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):
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.