
Editorial

K. Ganesh*

IBM India Private Limited,
Global Business Services – Global Delivery,
B255, 4th Floor, The IL&FS Financial Center,
Plot No: C22, G Block, Bandra Kurla Complex,
Bandra (East), Mumbai – 400051, Maharashtra, India
E-mail: ganesh.ko@in.ibm.com
E-mail: koganes@yaho.com
*Corresponding author

S.P. Anbuudayasankar

Faculty of Mechanical Engineering,
Amrita School of Engineering,
Amrita University,
Coimbatore – 641105, India
E-mail: spanbu@yahoo.com

Biographical notes: K Ganesh is currently working as Senior Consultant at Global Business Services, Global Delivery, IBM India Private Limited, Mumbai, India. He holds a Doctorate from Indian Institute of Technology Madras, Chennai, India. His research interests lie in the application of heuristics, meta-heuristics, multivariate statistical techniques and multi-criteria decision-making tools to logistics and supply chain management. His consulting exposure includes supply chain network and inventory optimisation. He has published several papers in leading research journals such as the *European Journal of Operational Research*, *International Journal of Systems Science* and *International Journal of Logistics Economics and Globalization*.

S.P. Anbuudayasankar belongs to the Faculty of Mechanical Engineering Department at Amrita School of Engineering, Amrita University, TamilNadu, India. He holds a Master degree in Industrial Engineering from National Institute of Technology Tiruchirappalli and a Management degree in Production and Marketing. He is currently pursuing his doctoral research in the area of combinatorial optimisation problems. His research expertise includes development of heuristics and meta-heuristics for complex supply chain network problems. He has published several papers in leading research journals such as the *International Journal of Value Chain Management* and *International Journal of Systems Science*.

A continuous quest for improved performance is the linchpin of success in many best-in class organisations. These organisations exhibit proven ability to strive and excel in all spheres of activities. These activities cut across all organisation's functions and processes stretching from sourcing to customer service. Otherwise known as supply chain, 'excellent design and efficient execution of these activities and processes' charts a company's success. We need breakthrough success enabled through efficient supply

chain processes. There is a need for designing, modeling and executing the various supply chain problems and processes.

Facilitating the transformation process from data to information to knowledge is a supreme concern for every organisation. Many organisations are being swamped with data and volumes of contradictory information, but with limited real usable knowledge. Statisticians focus on data accuracy, database administrators emphasises data completeness and operation researchers target optimisation. But the integration of the above is missing. So, current isolated islands of data analysis and optimisation techniques should be connected and an integrated and systematic union of data analysis and optimisation techniques for modelling supply chain problems is a current need.

We are delighted to offer six articles in this issue of the *International Journal of Enterprise Network Management* to address these matters.

The first article by Aravindkrishna, Balasubramanian and Narendran addresses the task of scheduling jobs in a flow-line cell of supply chain entity with due consideration to human fatigue at work. Authors proposed a method for sequencing tasks using principles of flow-shop with a procedure to shift tasks/jobs among workers. Authors aimed the problem with the objective of attaining sustained productivity in a labour intensive working environment over an entire shift and enhance long term safety of workers by focusing on human factors. Authors have incorporated the human factors into classical scheduling models and they have developed genetic algorithm based heuristic and also the results are encouraging.

The second article by Gajpal and Abad proposed a saving based algorithm for the multi-depot version of vehicle routing problem with simultaneous delivery and pick-up in supply chain network. Authors have developed four saving based algorithms for the problem and performed numerical experiment on benchmark problem instances available in literature. Authors claim that the performance of the proposed heuristics is better than the existing insertion based heuristics.

The third article by Ramkumar, Subramanian and Rajmohan focuses the inbound logistics segment in the supply chain of automobile companies, which are known to be highly complex. Authors have proposed a model for selection of third party logistics service providers with an objective to create a favourable environment for improving coordination and integration using analytic hierarchy process (AHP) and technique for order preference by similarity to an ideal solution (TOPSIS) approach. Authors have presented a case study of an automobile company to explain the model and they have discussed the potential expected benefits. Authors have discussed the comparative analysis on decision-making certainty between the classical AHP and TOPSIS approach.

The fourth article by Anjali Saxena, Ganesh, Avneet Saxena and Tom Page investigates the challenge and complexity of fully centralised and decentralised information sharing systems in supply chain network. Authors have proposed a simulation decision tool as a useful planning, decision and control tool towards the adaption of information sharing systems. Authors claim that the simulation tool will help to guide the various supply chains towards an improved understanding on the use of information, its timeliness and dynamics use of partial decision making to improve the supply chain performance.

The fifth article by Rajesh, Pughazhendhi and Ganesh investigates the selection of third party logistics (3PL) service provider in supply chain network. Authors have examined that the selection decision is influenced by several factors often in conflict, such as price, services offered, location, technology, quality, etc., and the problem

complexity increases because of the imprecision and uncertainty involved in the decision-making process. Authors have proposed an effective approach to selection of 3PL service providers and also proposed an approach for allocation of workloads among the chosen 3PL service providers. Authors have applied the proposed approaches to a real case and discussed in detail.

The last article by Santhanakrishnan, Sengupta and Narendran investigates that the ever-increasing scale of complexity of globalising enterprises is making business transformations riskier. Authors have developed a framework for such initiatives building on a deeper understanding of an enterprise's drivers, structure, and interactions in supply chain network. Authors have suggested that the framework supports integrated, automated and profit-optimised business planning as the essence of all transforms. Authors have also dealt with processes and management approach that the framework should support and discussed about the further research in detail.