
Researchers consider quality management (QM) one of the most significant study themes during the last 3 decades in operations management. Substantial research highlights the significant positive influence of QM practices on performance (Flynn et al., 1995; Samson & Terziovski, 1999; Kaynak, 2003; Kim et al., 2012). Although definitional issues of QM practices are resolved through a large body of prior research, there is a need to examine the effectiveness of QM practices for healthcare organizations because healthcare organizations are under great pressure to improve their performance. Mixed findings and the need to gain further insights for generalizing the QM practice-performance link provide the motivation for this study. The tremendous body of literature on QM provides the data to conduct a meta-analysis. The huge amount of existing reports on QM in the industry provides the resources to do text mining by using confirmatory semantic analysis (CSA).

This study employs meta-analysis and CSA to investigate the impact of QM practices on the operation performance in healthcare industry. Specifically, this research answers two research questions:

- Which QM practices are positively correlated with operation performance in healthcare?
- Are there gaps between the findings from literature and industry practices in healthcare?

This research used multiple methods: meta-analysis and CSA, to answer the two research questions. The Meta-analysis conducted focuses on the commonly investigated associations between QM practices and performance. We tests these relationships based on the data obtained from empirical studies on the Baldrige Award. CSA is the modified semantic analysis, focusing on analyzing the meaning of words and passages from well-structured huge text corpus. We collected articles from ABI/INFORMS database using the Boolean expression and collected Baldrige
Award recipients information from the Baldrige official website. All available Baldrige winners’ summaries were included for text mining analysis, including 22 winners in healthcare.

CSA results support that three constructs: leadership, operations focus, and measurement, analysis, and knowledge management (MAKM) positively affect the healthcare operation performance. In addition, the results support that an operations focus mediates the relationship between leadership and operation performance. While the meta-analysis results support the effectiveness of the Baldrige framework, the comparison with the CSA results shows the gap between the academic literature and industry practices. Moreover, we compared the text mining results between healthcare organizations and other organizations. The comparisons generate insights for healthcare organizations to improve their performance.

There are two significant advantages of this research. First, we used multiple methods analyses approach to probe the relationship between QM practices and operation performance in healthcare. As a text-mining approach, CSA provides a fresh perspective to investigate the healthcare organizations’ QM practices. Meanwhile, as a traditional method to integrate prior research results, meta-analysis coupled with CSA serves as a powerful tool to answer the research questions. Second, our study reveals the gap between the findings from academic literature and healthcare industry practices. Even though the Baldrige framework is well validated and utilized in service and manufacturing industries, we find that only certain QM practices positively affect the healthcare operation performance.

For theoretical contributions, our research introduces a new text-mining approach - CSA. CSA can identify keywords and latent factors from well-structured huge text corpus. It does not require extremely large sample size, which is more convenient to use than traditional text mining methods.
Secondly, meta-analysis integrates the prior research results to explore the true relationships between QM practices and operation performance and helps to mitigate bias from different samples.

For managerial implications, our results generate many insights for healthcare organizations to consider when improving their operation performance. For example, the physician leadership of healthcare team can significantly improve operation performance (Nembhard and Edmondson, 2006). In addition, process oriented operations focus are foundations in the healthcare operation system and serve as a starting point for healthcare organization’ improvement initiatives. Moreover, even though hospitals keep collecting feedback from patients, the customer engagement is still low and difficult to improve. When comparing the results from healthcare with other industries, like service and manufacturing, we explore possible reasons for the weakness of a customer focus in healthcare, which also provide directions for healthcare organizations.

Reference


