1. Introduction

As a continuation of the series of special issues containing selected papers from the International Conferences on the Dynamics of Strategy, which address topics in business strategy under dynamic change, this issue presents a selection of papers from the Third Conference held in April 1998.

The challenge of setting strategy under changing environments is a real and increasingly important aspect of firms’ behaviour, especially as world markets enter financial downturns as has recently happened. The academic challenge of understanding the impact of the environment on the strategy formulation process and of understanding the link between strategies and performance is also made more complex by heightened levels of change and uncertainty. Keynote presentations on these issues were given by Max Boisot (ESADE, Barcelona and University of Cambridge), Gerry Johnson (Cranfield University), David Snowden (IBM), (Georg von Krogh (University of St Gallen), George Thomason (Cardiff University) and Victoria Ward (Spark Knowledge).

The Third Conference on the Dynamics of Strategy brought together papers that can be divided into three rough categories: those developing and applying mathematically based models, those empirically investigating the relation between strategic choices, environmental factors and performance, and those developing frameworks to explain and predict the impact of choices and factors on performance. Papers from each of these categories are represented in the selection published in this issue.

The papers selected for this issue were initially assessed on the basis of abstracts, then the papers were double blind-refereed by the program committee. The committee included Robin Wensley (University of Warwick), Jas Gill (University of Bradford), Jonathan Klein (University of Southampton), Roger Bradburn (American College of London), Peter Kangis (University of Surrey), Dolores O’Reilly (University of Ulster), Stuart Sanderson (University of Bradford), Jim Slater (University of Birmingham) and was chaired by Bob Phelps (Surrey European Management School).

Where applicable, reviewers were not paired with their own manuscripts. In the case of disagreement among the two primary referees, a third referee was used and a majority opinion sought. The referees’ comments were returned to all authors who were asked to revise their papers accordingly.

Of the seven papers selected for this issue, two represent the mathematical modelling paradigm. Both take the case of competition between two firms as their starting point. Both look at the importance of risk aversion on the dynamics of competition. These models generate insights into the effects of different behaviours within a simulated setting and, in turn, provide implications to management.

Four papers look respectively at the relation between behaviour, capabilities, regulation, and planning, and the performance of firms in dynamic environments. Each of these studies also provides managerial (and in one case, regulatory) implications for strategic choices. The final paper develops a framework for the effects of information systems on sustainable advantage. Rather than proposing simple relationships, this framework exemplifies the effect of complexity by including interacting components that give rise to nonlinear effects on the firm.

Stickel models the interactions between two competing firms with different risk aversion profiles in an environment where uncertainty reduction is possible. Contrary to the received wisdom that high performance is related to high risk taking, he finds that under certain conditions, reducing uncertainty can lead to reduced performance. This counter-intuitive result shows how even relatively simple dynamic interacting systems can produce unexpected behaviour, and warns against accepting simplistic explanations. Whitby et al. apply chaos theory to duopolistic competition where product quality is related to expenditure. A computer simulation shows that the interactions between competitors can result in chaotic outcomes for this system. Investigating the conditions under which chaos reigns suggests strategies that may be taken to avoid chaotic outcomes.
Jones and Kashlak relate the performance of US tobacco companies to strategic risk-taking. They find a U-shaped relationship: greater risk taking is associated both with high performers in this industry and with low performers, whereas lower risk taking is associated with average performers. This somewhat counter-intuitive result again emphasizes the complexity of organizations and the difficulty of finding simple relations in dynamic systems. Parker analyses the changed environment faced by deregulated telecommunications firms. He provides a model of the effects of the regulatory environment on moulding the strategic choices made by firms and on their performance. Empirical evidence is used to validate the relationships proposed in the model. Once again, factors are found to interact in complex ways in affecting performance outcomes. Ghosh et al. examine 50 top enterprises in Singapore. They look at the types of strategy employed by these firms and the supporting factors and capabilities needed to successfully implement these strategies. They find that although different firms adopt different strategies, the underpinning capabilities needed to support a successful strategy appear to be universal across these companies. This suggests an underlying order generating the multiplicity of observed strategies. Phelps et al. study the impact of scenario planning. While this technique has been proposed as a means of dealing with change and uncertainty, little empirical evidence has been available to support its efficacy. Two independent studies of the UK water industry and of IT consultancies provide consistent evidence that scenario analysis is positively associated with performance. This study has managerial implications for companies in dynamic environments.

Philip and Booth construct a framework of how information systems affect organizations. Rather than relying on simple relationships such as lifecycle stages, they propose a nonlinear framework involving six interacting factors. Case studies are used to illustrate the role of information systems in supporting sustainable advantage. This paper again exemplifies the need for complex models involving interacting factors in the quest to understand dynamic organizational systems.

As a whole, these seven papers illustrate the need to be aware of the complex dynamics that can be exhibited by even simple interacting systems. As strategies change and interact with strategies of competitors and environmental changes, complex forms of behaviour are generated. We are only at the initial stages of discovering how to analyse these behaviours and their causes. These papers show some directions in which future research may proceed.