index' (TCPI), provides sufficient benefit to Portfolio Managers to justify its future inclusion in EVM Lite applications, as usually used in design and construction, rather than its current use by only a small group of specialist practitioners using EVM in its fullest format.

A simulated project was designed to investigate the effects the TCPI had on Estimate at Completion (EAC) budget acceptance decisions. Respondents then answered multiple choice and open ended survey questions providing reason for their EAC decisions, as well as details of the tools and information Portfolio Managers within the industry use.

This study's primary contribution to the body of knowledge are the conclusions it draws around the influence of the TCPI on EAC decision making as well as common themes in Portfolio Manager decision making. The findings of this study did not support a hypothesis that the TCPI altered EAC acceptance decisions but did reveal a level of optimistic decision making about improvements in project performance that does not reflect current research or standard practice. This highlighted that the TCPI could support a more realistic and better informed decision making process for Portfolio Managers that would better service business and industry needs.

**Megan Knights**

**June 2018**