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THE NEXUS OF LEADERSHIP STYLES AND TOTAL QUALITY MANAGEMENT: ENHANCING HEALTHCARE SECTOR IMPLICATIONS THROUGH INDIVIDUAL READINESS TO CHANGE WITHIN DECISIONS SCIENCES FRAMEWORK

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Abstract: *The present research, rooted in operations research, investigates the influence of leadership styles on total quality management (TQM) in the healthcare sector of Palestine. The study examines the mediating role of readiness to change integration within decision sciences between leadership styles of operations employees and TQM. Employing a quantitative research approach with a cross-sectional design, data was systematically sampled from 120 healthcare workers in governmental hospitals. Utilizing Partial Least Square-Structural Equation Modelling (PLS-SEM) for analysis, the findings underscore a positive and significant impact of leadership styles on TQM in healthcare. Additionally, the study reveals a significant and positive impact of leadership style on TQM, mediated by readiness to change. These noteworthy findings contribute to the operations research domain, providing insights into the interplay of leadership dynamics and TQM implementation in the healthcare sector. Furthermore, by bridging theoretical frameworks with practical applications, the study offers actionable strategies for healthcare leaders to enhance TQM implementation, ultimately aiming for improved operational efficiency and patient outcomes.*

Keywords: *Leadership Styles, Individual Readiness for Change, Total Quality Management.*

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1. Introduction

Total Quality Management (TQM) within operations research optimizes processes, minimizing errors and waste, and maximizing efficiency and quality. Integration of TQM principles empowers operations managers to improve decision-making, streamline operations, and enhance overall organizational performance (Chen, Lee, & Wang, 2020). TQM cultivates a culture of ongoing improvement, stimulating innovation and competitiveness in operational strategies. As a result, TQM has achieved widespread acceptance across diverse industries globally (Kanan et al., 2022). Organizations have progressively prioritized continual advancement, precipitating notable transformations in the competitive milieu and advancements in products and services. Initially confined to the manufacturing sector, TQM principles exerted a substantial influence on the economic progress of developing nations (Abu-Rumman, Mhasnah, & Al-Zyout, 2021; Baidoun, Salem, & Omran, 2018). As global market competition has intensified in diverse sectors, quality has become central to companies (Jawabreh et al., 2023; Salhab et al., 2023) making TQM an essential management subject (Magd, Negi, & Ansari, 2021). This methodology enhances the financial well-being of enterprises and augments satisfaction levels among both customers and employees (Kim, 2020).

In healthcare operations, TQM ensures patient safety, satisfaction, and efficient resource utilization, thereby improving healthcare delivery and outcomes. Integration of TQM principles enhances process optimization and quality assurance, benefiting both patients and healthcare providers (Kanan et al., 2022). In this context, TQM plays a pivotal role in elevating quality standards within healthcare operations. This is achieved through the establishment of assessment mechanisms, provision of incentives for the adoption and implementation of TQM, delineation of quality standards, and the education of healthcare service providers on pertinent quality concepts (Mohammad Mosadeghrad, 2013). Through the integration of TQM principles, operations managers facilitate the resolution of operational challenges and complexities. This integration enables organizations to optimize processes, attain superior performance, and ultimately enhance efficiency and effectiveness in decision-making and resource allocation (Marei et al., 2023).

Nevertheless, within the domain of operations management, Palestinian organizations encounter numerous challenges, particularly in the streamlining of processes and systems. Presently, this is characterized by inconsistency, inefficiency, and fragmentation (Sabella, Kashou, & Omran, 2015). In operations management, service quality shortcomings in the Palestinian healthcare sector prompt a considerable number of patients to seek treatment abroad in countries like Egypt, Jordan, and Israel. These issues may arise from accountability gaps, a shortage of skilled workers, and an ineffective monitoring system by leaders (Baidoun, Salem, & Omran, 2018). The aforementioned challenges constitute the primary impetus for conducting this study, which endeavours to scrutinize and improve the implementation of TQM within the healthcare sector in Palestine. The study aims to optimize operational processes and outcomes through effective leadership.

Prior literature has suggested that the enhancement of TQM can be achieved through internal factors inherent in business operations, such as human resources and leadership styles (LS). These elements contribute to the optimization of desired outcomes within organizations (Yadeta, Jaleta, & Melese, 2022). Hence, the present study investigates the

impact of leadership styles on TQM implementation, considering the mediating role of individual readiness for change (RTC). In operations research, leadership styles influence team collaboration, decision-making processes, and the implementation of innovative solutions, critical for optimizing operational strategies and effectively achieving research objectives. Effective leadership creates an environment conducive to problem-solving, resource allocation, and continuous improvement in operations research projects (Anil & Satish, 2019). Furthermore, within decision sciences, readiness to change signifies the inclination and capability of individuals and organizations to adopt and adjust to novel methodologies, technologies, and strategies. This is imperative for fostering innovation, facilitating problem-solving, and optimizing decision-making processes (Haffar et al., 2019). This aids in the implementation of transformative initiatives within the domain of decision sciences. Effective leadership styles contribute to fostering an innovative culture, enhancing organizational preparedness for initiating initiatives. This positive change propels the organization towards operational excellence and higher quality standards, thereby reinforcing the effectiveness of TQM implementations (Chen, Lee, & Wang, 2020). Hence, within the field of operations research, it can be elucidated that leadership styles play a significant role in enhancing TQM in operations by influencing the management of RTC.

Theoretically, the RBV posits that organizations equipped with appropriate unique intangible resources can attain a substantial competitive advantage by enhancing TQM (Barney, 1991). Hence, to sustain competitive advantage in their operations, organizations must ensure that the pertinent resources are heterogeneous (Al-Hosaini et al., 2023) and not perfectly mobile across firms (Salhab et al., 2023). This characteristic prevents rival firms from replicating its strategy, thus improving their operations TQM. Therefore, the study employs the RBV framework, focusing on achieving TQM in operations by leveraging a firm's strategic resources such as LS & RTC (Barney, 2001). The theoretical foundation of the current study rests on the RBV theory, wherein LS are recognized as a valuable organizational resource (Salahat, 2017) capable of enhancing operations technology and thereby improving the TQM process. Drawing upon the RBV theory, this research establishes theoretical connections between RTC and the implementation of TQM in healthcare operations (Gunasekaran, Subramanian, & Ngai, 2019). Therefore, the application of the RBV theory enhances understanding of how LS and RTC significantly impact the successful integration of TQM methodologies within healthcare operations. Previous studies primarily focused on the direct effects of LS on TQM or LS on RTC, with little attention given to the mediating effect of RTC between LS and operations TQM in the context of the Palestinian healthcare sector. Furthermore, there is limited exploration of the multi-dimensional constructs of TQM and RTC. Consequently, this study addresses these gaps by adopting a multi-dimensional approach, where RTC is tested as a mediating variable between LS and operations TQM in the healthcare sector of Palestine.

The current research yields significant implications for operations research in the healthcare sector of Palestine. The model enriches the theoretical framework for operational excellence in healthcare by incorporating the mediating role of RTC within the decision sciences framework. This extension not only contributes to scholarly discussions in operations management but also lays the foundation for future research endeavours, enhancing our understanding of effective quality management strategies in healthcare settings. Additionally, the study significantly adds to the existing literature on TQM implementation, providing actionable insights for healthcare

leaders and practitioners seeking to optimize their quality management efforts. From a practical standpoint, the research offers actionable insights to optimize TQM practices by emphasizing the importance of readiness to change in the decision sciences framework. By empirically validating and applying this model, the operations research in the Palestine healthcare sector stands to gain improved operational efficiency, enhanced service quality, and ultimately, better patient outcomes. The subsequent sections of the paper are organized into a literature review, research methodology, data analysis and results, discussion, and future directions.

2. Literature Review

2.1 Review of Knowledge Framework: A Bibliometric Analysis

The study initiated with a comprehensive bibliometric analysis of academic literature on TQM, LS, and Individual Readiness to Change (IRTC). The objective is to establish a robust assessment method through statistical reviews of conceptual structure, thematic mapping, and theme evolution (Altarturi & Ajouz, 2021). The current investigation endeavours to address a research gap by specifically scrutinizing the involvement of "readiness to change" in the implementation of quality management within healthcare organizations. Existing studies predominantly concentrated on the direct impact of LS on TQM, with limited attention to the mediating effect of RTC. Consequently, this study aims to bridge this gap by examining how individual RTC influences the relationship between LS and TQM in the healthcare sector of Palestine.

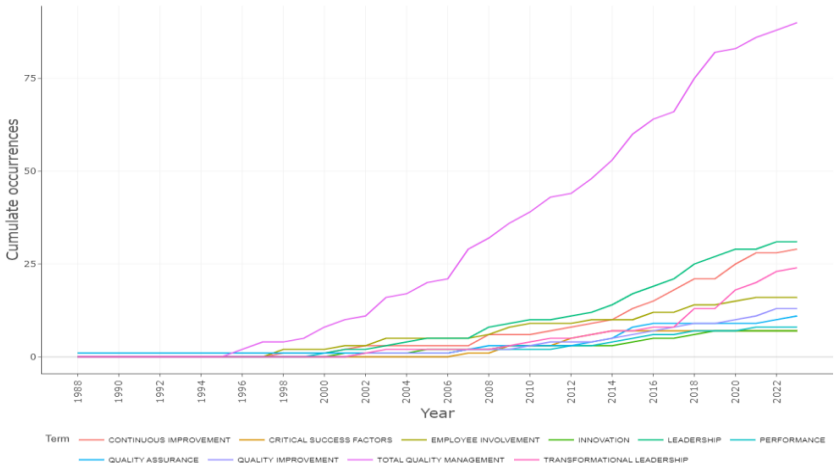

Figure 1: Keyword Analysis and Word Dynamics.
Source: Author's Creation Based on Bibliometric Analysis.

To identify typological themes, the research has incorporated a significant thematic mapping approach involving two-dimensional theme arrangements (Cobo, López-Herrera, Herrera-Viedma, & Herrera, 2011). The Figure 2 analysis underscores the prominence of TQM and LS keywords in the upper right quadrant, indicating their significance. However, "change management" appears in a less explored area, signalling a potential research gap in understanding the specific link between RTC and quality management dynamics. Addressing this gap can deepen insights into the

interplay between LS, TQM, and RTC in healthcare, enriching the knowledge base in the field.

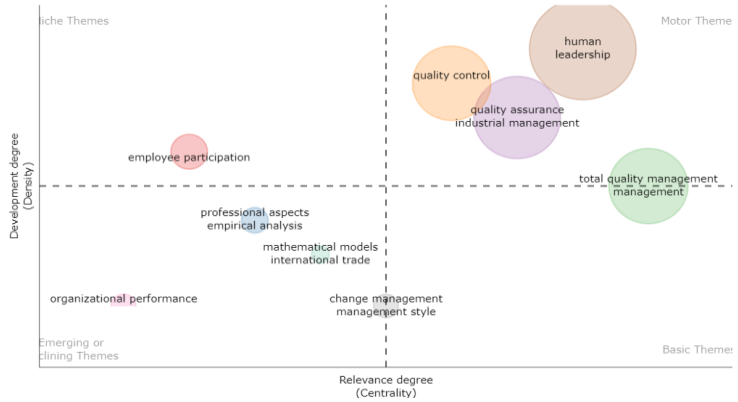

Figure 2: Thematic Map.
Source: Author's Creation Based on Bibliometric Analysis.

Emphasizing the importance of tracking the field's evolution, Figure 3 illustrates five interconnected clusters in a thematic evolution network. Derived from a co-occurrence network, these clusters provide a comprehensive overview of the field's developmental trajectory, highlighting the intricate interplay among various themes.

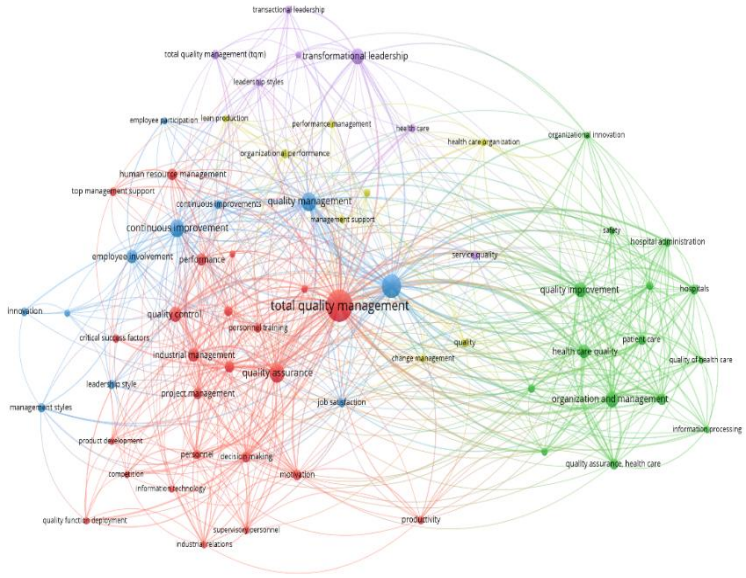

Figure 3: Thematic Evolution Network.
Source: Author's Creation Based on Bibliometric Analysis Using Vosviewer.

The thematic analysis is categorized into five clusters. Cluster one (Red) explores quality management practices across industries, emphasizing decision-making, motivation, and strategic planning's impact on organizational performance. This study

investigates the influence of LS on TQM in healthcare, incorporating Individual RTC to comprehend its mediating role in LS-TQM relationships, addressing a gap in this cluster. Cluster two (Green) centres on healthcare quality and patient care, emphasizing efficiency, safety, and organizational culture. While not covering all cluster keywords, the research contributes to understanding the dynamics among leadership, RTC, and quality management, providing insights for improving healthcare quality and patient safety.

Cluster three (Blue) focuses on Continuous Improvement (CI), Employee Engagement (EI), and LS, underscoring their impact on quality management practices and innovation. Corresponding with this cluster, the research explores LS's influence on CI and EI on TQM, connecting RTC to employee engagement and change readiness to cultivate a culture of CI and enhance overall quality management in healthcare. Cluster four (Yellow) emphasizes the impact of change management on healthcare organizational performance, highlighting effective management support and lean production practices. This study delves into RTC's role in facilitating change management, investigating LS's influence on RTC and subsequent improvements in organizational performance, providing valuable insights for optimizing quality management and lean practices in healthcare. Cluster five (Purple) underscores the relationship between LS, TQM, knowledge management, and service quality in healthcare. While not covering all cluster keywords, the research explores the link between LS, RTC, and TQM, studying the role of readiness for change in improving service quality and knowledge management within healthcare organizations, contributing to overall quality management practices.

2.2 The proposed Conceptual Framework: Leadership Styles

LS denote varied behavioural patterns adopted by leaders (Bintara, Mulawarman, & Azainil, 2021). The significance of LS can be explored across multiple dimensions in organizations (Alrowwad, Abualoush, & Masa'deh, 2020), service quality (Qiu, Alizadeh, Dooley, & Zhang, 2019), and organizational commitment (Sunarsi et al., 2020). Specifically, LS can be linked to TQM implementation through the leadership-for-quality framework, rooted in TQM's core principles: Continuous Improvement (CI), Customer Focus (CF), and participation and teamwork. This framework asserts that leaders' traits, values, and behaviours across organizational levels significantly impact organizational outcomes (Salahat, 2017). Empirical evidence supports the positive and significant influence of LS on TQM implementation (Wagimin, Elisa, Juhary, & Vembri, 2019). To gain a deeper understanding, this study specifically examines the impact of transactional and transformational LS on TQM implementation. By exploring the distinct contributions of these LS to TQM practices, the study aims to enhance knowledge regarding how different leadership approaches can effectively drive quality management initiatives within organizations.

On the contrary, LS are distinguished by leaders' capacity to motivate employees based on their individual interests and by fostering positive relationships. Leaders proficiently navigate employee behaviours and organizational resources to attain strategic objectives, employing the principle of "benefits exchange." Here, employees receive compensation for their job performance, aligning with the organization's achievement of its goals (Salahat, 2021a). Previous studies have consistently identified a robust positive correlation between LS and the implementation of TQM (Bouranta, 2020; Wagimin et al., 2019). The TQM theory elucidates the connection between TSL and the implementation of TQM (Sriyakul, Umam, & Jermsittiparsert, 2019). Expanding upon the aforementioned discourse, the current study formulates the following hypotheses:

H_1: *There is a significant relationship between LS and TQM.*

2.3 Mediating Role of Individual Readiness for Change

In a conceptual framework, RTC is defined as the extent to which employees perceive the necessity of organizational change and acknowledge the positive effects of such changes on both themselves and the entire organization. This concept further incorporates employees' attitudes towards specific changes, indicating their perceptual and emotional preparedness to embrace and implement specific strategies aimed at altering the existing organizational circumstances (AbuTahoun & Khan, 2019). Theoretical connections among LS, RTC, and TQM implementation are evident in organizational change theory, where changes are primarily linked to human capital and process issues. Employees' organizational commitment can be seen as a change aimed at enhancing the human aspect of an organization, elucidating the relationship between employees' organizational commitment and RTC in the context of TQM implementation (Al-Maamari & Raju, 2020). Key attributes influencing RTC and its mediating role between LS and TQM implementation include the necessity for change to be perceived as personally advantageous, backed by management, fitting for the context, and fostering self-efficacy (Haffar et al., 2019).

"Personally beneficial" denotes employees' perceptions of the planned change's utility and advantages. The anticipation of rewards for supporting TQM increases the likelihood of employees adopting organizational changes (Mahendrati & Mangundjaya, 2020). Management support encompasses the requisite backing from top management and leadership for the successful implementation of any organizational change process (Gözükara, Çolakoğlu, & Şimşek, 2019). Appropriateness underscores the significance of understanding that change is not only suitable but also beneficial to the organization. Moreover, when employees acknowledge the significance of TQM in enhancing performance, it amplifies their willingness to actively participate in its implementation (Haffar et al., 2019). Self-efficacy signifies members' confidence in their capability to implement the proposed change and their assurance of success. Employees with TQM training exhibit increased confidence in TQM implementation (Gözükara, Çolakoğlu, & Şimşek, 2019). Likewise, LS has a significant and positive impact on RTC (Lyons, Swindler, & Offner, 2009), and RTC, in turn, positively and significantly influences TQM implementation (Haffar et al., 2019). Therefore, this study examines the mediating role of RTC between LS and TQM implementation, addressing a significant gap identified in the literature review. The ensuing hypotheses are posited accordingly:

H_2: *There is a significant positive relationship between LS and RTC.*
H_3: *There is a significant positive relationship between RTC and TQM.*
H_4: *RTC mediates the relationship between LS and TQM.*

3. Methodology

3.1 Data Collection

The study employed a quantitative research approach to examine the interconnection between LS and TQM implementation in the healthcare sector, incorporating RTC. Data were collected through a survey questionnaire, a common method in similar research. The target population consisted of healthcare workers directly involved in patient care as part of

operations, excluding top-level managers. Data were systematically sampled from governmental hospitals in Palestine, resulting in a response rate of 48% from the distributed 250 questionnaires. Ethical guidelines were strictly adhered to, participants received informed consent forms, ensuring confidentiality and impartiality in data collection (Kvale, 1996).

3.2 Measures

The research utilized standardized scales to assess all variables under scrutiny. Total quality management was measured using a four-dimensional scale with 35 items adapted from Jaca and Psomas (2015), which included CI (10 items), CF (8 items), EI (9 items), and TMC (8 items). The evaluation of leadership style was conducted through a two-dimensional scale comprising 13 items, adapted from prior scholarly investigations (Salahat, 2017). This scale included TSL with 9 items & TFL with 4 items. Additionally, RTC was assessed using a four-dimensional scale with 36 items, adapted from Al-Maamari, Abdulrab, Al-Jamrh, and Al-Harasi (2017). The dimensions encompassed Personally Beneficial (13 items), Management Support (9 items), Appropriateness (5 items), and Self-efficacy (9 items).

4. Data Analysis and Results

The study utilized the Partial Least Squares (PLS)-Structural Equation Modelling (SEM) technique through the Smart-PLS software for analysis.

4.1 Assessment and Refinement of the Measurement Model

The measurement model underwent initial assessment to ascertain its reliability and validity. Appendix A provides a visual representation of the robust consistency and acceptability of the outer loadings. According to Hulland (1999), observed variables should exhibit outer loadings surpassing a threshold of 0.50 to be considered acceptable. In this study, the outer loadings vary from 0.605 to 0.850, exceeding this specified benchmark.

Table 1: Assessment of the Measurement Model.

Code	Constructs	Cronbach's Alpha	Composite Reliability Rho_a	Rho_c	AVE
TQM	**Total Quality Management**	**0.906**	**0.908**	**0.934**	**0.779**
CI	Continuous Improvement	0.884	0.886	0.908	0.552
CF	Customer Focus	0.894	0.897	0.915	0.576
EI	Employee Involvement	0.856	0.858	0.891	0.540
TMC	Top Management Commitment	0.899	0.904	0.920	0.590
LS	**Leadership Style**	**0.840**	**0.841**	**0.926**	**0.862**
TSL	Transactional Leadership	0.926	0.927	0.938	0.629
TFL	Transformational Leadership	0.784	0.787	0.861	0.607
RTC	**Readiness to Change**	**0.701**	**0.878**	**0.752**	**0.501**
PB	Personally Beneficial	0.857	0.885	0.896	0.634
MS	Management Support	0.870	0.873	0.906	0.659
A	Appropriateness	0.823	0.829	0.876	0.588
SE	Self-Efficacy	0.746	0.750	0.856	0.667

Source: Author's Creation Based on Smart-PLS Results.

As indicated in Table 1, the research fulfils the anticipated criteria for convergent validity. This is demonstrated by the Average Variance Extracted (AVE) values for all constructs, spanning from 0.501 to 0.862, surpassing the predetermined threshold of 0.50 (Ajouz, Salhab, & Idais, 2020). The composite reliability values (Rho_a & Rho_c) for the latent variables fall within the range of 0.750 to 0.938. The Cronbach's Alpha (CA) values range from 0.701 to 0.926. These values not only meet but also exceed the acceptable level, as outlined in various studies (Ajouz, Abdullah, & Kassim, 2020; Hair Jr et al., 2021). This emphasizes the reliability and validity of the measurement model in the study.

Discriminant validity was evaluated using Fornell and Larcker (1981) criteria presented in Table 2. The Fornell-Larcker values, expected to surpass the square root of the AVE, indicate a significant difference between constructs, confirming discriminant validity. These results align with Fornell-Larcker criteria, affirming the method's robustness and supporting prior literature findings (Abuamria & Ajouz, 2020; Ajouz, Abuamria, & Hammad, 2021).

Table 2: Discriminant Validity for First-order Model.

	CI	CF	EI	TMC	TSL	TFL	PB	MS	A	SE
CI	**0.743**									
CF	0.643	**0.759**								
EI	0.665	0.672	**0.735**							
TMC	0.716	0.698	0.644	**0.768**						
TSL	0.470	0.508	0.535	0.460	**0.793**					
TFL	0.396	0.513	0.441	0.420	0.624	**0.779**				
PB	0.001	0.032	0.075	0.023	0.073	0.046	**0.796**			
MS	0.514	0.616	0.579	0.520	0.619	0.589	0.103	**0.812**		
A	0.147	0.110	0.178	0.239	0.274	0.338	0.166	0.416	**0.767**	
SE	0.194	0.183	0.322	0.307	0.346	0.395	0.070	0.380	0.637	**0.816**

Source: Author's Creation Based on Smart-PLS Results.

4.2 Structural Model

Following the evaluation of the measurement model, the next step involves hypothesis testing. To achieve this, the researcher utilized the bootstrap 5000 resampling technique (Hair, Hult, Ringle, & Sarstedt, 2016). The model's predictive power is illustrated in Figure 4, demonstrating that the model explains approximately 36.8% of the total variance in innovative work behaviour. This suggests a moderately high explanatory capacity for complex social phenomena. The analysis provides empirical support for the four hypothesized relationships, each confirmed with a 95% confidence level, as presented in Tables 3, 4, and 5. The results underscore the substantial impact of Leadership Style on Total Quality Management (H1: $\beta = 0.451$; $t = 4.939$, $P < 0.05$), revealing a statistically significant and positive relationship within the healthcare sector. This emphasizes the crucial role of leadership in implementing quality practices and preparing individuals in the healthcare sector for necessary changes.

Table 3: PLS-SEM Results: Path Coefficients of the Adjusted Model.

H_X	Relationship	Std Beta	T-Value	P-Value	Decision
H_1	LS-> TQM	0.451	4.939	0.000	Supported

Source: Author's Creation Based on Smart-PLS Results.

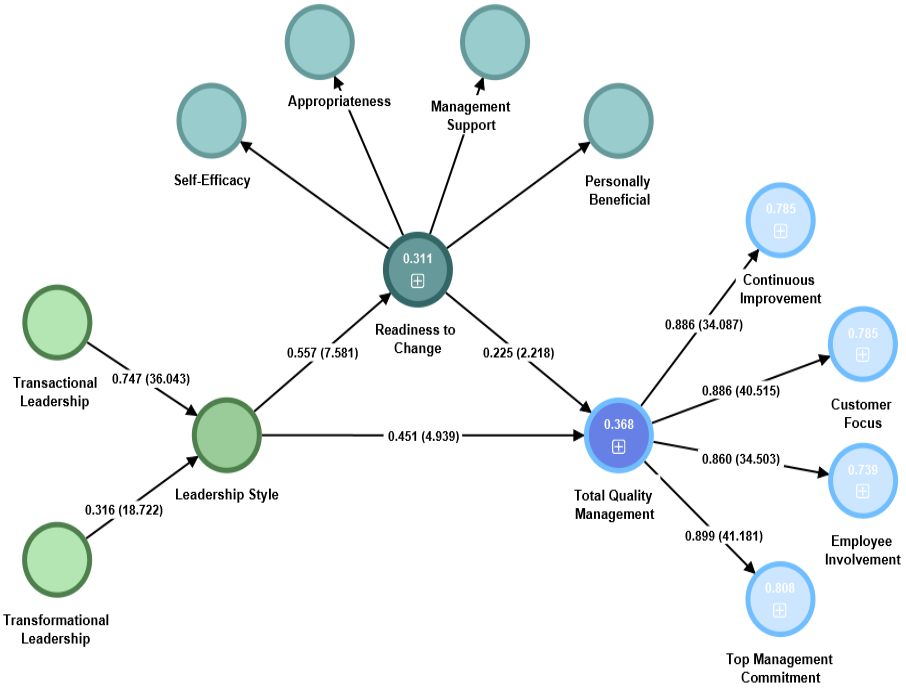

Figure 4: Structural Model Results.
Source: Author's Creation Based on Smart-PLS Results.

The outcomes also underscored the significant impact of LS in fostering RTC. The study revealed a strong positive association, evident in a beta coefficient (β) of 0.557, a t-value of 7.581, and a p-value less than 0.05, thereby confirming H2. This suggests that various LS, whether transformational, transactional, or others, effectively prepare individuals to embrace and adapt to changes associated with TQM. Additionally, the study emphasized the influential role of RTC in shaping and propelling TQM implementation in organizations. The robust positive association, reflected in a beta coefficient (β) of 0.225, is statistically significant, supported by a t-value of 2.218 and a p-value below the 0.05 threshold, affirming H3. This finding underscores the significance of RTC for TQM within the distinctive dynamics and demands of healthcare environments.

Table 4: PLS-SEM Results: Path Coefficients of the Adjusted Model.

H_X	Relationship	Std Beta	T-Value	P-Value	Decision
H_2	LS -> RTC	0.557	7.581	0.000	Supported
H_3	RTC -> TQM	0.225	2.218	0.027	Supported

Source: Author's creation based on Smart-PLS results

As depicted in Table 5, the outcomes underscore the mediating effects, underscoring the pivotal role of RTC in shaping the intricate interplay between LS & TQM. These results highlight the critical influence of LS in moulding the successful implementation of quality management practices within healthcare organizations. The findings reveal a complementary partial mediation role played by RTC in the LS-TQM relationship, aligning with Baron and Kenny (1986) mediation criteria.

Understanding these dynamics enables healthcare institutions to devise targeted strategies for enhancing patient outcomes and overall organizational performance through effective quality management practices.

Table 5: PLS-SEM of Mediation Results.

H_X	Relationship	β	T-Value	P-Value	Decision
H_4	LS-> RTC-> TQM	0.193	3.165	0.002	Supported

Source: Author's Creation Based on Smart-PLS Results.

5. Discussion and Conclusion

The present operations research delves into the impact of LS among healthcare operations employees on TQM in the Palestinian healthcare sector. The study also investigates the mediating role of readiness to change within decision sciences between operations employees' leadership styles and total quality management, addressing previously highlighted research gaps. Previous studies, such as Elkomy, Murad, and Veleanu (2023), underscore the significant influence of leadership styles on overall organizational performance but emphasize the need to explore its role in healthcare quality delivery. The data collected from operations employees in the Palestinian healthcare sector reveal a statistically significant and positive effect of LS on operational TQM, underscoring the pivotal role of leadership styles in driving operational excellence and quality improvement initiatives. From an operational standpoint, this study establishes the pivotal role of LS in influencing organizational innovation and fostering the adoption of TQM practices in operational activities. Acknowledging the impact of leadership on TQM implementation, policymakers and healthcare administrators can implement targeted leadership development programs and strategic interventions to elevate operational performance, ultimately enhancing the quality of care delivery in Palestinian healthcare institutions (Sriyakul, Umam, & Jermsittiparsert, 2019). The results are consistent with the subsequent research (Ahmad & Ahmed, 2023; Bouranta, 2020; Wagimin et al., 2019). In this case, the results of this study show that leaders in Palestine's healthcare industry push their employees to go above and beyond what is expected of them and show exceptional performance. For this reason, this kind of good leadership usually leads to more TQM practices being used.

More research shows that LS has a big effect on RTC in Palestine's healthcare industry. These data show how important RTC is as a mediating variable in the relationship between LS and TQM in Palestine's healthcare sector. They also show how important leadership is for encouraging organisational flexibility and new ideas for operational success. The study also shows that different types of leadership can effectively bring about change in the Palestinian healthcare sector, affecting how organisations move. Earlier studies, like Appelbaum, Degbe, MacDonald, and Nguyen-Quang (2015), have shown that LS has a good effect on employees' RTC, which makes operational process changes go more smoothly. Additionally, research by Aarons, Ehrhart, Farahnak, and Hurlburt (2015) and Laseinde et al. (2020) showed a link between LS, especially participative and helpful styles, and how open healthcare workers are to change. In the same way, other studies (Sengupta et al., 2024) have said that LS is an important part of operational change because it makes organisations

more flexible and helps innovative projects happen in the Palestinian healthcare sector. Good leadership creates an environment of flexibility, teamwork, and strategy alignment, which is necessary for navigating complexity and improving operational processes to achieve excellence. These results show how important good leadership is for creating a culture that is open to change. This is necessary for making operational improvements and moving quality management projects forward in Palestinian healthcare organisations. It is thought that successful change management in an organisation is a necessary step before TQM practices can be used effectively. Thus, the study's results show that organisations need to make people more open to change in order to improve the use of TQM (Al-Maamari & Raju, 2020).

Conversely, RTC significantly and favourably effects TQM, emphasising the importance of organisational dynamics in improving operational outcomes and the incorporation of behavioural elements into operational models. This finding emphasises the necessity of understanding and optimising operations processes, supporting RTC as a key TQM success factor. The findings align with the study of Monsef, Amoopour, and Azizi (2012), which also found that higher levels of RTC among healthcare employees positively influence the adoption and effectiveness of TQM practices. Furthermore, Iqbal and Asrar-ul-Haq (2018) emphasize the role of RTC in facilitating organizational agility and responsiveness, crucial elements for operational excellence and quality improvement initiatives in healthcare settings. Therefore, integrating RTC issues into operational frameworks and decision-making processes in Palestine's healthcare sector provides useful insights and ideas. This initiative intends to improve organisational readiness and TQM implementation in Palestinian healthcare.

The findings reveal that RTC significantly and positively mediates between LS and operations TQM in the healthcare sector of Palestine, emphasizing the importance of integrating decision sciences into RTC strategies. This underscores the critical role of informed decision-making in optimizing organizational processes within the context of operations excellence. Leveraging decision sciences through RTC is suggested to enhance data-driven approaches to change management. Consequently, utilizing RTC as a mediator between LS and TQM allows the healthcare sector in Palestine to develop personalized interventions that harness effective leadership influence. This promotes a culture of change readiness, facilitating smoother TQM implementation in their operations (AbuTahoun & Khan, 2019). The preceding findings align with various studies in the field (Mahendrati & Mangundjaya, 2020). These findings recommend that adopting this approach contributes to cultivating a culture of adaptability and continuous improvement in operational excellence and the quality-of-care delivery within the healthcare sector. The study underscores the importance of embracing a holistic approach to operations research in healthcare, emphasizing the consideration of structural, process-oriented, and human and behavioural elements that influence organizational dynamics. Integrating insights from decision sciences can aid in developing comprehensive strategies that address the multifaceted challenges of TQM implementation in Palestinian healthcare.

By analysing the results, the study believes that LS and RTC are crucial to improving TQM in the Palestinian health sector. The study emphasises the need of strong leadership in promoting dynamic organisational excellence and an inventive culture for TQM implementation. Healthcare organisations in Palestine can improve operational performance, care quality, and continuous improvement by using decision

sciences and acknowledging RTC as a major mediator between LS and TQM. Thus, these data suggest new healthcare research directions.

6. Implications and Future Directions

Significant theoretical and practical advances are made by the study. Theoretically, by emphasising LS's function in promoting innovation and propelling TQM initiatives, it deepens the complexity of organisational dynamics in healthcare operations. It highlights the importance of taking behavioural factors into account in addition to structural aspects and identifies RTC as a key mediator. Future studies on the relationship between leadership, organisational preparedness, and operational outcomes will have more opportunities because of how complex organisational dynamics are. Practically, the study offers insights for healthcare organizations to enhance operational quality, guiding policymakers and administrators in prioritizing leadership development programs for effective TQM adoption. Moreover, strategies to improve RTC in healthcare employees can be applied, utilizing decision sciences for data-driven change management. This study highlights the need to translate theoretical insights into practical initiatives, guiding organizations in fostering adaptability, resilience, and continuous improvement. By incorporating these results, a comprehensive strategy has the capacity to drive sustained enhancements in operational excellence and the quality of healthcare delivery in Palestine's healthcare sector.

Despite its significant findings, the study presents several limitations that warrant consideration for future research. Firstly, the focus was solely on the operations of healthcare sectors in Palestine, limiting the generalizability of the results. Future research should explore other sectors and countries to enhance the study's applicability. Secondly, the study concentrated on the mediating effect of readiness to change in decision sciences. Future research could incorporate additional moderating variables such as operational dynamic capability and include independent variables like operational leadership styles to enhance the study's predictive capacity. Lastly, the study adopted a cross-sectional research design with one-time data collection. Future research could employ a longitudinal research design to improve the generalizability of the study.

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Appendix A:

Scale Items and Latent Variable Evaluation

Constructs and Related Measurement Items		Loadings
	TQM: Continuous Improvement	
CI1	Our services are constantly being improved	0.701
CI2	We set goals to improve hospital defect rates	0.736
CI3	We set goals to improve patient satisfaction	0.742
CI4	We set improvement goals for employee satisfaction	0.745
CI6	There is a strong commitment to continuous improvement at all levels of the hospital	0.801
CI8	In the hospital, continuous improvement is a way to gain a competitive advantage	0.717
CI9	The employee at various administrative levels can participate in decision-making	0.713
CI10	The administration involves all employees in the planning process to improve the quality of services in the hospital	0.782
	TQM: Customer Focus	
CF1	The hospital where I work is focused on patient satisfaction	0.770
CF2	Patients' needs are continuously identified	0.796
CF3	Patient requirements are communicated across all departments of the hospital	0.714
CF4	We constantly measure patient satisfaction	0.804
CF5	Patient complaints and problems are resolved quickly and effectively	0.747
CF6	Patient relationships are evaluated and improved	0.770
CF7	The future expectations and requirements of the patients are planned	0.755
CF8	Patient feedback is used to make improvements in the hospital	0.708
	TQM: Employee Involvement	
EI1	Employees are empowered to correct defects and problems in the provision of healthcare services	0.728
EI2	Continuous training is provided to employees who need training	0.821
EI3	The hospital has special groups to solve problems and face crises	0.765
EI6	Managers and supervisors participate in specialized training	0.657
EI7	Employees participate in quality decisions	0.749
EI8	The hospital provides feedback to employees on the quality of their performance	0.657
EI9	The hospital management adapts to the new ideas that the employees come up with	0.752

TQM: Top Management Commitment		
TMC1	The management is committed to applying TQM	0.698
TMC2	The management believes in the TQM system and makes continuous efforts to present its principles and ideas	0.817
TMC3	Management educates employees about TQM	0.786
TMC4	Management demonstrates to employees the advantages of implementing TQM in the hospital	0.839
TMC5	Management supports employee proposals to improve the quality of healthcare	0.841
TMC6	The administration encourages all administrative levels in decision-making	0.734
TMC7	Management supports training programs for employees	0.713
TMC8	Heads of major departments within the hospital are involved in the quality improvement process	0.699
Leadership Style: Transactional Leadership		
LS1	My direct boss instils in me a sense of pride	0.785
LS2	My immediate manager spends time teaching and training his subordinates	0.740
LS3	My direct boss considers the moral and ethical aspects	0.752
LS4	My direct manager considers my different needs, abilities, and aspirations	0.804
LS5	My direct manager listens to my concern	0.762
LS6	My direct manager encourages me to move forward and strengthen my career position	0.711
LS7	My direct manager increases my motivation level	0.826
LS8	My direct manager encourages me to think more creatively.	0.829
LS9	My direct manager pushes me to rethink about common things (the use of job productivity and/or independent work groups)	0.746
Leadership Style: Transformational Leadership		
LS10	The tasks that my direct supervisor expects are clear to me	0.693
LS11	My direct manager informs me of clear and specific criteria for performing the work required of me	0.671
LS12	My direct manager deals with me according to previous understanding between us	0.696
LS13	My direct supervisor monitors my performance and corrects my mistakes	0.605
RTC: Personally Beneficial		
PB1	The prospective application of TQM principles will give me new career opportunities	0.850
PB2	Applying the principles of TQM makes my job easier	0.768

PB3	The prospective application of TQM principles will give me new career opportunities	0.810
PB5	My future in this job will be limited by the implementation of TQM principles	0.751
PB8	The effort required to apply the principles of TQM is rather small when compared to the benefits that I will see from it	0.798
	RTC: Management Support	
MS3	The direct manager has served as a role model for the employees to start applying the principles of TQM	0.830
MS4	The direct manager in the hospital supports efforts to apply the principles of TQM	0.824
MS5	The direct manager is committed to applying the principles of TQM	0.850
MS6	The direct manager stresses the importance of applying the principles of TQM	0.797
MS7	Our direct manager has encouraged all of us to embrace the principles of TQM	0.756
	RTC: Appropriateness	
A1	I believe that the hospital will benefit from applying the principles of TQM	0.754
A2	Our hospital will be more productive when we apply the principles of TQM	0.825
A3	When we adopt the principles of TQM, we will be better equipped to meet the needs of our patients	0.827
A4	The application of the principles of TQM will improve the overall efficiency of the hospital	0.734
A5	The application of the principles of total quality management is consistent with the priorities of the hospital in which I work	0.684
	RTC: Self-Efficacy	
SE1	My past experiences make me confident that I will be able to carry out my tasks successfully after applying the principles of TQM	0.733
SE3	I have the necessary skills to successfully apply the principles of TQM	0.825
SE4	When we apply the principles of TQM, I feel that I can handle it easily	0.749
SE5	I can learn all that is required when adopting the application of TQM principles	0.672
SE7	When I heard about the application of TQM principles, I thought it fit my skills perfectly	0.680
SE8	I do not expect any problems adapting to the work I will be doing when applying the principles of TQM	0.754
SE9	After applying the principles of TQM, I am confident that I will be able to do my job	0.764