

# **LEAN COMMERCIAL MANAGEMENT: DEFINING THE BORDERS OF THE DISCIPLINE IN THE CONSTRUCTION INDUSTRY**

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## **ABSTRACT**

Commercial management is defined by the Institute of Commercial Management as “the identification and development of business opportunities and the profitable management of projects and contracts, from inception to completion.” It addresses companies’ internal and external relationships and thus plays an enormously important role in construction, which in essence is an inter-organisation industry. Construction projects require the contribution of multiple actors each of them representing a separate business entity with their own goals and incentives. Commercial management is the discipline that supports communication between all these individual bits. This inevitably puts it in a position to affect company profitability and long-term business success in a fast and dramatic way.

Commercial management relates both to the policy of the company, or how it intends to deliver a project, plans its relationship with other organisations; and to operations (contracting, procurement, money flow and accounting), or how this policy is put in practice. In the developing lean construction industry good intentions are rarely supported by changes in the commercial operations. The projects are completed with lean principles but worked around habitual accounting, contracts and in many cases even procurement. Reliance on these commercial operations might hamper full exploration of lean benefits.

This paper addresses the following questions: what is the relation between commercial management and project delivery? Is lean commercial management a necessary part of lean construction? If lean commercial management has to be implemented, what should it be like?

The hypotheses tested in this paper suggests that (1) lean construction is a viable choice of commercial strategy (2) lean commercial management is an integral part of lean construction system subordinate to the project delivery.

## **KEY WORDS**

Lean commercial management, Concept formation, Lean Construction.

## **INTRODUCTION**

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Commercial management has a major impact on the construction business being responsible for making strategic choices and their embodiment in everyday practice. Starting a lean construction journey is already a commercial decision, but when acceptance of a strategy is not supported by a change in the way the company operates the probability of success is low. There are many reasons why traditional commercial arrangements do not comply with lean construction needs. There can be no compromise between partnering and the search for short-term benefits at the expense of partners; the company cannot facilitate work flow if it is not able to cope with constraints that moved down the supply chain; it is impossible to improve project performance by concentrating on local efficiencies; trust can't be created if the supply chain is not paid on time.

In this paper it is suggested that lean commercial management is an integral part of lean construction together with lean project delivery. Despite its overall importance, the position of lean commercial management in relation to lean project delivery is defined as secondary and subordinate to the latter.

The aim of this paper is to grasp the concept of commercial management on the highest abstract level and outline its main features. Such comprehension is a vital part of changing the reality by improving the established practice. It is based on an analysis of reality through direct observations, interviews and case studies.

### **TESTING THE VALIDITY OF LEAN AS COMMERCIAL STRATEGY**

According to economic theory the goal of each company is profit maximisation.

Although there is a different point of view offered by e.g. Hillebrandt (2000) nevertheless the fact that making money at least to the level of covering entrepreneurial effort is the most essential reason for companies' existence is admitted by everybody. The free market economy gives companies a choice of which money-making strategy to follow. The latter differ in terms of expected profit margins, sustainability, speed of returns, etc. Normally the decision depends on a range of internal (specialisations, staff skills, top-management motivation, etc.) and external factors (availability of resources, general socio-economic environment, demand, government regulations, substitution goods, etc.).

It is easy to observe that fluctuations of the external environment are mirrored in the industry strategic behaviour. Lansley (1987) divides the evolution of the British post-war construction industry into the three periods. Under the stable environment of the 1960s there was no need for the companies to be concerned with long-term planning. Large numbers of orders made growth and flourishing possible by simple focus on one or another specific area. The turbulence of the 1970s with its energy crises, rise of international competition and subsequent transition of the economy to post-industrial stage, liberalisation, etc. considerably reduced the demand for construction. Flexibility became a matter of life and death for the construction firms, and a floating strategy was adopted assuming "scanning the environment and managing the firm's interface with it" as the main activity (Betts and Ofori 1992, p. 521). The trend continued in the 1980s bringing forward the strategy of business restructuring through mergers and acquisitions and diversification as a way to sustain high profits (Ramsay 1989, Hillebrandt and Cannon 1990). In many companies

diversification went so far that only a small share of their business remained actually in contracting (Langford and Male 2000). Betts and Ofori (1992) and Hillebrandt (2000) state these three stages were similar across Europe.

Although superficially strategies have altered, they have continued to keep the source of profit outside the company, separated from the firm's main activity - construction. Langford and Murray (2000) illustrate this with an example of the private house building sector of the 1970s where spectacular margins were achievable on the back of the site management procedures and more profit came from intelligent land bank acquisition rather than "lean" process improvement at production level. It was impossible for the production system to gain the same importance as commercial management, which naturally shifted the power balance toward the latter.

Under such conditions increasing the effectiveness of project management is a somewhat second priority. Moreover in 1989 Winch concludes that profit maximisation strategy is incompatible with the effective management of projects and the attempts to improve the overall built environment. Due to this trade off he believes no market forces are capable of making the construction industry move towards efficiency (Winch 1989).

The recession of the early 1990s and the shortage of work that followed shifted the bargaining power to clients. On one hand it put the clients into a position where they were capable of influencing tendering prices and drive risks down the supply chain while on the other hand creating a push for improvement in the quality of service (Hillebrandt 2000). The construction industry responded with another attempt to generate profitability by changing commercial arrangements on projects rather than improving the construction process itself. Clients can now choose among numerous procurement routes however no performance guarantees are offered by the supply side meaning this choice is turned into an illusion (Langford and Murray 2000).

Was the response relevant? The decline in construction firms' profitability (Flanagan et al. 1998) leads us to say it was not. As the pursuit for profit maximisation brought low or no profit there must be a contradiction between the goals and the selected means. Thus it is suggested that treating the external environment as a source of profit is no longer a valid strategy. To remain in business companies have to look for internal improvement. As lean construction seeks profitability internally through redesign and perfection of business operations it is justified as a viable strategy from a commercial perspective.

## **REVISING THE CONCEPT OF COMMERCIAL MANAGEMENT**

### **RELATIONSHIP BETWEEN COMMERCIAL MANAGEMENT AND PROJECT DELIVERY**

While the source of competitive advantage for a company moves towards internal business improvement and lean construction is adopted as a leading strategy it causes a profound functional restructuring and transformation of the roles played by commercial management. The hypothesis offered here is that lean commercial management should be seen as internally oriented and subordinate to the production system. The support for this hypothesis can be found in the lean construction theory itself. The theory dictates that value is created in design and delivered on site. Commercial activities do not create value but carry a supporting function in project

delivery. This is an important point and failure to see it might well be the reason for the contradiction between the goals and the means mentioned above.

Recent events in Toyota are another demonstration of the destructive consequences of giving the priority to the commercial side of the business. In 2009 and 2010 Toyota had to recall several millions of vehicles worldwide due to unsatisfying quality. According to BBC news the estimates of losses from recalls of cars with potentially faulty accelerator pedals reach £1.23bn in costs and lost sales. This immediately provoked speculations among academics and lean practitioners concerning the validity of lean theory. The statement made by the company itself identified that the problem was not in the faultiness of the Toyota way but in the deviation from it. According to the declaration made by the president of the company to the media, the management relate their current situation to improper commercial behaviour. Lately the company was expanding in an exceedingly rapid way and the process of training of people was not able to keep the same pace.

It is also interesting to notice that lean theory itself has developed exactly in such succession where production system topics came first and commercial management related issues rose only several years afterwards. If we look at the Toyota model of lean we can notice that until recently it was almost entirely concentrated on the production processes leaving commercial issues beyond the consideration. In the construction industry application of lean thinking has also started from the production perspective with the development of such things as the Last Planner System™ and other approaches to improve the project delivery.

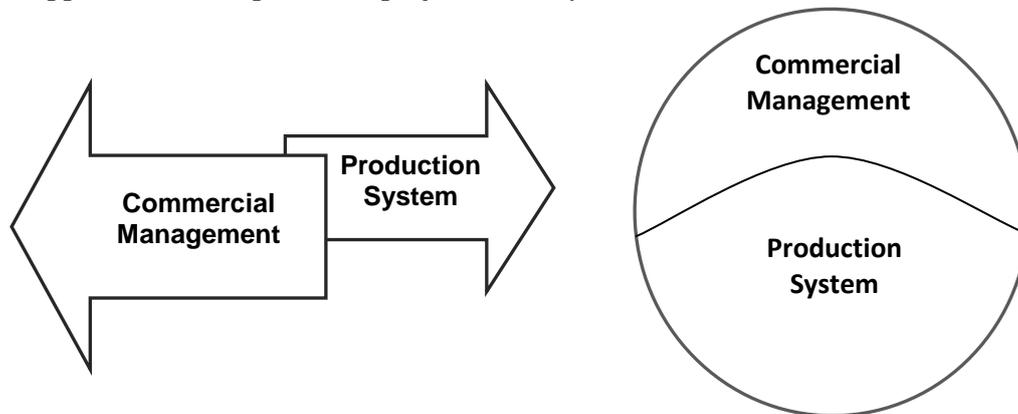


Figure 1: The difference between conventional and lean construction system. Two contradicting “effectivenesses” are substituted by one common goal

Due to the nature of the construction industry the success of a company nevertheless depends on commercial management much more than in manufacturing. Construction is an industry where production is spread among separate projects standing apart from the head office organisational processes. They require the contribution of multiple actors each of them representing a separate business entity with their own goals and incentives. A great demand is placed on communication channels due to uncertainty in work flow (Howell and Ballard 1996). Companies spend a significant part of revenue on outside goods and services. This inevitably influences project outcomes and the profitability of companies over the long-term period.

The differences between the conventional construction business model and the lean one are summarised in the figure 1. The conventional model features were outlined in the previous section. Commercial management occupies the leading position in it and the objective to increase company's profitability rarely correlates with the improvements in the production system. In the lean construction business model a holistic view of the problem is assumed. Commercial management and project delivery are the parts of the whole and the former is subordinate to latter.

### **LEAN AND NON-LEAN**

Can lean project delivery co-exist with conventional commercial management and is the opposite variant possible? Joining lean commercial management with traditional project delivery on the theoretical level would be a contradiction as it means creating an environment for improvement without delivering that improvement. The commercial part of a business is only a support to the improvements introduced in the production system and thus cannot be a primary target of a change. Changing only one element in the complex system is likely to cause a moral hazard effect and opportunistic behaviour.

In practice there have been a lot of attempts to improve commercial process and some elements of such improvement can be regarded as lean (e.g. partnering, alliances, relational contracts, etc.). But these new procurement types are rarely glued by changes in the production system, culture and fixed in specific processes. This brings to failure of those partnering, alliance agreements, etc. which in fact are limited only to the new contract arrangements.

The reverse case of the lean project delivery under conventional commercial terms is possible to implement but will be reliant on such unsteady matters as chance and luck. It is clear that even if all parties to the project are motivated to "do lean", still their commercial interests may differ. The task of lean commercial management on the project is then to ally these interests in one common goal – value delivery.

To sum up this short discussion lean commercial management is seen as a logical extension of the lean project delivery system.

### **THE ROLE OF LEADERSHIP**

Leadership is the third component in the business model although it is not included in the figure 1. Capacity as well as capability of the construction firms is determined by their leaders and the quality of its management, which are the most valuable and at the same time scarcest resource (Hillebrandt 2000, Hillebrandt and Cannon 1990). All strategic decisions are made by management and based on their thinking and motivation. Normally it forms a pattern of behavior and can be called a "corporate ideology" (Ive 1990). The corporate ideology in its turn guides generation and expression of the company strategy.

For the company top management commitment to lean thinking is an obligatory success factor capable of launching lean in both the production and commercial parts. The same engine is required on the separate projects. Leadership can come from any firm with enough influence on the project, despite the widespread opinion that it is invariably the client's initiative. According to Hillebrandt (2000), only 25% of the

market is client-lead (mainly large-scale projects) while on the remaining projects the supply chain has a stronger influence on the course of events.

## LEAN COMMERCIAL MANAGEMENT – OUTLINING THE DISCIPLINE

### STRATEGIC LEVEL

On the organisational level commercial management deals with the company goals and ways to achieve them. Lean commercial management requires an objective analysis of the current situation, being clear about where the company is moving in the short- and long-term. The strategic planning process has to comply with lean thinking. Expanding the Toyota's 4P defined by J.Liker (Liker 2004) figure 2 offers four principles that can be attributed to lean commercial management.

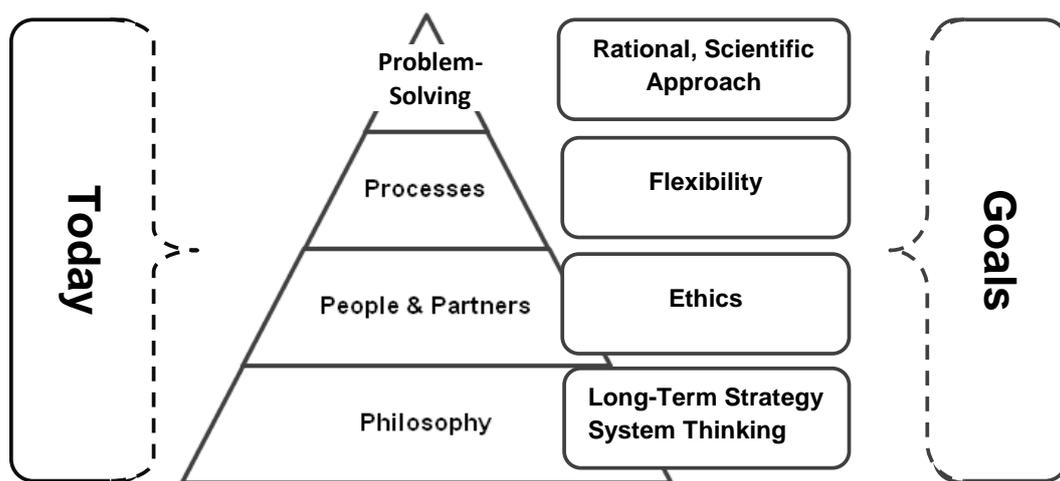


Figure 2: Basic Principles for Lean Commercial Management on the Organisational Level.

*Philosophy: Long-term, System Thinking.* Lean transformation is a long and complicated process that is why orientation on long-term in planning of the future is inevitable. This obviously affects the policy formation as well. Long-term system thinking changes the perception of cost and value. What is seen as expenditure in short-term converts in long-term to an investment that will eventually bring significant financial and non-financial returns to the company. For example training of the staff and building a stable relationship with the supply chain.

*People and Partners: Ethics.* Ethics is a set of self-imposed principles that guide the life of an individual or company's behaviour. A code of ethics based on the lean philosophy relies on commitment to colleagues, partners, clients as well as consideration of the wider audience – all those influenced by the company activity. Eventually it should contribute to the establishment of trust and ease in reaching the company goals. Lean ethics is clearly a topic for future research.

*Processes: Flexibility.* Flexibility is presented here as an ability to respond to the changing market. It should however be distinguished from an obsequious behavior or a chaotic inconstancy which designates absence of the clear vision.

*Problem-Solving: Rational Decision-Making.* This implies first of all an acceptance of the facts of reality and an understanding of what is being managed

before actions are taken. A research is often required to achieve such understanding. Before a decision is taken it is desirable to check all the alternatives and think through possible consequences of each of them. A process of analysing the decision a posteriori allows learning and constant improvement. Purely rational decision-making is in many ways bounded by uncertainty and imperfect information.

### PROJECT LEVEL

Individual construction projects seen as a discrete activity have to be put in the context of the continual strategy of the company (fig 3). In many ways the project level raises more complex questions as lean commercial management crosses the company's borders and enters the sphere of inter-organisational relationships.

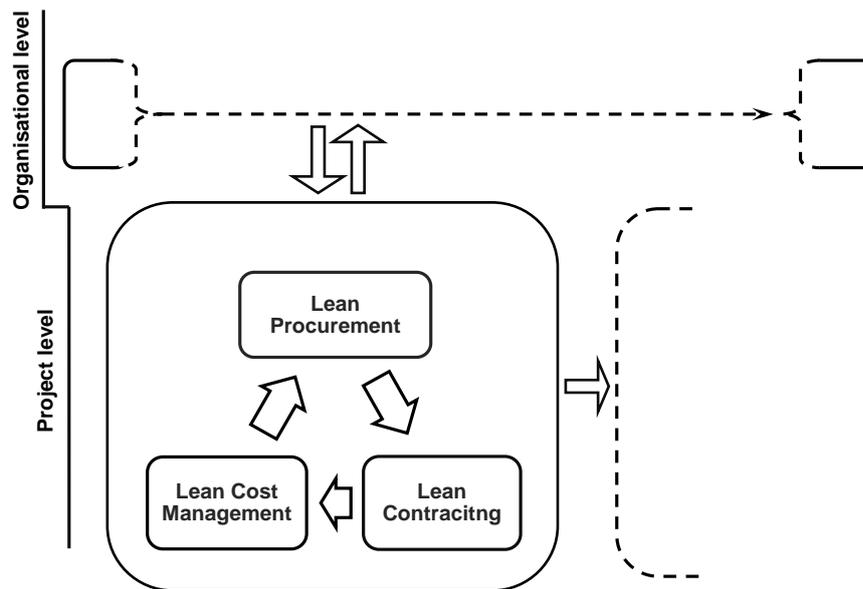


Figure 3: Project Level of Lean Commercial Management.

These questions are practical in character and concern lean cost management, procurement and contacting. How to organise a procurement system that ensures the right people are in place? How to arrange contractual agreements that provide the right working environment? How to finance the project to support the lean methods of work? How to set an accounting system capable of supporting the constant improvement of the production system?

A question of particular interest is the role a commercial manager has to play on a project in the lean system. With the two parts closely integrated in the lean business model the borders between commercial and production management might vanish. By answering these questions the lean commercial management concept will be expanded to a new level of comprehension and can be made ready for practical testing.

### CONCLUSION

This paper has addressed the verification on the abstract level of the following hypotheses: (1) lean construction is a viable choice of commercial strategy (2) lean commercial management is an integral part of lean construction system subordinate to the project delivery.

In the authors view the intellectual justification given here is enough to consider these to be confirmed. However despite the fact that the hypotheses appeared from the observation of reality, we clearly understand that a few practical examples provided in the paper are not enough. The theory formation requires practical evidence to support these statements in the form of analysis of project failure cases as well as of successful practices. Apart from that more work has to be done in the development of the conceptual structures of the lean commercial management theory. This is partly attempted in the chapters deducing the consequences of the business system revision for the organisational and project levels. Also some of the directions for the future research were marked.

This paper has presented the findings so far of a research project currently under way. Its overall aim is to form the theory of lean commercial management that would be able to feed good practice of the everyday construction industry.

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