Editorial

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Biographical notes: Necmi K. Avkiran is currently a Senior Lecturer at UQ Business School, University of Queensland, Australia. His academic qualifications are Bachelor of Science (Honours) from Bradford University, UK; Master of Business Administration (Finance concentration) from Boston College, USA; Graduate Diploma in Education from La Trobe University, Australia and Doctor of Philosophy in Banking from Victoria University, Australia. His main areas of interest are banking and finance and productivity in the service sector. He has published his work in the *Journal of Banking and Finance, Journal of Economics and Finance, Studies in Economics and Finance, Socio-Economic Planning Sciences, International Journal of Business Performance Management, Scientometrics, International Journal of Bank Marketing (UK), Journal of Asia-Pacific Business, International Journal of Human Resource Management, Personnel Review* and *Asia Pacific Journal of Human Resources*. He is a member of the Australian Society for Operations Research and the Australasian Institute of Banking and Finance.

1 Introduction

This Special Issue of the *International Journal of Business Performance Management* is on 'Productivity Benchmarking', a topic that continues to grow in importance. The developed countries have to deal with a few difficult economic and political decisions faced with a rapidly aging population that cannot be sustained by an ever diminishing work force. Similarly, the developing countries are increasingly looking at raising the productivity of their economies as labour costs rise, domestic consumption increases and their economies grow.

The principal aim of this Special Issue is to foster multi-disciplinary productivity benchmarking to raise awareness of this economically and politically important topic amongst organisations of all kinds. Outcomes of this Special Issue include coming together of various productivity benchmarking practices and methodologies that highlight new as well as a few of the older well-established approaches. It has attracted a number of interesting submissions, including theoretical papers, empirical papers and case studies. Four out of the five papers in this Special Issue use Data Envelopment Analysis (DEA) for benchmarking. This is a partial testimony to tell how well DEA has been accepted by academics and practitioners from various backgrounds since its inception in 1978. Next, a brief outline of the accepted papers follows in the order of print.

Bogetoft, Bramsen and Nielsen highlight the principles of balanced benchmarking, where they combine balanced scorecard and interactive benchmarking. They use DEA to demonstrate how the design and implementation of a balanced scorecard can be facilitated. In essence, they argue that benchmarking can support a balanced scorecard. According to the authors, interactive benchmarking combines benchmarking of relative performance while incorporating managerial preferences to develop relevant targets. The manager interacts with the benchmarking models by changing the set of references and direction. Interactive benchmarking can contribute to a balanced scorecard by testing alternative strategies, exploring cause and effect relations and measuring and communicating the relative performance.

Durst and Binder provide an in-depth discussion of internal benchmarking based on a case study undertaken in a complex industrial setting spanning three European countries. Their paper identifies the key challenges of a top-down approach to internal benchmarking. These include inappropriate benchmarking partners, incompatible benchmarking objects and results, unidentified performance gaps, limited acceptance of improvement measures and delivering average results, while aiming for the best results. The case study in this paper focuses on the distribution logistics process because of its impact on customer satisfaction. The authors show how to improve productivity and reduce costs by focussing on critical success factors and the related key performance indicators. They recommend that benchmarking starts as an internal exercise as it is easier to secure the cooperation of candidates.

Avkiran demonstrates a process for developing a model to measure the knowledge production performance of individual research centres by focussing on triple bottom line benchmarking. The performance model developed using the Australian case is guided by the revised Cooperative Research Centres Programme objectives and represents an executive managerial view of research centres. The author expects policy makers in other countries to substitute their corresponding objectives to initiate the performance modelling process demonstrated in this paper. This study addresses shortcomings of existing measures by capturing the links between organisational objectives, desired outcomes and outputs. The empirical illustration using the slacks-based measure of DEA shows how current mathematical DEA models can be applied to simultaneously capture a fully unit invariant measure of radial and non-radial inefficiency on output as well as the input side of the equation. The author highlights various research design problems, and the one is likely to encounter and offer solutions. In addition to demonstrating the main results from DEA, the author also details three tests on robustness of the efficient frontier, which is often neglected.

Staat uses DEA to study the efficiency of computer product market, and bootstrap scores to explore how market efficiency measures are influenced by the bias of the DEA estimator. The author answers to such questions as: to what extent DEA scores reflect the degree of market efficiency; can DEA scores be misleading when results are compared across different markets; do results change when market shares of products are accounted for and are observed market inefficiencies transient. His paper contributes to economics as well as to operations research literature.

In the first published application of DEA to the Italian university system, Agasisti and Bianco examine the efficiency of this sector. Their findings show that a small group of best practice universities is found to be mostly located in Northern Italy. Results also point to a large variance among the efficiency of universities. The authors underline that DEA is more appropriate than single performance indicators for analysing the university

performance, yet this task proves to be difficult due to the lack of reliable data on Italian universities. The authors draw the attention to many uses of DEA results including benchmarking of board strategies and for regulation.

Finally, I thank those referees who gave their time in our increasingly hectic lives, with special thanks to Barbara Curran (Inderscience Journal Manager) for helping to tie the loose ends.