Managing Organizational Change: Integrating strategy through the exploration of detail and dynamic complexity.

Anthony Gill
Phrontis Limited
Beacon House, Horn Hill Road, Adderbury, Banbury, OX17 3EU, UK
Tele: +44 1295 812262 Fax: +44 1295 812511 Web: http://www.phrontis.com
Email: Tony.Gill@phrontis.com

Abstract
This Poster Presentation will explore how multimethodology – combining areas of strategy, system dynamics and the Viable System Model in a single study – can be used to inform the management of change. The process of managing change defines the gap between where an organization currently is and where it would like to be. This makes the process a goal seeking one and performance measurement is thus required to ensure the "gap" is reducing over time. The Balanced Scorecard is used for this purpose. It is hoped that a debate on the ramifications of this approach may develop and these comments will be fed into the final draft for the Conference Proceedings.

Key words: Strategy, Resource Based View of the Firm, Balanced Scorecard, Viable System Model (VSM), Deployment Flowcharting, System Dynamics, Strategy Dynamics and Multimethodology.

Introduction

TQM, BPR and now Business Process Management (BPM) plus the ever increasing power of Information Technology (IT) have given people in organizations ways of defining and managing far greater complexity than has been possible in previous decades. The growing use of Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) software are instances of this. New forms of organization made possible by outsourcing and off-shoring, the growing use of call centres and IT are emerging – eg, web based, networked and virtual organizations. Improving global economic performance is likely to accelerate the pace of change. Events post 11 September 2001 have made Western Governments more inclined to share intelligence in order to counter terrorism and make structural adjustments to their organizations in order to respond better. We have seen the collapse of organizations such as Enron and Parmalait and the rise of topics such as corporate governance. How can managers develop a better appreciation of the complexity to be managed? How can models capture the necessary complexity for better decision taking by managers? Managing complexity in an ever changing world is central to good management and tools such as spreadsheets and matrices are totally inadequate.

This poster presentation draws on the author's research now nearing completion. In essence, this triangulated approach for modelling change considers the resource based view of the firm from the strategy domain, system dynamics (SD) for revealing dynamic complexity and the Viable System Model linked to deployment flow charting to capture detail complexity.

By virtue of the topic, the approach of necessity has to be transdisciplinary to capture key dimensions of the issues affecting change. Depending on the reasons or need to appreciate the nature of change, an 'onion layered' approach to modelling may be undertaken. Getting close to the inner core will tend to reveal a 'very rich picture'. The richer the picture required the greater the resource that needs to be brought to reveal the various layers of complexity. As we progress, we need to discuss methodological implications – multimethodology.

Modelling Organizational Change

In essence, SD models how stocks accumulate and/or deplete over time for the system-in-focus. Thus all SD modellers appreciate the fact that structure determines behaviour which in turn results in the events we witness day by day. But the issue of organizational change often results in changing the structure of the organization itself eg, the creation of new strategic business units, mergers and acquisitions etc. This can only be modelled by moving to a meta-level.

The work from the Organization Development community is informative for this meta-level modelling. Beckhard and Harris (1987) propose a useful model for managing complex change. Key variables in their model are the 'present state' and the 'desired future state' of the organization or system-in-focus. There are many other variables (and actions) offered as part of the model. The critical feature though is the 'gap' to be managed in moving from the 'present state' to the 'desired future state'. This gap tells us we are dealing with a goal seeking system.

The poster presentation explores a model on meta-level change that consists of two interconnected negative feedback loops. The one loop is about resource building – evolutionary change – while the second loop concerns revolutionary change where structural changes in the system-in-focus are likely. This model is the first layer of the onion.

Strategy and the Resource Based View of the Firm

There are many definitions offered for Strategy. Many make reference to the achievement of competitive advantage. The implication of this is the placement or development of the firm relative to its competitors. Porter's seminal work looks at strategy from an economic perspective both at the macro level – the five forces industry model – and at the micro level – Value Chain Analysis. Wolstenholme and Stevenson have done work in relating SD to Value Chain Analysis and presented this material at previous SD Conferences.

The Resource Based View of the Firm, a subset of the strategy domain, is focused at the micro level and looks at how resources and firm capabilities can be developed for competitive advantage. Warren (1999,2000, 2002) draws attention to the weaknesses of this static approach and has done much to develop the ideas behind the 'dynamic resource based view of the firm' – or strategy dynamics. Warren has identified the link between the development of the firm's resources (tangible and intangible) and the accumulation and depletion of stocks in SD.

With links to the resource based view of the firm, the Balanced Scorecard (Kaplan and Norton 1996, 2001, 2004) is gathering momentum as a system for management rather than a performance management framework. Again a feature of the Balanced Scorecard is its goal seeking nature: the Financial Objective for private sector organizations; and the Customer Objective for public and voluntary sector organizations. The link between SD and the Balanced Scorecard is now well established. Ferneau and a team from High Performance Systems together with Kaplan and Norton were responsible for developing an interactive simulation published by Harvard Business School: Balancing the Corporate Scorecard. The poster presentation will use the Scorecard with SD to illustrate early stage capture of dynamic complexity in a private sector organization.

Capturing Detail Complexity

The VSM (Beer 1979, 1981, 1985) has been around for some 30 years. Underpinned by Ashby's Law of Requisite Variety, it establishes a recursive structure, rather than an hierarchical structure, for all types of organizations based on essential relationships that need to exist for the organization to remain viable – ie, to have an autonomous existence over time. This systemic framework can be used in the diagnostic as well as the design mode (Espejo and Hardnen 1989).

At each level of recursion there are five systems (Espejo refers to them as Policy, Intelligence, Monitoring-Cohesion, Co-ordination and Implementation). These five systems are there for the management of the organization internally and the management of the relationship with the environment ie, customers, suppliers, regulators etc. Thus at one level you could have a Strategic Business Unit (SBU) as the system-in-focus while at the meta-level there would be the Corporation for a private sector organization. Depending on the modelling purpose, the detail required to unravel the complexity needed to make sense of how the organization functions as a whole, based on the parts and the interaction between the parts, is context dependent. The understanding of the organization is built up though the development of 'variety balance diagrams'. The higher the level of complexity the analyst wishes to understand the greater will be the number of variety balance diagrams. In effect organizational processes are being articulated – a way of capturing organizational detail complexity.

Much has been written about business processes or process management under the topics of TQM and BPR (Davenport, Hammer and Champy, Harrington). Deployment (or matrix) flow charting (DFC) provides a way of capturing detail complexity in the business processes. A feature of DFC is linking each process to an organizational unit or team.

One of the difficulties of process management has been the issue of organization structure. Initially in the early 1990s the notion of flattening the organization prevailed ie, no hierarchical structure. Thereafter a limited form of hierarchy was advocated. Combining business and organizational processes (ie, DFC plus VSM) has been proposed as a way around this problem (Gill 1998).

A key benefit for developing an understanding of detail complexity is in the area of process improvement. The capture (and development) of organizational routines and procedures is fundamental to this endeavour if the capabilities of the firm are to be enhanced.

Strategy over the past two decades has been subjected to considerable fragmentation – perhaps a series of management fads and fashions. There is a stream of literature now emerging on the need for strategy integration (Volberda and Elfring 2001). The VSM is well suited to be this 'container' for strategy integration. The poster presentation will elaborate further on this point particularly on the VSM and the resource based view of the firm.

Additionally, the VSM is proposed as a 'route map' or navigational aid for SD modelling in complex organizational contexts. Diagnostic points resulting from a VSM analysis signal issues of concern for further investigation using SD. In a similar way, the VSM is used to develop and capture the organizational units for Balanced Scorecards implementation and execution ie, the Corporate Unit, Strategy Business Units (SBUs) and Service Support Units as defined by Kaplan and Norton. These aspects are explored in the poster presentation.

Capturing Dynamic Complexity

Much has been written about system dynamics (Forrester 1961, Richardson and Pugh 1981, Sterman 2000) and the field is well established. Supporting the theory there are easy to use software packages from High Performance Systems, Powersim and Vensim. The SD community is thus well endowed with theory and software tools to support its modelling and simulation initiatives.

The poster presentation will focus on the Strategy Dynamics approach to developing a Balanced Scorecard as the way of capturing dynamic complexity at the strategic level. This will link to the VSM and the Scorecards for Corporate, SBUs and Service Support Units.

Multimethodology

This poster presentation explores a pragmatic way of using detail and dynamic complexity in the same study. Whether we like it or not, people are beginning to combine detail and dynamic complexity within the same intervention in order to gain additional insights on the workings of their organization in a competitive environment. Critically important is the need to address the associated problems (eg, the potential for paradigm incommensurability). In essence, this is at the heart of what has been defined as multimethodology (Mingers and Gill, 1997).

Another consideration is the philosophical domain that can underpin the combined approaches. How does this relate to the statement made in the SD Conference Programme: "…. system dynamics is based on what are observed, deduced or presumed to be true causal interrelationships…."? Under what conditions can SD "… offer the opportunity to support open debate and serve as an 'honest broker' of ideas…"?

Case study
A single case study based on an IT services company will be used to demonstrate and test this framework. The case study organization is undergoing significant change due to the significant growth that is altering work practices. The presentation will touch on some of the growing pains of small organizations as they move from "gifted amateurs to gifted professionals". This case study will also be used to illustrate the use of the methods outlined in this abstract.

Conclusions
A review of the benefits and negative aspects of this approach to studying organizations will be presented with recommendations for further research.

2 April 2004

Back to the Top