Editorial

Panayiotis H. Ketikidis*

South East European Research Centre,
CITY Liberal Studies,
Affiliated Institution of the University of Sheffield,
17 Mitropoleos Street,
Thessaloniki 54624, Greece
Fax: +30-2310-253-478
E-mail: pketikidis@seerc.info
*Corresponding author

S.C. Lenny Koh

University of Sheffield,
Management School, 9 Mappin Street,
Sheffield S1 4DT, UK
Fax: +44-0-114-222-3348
E-mail: S.C.L.Koh@sheffield.ac.uk

Biographical notes: Dr. Ketikidis H. Panayiotis received a PhD in Systems Science at City University London (UK). Also, he received an MSc in Computer Science at West Chester University (USA). He is elected since 1999 as the President for the SOLEurope – The International Society of Logistics (Thessaloniki Chapter). He was for many years an Expert (reviewer) of DG XIII (telecommunications, information industries and innovation) of the Commission of the European Community. He is also the Scientific Advisor for the Federation of IT Companies in Northern Greece (SEPVE). Information Technology Projects funded by the European Commission. His early work was in the Development of Database Systems for Patient Management in the Operating Rooms at the Hospital of the University of Pennsylvania. He was also, a Project Leader at Sterling Drug Inc., responsible for all the phases of the Software Development Life Cycle to support Discovery Research. His recent publications include papers in the IEEE-SCAMC, MEDINFO and in various conference proceedings.zr

Dr. S.C. Lenny Koh is the Director of the Logistics and Supply Chain Management Research Group and an Associate Professor/Senior Lecturer in Operations Management at the University of Sheffield Management School UK. She holds a Doctorate in Operations Management and a First-class honours degree in Industrial and Manufacturing Systems Engineering. Her research interests are in the areas of production planning and control (ERP and ERPII), uncertainty management, modern operations management practices, logistics and supply chain management, e-business, e-organisations, knowledge management, sustainable business and eco-logistics. She has 180 publications in journal papers, book, edited book, edited proceedings, edited special issues, book chapters, conference papers, technical papers and reports. She is the Editor-in-Chief of the *International Journal of Enterprise Network Management*, *International Journal of Value Chain Management* and

International Journal of Logistics Economics and Globalisation. She is the Associate Editor of the *International Journal of Systems Science*, *Enterprise Information Systems* and *International Journal of Operational Research*.

1 Introduction

The globalisation effect on supply chain in manufacturing and service industries has resulted in outsourcing, 3PL, joint venture and international business activities in enterprises. This has stimulated the need for enterprises to improve the competitiveness and performance of supply chain and to provide and maintain a better customer relationship. A wide range of theoretical frameworks such as supply chain dynamic and uncertainty, Bull-Whip Effect in supply chain, Supply Chain Management (SCM), Customer Relationships Management (CRM), strategic alliances, supplier network and cluster, mass customisation, services tailoring, intelligent logistical systems and Supply Chain Planning (SCP), have been applied to analyse the cases of supply chain and customer services.

This Special Issue of *International Journal of Services and Operations Management (IJSOM)* on Supply Chain and Customer Relationships Management in the Global Economy aims to provide academic and practitioners with consolidated, novel and applied research that covers theoretical, conceptual, practical, empirical or case-based work in these areas. For example, issues related to: What would be the compromises at customer relationship level when one outsources the core service? How to manage and sustain a virtual and global supply chain? How could an enterprise improve supplier partnership under global competition? Why managing customer relationships are fundamental to business sustainability? How to learn and share the experiences in managing supply chain and customer relationships in the mix of Eastern and Western culture businesses? Will be presented in this Special Issue.

This Special Issue contains seven papers contributed by researchers and practitioners from Canada, Hong Kong, Greece, Poland, Taiwan and UK. These papers cover a broad range of contributions including approaches to design, plan, manage, control and improve a supply chain and a demand chain, supplier selection method, strategies for enterprises to compete and survive in today's supply and demand chains and quality management issues for the public sector to improve customer services. A mix of theory building and empirical study papers that are strongly related to the practical world are available. The normal *IJSOM* review guidelines were followed. We provide a brief overview of the papers, which appear in this issue.

Denton et al. in their paper, 'An enterprise engineering approach for supply chain systems design and implementation' examine the specification and implementation of an Information Technology (IT) Route Map for supply chain systems development and deployment. The purpose of the Map is to enable rapid design and implementation of IT solutions, capable of semi-automating business processes within manufacturing supply chains. The Map helps structure transition processes involved in 'identification of key business strategies and design of business processes' and 'choice of supply chain systems and supporting implementation techniques'. Common limitations of current Enterprise Resource Planning (ERP) systems are observed and incorporated as IT Route Map implications and constraints. The study was targeted at Small- to Medium-sized

Enterprises (SMEs) that employ Engineer-To-Order (ETO) and Make-To-Order (MTO) business processes. In the course of the research, a 'Business Strategy Driven IT (BSDIT) System Concept' was conceived and examined. Part-evaluation of the applicability and capabilities of the IT Route Map has been carried out by conducting industrial survey and case study work.

This paper, 'Benefits of clustering for SME suppliers in the aerospace and defence sector through the adaptation of enterprise portals', by Michaelides and Papazian, argues that the aerospace industry today is indisputably global, with players needing to establish both a global presence and a competitive strategy in order to survive. Further, subtier mergers and acquisitions are expected in the next few years in order for companies to reduce costs and reap economies of scale. It is envisaged that further consolidation will mainly affect SME suppliers, which will either lose their independence or exit the market altogether. In order for SME suppliers to be better positioned to survive future market fluctuations associated with global events, whilst at the same time counteracting the dominance of the larger members, it was suggested in this research that they need to combine or cluster their resources. This paper reviewed or maybe 'how clustering…can be beneficial' how beneficial clustering through the adaptation of enterprise portals can be for the SME suppliers and how enabling the aggregation of data, business processes and applications can support the emergence and development of new business models in the Aerospace and Defence sector.

Benyoucef and Canbolat in their paper, 'Fuzzy AHP-based supplier selection in e-procurement' highlights that organisations need IT to help them make quick, right and accurate purchasing decisions and manage their relationships with their suppliers. It was suggested that this help comes in the form of e-procurement technology augmented with supplier selection systems. Supplier selection in e-procurement as well as in traditional procurement is a multicriteria decision-making process that deals with the optimisation of conflicting objectives such as quality, cost and delivery time. If performed manually, this process is complex and time-consuming. It was purported that in spite of the fact that supplier selection is heavily discussed in the literature and many models have been designed for it, a little effort has been dedicated to developing a system based on any of these models. In this research, they reviewed, categorised and discussed the supplier selection literature. A supplier selection system based on the Analytic Hierarchy Process (AHP), a commonly used model for multicriteria decision-making problems, was proposed. They integrated fuzzy concepts and the use of empirical data into the design of the system. The study was based on a case conducted in a hospital in order to validate the design of the supplier selection system and its underlying fuzzy AHP model.

This paper, 'Production planning and control with outsourcing using artificial intelligence', by Ławrynowicz presents a new approach to production planning and control for job shop. A general approach is: using in the first phase expert systems to create production plan and using in the second phase genetic algorithms to construct a schedule. An expert system designed to help companies in the short-term production planning and control in supply network was discussed. The proposed expert system considers alternative process plans for a workpiece and outsourcing. In this research, a new approach integrating genetic algorithm to the job shop-scheduling problem with makespan as the criterion has been developed. The proposed combination of expert system and genetic algorithm was tested using data from real factories. The research indicated that for a scheduling problem, the concept using genetic algorithm yields better results than that of using the methods based on dispatching rule.

Ko et al. in their paper, 'An innovative strategy for a manufacturing company of micromotors in Hong Kong' reports that in the electric motor industry, applications for electric motors are growing from the effect of 'modernisation', 'electrification' and 'automation'. However, it was argued that the problem facing electric motor manufacturers is not limited to the technical aspect. One must resolve to build up the support from Original Equipment Manufacturers (OEMs) of application products so as to boost the product capability for competitiveness. An innovative approach to identify the value proposition of an organisation and to formulate a strategy in order to sustain its leading position in the marketplace was proposed. The strategy is called technology innovation on product integration. This paper explains how an electric motor manufacturer can use the strategy to differentiate its competences from competitors by applying innovation in the use of technology – product integration platform that can transform the company from a Tier 2 supplier into a Tier 1.5 supplier or better.

This paper, 'Taiwanese milk supply chain and development strategy', by Lee et al. uses the '4P' concept to discuss the current Taiwanese milk supply chain development, examine the assessment indices of retailers and consumers, evaluate the importance and satisfaction of the indices using weighed means and support the result with questionnaires so as to provide two feasible development strategies. The assessment indices extracted from the Taiwanese milk supply chain are expected to be a reference for other countries when similar problems occur to their milk supply chain.

Kounis and Panagopoulos in their paper, 'Total quality management and benchmarking: Bridging the gap in the public sector' discuss the difficulties associated with benchmarking techniques and the implication of Total Quality Management (TQM) tools, in companies of the public and private sector. It identifies two major bottlenecks observed in various Greek companies, mainly associated with current organisational matters and the development of new activities. It was found that insufficient management commitment and ineffective employee motivation lead to financial loss due to ineffective benchmarking implementation. On the basis of the analysis and the evaluation of the studied outcomes, this research introduces a universally applicable, dynamic and flexible preliminary model for addressing the majority of benchmarking problems in the public and private sector. The development of a model will aid managers to study, analyse and evaluate internal and external influential parameters and determine the best course of action.

We could not have done this by ourselves and we totally appreciate the efforts and support of all who were involved in making this Special Issue possible, which includes the authors, referees, Chief Editor of Inderscience, editorial staff of *IJSOM* and the Editor of the journal. The guest editors gratefully acknowledge the assistance provided by the Editor-in-Chief of the *IJSOM* and the referees who reviewed the manuscripts for this Special Issue.