THE TOYOTA WAY PROBLEM-SOLVING MODEL: LESSONS FOR LARGE CHINESE CONSTRUCTION FIRMS

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Abstract
The Toyota Way model is known as a comprehensive management framework that has aroused much interest in management science and manufacturing practice. However, one key element of the model - its problem-solving practice - is rarely discussed. The main purpose of this study is to investigate the adaptation of this practice in the context of the Chinese construction industry. The paper begins with a brief review of the Toyota Way problem-solving model (PSM), and of the literature concerning problem solving in the construction context. A combined questionnaire survey and interviews of building professionals in leading Chinese construction firms is used in this study to investigate the status quo of the Toyota Way problem-solving practices within the large Chinese construction firms. The results from the quantitative analysis show that Chinese construction firms are aware of the importance of all the Toyota Way problem-solving attributes, but fall short of implementing some of these attributes. It is noted that genchi genbutsu (i.e. “go and see for yourself the actual situation”) was the most highly implemented attribute, followed by the continuous improvement-related practices. The interviews outline the current problem-solving practices of Chinese building professionals, and show that there are gaps in their implementations, as compared to the original Toyota Way problem-solving model. Overall, the findings indicate that the attributes derived from the Toyota Way PSM are appreciated by building professionals in large Chinese construction firms.

Keywords
Toyota Way problem solving, Chinese construction firms, genchi genbutsu, decision making, kaizen.

INTRODUCTION

Toyota is a problem-finding, problem-solving company, famed for its ability to improve operational performance by attacking root causes of problems. Many publications relate to the Toyota Production System (Ohno, 1988; Monden, 1998; Spear and Bowen, 1999), lean (Womack et al., 1990) and just-in-time philosophy. But Toyota’s problem-solving tools and procedures draw scant attention. Liker (2004) was one who gave credit to these problem-solving practices, conclusively placing a set of core problem-solving principles at the top of his (2004) Toyota Way model. In fact, Toyota has placed tremendous emphasis on teaching all employees at all levels to skilfully solve problems; they are called upon to identify problems, think critically,