
Editorial

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Biographical notes: Fikri Dweiri is Associate Professor and Vice Dean of College of Engineering at the University of Sharjah, UAE since 2013. He holds a PhD in Industrial Engineering from the University of Texas at Arlington. He served as the Dean of the School Technological Sciences at the German-Jordanian University and the Founding Chairman of the Industrial Engineering Department at the Jordan University of Science and Technology. His research interest includes quality management, supply chain management, organisation performance excellence, multi-criteria decision making and fuzzy logic.

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Innovation has become an innermost area for companies and, in many cases; it has been recognised as the cornerstone for organisational survival and growth. There is a need to construct innovative supply chains, as opposed to independent innovative companies. Since supply chain and its innovation is a topic of interest across a broad spectrum of context. This special issue of *International Journal of Intelligent Enterprises* is devoted to cover this area. This volume consists of four papers. Brief description of each paper is as follows.

A. Nair and M. Jacob consider a multi-server Markovian queuing model where the servers can be considered as an inventory with standard (r, Q) policy and positive lead time. The demands are considered as arrivals and the time for serving the inventory is considered as the service time. Here, we consider the model in which a mixed order quantity Q is ordered each time when the on hand inventory reaches the reorder point r . Behaviour of this system is studied using a two state quasi birth and death (QBD) process. Condition for checking periodicity, the steady state solutions, the distribution of inventory recycle time and an optimisation problem are presented. Numerical illustrations are also given.

S. Irfan attempts to rationalise and facilitate the application of the MARKAL/TIMES modelling framework for modelling and planning energy use in Pakistan which has been developed as the Pakistan integrated energy model (Pak-IEM) by the Planning Commission, Government of Pakistan. The arguments are developed by applying the paradigm to the agriculture sector. The paper effectively provides a decision-making framework for identifying decision and data inputs and alternatives for future scenarios.

W. Ngamsirijit presents a demand responsive transportation (DRT) planning framework for tourism logistics in the city facing with creative tourism requirements and certain limited conditions of logistics infrastructure. It encompasses issues of system responsiveness evaluation, mode of transport selection, and new route design and implementation for DRT. Based on the planning framework, the system is applied within public transport mode, so called Baht bus, of Pattaya city and the viability is justified. The findings from the study provide more quantitative insight in further developing an effective creative tourism and logistics policies.

L. Al-Qatawneh and K. Hafeez mentioned that healthcare logistics require managing vast number of pharmaceutical and surgical products and service and facilities management items ranging from low to high value. Due to specialised nature of many health-related products, healthcare industry needs to adopt sophisticated quantitative techniques for management inventory. This paper introduces a novel *multi-criteria inventory classification* technique that takes into account *critical-to-life* criteria of the medical and pharmaceutical items in addition to their cost and usage value. This paper employ *system dynamics* to model a healthcare supply chain that incorporate critical-to-life inventory classification method. Extensive simulations are conducted to optimise the cost effectiveness of stocking these items based on *criticality of need*, *service level* assignments and *consumption rates*. The analysis provides useful guidelines for the healthcare decision makers how inventory cost can be optimised without comprising on the quality-of-life of patients.

We are thankful to the participating authors and their submitted papers; we believe that this special issue in the field on innovative supply chain management provides community (academic researchers and practitioners) a detailed information in inventory management, healthcare supply chain management, transportation management and energy management. We are also thankful for the reviewers who provide valuable feedbacks in order to improve quality of this special issue and send us their timely responses. Lastly, we would like to express our sincere gratitude to Editor-in-Chief of *International Journal of Intelligent Enterprises*, Dr. Vipul Jain for providing us an opportunity to offer a special issue in his journal and his continuous support and cooperation for successful completion.