Development of Collaboration in Planning: What can Construction Project Management Learn From other Fields?

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Agenda

❖ Why Construction Planning?
❖ Current Issues with Construction Planning
❖ Research Questions
❖ What we did
❖ What we found
❖ Learnings for Construction Project Management
❖ Conclusion, Contribution and Future Research
Why Construction Planning?

• Planning is an essential undertaking in construction project management

• Construction project managers spend a third of their time in planning and coordination.

• However, only 54% of activities are achieved weekly as planned (Ballard and Howell, 1998).

• …… But why?
Current Issue with Construction Planning

- Planning is viewed as a scientific discipline
- Plans are based on contract
- Durations are based on assumptions
- Planning decisions are left with the planner
- Hayek, 1945

However, literature shows that urban planning, software design and lean are adopting collaborative approach in planning.
Research Question 1:
How has collaboration in planning evolved in the fields of urban planning, software design and lean construction?

Research Question 2:
What can construction project management learn from this evolution?
What we did?

CRITICAL LITERATURE REVIEW:

- Planning theory & theorist
- Lean construction
- Software design and planning
- Communicative Planning Theory

Sager, Tore

Value

Transformation

Flow
The technical and scientific approach to planning was also prevalent in urban planning in USA after the world war II.
What we Found

Waterfall Process Model

Iterative Process Model

Agile Process Models

More collaborative
Learning: 1

• The technical approach to planning is not germane to the construction industry alone rather, it exists in various disciplines.

Learning: 2

• The successful adoption of collaborative approaches in other knowledge areas shows that the construction industry could move from its current technical approach to a more social approach that encourages collaboration.

Learning: 3

• Construction project management should accept that planning has two elements; the technical element and social element, which should be integrated and without the social element the technical element may fail.
• The current theory of construction project management, which is essentially ‘management-as-planning’ (the Transformation view) alone, cannot provide adequate resources that can be used to develop collaboration in construction planning.

• However, integration of the concept of management-as-organising and the ‘Flow’ and ‘Value’ view can provide resources that people can utilise for the smooth running of the production (construction) system and should be encouraged.
The study concludes that construction project management should not be crucified for its current un-collaborative approaches but should be supported through collaborative social behaviour and technological platforms such as BIM and digital twin to become more collaborative.

This study brings new insight and opens a new debate on how collaboration could develop in construction project management by using existing evidence from other fields.
Thank you for your attention
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We look forward to questions.