

Selected papers from 8th Canadian Quality Congress

This special issue of *Business Process Management Journal* contains selected papers that were presented at the 8th Canadian Quality Congress held at the McGill University, in Montreal, Quebec, Canada, September 20-21, 2016. The theme of the congress was: "Quality and Innovation: Transforming your organizational culture."

The special issue has eight papers on many interesting topics on how TQM and its central pillar called the process management have evolved over the years and what is happening now and what can we expect in the future. The idea at the congress was to look at quality and innovation together on a global scale. The papers presented are a mixture of theoretical, practical and somewhat deeply rooted in conceptual thinking. One paper which is also included was presented in an earlier congress held at the University of Alberta, Edmonton, a year before. We had many other excellent papers presented by authors who decided not to write their stories simply because of lack of time. They are being encouraged to do so at a greater number at a later stage.

This volume begins with a paper on one of the most interesting and timely topics that are currently being hotly debated in North America, that is, the quality and patient satisfaction issues in healthcare industries. The paper provides a good case study and a useful roadmap that others might be able to follow. It describes actual interventions and experiences within a cardiac sciences department in one the largest Canadian provincial healthcare facility. The case study is based on the principles of total cultural transformation and lean management journey using a creative approach of adapting these principles for problem-solving involving frontline employees and the top management.

The second paper explores the process improvement methodologies also in the healthcare setting. The research rationale is based upon the value stream mapping concept. The paper highlights lean management philosophy by identifying and recommending a value-based system and patient satisfaction pathways. The aim is how to decrease the non-value added activities and increase patient, doctor and nurse satisfaction, by applying lean healthcare philosophy in a radiology department of a large and crowded public hospital.

Continuing the theme of healthcare quality and innovation, the third paper discusses the development and transformation of patient safety culture. This research is developed by polling all stakeholders who are involved in creating a safety culture at a secondary care hospital. The paper engages heavily in testing of data and surveys results to provide recommendations on sustainable improvement solutions.

The fourth paper uses a research on survey technique focused on evaluating tablet and smartphone-based software to identify which ones are the best match for field construction of buildings while keeping in mind the strict quality management requirements. The survey identifies which usage criteria best represent the needs of designers and builders. Software vendors were interviewed and comments were captured and the results communicated to team members for review and clarifications. Questionnaires were analyzed, findings and recommendations drafted for senior management with the conclusion that field staff favored smartphone-based solutions more than any other techniques.

The fifth paper describes a multivariate hybrid pathway for streamlining and delivering exceptional customer experience with a focus on customer retention and firm's competitive advantage. The study focuses on the evolving field of hybrid services within the customer service domain that have distinguishing characteristic of hybrid services and are currently advancing rapidly with technological innovations.



To bridge the gap between written paper procedure and practices that exist in many, if not all, organizations, the next paper demonstrates the effect of transforming traditional forms of documentation to energy-added “vitalized” documents. The case in point is the example from a pharmacy department. The aim is to eliminate the gap between workplace actual performance and official documentation. Starting from the orientation sessions, formulation of flowcharts, the design of posters, action cards, process maps, checklists, case scenarios, diagrams and even comics, the process of business management describes utilization of methods like focus groups, brainstorming sessions and Kaizen methodology.

The seventh paper discusses total quality in software development world, especially in the current business competition for fast delivery with rich product features with high quality. It is emphasized that a culture of quality must be “built-in” every step of the way and not just in the software testing team. It presents a Six Sigma DMAIC-based framework utilizing different phases of DMAIC methodology and emphasizes that all software companies still face problems to find the proper tools and methods that would help them facilitate the early design phase especially for features with complicated implementation logic to keep the software product easy to use at all time. Otherwise, it is too late. The agile and lean strategies require team members to be experienced to be able to make decisions to attain the least failure cost and added ability to find reliable and easy to use of automation test tools.

The final paper is a theoretical development of the capacity of resources used in an improvement initiative of an organization. It defines conditions in which the development of the potential improvement is made sustainable to measure the effects and to identify two main components relating to problem elimination and methodology execution. Six Sigma is used as a reference framework to identify and interpret elements and relationships characteristic for the sustainable development process. A model is finally developed for the process of creating improvement capacity and it is interlinked with three principles that fulfill sustainability requirements in the development process of improvement capacity.

The 8th Canadian Quality Congress was once again too good an opportunity to be missed. I am grateful to my team of volunteers, Editorial Review and Technical Program Committee members for their dedication and support.

Thank are extended to Ms Emily Mitchelson, the content editor of *Business Process Management Journal* along with her technical staff at Emerald Publishing Group and Dr Majed Al-Mashari, the Editor, without whose help and guidance it would not have been possible to publish this special issue on time.

I look forward welcoming everyone at the 9th Canadian Quality Congress, September 7-8, 2017, at the campus of the University of Toronto, in Toronto, Ontario, Canada.

Dr Madhav Sinha

Canadian Society for Quality, Winnipeg, Canada

About the Guest Editor

Dr Madhav Sinha is a major contributor to the theory and practice of quality control and total quality management (TQM) in Canada and known internationally as an Expert and a Pioneer in the field. He has a varied career experience of 45 years as Research Scientist, Plant Engineer, Quality Manager, University Professor and Government Administrator. A Prolific Writer, Dr Sinha has authored, co-authored and edited ten books, including a textbook (*The Management of Quality Assurance*, Wiley, NY, 1985) and over 45 research papers published internationally, some translated into foreign languages. He is the recipient of over 35 medals, honors, awards and testimonials for his outstanding contributions in the field of modern quality management, including the Distinguished Service Gold medal, the highest award accorded by American Society for Quality and its Grant medal (for leadership in developing quality educational programs), Edwards medal (for contributions in application of quality control methodologies), Lancaster medal (for work in the international fraternity of quality,

the Leadership Award from the Association of Professional Engineers and Geoscientists of the Province of Manitoba for his pioneering contributions in developing quality control sciences in engineering disciplines. He is listed in the *International Who's Who in Quality* and *International Who's Who in Public Service* as an outstanding Canadian making significant contributions to the economy and society's well-being. Dr Sinha is an elected Academician Emeritus of the International Academy for Quality and the Founding President of Canadian Society for Quality and Canadian Quality Congress. He was recently recognized by Her Majesty Queen Elizabeth II and awarded with the Queen's Diamond Jubilee Medal for his more than three decades of outstanding contributions in the field of total quality management and for spearheading many unique initiatives to promote and elevate the quality profession in Canada and contributing to build its caring society through his excellent services and achievements. Dr Madhav Sinha can be contacted at: madhavsinha2@shaw.ca