

4th MAAOE Conference 2003**Sustainable Business Excellence: A Dynamic Equilibrium Framework*****William Varey***

Leaders in Excellence Network (*Founder*)
 Forsyth Consulting Group (*Executive Director*)
 West Perth, Western Australia

Abstract: *This paper proposes a conceptual framework to enable conscious and decisive action at the points of crisis and change in an organization's strategic development. It argues that sustainable growth can be maintained by creating a dynamic equilibrium of excellence using the framework presented.*

The proposed framework comprises seven components that reflect the system dynamics that an organization must maintain in equilibrium to sustain growth. This is represented in the form of a model and compared to and distinguished from established business excellence frameworks. The uniquely different components of the framework and their inter-relationship are explained with reference to three brief case studies.

1. Introduction**1.1 Quality Management in Crisis**

Crisis is attributed with two meanings: 1. a time of danger or great difficulty, and 2. a decisive moment or turning point (Thompson 1992). Conscious action taken at decisive moments and turning points can enable organizations to avoid great difficulties. The latter definition provides a useful focus for avoiding crisis by the proactive management of inevitable change.

Difficulties that are externally caused can be avoided and managed by proactive strategic management and responsive business strategies (Porter 1980, Jacobson 1992, D' Aveni 1994). Internally generated difficulties can be avoided by organisations proactively establishing quality practices (Deming 1986). Business excellence frameworks, combined with continuous improvement processes, provide a structure to manage the complexity within integrated quality systems, reducing the risk of internally generated operational crisis and ensuring equilibrium in levels of performance and excellence (Oakland et al 2002).

In practice, business excellence is not always managed in this way, especially during periods of rapid growth and expansion in small to medium sized enterprises (Raham 2001). Maintaining standards of excellence involves consistency and stasis, but innovation and growth in organizations necessarily involves change and disequilibrium (Jacobson 1992). This highlights the inherent conflict between the equilibrium required to achieve standards of quality and the disequilibrium of continuous improvement, innovation and growth (D' Aveni 1994). The difficulty in management of the flux between the two, especially at critical turning points, suggests the need for the conscious development of a composite alternative: a 'dynamic equilibrium'.

1.2 Dynamic Equilibrium

To achieve this dynamic equilibrium requires management to be conscious of the system dynamics enabling business excellence. Systems that prove functional in creating the internal dynamics that support growth may emerge as a process of limited organisational learning, rather than as a conscious and controlled process of strategic management (Agyris and Schön 1999, Varey 2001). During rapid expansion, the receding limit of managerial potential makes it increasingly difficult for already pressured managerial teams to identify the cause of internally generated crisis in complex and expanding inter-related systems. Once in the crisis of disequilibrium, an organisation may be unable to regain an equilibrium in its system dynamics and a period of stagnation may follow, notwithstanding ongoing efforts to manage the crisis internally (Penrose 1995).

Organisations in this crisis of dynamic stasis, while able to sustain excellence within the separate components of their quality systems, must also restore the equilibrium *between* components, if they are to move through these developmental turning points. Sustainable business excellence is then focussed on maintaining functional system dynamics, as well as dynamic quality systems. One without the other would be ineffective. A meta-level analysis is required to achieve both (Kanji 1998).

The lack of a simple framework to find a way of conceptualising the system dynamics of business excellence unique to any business at this meta-level is noted. If such a framework existed this would enable management to find clarity within crisis, address system imbalances and proactively plan for dynamic change. Internal difficulties could then be consciously managed and future crisis avoided, enabling sustainable business excellence and growth.

2. Model Generation

2.1 Basis for Model

The research proposition of this paper has its basis, not in looking at the components of quality practices within an integrated business excellence framework, but instead the examination of the dynamics between those components to determine if categories for the system dynamics of a quality system could be identified.

2.2 Sample Group

The system dynamics of 15 organisations were examined. The organisations were selected from the private, public and not-for-profit sectors. The sample group organisations were from a diverse range of industries, involved in manufacturing, sales, planning, design, light industrial, allied-health, financial services, domestic services, technology services and community services – a broad cross section to support a comparative methodology (Easterby Smith et al 2002). The common features of the sample group were that all organisations had operations in one or more locations within the geographic region (Western Australia) and all of the organisations were small to medium sized enterprises (5-150 employees). This allowed for an acceptable compromise of a sample of organisational systems with dynamics of sufficient complexity and diversity, but not of so large a scale for the analysis to be indeterminate for the level of this study (Marshall and Rossman 1995). All the organisations examined were leading companies in their market segments with a reputation for quality products and services. All were experiencing, or anticipating, a plateau of growth not related to external market factors, after a sustained period of expansion. Of the sample, two organisations were excluded from the analysis as not having met this criteria or not having been in operation long enough to have a history of sustained success.

2.3 Methodology

A grounded research methodology was adopted (Tesch 1990, Strauss and Corbin 1990, Holstein and Gubrium 1998), noting the validity of this approach in fields that can be described as pre-paradigmatic (Silverman 2000). Qualitative data was collected from interviews with the management of each organisation. The interviews were conducted at the time of crisis and/or a plateau in growth. The symptoms of internal crisis were clearly identified in the interviews. By contrast, the cause of the plateau in the rate of growth was generally unidentified by the management of the organisation. The symptomatic causes of crisis were noted for each organisation and coded. Composite categories of system dynamics were then formed from the common causal dynamics identified. The composite categories were then defined so as to describe the inter-relationship between system dynamics. A descriptive model was developed, altered and refined as further data was gathered, resulting in a conceptual framework for analysing the system dynamics creating internal limitations for growth in organisational development. The framework is represented diagrammatically as a dynamic equilibrium modelling tool (the DEM). This process was conducted over a three year period.

3. Description of Model: 7 Components

The DEM comprises 7 components described as 1. Purpose, 2. Position, 3. Partners, 4. Products, 5. Processes, 6. Perception and 7. Leadership (Figure 1). Each component represents a category of system dynamics. Each component descriptor has a common meaning (Thompson 1992) and this needs to be distinguished from the particular technical meaning attributed for the purposes of this model. Definition of the seven components demonstrates how they form mutually exclusive and inter-dependent categories.

3.1 Purpose

Purpose has a common meaning as both 1. the objective to attain and 2. the intention to act. Its technical meaning within the DEM is reflective of both these common meanings. Business targets are the definition of the objectives an organisation seeks to attain and business results are the assessment of whether these objectives have been met. However, the intention behind the action is equally as important as a driver of excellence. The use of the term *Purpose* links intention (or motivation) and objectives (the results desired). It reflects a subjective intent and a subjective assessment of what success looks like for that particular organisation, as well as its reason for existence which provides the organisation's foundation. This is the 'Why'.

3.2 Position

Position has multiple common meanings, including 1. a place occupied by a person or thing, 2. way in which things are arranged, 3. proper place, 4. advantage and 5. situation in relation to others. In the DEM, *Position* has all of these meanings but is used in the technical sense of where the organisation is positioned in its market in relation to its customers and its competitors. *Position* implies a conscious choice. Whether the positioning dimension is interpreted as being geographic, by market segmentation, status or value related, price dependent or temporal will depend on the relative strategic importance of these dimensions to the organisation applying the model. This relevance (and the resulting meaning) may change from time to time. This is the 'Where'.

3.3 Partners

Partners has the common meaning of a person who shares or takes part with another or others, especially in business. In its technical meaning in the DEM model it reflects that *Partners* includes suppliers, employees, contractors, strategic alliance partners, and those other communities of stakeholders who contribute to, and influence the success of, an organisation. All share in the results and take part in the overall activities of the organisation and are within the definition of *Partners*. They are distinguished from customers who, not being captured in some form of relationship, form part of the market within which the organisation is positioned. This wider group of stakeholders reflects a contemporary perspective on corporate social responsibility. This is the 'With Whom'.

3.4 Products

Products has a common meaning of the thing or substance produced and is often distinguished from 'services'. The technical meaning of *Products* in the DEM model is wider than the common meaning, referring to the product of the activity the organisation engages in. These 'products' may be tangible (manufactured goods) or intangible (the impacts of services). The definition adopted by Juran (1992) of products, being the output of any process which includes goods and services both internal and external to the company, is the meaning intended for the purposes of the DEM. This is the 'What'.

3.5 Processes

Processes has the common meaning of a course of action or way of proceeding, including a series of stages in production. In the DEM model *Processes* encompasses all internal and external actions of the organisation, but with the level of focus relevant to the analysis being undertaken. *Processes* includes the combination of the resources and capabilities of the organisation and their arrangement so as to be productive as part of the organisation's supply chain. As an examination of internal growth dynamics, sources of supply of unique resources and the ability to generate required capabilities are assumed, the limiting internal dynamic examined instead being their identification and efficient utilisation. This is the 'How.'

3.6 Perception

Perception has a common definition of the act or faculty of perceiving: the way of seeing. It has a technical meaning in the DEM model of both the method of obtaining and analyzing data and the interpretation that is put on that data. *Perception* comprises three components in a hierarchy of abstraction. These are 1. Data, 2. Information and 3. Knowledge. Data means the collected data in its base level form. Information is the meaningful interpretation of that data. Knowledge is the meaningful interpretation of the information gathered. The combination of the three into the composite term *Perception* conveys the generation of knowledge, its attribution with meaning and its capture and management. Cultural and perceptive biases are acknowledged within the term *Perception*. This is the 'Whether' – meaning whether or not the organisation knows.

3.7 Leadership

The common definitions of leadership that require tautology (ie someone who leads) or positional status (ie attributes demonstrated by a leader) are not useful in this context. In the DEM, *Leadership* has the technical meaning of those functions and capacities that allow the conscious and effective combination of all of the other components of the DEM to create organisational excellence. It reflects the accepted leadership capacities of clarity of vision, the reflection and definition of purpose, the management and influence of culture, the design of organisational structure, ethical and moral action and the guidance and implementation of change. It includes the generation and implementation of strategy. It is not positional and refers to leadership where-so-ever evidenced in the organisational structure. An expansive definition is intended. While *Leadership* manages the system dynamics, it is itself a dynamic of the system. This is the role of 'Who', and in terms of strategy, determining 'When'.

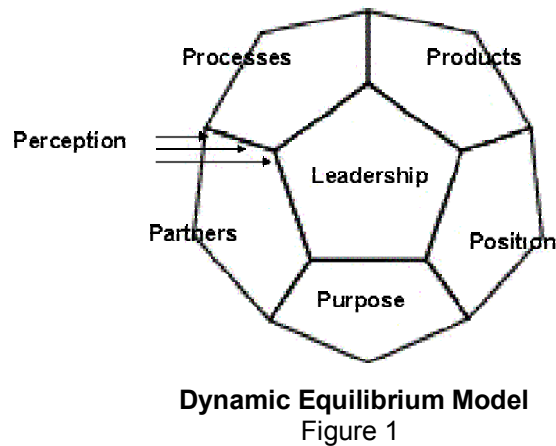
3.8 Omitted Categories

Conceptual frameworks for business excellence may or may not incorporate other dimensional drivers of business performance, such as structure, culture, political power, market climate, access to capital or the ability to manage change. The need for more expansive models is noted (Kanji 1996, Nooreha et al 2001, Marrewijk and Hardjono 2003). However, to include all the distinct, internal and external, dimensions of business management for organisational excellence into a single model may be unworkable.

For a conceptual framework to be represented as a truly integrated model, a multi-dimensional holistic and holonic approach should be adopted (Wilber 2000) within a descriptive holarchy (Koestler 1967). It should also reflect and encompass differing ontological perspectives (Popper 1994, Easterby Smith et al 1998). For this reason the DEM is considered to be inclusive, but not integrated or holistic (notwithstanding that other inclusive models are labelled as such).

The enumerated components of the DEM are not categories within a business excellence framework that define areas of focus, but categories of dynamics between such areas. This is the reason the DEM components are not descriptors of the things an organisation must do, or have, to sustain excellence, but points of reference within a conceptual framework of the dynamics it

must proactively manage to achieve this. In understanding both the level and span of the dimension examined, and that the model is not intended to be integral, merely integrative, omissions from the model can be considered intentional.



4. Inter-relationship of Components: Composition and Use of Model

4.1 Conceptual Overview

The economy of length of this paper does not allow an explanation of the structuring and positioning of the inter-dependent component parts of the DEM and their inter-relationship. However, the European Quality Award (EQA) framework is described in a single sentence by Juran (1988) as expressing the concept that *customer satisfaction, people (employee) satisfaction* and a positive *impact on society* can be achieved through *leadership* as the driving force behind *policy and strategy, people management* and management of *resources and processes*, and this leads ultimately to *business results*'. Similarly, the Dynamic Equilibrium Model (DEM) (Figure1) can be described as expressing the concept that sustainable business excellence can be achieved when *purpose* and market *position* align with the delivery of quality *products* through *processes* and *partners* enabled by *leadership* who, informed by accurate *perception*, continuously assess and re-define *purpose*. Rather than a sequential model, where one part leads to the next in stages like a production chain, the DEM is a composite model. Hence it is circular in shape. Its application is intended to be multi-dimensional, not prescriptively lineal.

4.2 Intended Use and Application

There are three intended (and staged) uses for the DEM: 1. *System Dynamics Analysis*: to determine the dynamics in equilibrium, 2. *System Dynamic Priorities*: to identify dynamics in disequilibrium requiring management, and 3. *System Dynamic Modelling*: to conceptualise changes to dynamics to plan for balanced growth. (Examples: See Section 5 Case Studies) The main use of the model is to sustain a dynamic equilibrium in the systems that support business excellence during growth. Once a conceptual model of the system dynamics of an organisation is created, causes of crisis can be identified and priorities for action clarified. Where changes to the system dynamics are required for growth, the DEM can be used to model the sequence and impact of those changes, proactively dealing with crisis at the turning points in developmental cycles.

4.3 Comparison and Contrasts with Other Models

The Malcolm Baldrige National Quality Award (NSIT), European Quality Award (EFQM), the Australian Quality Award (SAI) (and other national awards based on integrated frameworks) have categories similar to the labels used for the components of the DEM. This similarity is to be contrasted with the difference that the DEM components are categories of subjective system dynamics considered synergistically, rather than categories of objective quality criteria assessed independently. Synergetic operation is intended to mean in this case 'behaviour of whole systems unpredicted by the behaviour of their parts taken separately' (Fuller 1975).

The 7S Model (Waterman, Peters and Phillips 1980) is used to identify the iterative impacts on the constituent parts of the organisation in implementing a strategy to build a new corporate capability. A specific tool with a specific purpose (cf. Peters and Waterman 1982). A criticism of the 7S Model is that it promotes alignment of the constituent parts promoting stasis (Pascale et al 2001). By contrast, the DEM is not designed to show the systemic effects on all components of an organisation from changes to one component part, but instead is designed to identify the systemic effects of component dynamics. The DEM is a different model with a different purpose, promoting the management of a dynamic equilibrium, not stasis, by using a different underlying conceptual framework.

The DEM, as a meta-level excellence model, is consistent with other quality processes and frameworks; reflecting the underlying foundation in quality principles. Juran (1992) proposes, in his trilogy of quality planning, control and improvement, a series of steps which loosely correspond with an anti-clockwise application of the DEM; the difference being the DEM emphasis on the variable dynamic of leadership in each step of the process. This comparison is merely illustrative of

compatibility of the DEM at both a dynamics level and a systems planning level, but not a suggestion that it should be used as a replacement for a systematic quality planning approach.

5. Case Studies: Demonstrated Uses of Model

The application of the three intended uses of the DEM to three indicative case studies illustrates how the conceptual framework for analysis of the management of a dynamic equilibrium of internal growth dynamics can be applied in practice.

5.1 Case Study A (System Dynamics Analysis): Small Sized Supplier Products and Services (Technology)

Company A: Operating for 15 years, this small software sales and technology consulting services company with between 8-12 employees (and 25 contractors) averaged steady revenue increases of 6% p.a. over the previous 5 years. As a sole and exclusive supplier of its products in its markets there was significant potential for growth. Expansion was limited by cash-flow pressures during the long developmental lead-time new staff needed to develop the required specialist expertise. In avoiding crisis, stasis resulted. A DEM analysis identified the complementary inter-relationship between its 5 service groups (Products) in each market segment (Position), the relationship between profits and revenue for each service (Perception) and the staff allocations required (Partners) to support growth targets (Purpose). Clarity in the system dynamics then supported management (Leadership) in making the strategic decisions to expand into complementary services and to recruit and train the key staff needed to support this growth, monitoring the business equilibrium through clearly defined financial and non-financial metrics.

5.2 Case Study B (System Dynamic Priorities): Small-Medium Sized Manufacturer (Industrial)

Company B: Formed 8 years ago, this owner-operated design and manufacture business grew to 23 employees. With a reputation as the leading national supplier in its specialist market segment this complex business had fluctuating revenue growth, averaging -8.8% p.a. in decline, and reaching a peak of +23% p.a., before again declining. Attempts at faster growth caused disequilibrium and crisis due to the limitations on the span of management. With strengths in Purpose, Position and Products, a DEM analysis identified the need for development in other priority areas, first through systems and equipment upgrades (Process), then the recruitment of key staff for new roles for the new processes (Partners), to be monitored through key management metrics (Perception). This allowed the historically hands-on-management to move towards delegated management (Leadership), creating the additional managerial capacity needed to manage a balanced plan of further growth.

5.3 Case Study C (System Dynamics Modelling): Medium Sized Services Organisation (Allied Health)

Company C: Operating under the present structure for 5 years, this not-for-profit, government funded, private enterprise is the leading provider of a range of allied health services. With revenue growth averaging 14.2% p.a., its number of employees expanded to 120 (full-time, part-time and contracted). Strategically identifying that in 5 years independent sources of funding would be required (*Leadership*), its market (*Position*) was re-assessed. A proposal to establish five new service areas (*Products*) was modelled using the DEM, marking a turning point for the organisation. This prompted revised financial and non-financial targets (*Purpose*), new accounting systems (*Perception*) and a business group re-structure to support the development of new staff competencies (*Partners*). Using the Australian Business Excellence Framework (ABEF) to maintain quality processes within components, new quality systems for the new services were designed (*Process*). This proactive planning approach enabled the organisation to avoid crisis by dynamically modelling the equilibrium needed to sustain excellence.

6. Conclusion

6.1 Summary

Use of the DEM model within a conceptual framework of a dynamic equilibrium of excellence and growth provides a way for organisations to analyse their unique system dynamics of business excellence prior to crisis, to identify priorities for action within crisis and to conceptually model system dynamics to proactively avoid future crisis. The DEM facilitates the conscious management of the internal system dynamics that limit or enhance organisational growth and performance to then enable organisations to achieve sustainable business excellence.

6.2 Further Research

The Dynamic Equilibrium Model for managing innovation and growth is at this stage a grounded theory research proposition. It has the inherent limitations of any qualitative research methodology in generating only a first level iterative theory of plausible relationships amongst concepts (Strauss and Corbin 1998) but with the advantage of the experiential development of theory within practice (Leonard and McAdam 2001, 2002). Having developed the framework and model, further work is being undertaken to develop a valid research tool to provide data for an analysis of the interrelationships between the components, making an examination of correlations with other indicators of sustainable business excellence possible.

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Bio

William Varey (BJuris., LLB(Hons), MLM (Distn)) is the founder and Executive Director of the Forsyth Consulting Group, a consultancy specialising in strategic organisational development. He is presently working on pre-doctoral research into the theories of growth of organisations and integrated models for sustainable organisational development, extending on his Masters research into the dynamics of generative learning in organisations. He was awarded the 2001 Merit Scholarship by the Curtin University of Technology, Graduate School of Business for academic excellence in the Master of Leadership and Management program. He is an Associate Fellow of the Australian Institute of Management (AFAIM), a professional tutor for the Australian Institute of Company Directors (MAICD) and a member of the Association for Humanistic Psychology (AHP).