Research Article

Impact of Total Quality Management on Organizational Performance as the mediating role of Organizational Innovation

Misbah Ishaq[1*], and Aleeza Tariq[2]

[1]Department of Management Science, Lahore Garrison University, Lahore, Pakistan
[2]Fedral Government Girls Inter College, Karachi Cantonment, Pakistan
*Corresponding Author: Misbah Ishaq Email: misbahishaq26@gmail.com

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Abstract: This research seeks the integration of TQM with organizational innovation to achieve an increase in organizational performance, especially within the manufacturing industry. This research is focused to examine how integrating TQM practices with organizational innovation results in high efficiency, competitiveness and adaptability. Organizational innovation plays the key role as mediator linking TQM with organizational performance. By focusing on this mediation the study highlights how innovation driven by quality based practices, helps organization align their operations with market demand and fosters continuous improvement. The contribution of this paper lies in linking the TQM and Innovation within the resource based view framework, providing a comprehensive understanding of how these strategies work together to achieve the sustainable business success. This conceptual paper provides the theoretical explanations and practical advice to managers, policy makers and governmental bodies aiming to use integrated quality management and innovation to improve organizational performance.

Keywords: Total quality management practices, organizational innovation, organizational performance

1. Introduction

In today era, TQM has become a principal strategy for organizations that want to attain sustainable business success by pursuing quality-based processes. Total Quality Management (TQM) principles help a company to either satisfy or exceed customer expectations, while maintaining steady operational efficiency; these are fundamental for firms to produce low-cost high-quality products in demand by the market and achieve a competitive advantage over time [1][2]. TQM has also played its role in improving product and process quality, via which many organizations around the globe have become, leaders of their sectors [3][4].

In addition to TQM, innovation is an emergent strategic element that enhances an organization's ability to achieve growth and sustainable competitive advantage. Innovation in an organizational context often refers to the new ways or practices of doing things, the new jobs and roles applied, as well as the new administration systems that are designed to maximize better organizational performance [5][6]. The constant adaptability of this allows the organizations to fit their services with changing markets giving them an opportunity to launch new products and updated services that align with customer needs [7]. A combination of innovation and TQM has been shown as vital in meeting quality requirements and increasing organizational performance in various industries such as the coffee processing industry [7].

Likewise, the enhancement of business performance, in particular when linked with TQM practices, has also pushed managers towards innovation [8]. The term "innovation" is expanding as changes in practices and processes in an

organization to improve operations and competitiveness [7][9][5]. The target market's needs and give a business a competitive advantage [7]. It is not enough that there has been drive to innovate and create new thing, there have also been barriers that have been overcome leading to improved business performance [10].

In today's rapidly changing markets, organizations must produce innovative products to stand out. For example, in the coffee processing industry, companies must ensure that their products meet high quality standards that satisfy customers. By applying innovation alongside TQM, the coffee industry can, among other things, achieve better performance [7]. There are different types of innovation practices, including product/service innovation, process innovation, organizational innovation, and technological innovation. However, this study focuses on organizational innovation because of its central role in management, which is key to overall firm performance [5].

Organizational innovation has emerged as a key aspect of management that includes organizational structure, administrative systems and human resources [6]. It involves changes in procedures, rules, roles and structures that shape the organizational framework. Unlike routine activities, organizational innovation is aimed at improving the structure or management practices in the organization, which ultimately increases the overall performance of the firm [11]. Based on above discussion, following questions guide this study.

Does TQM practices influence business performance in manufacturing organizations?

Does organizational innovation enhance the relationship between TQM and organizational performance?

This conceptual paper contributes to the discussion by focusing on how TQM and organizational innovation can work together to improve performance in the manufacturing sector. Where most of the past research focuses on these areas in isolation, this study sheds light on the combined impact of these strategies, where management practice and structure innovation enhance the benefits of TQM. This paper also offers practical insights for managers on how to use both strategies together for better results and staying ahead of the competition.

2. Literature Review

2.1 Theoretical Background

The RBV theory stresses that the competitive advantage of a firm can be achieved by strategically managing its resources [12] [13]. It analyses the internal strengths and weaknesses of the organization and identifies the areas for improvement in the market [14][15]. The theory of RBV theory suggests that the performance of an organization can be improved through the effective use of resources [16] [17]. TQM practices closely mirror RBV by focusing on the optimization of resources to enhance business processes, services and performance outcomes [18] [19]. This theory provides a framework for linking TQM implementation with enhanced competitiveness and organizational growth. Therefore, the integration of RBV and TQM fosters better performance through systematic improvements and strategic resource management [20].

2.2 Total Quality Management (TQM)

TQM promotes organizational performance through a combination of formalized processes and cultural values [21] [10]. Quality-based principles form the core emphasis of TQM in the context of an organization's vision and values. It helps formulate a systematic approach toward operation improvement [22][23][5]. For this research, the selected TQM constructs are top management commitment, customer focus, communication and information analysis, and continuous improvement. These constructs are often found in the literature and are relevant in explaining TQM implementation [24].

2.3 TQM and Organizational Innovative Practices

Innovation involves the designing, developing and introducing of new organizational structures that lead to the creation of valuable firm performance [18]. It incurs as a cost that can be treated by an organization as an investment because innovation enables the generation of new and sophisticated products in the market, making it possible for the firm to gain competitive advantage [25]. In essence, innovation seeks the achievement of significant changes within the organization. Organizational innovation refers to the adoption of new and improved ways of doing things, as well as generating ideas and fostering creativity in order to enhance organizational performance [26].

Thus the various studies show that the TQM has a significant impact on the organizational performance that warrants the further research as a way of indirect relationship may exists between the TQM and organizational performance using the presence of the third variable. Hence, it is to be understood that through this study, that will be concerned with the mediating role of organizational innovation between TQM and Organizational performance. Thus, this research paper proposed that

Proposition 1: TQM practice has positive relationship with organizational innovation.

2.4 Organizational Performance and TQM

The study revealed that the various organizations might have varying levels of organizational performance due to their respective business objectives and strategies. Some organizations are bent on enhancing manufacturing performance; Quality and customer satisfaction while others may aim at boosting profit or productivity [27]. Successful Implementation of TQM has increased productivity of employees and organizational performance. Studied the effect of TQM implementation on the organizational performance [28] [29].

The success of TQM implementation is not always guaranteed since the area wide number of cases of its trivial achievements and disappointment in numerous organizations. The small chances of TQM accomplishment deter many organizations from receiving the Deming Award [30]. Therefore, sight into improving the TQM implementation must be provided to the TQM consultants after gaining an understanding of the relationships between the TQM and organizational performance. Thus, this research paper proposed that:

Proposition 2: TQM has a significant impact on the organizational performance.

2.5 TQM, Organizational Innovation, and Performance

In the present business environment, competitive advantages are achieved by organizations through rivalry over their competitors [8]. The performance of businesses should be improved in order to survive for a long period of time in market [25]. TQM is widely recognized approach that establishes standardized processes to enhance business profitability and performance [31]. Similarly, organizational innovation allows companies to adapt quickly to changes in the competitive environment, find new products and markets, and protect themselves from unstable situations [32].

To improve performance, organizations are recommended to adopt both organizational innovation and TQM [33]. The implementation of TQM and organizational innovation in the business sector is intended to assess the successful performance of an organization over a particular period, and also enable the attainment of the set goals by the correct approach [34]. Considering these points, it is important for the manufacturing companies to effectively apply TQM and integrate organizational innovation in order to ensure organizational performance and be viable in the market long-term. Therefore, this research paper proposed that:

Proposition 3: Organizational innovation mediates the relationship between the TQM practices and Organizational performance.

Figure.1 Conceptual Framework

3. Conclusion

This conceptual paper stresses the importance of combining the Total quality management and organizational innovation to enhance the organizational performance especially in the manufacturing industry. Additionally, it examines the conceptual connections between the different variables such as TQM, Organizational performance and Organizational Innovation. This conceptual paper helps in explaining the mediating role of organizational innovation how it links quality focused process to market adaptability and competitiveness. This paper addresses the three areas of TQM and innovation to add to the theoretical understandings and offers actionable insights for the policy makers and researchers. These insights provide a robust foundation for achieving the sustainable competitive advantage, fostering the growth and guaranteeing the long-term success in face of increasingly changing market dynamics.

3.1 Practical Implications

This study presents interesting suggestions for the managers, policy makers and governmental bodies. For the managers the study underscores the need for adapting the TQM principles such as leadership commitment, customer focus and continuous improvement as well as fostering innovation with the new systems, structures and practices. Together these aspects help an organization stay efficient, respond positively to the new markets and ensure delivery for customers' expectations time after time. Policy makers can facilitate these efforts by coming up policies that foster quality management and innovation for example, providing the financial incentives, funding research and organizing the training programs. Governments can also enable the collaboration between the businesses, universities and innovation hubs to encourage the shared learning and innovation. National quality and innovation standards can further foster the adoption of these approaches by organizations in order to heighten the competitiveness and economic development. Through TQM with innovation organization can seek better efficiency, adaption to changes in marketplace and long-term prosperity.

3.2 Theoretical Implications

The theoretical contribution of this conceptual paper is in integration of TQM and organizational innovation within the RBV framework. The paper extends the RBV prospective by emphasizing the necessity of combining the quality-based practices with innovation to enhance the organizational performance. This paper contributes to the theoretical understanding of how firms can leverage the internal capabilities to achieve the sustainable competitiveness by positioning the organizational innovation as a mediating factor in TQM and performance relationship.

3.3 Future Research Direction

This study opens the several avenues for the future research and practical application by offering the key recommendations and suggestions to the integration of TQM and organizational innovation. First, future research could conduct empirical studies to test the proposed framework in different industries and regions ensuring its applicability

across the diverse organizational contexts. Comparative studies across sectors such as healthcare, manufacturing and technology can help identify the unique dynamics and best practices tailored to specific industries.

Second longitudinal studies are recommended to examine the long-term impact of TQM and innovation integration on organizational performance. This approach would provide the deeper insights into how these strategies sustain growth and competitiveness over the time. Researchers could also explore the challenges organizations face when adopting the TQM and innovation simultaneously, offering the practical strategies for overcoming the resistance, resource constraints and implementation complexities.

The future studies should look into the role of emerging technologies including the artificial intelligence, machine learning and big data analytics in enhancing the TQM practices and driving the organization Innovation. Such technologies have the potential to streamline the processes, improve the decision-making and boost adaptability.

Data Availability:

The datasets used in this study are available from the corresponding authors upon reasonable request.

References

1. Ellis, G., Found, P., Kumar, M., & Harwell, J. (2019). New evidence on the origins of quality circles. Total Quality Management & Business Excellence, 30(1), 129–140. https://doi.org/10.1080/ 14783363.2019.1665830
2. Sila, I., & Ebrahimpour, M. (2003). Examine and compare the critical factors of Total Quality Management (TQM) across Countries. International Journal of Production Research, 41(2), 235–268. https://doi.org/10.1080/0020754021000022212
3. Bouranta, N., Psomas, E. L., & Pantouvakis, A. (2017). Identifying the critical determinants of TQM and their impact on company performance. . The TQM Journal, 29(1), 147–166. https://doi.org/ 10.1108/TQM-11-2015-0142
4. Prajogo, D. I., & Cooper, B. K. (2010). The effect of people-related TQM practices on job satisfac tion: A hierarchical model. Production Planning and Control, 21(1), 26–35. https://doi.org/ 10.1080/09537280903239383
5. Suleiman Abu-Mahfouz, S. (2019). TQM Practices and Organizational Performance in the Manufacturing Sector, Jordan mediating role of HRM Practices and Innovation. NO 22 Journal of Management and Operation Research, 1(22), 1.
6. Andrade de Oliveira, J. L., Franca, V., & De Araújo Barros, J. F. (2020). Relationship among quality management practices, innovation, and competitive advantage in manufacturing companies certified with ISO 9001 in Brazil.International Journal for Innovation Education and Research, 8(7), 279–299. https://doi.org/10.31686/ijier.vol8. iss7.2476
7. Antunes, M. G., Quirós, J. T., & Justino, M. d R. F. (2017). The relationship between innovation and total quality management and the innovation effects on organizational performance. International Journal of Quality & Reliability Management, 34(9), 1474–1492. https://doi.org/10.1108/IJQRM-02-2016-0025
8. Bazrkar, A., Aramoon, E., Hajimohammadi, M., & Aramoon, V. (2022). Improve organizational performance by implementing the dimensions of total quality management with respect to the mediating role oforganizational innovation capability. Studia Universitatis "Vasile Goldis" Arad – Economics Series, 32(4), 38–57. https://doi.org/10.2478/sues-2022-0018
9. Lian, Z., Liu, Q., Guo, Y., & Innovation, T. (2020). Analysis and measure of process coupling between TQM and technological innovation. 107–115. https://doi.org/10.23977/ferm.2020.030116
10. Othman, B. (2020). The influence of total quality management on competitive advantage towards bank organizations: Evidence from Erbil/Iraq. International Journal of Psychosocial Rehabilitation, 24(5), 3427–3439. https://doi.org/10.37200/IJPR/V24I5/PR202053
11. Antunes, M. G., Mucharreira, P. R., Justino, M. R. T., & Texeira-Quirós, J. (2021). Effects of total quality management(Tqm) dimensions on innovation—evidence from smes. Sustainability (Switzerland), 13(18), 10095. https://doi.org/10.3390/su131810095
12. Birger, W. (1982). A resource based view of the firm. Strategic Management Journal, 5, 171–180.
13. Kozlenkova, I. V., Samaha, S., & Palmatier, R. (2014). Resource-Based Theory in Marketing Resource-based theory in marketing. Journal of the Academy of Marketing Science, 42(1), 1–21. https://doi.org/10.1007/s11747-013-0336-7
14. Lockett, A., Thompson, S., & Morgenstern, U. (2009). The development of the resource-based view of the firm: A critical appraisal. International Journal of Management Reviews, 11(1), 9–28. https://doi.org/10.1111/j.1468-2370.2008.00252.x
15. Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. Journal of Management, 27(6), 625–641. https://doi.org10.1016/S0149-2063(01)001143
16. Kor, Y. Y., & Mahoney, J. T. (2000). Penrose's resource-based approach: The process and product of research creativity. Journal of Management Studies, 37(1) https://doi.org/10.1111/1467-6486.00174
17. Nyaribo, J. S. (2022). Influence of total quality management on competitive advantage of tea processing companies in Kenya. International Academic Journal of Human Resource and Business Administration, 4(1), 430–447.
18. Chen, R., Lee, Y. D., & Wang, C. H. (2020). Total quality management and sustainable competitive advantage serial mediation of transformational leadership and executive ability. Total Quality Management & Business Excellence,31(5-6), 451–468. https://doi.org/10.1080/14783363.2018.1476132

19. Liu, H. et al. (2021). 'An empirical exploration of quality management practices and firm performance from Chinese manufacturing industry'. Total Quality Management and Business Excellence, 32(15–16), 1694–1712. https://doi.org/10.1080/14783363.20201769474.
20. Zou, Y., & Fan, P. (2022). How top management commitment on diversity leads to organizational innovation: The evidence from China. Journal of Human Resource and Sustainability Studies, 10(02), 246–261. https://doi.org/10.4236/jhrss.2022.102016
21. Yas, H., Alsaud, A. B., Almaghrabi, H. A., Almaghrabi, A. A., & Othman, B. (2021). The effects of TQM practices on Performance of organizations: A case of selected manufacturing industries in Saudi Arabia. Management Science Letters, 11, 503–510. https://doi.org/10.5267/j.msl.2020.9.017
22. Ukab, M. M. (2021). Total quality management practices to enhance organizational performance by competitive advantage as mediating in SMES in Iraq. Psychology and Education Journal, 58(2), 5471–5481. https://doi.org/10.17762/pae.v58i2.2961
23. Puthanveettil, B. A., Vijayan, S., Raj, A., & Mp, S. (2021). TQM implementation practices and performance outcome of Indian hospitals: exploratory findings. The TQM Journal, 33(6), 1325–1346. https://doi.org/10.1108/TQM-07-2020-0171
24. Menza, G. K., & Rugami, J. M. (2021). Total quality management practices and performance of deposit taking savings and credit cooperatives in Mombasa County, Kenya. International Journal of Business Management, Entrepreneurship and Innovation, 3(1), 65–77. https://doi.org/10.35942/jbmed.v3i1.165
25. El-Daghar, K. (2018). Performance improvement plan in building process according to quality leaders and quality improvement tools and techniques. Architecture and Planning Journal, 24(1), 67–82. https://digitalcommons.bau.edu.lb/cgi/viewcontent.cgi?article=1020&context=a
26. Mehralian, G., Nazari, J. A., Nooriparto, G., & Rasekh, H. R. (2017). TQM and organizational per- formance using the balanced scorecard approach. International Journal of Productivity and Performance Management, 66(1), 111–125. https://doi.org/10.1108/IJPPM-08-2015-0114
27. Putri, N. T., Yusof, S. M., Hasan, A., & Darma, H. S. (2017). A structural equation model for eval- uating the relationship between total quality management and employees' productivity. International Journal of Quality & Reliability Management, 34(8), 1138–1151. https://doi. org/10.1108/IJQRM-10-2014-0161
28. Singh, V., Kumar, A., & Singh, T. (2018). Impact of TQM on organisational performance: The case of Indian manufacturing and service industry. Operations Research Perspectives, 5, 199–217. https://doi.org/10.1016/j.orp.2018.07.004
29. Majumdar, J. P., Kundu, G. K., & Manohar, B. M. (2019). Causes of reluctance of Indian manufacturing SMEs in adopting total quality management. International Journal of Services and Operations Management, 32(3), 362–386. https://doi.org/10.1504/IJSOM.2019.09
30. Anggadini, S. D., Surtikanti, S., Saepudin, A., & Saleh, D. S. (2021). Business performance and implementation of total quality management : A case study in Indonesia *. Journal of Asian Finance Economics and Business, 8(5), 1039–1046. https://doi.org/10.13106/jafeb.2021.vol8.no5.1039
31. Albuhisi, A. M., & Abdallah, A. B. (2018). The impact of soft TQM on financial performance. International Journal of Quality & Reliability Management, 35(7), 1360–1379. https://doi.org/10.1108/IJQRM-03-2017-0036
32. Zafer Acar, A. (2020). The mediating role of value innovation between market orientation and business performance: Evidence from the logistics industry. International Journal of Business Innovation and Research, 21(4), 540–563. https://doi.org/10.1504/IJBIR.2020.106012
33. Kim, D. Y. (2016). The Impact of Quality Management Practices on Innovation [Ph. D.,] Sprott School of Business.