

Chapter 6

Leadership Style and the Management of the Effects of Complexity

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ABSTRACT

Within any organisation, be that a project or a company department, a number of people/systems come together to perform tasks and deliver the expected outcome. In the process of performing those, tasks, a number of interconnections are generated that reinforce one another and result in behaviours that are very different to the norm and cause complexity. The author presents results from a wider research in construction which investigated the effect(s) of socio-organic complexity on project performance and particularly through the attribute of leadership style adopted. The results proved the nonlinearity between performance and complexity and lack of actions that will manage the effects of complexity. A framework is developed, validated, and presented in this chapter; which, by using the characteristics of complexity, allows the measurement of the current level of actions and provides a set of additional actions that will enable management of complexity through the leadership style.

INTRODUCTION

What is the story in this chapter about? The story is about leadership or management style, which although considered an attribute, should also be regarded and applied as a tool to manage the effects of complexity. A very recent investigation that was conducted in construction project management, and which can be extrapolated to the general management field, uncovered that although as an attribute the management style is considered

very highly, very little is done in terms of using it to manage the effects of complexity.

The management of projects transpires in a complex and evanescent environment. Therefore the application of complexity theory to the management of projects can enable the systematic consideration of the conditions that give rise to such complexity. A number of authors, both in project as well as general management, have indicated that interfaces generate complexity (Baccarini, 1996; Lucas, 2000a; Mitchell, 2009;

Williams, 1999), which is associated more with the interconnection structures that link various objects and not the objects themselves (Lucas, 2000a). Interconnections can generate complexity which has defined characteristics (Lucas, 2000b). Therefore understanding the characteristics of these interconnections, especially from a socio-organisational side, and how these affect the project performance, can contribute to the design of more efficient project delivery systems. In particular, it should enable managers and project managers to respond with the necessary actions and improve the management style adopted and the decision-making process.

The effects of complexity on projects have been researched and several proposals have been made in terms of managing its effects. However, most of the studies have been conducted on the technical side and very little has been done in terms of the socio-organisational aspects of complexity of interconnections and its effects, especially when considering the management style to be adopted. Also heuristic reflections exist suggesting an exponentially decaying/inverse correlation between complexity and project performance, yet very little has been done to identify the exact relationship.

In this chapter results will be presented from a multi-method research investigating socio-organizational complexity and the management style adopted as well as its effects on project performance. It should be clarified that throughout this chapter the words leadership and management style will be used interchangeably. The research, conducted in the UK construction industry with major organisations - clients and contractors - reflects the wider problems faced by the project management profession and generally organisations that deal with projects. Amongst the other findings regarding complexity, it is concluded that the management style is not considered as a tool to manage the effects of complexity and the inverse correlation between complexity and performance, with an average drop of 39%, is proven and it actually resembles that of an underdamped transient motion. The latter,

not only confirms the non-linearity of project management, regarding socio-organisational issues, but it can also be proven very powerful when considering the possibilities of extrapolating and implementing techniques proven in the field of systems control.

Considering the above and the basic principle that if we know the characteristics of complexity then it is feasible to establish the means to manage its effects, a decision process and a framework was developed and validated by project practitioners. The framework measures the level of implementation of actions, through the management style adopted, against each complexity characteristic and by providing a set of activities enables managers and other leaders to manage the effects of complexity of interconnections. It also provides the basis for educating leaders, at various levels, on complexity and the application of its characteristics in day-to-day activities.

In the following sections a review of leadership and complexity theory will be carried out in order to establish a base. Then the research approach and the results will be presented followed by analysis and discussion. The chapter will close with the proposal and the validation of the research which will describe the framework developed with its validation by practitioners and the conclusion reached.

LEADERSHIP STYLE

Whilst considering complexity in Management and in particular Project Management, one cannot disregard the leadership/management style which will enable the management of its effects in projects.

The approach taken in this chapter regarding management and leadership is that which is recognised by Walker (1996), where 'the two cannot be separated', leadership and management in projects are intrinsically linked. A description follows of several theories regarding management

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