Editorial Note

The field of Operations Research (OR) in the Philippines has gone through a phase where it has generated much recognition and acclaim, which San Miguel Corporation has strongly taken the lead. The success of San Miguel Corporation in the business world has long been associated to its strong belief that operations research holds the key to unlocking hidden business potentials, particularly in the field of manufacturing and distribution.

More than a few companies have taken note of the successes of San Miguel Corporation and have followed the golden path of quantitative decision making with limited successes and unpublicized successes. But none compared in terms of the passion, consistency, discipline of applying operations research principles and tools as what San Miguel Corporation has done.

Operations Research has reached a "Limit to Growth" in terms of popularity and recognition in the Philippines. Although, there have been pockets of successful use of operations research in the industry and even in the government. This has not led into a point of saturation where the use of operations research snowballed into the consciousness of our decision makers, both in business and in government.

A notable reason for the limited growth of operations research in the Philippines is the dearth of academics and graduates of industrial engineering, who are brave enough to venture into the practice of "real life" operations research. This mindset has resulted into a "CATCH 22".

A common perspective comes in the form of the need for more real Philippine applications on operations research by academics in order to create better examples for students. Unfortunately, industry itself is in dire need of people who would be interested and willing to do operations related projects. If industry cannot find people to create projects, then the academe would simply freeze in its tracks for lack of direction.

This joint special issue of operations research papers by the Philippine Institute of Industrial Engineers (PIIE) and the Operations Research Society of the Philippines (ORSP) presents theoretical models on supply chain to yield management that tries to illustrate the need for academe to constantly seek to model complex systems.

Lee and Beng Hui in their paper entitled "A Strategic Facility Location Model for an Integrated Logistics System in a Finite Planning Horizon with Probabilistic Customer/Supplier Participation" the impact of considering how forward and reverse logistics systems be combined in order to come up with a holistic approach to facility planning.

Cruz and Kabiling in their paper entitled "A Multi-Echelon, Multi-Product-Type, Site Selection and Inventory Allocation Supply Chain Model for Lean Facilities" has gone beyond facility location decisions and considered operational decisions within these facilities in order to create a "Lean Logistics" system through the use of Kanbans and Constant Work In Processes (CONWIP).

Cruz and Kabiling in their second paper entitled "Using Response Surface Methodology to Build a Meta-Model for a Non-linear Mixed Integer Lean Supply Chain Problem" explored the use of response surface methodology in order to characterize the

lean supply chain and conducted multi variable sensitivity analysis to highlight the impact of variations in the parameters affecting the optimum decisions.

Py and Li in their paper entitled “An Inventory Allocation Model Using Price Protection and Product Return Subsidies for Supply Chains under Declining Price Environments” investigated the interplay of subsidies and other supply chain decisions under a multi-period and multi-echelon setting under a declining price environment involving product returns by distributors.

Villanueva and Gobaco in their paper entitled “An Airline Yield Management Simulation Model for a Single Leg Flight with Multiple Fare Classes Allowing Cancellations, No – Shows, and Chance Passengers with an Assessment of Different Booking Policies” identified and assessed the effects of the different booking policies, such as nested seat allocation approach, nested booking limit and overbooking policy in a single leg flight with multiple fare classes.

These papers hope to illustrate the flexibility of OR applications all which can be extracted from numerous real world examples and applied in a theoretical system. The learning coming from modeling these complex systems allow the academe to evolve in the use of operations research which can be used to influence how industry uses it. As much as industry has done its share of operations research applications, academe on its part should strive to extend its expertise and skill in capturing complex systems which can help prepare future OR practitioners to model real world systems.

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