

DIAGNOSIS AND STRATEGY DEVELOPMENT FOR INTRODUCING LEAN PRODUCTION SYSTEMS IN PRECAST FABRICATION

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ABSTRACT

The most challenge issue when enterprise implementing continuous improvement is how to select appropriate methods. The objective of this study is to develop a diagnosis model for analyzing appropriate methods. The model is developed using enterprise diagnosis methods that consist of three components, namely production system, fundamental management, and staff mentality. Those three perspectives stems from Toyota's 3 M's (muda, mura, muri). Applicability of the proposed model is validated using a real precast fabricator. Application results show that the developed model has potential to be used to analyze strategy required for introducing lean ideas.

KEY WORDS

Lean production, business diagnosis, precast, lean construction.

INTRODUCTION

The Just-In-Time (JIT) is the core of the Lean Production that is for production and a comprehensive concept for product development, manpower deployment, marketing, and supplier relationship management. The Lean Production techniques had been developed rapidly in recent years. However, most of them were lack of an integrated linkage. As a result, the introduction of Lead Production had been evolved into segmental technique application (Takahiro 1999).

Construction industry was deemed as a traditional industry. Construction technique is maturing after years of development. Therefore, architecture is safer than ever and it takes less time to construct a building. However, technique and speed are no longer the key elements for competition. Powerful management becomes the newly derived key element. Consequently, this study attempts to have the high cost and low efficiency issues of traditional construction improved with the Lean Production in order to improve the per se of businesses, upgrade the competition of businesses, and realize the ongoing concern of businesses. Lean Production diagnosis is constructed in this study in accordance with business diagnosis theory to assess precast fabrication before/when implementing Lean Production System. The

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