THE ECONOMICS OF TOTAL QUALITY MANAGEMENT/PERFORMANCE EXCELLENCE

Philip S. Chong, College of Business Administration, California State University, Long Beach, 1250 Bellflower Boulevard, Long Beach, CA 90840-8502, 562-985-5756, pchong@csulb.edu
Ömer S. Benli, College of Business Administration, California State University, Long Beach, 1250 Bellflower Boulevard, Long Beach, CA 90840-8501, 562-985-7697, obenli@csulb.edu

ABSTRACT

In the history of Total Quality Management/Performance Excellence (TQM/PE), the story was told over many times the reason why Dr. Edward Deming introduced the Quality Management philosophy of running a business to companies in Japan after World War II was because corporate leaders in the US rejected Deming's ideas. They were selling everything they could produce, and there was no need for Quality Management. The prevailing business practice was to operate at a quality level that was most economical to produce while maximizing profit for the company. In this paper, we reassert the importance of maximizing profit because ultimately, the economic justification of TQM/PE must prevail in order for companies to sustain their competitive advantage. For example, there were at least two Malcolm Baldrige National Quality Award (MBNQA) recipients such as *Wallace Company* and *Dana Corporation* who have filed for bankruptcy after receiving the award.

By means of traditional trade-off curves, this paper provides an answer to the question of how to reconcile the two competing forces between operating at the most economical total cost vis-à-vis zero defects/six sigma quality/performance excellence level. The traditional trade-off curves applied to Quality costs involve on the one hand the cost of quality improvements such as appraisal and prevention approaches, while on the other hand the cost of failure includes both internal and external failure costs. Over the course of the last few decades, Total Quality Management (the small q) has evolved into what is MBNQA's Performance Excellence (the big Q). However, we submit that the traditional trade-off curves still apply today. The trade-off that applies today would involve on the one hand the cost of performance excellence improvement, while on the other hand the cost of performance failure (both internal and external). While the cost curve for performance excellence improvement continues to decline with advancement in technology and knowledge, the cost curve for failure continues to climb, especially the external performance failure cost as competition in the marketplace becomes more intense, customer expectations more demanding, and society more litigious. The general trends of lower improvement costs versus higher failure costs tend to push the least total cost towards a continuing higher level of performance excellence. Based on this analysis, we conclude that today's MBNQA's Performance Excellence Framework whose score-card is forty-five percent weighted on business results is an economically sustainable not only because MBNQA's winners have demonstrated their ability to consistently produce outstanding empirical results after winning their awards, but they in fact have a sound theoretical economic basis to show for it.

Reinforcing our theoretical economic model, General Electric has prided their success in the application of the Six-Sigma approach. The two important criteria used to justify their investment in any Six-Sigma project include 1) Critical-To-Quality – this relates to the extent of customer satisfaction improvement which will lead to higher revenues, and 2) Costs and Return On Investment. Clearly the Six-Sigma approach takes into account the importance of profit maximization.