Preface: Building six interfaces is the paramount mission of IJAMS

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Biographical notes: John Wang is a Full Professor at MSU. Having received a scholarship award, he came to the USA and completed his PhD in OR from Temple University. He has published more than 100 refereed papers and six books. He is the Editor-in-Chief of *Int. J. of Applied Management Science, Int. J. of Data Analysis Techniques and Strategies* and *Int. J. of Information and Decision Sciences.* Also, he is the Editor of *Encyclopedia of Data Warehousing and Mining* (4 volumes)-2e, *Data Warehousing and Mining: Concepts, Methodologies, Tools, and Applications* (6 volumes). His long-term research goal is on the synergy of operations research, data mining and cybernetics.

Management science should help different managers and policy makers to make optimal, if possible, or satisfactory, at least, informed decisions. *IJAMS* builds six interfaces: firstly, an interface between management science theory and application; secondly, an interface between management scientists and managers; thirdly, an interface between 'hard' decision models and 'soft' decision models; fourthly, an interface between deterministic and probabilistic models; fifthly, an interface between a specific strategy and an individual model; and finally, an interface between a corporation and its environment, as well as the whole of society.

The objectives of *IJAMS* are to promote applied management sciences and stimulate discussions, deliberations and debates on different management science strategies, principles, models, methodologies, techniques, applications in the field of business, commerce, industry, and government. Two main management science schools of thought, in terms of 'hard' decision models and 'soft' ones, can intersect, interchange, and integrate their ideas. Managers should be able to absorb, understand, disseminate, apply, and enjoy management sciences in the real world.

There are seven articles in this issue. Chauhanz, Dridiyand and Proth propose a simplified approach to control water distribution under restricted power supply. The authors present a water supply problem arising from the regions where power supply is not regulated and the water supplier has to manage the demand with minimum possible cost. The consumption is constrained to organise rationing, and thus known day after day. Furthermore, the same consumption profile is maintained during the summer season, and this explains the importance of the reservoir content at the beginning of each day. The criterion to be minimised is the cost of energy that evolves during the day.

With the development of retail competition in the electricity markets, it appears reasonable to argue that the ability in load management–which requires a correct assessment of demand substitutability over time, measured at the final customer

level–may become a key success factor for companies operating in the retail market. Abrate's paper contributes to the strand of literature dealing with the econometric estimation of electricity demand response by providing evidence with respect to a real case of time-of-use (TOU) pricing applied to a sample of Italian industrial customers. Abrate suggests three levels of analysis corresponding to different implications in terms of managerial insights. First, it provides two methods to measure 'average' elasticity of substitutions on the whole sample: by means of aggregation of customers' load or by means of panel data estimation. The results obtained were very close. Second, it deals with the estimation of elasticity customer by customer; here it is more difficult to obtain precise value, however, around 40% of cases highlighted some significant response to time-varying price signals. Finally, the last step of the analysis is related to the identification of the characteristics (for example the activity sector) which can affect the ability of achieving demand response.

In the past, corporate image was a vague concept that was difficult to measure quantitatively. In this paper, Liou and Chuang proposed a hybrid MCDM model to evaluate corporate image. Factor analysis is initially used to extract some independent common-factors, and the fuzzy integral is used to integrate the performance ratings of the inter-dependent attributes in each common-factor. Then, the analytic hierarchy process (AHP) is adopted to determine the relative weights linking each independent common-factor. Finally, a simple additive weight (SAW) method is used to evaluate corporate image and reputation. A study of international airlines is conducted for verification. The results of this study can help airlines understand their relative positions with competitors and develop better strategies to fulfil customers' needs.

Ramirez and Hachiya investigate what drives the observed heterogeneity (value and value above industry average) at the firm level. They aim to shed light on the impact of intangibles assets as predicted by resource-based view of the firm (RBV) and stock market signalling literature. Their findings suggest that those firms that invest in R&D and human capital are more valuable. This result might imply that managers are liberated to commit resources to intangible assets. However what makes firms outdo their industry counterparts remains unknown. Besides, results suggest that the impact of intangibles varies depending upon the measures of value observed. Therefore, managers should be cautious about relying on single-measures of performance to evaluate the impact of investments on intangibles. Their results also indicate that intangibles are not a necessary condition to be a valuable firm. This may suggest that managers should identify whether this strategic resources overlap the nature of their businesses/shareholders.

The current literature is rich with research tackling the generation of deterministic schedules. While the importance and extendibility of such research is undeniable, the resulting schedules cannot be implemented in real world problems. These schedules were generated while assuming deterministic processing times, known job arrival times, unbreakable machines, and immune employees; this is not the case in a practical environment. In Arnaout & Rabadi's study, new and improved heuristics for scheduling repair and rescheduling in unrelated parallel machine environments are introduced. Up to their knowledge, no previous research has addressed rescheduling under unrelated parallel machines. The repair and rescheduling rules were analysed and compared using four performance measures, in order to improve both the schedule's quality and stability; one of the outcomes of such analysis is a comparison study that allows readers to choose the rule that will optimise the performance measure(s) they desire.

Castagnoli and Favero, deal with a set of available financial strategies (for instance, investments on a financial market) affected by conic restrictions. As a particular case, this includes financial models where short sales are forbidden, either on some or on all of the traded assets. It is interesting to determine whether such a model is complete, i.e., whether every payoff can be attained. This has many applications to risk management or insurance, e.g., when trying to hedge against some source of uncertainty by means of over-the-counter assets or even insurance contracts or policies. It turns out that a tool to characterise completeness is an adaptation of Farkas's Lemma, a well-known tool in economics, commonly used to ascertain absence of arbitrage in perfect markets.

Having taken the snapshots of the literature, Thirunavukkarasu, Devadasan, Prabhushankar, Murugesh, and Senthilkumar exclaim that the invasions of Six Sigma concept and Quality Function Deployment (QFD) technique in organisational arena have been amazing during the last three decades. Subsequently the potential of the Six Sigma concept in integrating itself with other strategies has been appraised. However, Six Sigma concept is yet to be appropriately integrated with any customer appraisal technique like QFD. In order to initiate research to fill this void, this paper has theoretically contributed a model named as Total Six Sigma Function Deployment (TSSFD). This model has been designed by integrating Six Sigma concept with an advanced model of QFD called Total Quality Function Deployment (TQFD). The steps of TSSFD are clearly described to facilitate the contemporary researchers and practitioners to further explore in this direction and achieve higher degree of quality using customer languages and thereby acquiring competitiveness.

IJAMS offers a forum to help professionals, managers, researchers and policy makers to exchange their innovative ideas and effective experiences. In addition to theoretical and explorative manuscripts, empirical and experimental papers and case studies are particularly encouraged. Moreover, the list includes reviews, surveys, reports, notes, practice comments, book reviews, commentaries, news, etc.

Hopefully, *IJAMS*, *IJIDS*, and *IJDATS* will be able to share a manager's burdens, meet a practitioner's challenges, explore an executive's opportunities, and realise an entrepreneur's dreams.

Together, let's celebrate the birth of *IJAMS*, nurture its growth, contribute to its strength, and protect its health.