



Transformation - Flow - Value as a strategic tool in project production

Bonke, Sten; Bertelsen, Sven

Publication date:
2011

Document Version
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

Citation (APA):

Bonke, S., & Bertelsen, S. (2011). *Transformation - Flow - Value as a strategic tool in project production*. Poster session presented at 19th Annual conference for Lean Construction - IGLC 2011, Lima, Peru.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

TRANSFORMATION-FLOW-VALUE AS A STRATEGIC TOOL IN PROJECT PRODUCTION

Low earning in project production companies is often due to too narrow understanding of the strategic options and lack of a general, theory based management approach.

Current Conditions

Project production – not least construction – is often characterized by low profit and a high rate of waste including bad usage of the working hours on site.

Lean Construction offers two major elements in a new approach to managing the construction company:

- The Transformation-Flow-Value theory, and
- The Last Planner System of production control

While Last Planner is widely used within the lean construction community – indeed it is the starting point for most implementations of the lean principles – it's undeniable benefits are mostly argued through examples from practice and not by analyses based upon a deeper understanding of the impact of improving the flow.

Goals

The general goal is to introduce a new approach to improving the project production process and thereby the profit of the project producing company by using the T-F-V theory in practice.

Analyses

The specific goal is to present an approach which may be used in practice to balance strategic priorities between:

- Increasing value and thus selling price
- Improving flow and thus throughput
- Reducing costs

While reducing costs is the approach most often taken, the two other routes may be much more efficient in improving the financial results of the operations, depending on the company's market situation. In this process it is very important that focus is on the company as a whole and not on the individual projects. Value and throughput can only be measured by the production as a whole.

Proposed Countermeasures

The paper introduces a very simple financial model for the analyses of the three different strategies as outline above.

The model is very easy to adjust based on the company's own figures and it makes a very useful tool in the discussion of the options within the different strategies.

Plan

The model is a tool for the company's development of its competitiveness and financial results.

The three key elements: Value, Process and Operations should be dealt with independently and the model used to evaluate impact of possible actions.

Increasing Value

Increasing value and thereby selling price is an approach seen in mass production. However, in the competitive environment of construction this seldom is a feasible approach – at not least when talking major improvements.

Improving throughput

Improving flow is the general approach used in lean construction. However, it is often non critical flows that are improved while the key issue should be to improve the *Critical Flow* and thus the throughput – the key instrument to earnings.

Reducing Costs

This is an approach often seen, but it is indeed the least efficient and often a very dangerous approach, as key production factors may be reduced in the process. One such example is reduction of middle management which is seen in the books as a cost while it often is a key to efficient logistics.

The lack of a general understanding of these aspects of the process is a key factor in the shortfall of many initiatives to improve the financial outcome.

Follow up

The model and methods should be tested in practise and the outcome reported as basis for further development of more advanced models evaluating the individual flows in the production process, and showing the impact of improving the critical flow versus other f flows.



Paper 118, IGLC 19 Lima July 2011

**Transformation-Flow-Value as a
Strategic Tool in Project Production**

Sven Bertelsen and Sten Bonke

(+45 251648)