

# DEVELOPMENT AND EVOLUTION OF PROJECT PRODUCTION SYSTEMS: THE PS-37 CASE

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## ABSTRACT

A way to better comprehending the production strategy is by looking at it from two complementary perspectives: content and process. However, most research papers tend to focus on the content of a successful production system while few explore the process in which it was developed. Because lean construction literature is no different, this paper aims to fill this gap by describing the method applied by a Brazilian construction company when designing the project production system. The method called PS-37 (three Ps and seven Ss) is named after the initials of four steps based on Goldratt's Theory of Constraints (Presuppose, Predetermine, Process, Subordinate), the five senses of organization (*Seiri, Seiton, Seiso, Seiketsu, Shitsuke*), and safety. It has become such a source of competitive advantage that the firm has reaped many financial gains in projects and even changed its strategic orientation. The authors present a formal description of the method, which evolved from the decision to implement the Lean philosophy at construction sites into a framework that embraces several activities necessary to deliver a project. In doing so, the authors hope to bring awareness to the benefits of understanding a successful production strategy through the process in which it was developed.

## KEY WORDS

Lean project delivery system, theory of constraints, production system design.

## INTRODUCTION

Although project management is considered a developed technology, system design in project production is still a developing topic, lacking a comprehensive understanding. Making temporary complex organizations more integral and their workflows more

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