

# Engineering, Project, and Production Management: Lessons Learnt from Each Other

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Editorial  
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This Journal always faces the challenge of bringing together the three disciplines in a common pool of management research. This edition provides at least a paper in each of the disciplines. Although each paper has a clearly defined focus in a specific discipline, the contribution of knowledge by each seems relevant to all three disciplines. This reinforces the need to further integrate the managerial aspects of the three disciplines for mutual benefits.

The first paper evaluates the development of Structural Insulated Panels (SIP). Panjehpour et al. gave an overview of the application and drawbacks of SIP as a construction material. The paper revealed the current research questions that require further study if SIP is to be universally accepted as a suitable alternative material for walls, floors and roof coverings. The paper seems to highlight three key areas of further studies: technical issues such as joint connection, thermal and fire resistance, and opening sizes; secondly the facilities management issues such as repair and retrofit, breathability and insect nesting; and thirdly project management issues such as design management, standardisation, affordability and competitiveness.

The second paper is classified under project management discipline. Farinloye et al. investigates the nature of theft and vandalism on building sites. They established the significance of the problem of thieves and vandals on sites facing the building industry. The problem is even more prevalent on large size projects where workers are often casual labourers. Two key recommendations: to empower workers to own and be responsible for their tools; and to improve on staff welfare to reduce disgruntled workers on building sites.

Third paper applies production management knowledge in the project management field. With greater demands for speed and value for money, less waste and wastages, increase in complexity and use of technology, more pressure is placed on managers in the construction industry to seek better methods and procedures for effective management of construction production processes. Hyer and Brown (1999) highlighted the significance of three critical linkages in successful production workflow, which are linkages between time, space and information. This enables efficient use of materials and equipment in the workflow. The paper revealed that there are limited or partial linkages between these three critical items in construction projects. It

concluded that there is greater room for improvement in the application of the concept of production cell in construction.

Although the contents of the last two papers are also applicable to engineering and project management, both are classified under production management. Morrey et al. examines the significance of robust strategy to enact lean thinking methodologies to contractor-type business organisations. Green and May (2005) suggests that the use of unitary or pluralist organisational management approach is still debatable when implementing lean methodologies in construction organisations. The strategy of implementing lean technique using standardised work proved to be successful in some cases, but appropriate approach should be evolutionary to overcome barriers. The final paper looked at the effect of inventory control and classification on company competitiveness. It is paramount that a business organisation maintains an appropriate balance between stock-outs and inventory holding costs if it is to remain competitive. Kabir and Sumi propose a systematic inventory classification approach by integrating Fuzzy Delphi Method with Fuzzy Analytic Hierarchy Process. The fourth and fifth papers were selected from the 19th Annual Conference of the International Group for Lean Construction, and their inclusions were made possible through the assistance of John Rooke, the conference's Technical Chair.

This issue will put back on the research agenda the items of prefabrication for housing delivery, security and welfare on construction sites, concept of production cells in construction, lean methodology, and inventory control. There are a lot more questions and ideas put forward by these papers, which may suggest that a lot more research is desirable in these areas.

## References

- Hyer, N. L. and Brown, K. A. (1999). The discipline of Real Cells. *Journal of Operations Management*, 17(5), 557-574.
- Green, S. D. and May, S. (2005). Lean construction: arenas of enactment, models of diffusion and the meaning of 'leanness'. *Building Research and Information*, 33(6), 498-511.