
Introduction

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Biographical notes: Daniel Y. Mo is an Assistant Professor from the Department of Supply Chain and Information Management at The Hang Seng University of Hong Kong. He received his PhD in Industrial Engineering and Logistics Management from the Hong Kong University of Science and Technology. He has also worked as a senior logistics analyst in NetApp and lead analyst in Emerson Network Power. He is also a Certified Six Sigma Black Belt by the Hong Kong Society for Quality. His research was published in international journals such as *IEEE Transactions on Automation Science and Engineering*, *IEEE Transactions on Engineering Management* and *International Journal of Systems Science*.

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Industry 4.0 represents a further developmental stage for organisational management of the value chain process across many countries since it originated in Germany's manufacturing sector. According to a survey by a consulting company, European industrial companies are expected to invest €140 billion annually in industrial internet applications by 2020. In the five years from 2015, more than 80% of companies will have digitised their value chains. In addition, the Chinese government also outlined the 'Made in China 2025' industrial strategy with a ten-year development plan in 2015. This industrial revolution focuses on the digitalisation and integration of value chains for products and services

The content of this special issue is influenced by the Symposium on Intelligent Supply Chain Management which we organised in 2017 with the support from Research Grants Council of Hong Kong under the Grant UGC/IIDS14/E01/16. After the

symposium, we were advised from researchers to collect the related findings and to consolidate them into a special issue such that practitioners and researchers could be benefited from understanding the challenges, opportunities and methodologies of emerging technologies.

The special issue focuses on the emerging technologies of digitalisation and innovation in logistics management, and it contains five papers to report the applications of the latest technologies such as Bluetooth-based positioning system, business intelligence (BI), mobile apps with vehicle routing optimisation, simulation model and optical character recognition (OCR) technology to deal with different types of logistics management problems. The first paper by Wu et al. proposes an application of Bluetooth-based access management with positioning system (BAMPS) to ensure occupational health and safety on a cold chain. The system with five layers is illustrated in a case study and the solution shows a decrease of 66.7% in accident frequency rate and a decrease of 52.2% in corresponding compensation in accidents. The second paper by Man proposes a design of intelligent transportation systems (ITS) to improve accessible transportation services. The proposed ITS is composed of data visualisation, mobile apps and vehicle routing optimisation. In a case study, the proposed method integrates 12 routes into 6 routes to release more vehicles serving more people with disability. The third paper by Chan focuses on the application of BI to enhance the decision making for service parts logistics management. A BI tool is proposed to trace systems movement and to identify excess inventories. A cost saving opportunity is obtained in a case study collaborated with a company. The fourth paper by Cheung studies the application of simulation model in the manufacturing sector. With the simulation model, he studies the effects of adding machine, implementing lean production and conducting selectively quality check on work-in-process (WIP) inventory. The application of the proposed approach provides various analyses for management decision in a case study. Last but not least, Berg et al. study the application of OCR technology for warehouse and inventory management. Several recognition methods are evaluated when retrieving the shipment information from a carton. This paper illustrates the potential of identification technology for the design of cyber-physical systems.

We hope the technology management community will find this special issue to be an informative and useful collection of papers.