

Proceedings of 2013 International Conference on Technology Innovation and Industrial Management 29-31 May 2013, Phuket, Thailand

ORGANIZATIONAL LEARNING: A MEDIATING FACTOR BETWEEN TECHNOLOGICAL INNOVATION AND TQM

^{*}Voon-Hsien Lee, Universiti Tunku Abdul Rahman, Malaysia

Keng-Boon Ooi, Linton University College, Malaysia

Chee-Keong Choong, Universiti Tunku Abdul Rahman, Malaysia

Kee-Luen Wong, Universiti Tunku Abdul Rahman, Malaysia

*Corresponding author: Voon-Hsien Lee. Address: Faculty of Business and Finance, Universiti Tunku Abdul Rahman, email: leevoonhsien@gmail.com

ABSTRACT

Organizations nowadays are faced with many competitive obstacles due to the rapid change in technology. Both practitioners and management theorists have called for innovation to take place in production processes and production lines as well as in management practices. Total quality management, also famously known as TQM, has long been established as a major management practices adopted by organizations word wide. However, recently, organizational learning dimensions have also gained popularity in organizations. Furthermore, technological innovation has also gained considerable attention as vital in securing a sustainable competitive advantage in the business world.

This study investigates the relationship between TQM, organizational learning and technological innovation. A conceptual model was developed with the adoption of the six TQM practices from the Malcolm Baldrige National Quality Award (MBNQA) (i.e. leadership, strategic planning, human resource management, customer focus, process management, and information analysis) to test of its relationship with both organizational learning and technological innovation respectively. Furthermore, the study also proposes that organizational learning acts as a mediating variable between these six TQM practices with technological innovation.

The conceptual framework serves as a basic foundation to investigate the level of influence the six TQM constructs can have on both organizational learning and technological innovation respectively; and whether organizational learning mediates the relationship between TQM and technological innovation. This study proposes that the relationships between these three constructs are positive.

Data will be gathered from the managers working in the Malaysian ISO manufacturing firms, in which this provides the empirical data required. Multiple linear regression will be used to analyze the relationships between TQM and organizational learning; and TQM on technological innovation; while and Baron and Kenny three-step procedures will be used to analyze the role of



Proceedings of 2013 International Conference on Technology Innovation and Industrial Management 29-31 May 2013, Phuket, Thailand

organizational learning being a mediating variable between TQM and technological innovation. One of the main limitations of this study is that the paper only focuses on the manufacturing firms, hence limiting the generalization to the manufacturing sector in Malaysia.

Theoretically, the proposed conceptual framework fills the current discrepancy and subsequent gap in knowledge as the present theoretical framework used in this study emphasizes on those TQM dimensions that are predominantly important to ascertain a high level of organizational learning and technological innovation among the local ISO firms in Malaysia. Hence, this study is believed to advance the TQM literature and to provide both quality management practitioners and academicians a deeper comprehension on the association between TQM practices, organizational learning and technological innovation. Furthermore, the establishment of the mediating relationships between the TQM constructs, organizational learning and technological innovation in this study is an essential distinction that previous studies have not identified.

Practically, this study revealed the significance of the TQM practices in which it reemphasizes the general belief that the TQM dimensions are positively and significantly linked with both organizational learning and technological innovation. This article also puts forth some valuable insights to help the managers of the Malaysian manufacturing ISO firms to recognize problem areas in their own firms and to carry out corrective actions. Furthermore, this present research study has also put forth the importance of organizational learning being the mediating factor between TQM practices and technological innovation. In other words, it is strongly believed that one effective way to stimulate technological innovation within a firm is to enhance the organizational learning behaviour among the employees through the effective implementation of the various TQM practices.

Keywords: Total quality management, organizational learning, technological innovation, Malaysia.

BIOGRAPHY

Voon-Hsien Lee is a Lecturer at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Malaysia. She received both her Bachelor's and Master's degrees in Accounting from Monash University. She is currently pursuing her PhD in the area of Total Quality Management (TQM) at Universiti Tunku Abdul Rahman, Malaysia. Her current research interests include TQM, human resource management, and organizational learning.

Keng-Boon Ooi is a Professor and Deputy Vice Chancellor for Research and Quality Assurance, Linton University College, Malaysia. He is also a Singapore Internet Research Centre Associate with the Wee Kim Wee School of Communication and Information, Nanyang Technology University, Singapore. He has published over 70 articles in refereed journals.

Chee-Keong Choong is a Professor in the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR), Malaysia. He received his PhD (Financial Economics) Degree from Universiti Putra Malaysia, Malaysia. Apart from teaching, he is actively involved in research in the areas of applied macroeconomics, managerial and financial economics.



Proceedings of 2013 International Conference on Technology Innovation and Industrial Management 29-31 May 2013, Phuket, Thailand

Kee-Luen Wong is an Assistant Professor for the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR), Malaysia. He was formerly the Head of Department (HoD) of the Department of Business before he stepped down to focus on research and publications. He received his Doctor of Education (EdD) degree from the University of Leicester, United Kingdom in 2009. His other academic qualifications are Advanced Diploma in Business Management (ADipBM), Postgraduate Diploma in Business Administration (PGDipBA) and Master of Business Administration (MBA), all from the University of Wales, United Kingdom. In 2012, he was awarded the Advanced Diploma in Management Accounting by the Chartered Institute of Management Accountants (CIMA).