

# Preface and Summary

Traditionally, the operational performance of enterprises has been measured in terms of financial accountability and profit. However, in the global knowledge economy, performance should be measured in terms of corporate governance, organization behaviour and supply chain management.

The subject of this book is the development of a contemporary organization behaviour performance measurement (OBPM) model for enterprises in the emerging global knowledge economy. A case study on an Australian national enterprise has been undertaken.

The world of commerce was irrevocably changed in the 1990s as speed, accessibility, reliability and accuracy of information transfer was facilitated by the new information communication technologies of computerization and the internet. Consequently, modes of doing business, styles of management, and ways of measuring organization performance became dated. Not only have these become obsolete, but the myopic and fragmented approaches of the past have also become inadequate for corporations operating in contemporary global supply chains. A new integrated approach with proven practical application and contemporary relevance is needed. This book develops such a new concept by integrating the fields of organization behaviour (OB) and supply chain management (SCM) with an open sociotechnical systems (OSTS) theory of management, and Operations Research applied to corporate governance (CG) for the measurement of organization performance. The model was applied and validated in the Australian banking sector.

The viewpoint of this book is that organization performance is embodied throughout the global and local economies the corporation operates in, and the social and business mores it must adhere to. However, performance emanates primarily from the direct stewardship of the firm by its management, hence the role of CG for the firm, and its migration into the supply network. But performance must be measured before it can be improved. Operations Research provides the methodology.

Data envelopment analysis (DEA) is a linear programming technique successfully used to measure performance in instances where other techniques were found wanting. It has been so widely applied in very diverse areas of research by many investigators that it is approaching mainstream with dedicated computer software available. However, it has not been applied to a performance measurement (PM) framework incorporating OB in OSTS and the CG of the 'corporate social

responsibility management capacity' (CSRMC) model in a supply network in an Australian company. DEA software has been used on Australian banking data to develop and test such a model.

The results of the research were positive because the DEA algorithm was able to discriminate 11 unquestionably efficient business units from a cohort of 231 on the bank's CSRMC ratings, even though the bank itself is a serial gold star performer on national corporate social responsibility (CSR) citizenship indices. An inter-item correlation analysis of the efficient units provided an insight into the major factors. These were humanistic management, organizational support and empowerment, and a commitment to business ethics, as well as various aspects of stakeholder acknowledgement and engagement. These results provide support for the OBPM framework with subsequent implications of such a contemporary PM model.

The DEA measurement of the OBPM model has provided a new method of application for enterprises operating in the contemporary global knowledge economy. The CCR model of DEA was tested using an established operations research procedure and followed up with correlation analysis. Variations to the basic DEA model were analysed, and their inclusion in this study was rejected. Alternative methods of measuring performance were also discussed. The results of the final trials are not only plausible, but also comprehensive and intuitively correct.

The results strongly support an OBPM model on the basis that (1) DEA is an effective instrument in the operations research methodology, used to elicit efficiently performing business units, (2) that CSR is a validated significant dimension of corporate governance, and that (3) the organizational behaviour inherent in an humanistic OSTs-designed enterprise enhances corporate citizenship.

DEA is a well established technique for identifying efficient production frontiers in many fields of study. Here it has been successful in identifying the efficient frontier for those business units in the corporation that are the top achievers in corporate social responsibility. It has thus performed the intended task of providing an organization performance metric with information from the fundamentally qualitative construct of CSR. This strengthens the adoption of DEA as a legitimate diagnostic instrument for the measurement of performance across various organizational dimensions.

Corporate social responsibility is generally accepted as one of the dimensions of corporate governance. CG is a system of multiple parameters with many factors. Those factors that were tested as antecedents of CSR, and thus of CG, were validated by DEA and supported by further correlation analysis. This suggests that CSR can contribute to organization performance, and that other dimensions of CG could be similarly investigated. The factors identified as contributors to performance also happen to coincide as factors characteristic of the organization behaviours found in those enterprises that adopt an OSTs style of management.

A feature of OSTs organizations is that they display a conjunction of technical and social subsystems. In this study the humanistic style of management, with its particular characteristics, was identified as the social subsystem's contribution to organization performance. This is justified by the validity of those social factors as displayed by the positive results of their measured scores.

There are however some limitations to this study. The non-parametric nature of DEA and some of its design peculiarities means that it is not applicable for the measurement of performance in every instance. These are identified and discussed in terms of their impact on this study. The data is classed 'secondary data' and comes as empirical evidence from other research. The final limitation to this research is its embryonic status. It has revealed a path forward with only a few steps taken. However, this does provide an insight to company strategy and has implications for an enterprise in a contemporary global knowledge economy.

The enterprise of the new era will need to be accountable, responsive and adaptable, yet proactive and innovative. It will need to draw on its knowledge capital and rapidly evolving hard and soft information communication technologies, which parallel the social and technical subsystems of sociotechnical systems theory. The quest to be competitive will require it to reconfigure itself to the OSTS design of this book, with an integration of CG, OB and SCM through a PM system based on optimization techniques from operations research.

This book has made a significant and valuable contribution to the literature in the fields of OB and management theory, SCM, CG, PM and DEA. These are well established fields in their own right with comprehensive literature supporting their academic interest, and each with relevance to organization performance. Each has research supporting the main tenets of these disciplines. There is little however, that bridges these disciplines. This book commences that process.

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