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The Impact of Soft Practices in Total Quality Management on Improving Customer Service: The Mediating Role of Collaborative Supply Chains

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Abstract

This research aims to answer the central question of the impact of Total Quality Management (TQM) soft practices on customer service while also examining the mediating role of cooperative supply chains in strengthening this relationship within the Iraqi Ministry of Communications. The study stems from the importance of government organizations adopting TQM concepts as a modern approach to improving the level of services provided to citizens. The Iraqi Ministry of Communications was chosen as the case study because of its vital role in direct interaction with a wide range of beneficiaries. The research employed a descriptive-analytical methodology, collecting data from a population of 85 employees and analyzing it using appropriate statistical methods to test the proposed hypotheses. The analysis aims to produce results that can enhance service performance and shape administrative policies.

1. Research Methodology

1.1. Research Problem

Governmental organizations, particularly service-oriented ones, face increasing challenges related to the poor quality of services provided to customers, slow procedures, and weak coordination between organizational units and their associated supply chains. Although some institutions have adopted Total Quality Management (TQM) concepts, the focus is often on the tangible aspects, neglecting the soft practices related to leadership, employee empowerment, teamwork, and relationship building. There is also a noticeable weakness in activating collaborative supply chains to support service improvement. Hence, the research problem is formulated in the following main question: "To what extent do the soft practices of TQM improve customer service, and what is the role of collaborative supply chains as an intermediary variable in this relationship within the Iraqi Ministry of Communications?"

1.2. Significance of the Research

The significance of this research stems from its focus on a contemporary administrative topic that combines total quality management, collaborative supply chains, and customer service

improvement, especially within the governmental environment. This research contributes to clarifying the role of soft practices in Total Quality Management (TQM) in enhancing the quality of services provided to citizens, highlighting the importance of collaborative supply chains as an effective link in achieving this improvement. The study also gains practical significance from providing actionable indicators that can help administrative leaders in the Iraqi Ministry of Communications develop their administrative policies and improve coordination and cooperation, which will positively impact customer satisfaction and enhance institutional performance.

1.3. Research Objectives

This research aims to achieve several objectives, most notably:

- ✓ 1.3.1. Identifying the level of implementation of soft practices in TQM within the Iraqi Ministry of Communications.
- ✓ 1.3.2. Measuring the level of customer service improvement within the ministry under study.
- ✓ 1.3.3. Diagnosing the nature of the relationship between soft practices in TQM and improved customer service.
- ✓ 1.3.4. Demonstrating the impact of collaborative supply chains in strengthening the relationship between soft practices in TQM and improved customer service.
- ✓ 1.3.5. Providing practical suggestions to support decision-makers in developing service performance within the Iraqi Ministry of Communications.

1.4. Research Hypotheses

Based on the research problem and objectives, the following hypotheses were formulated:

- ✓ 1.4.1. There is a statistically significant relationship between soft practices of Total Quality Management (TQM) and improved customer service.
- ✓ 1.4.2. There is a statistically significant relationship between soft practices of TQM and cooperative supply chains.
- ✓ 1.4.3. There is a statistically significant relationship between cooperative supply chains and improved customer service.
- ✓ 1.4.4. Cooperative supply chains play a mediating role in the relationship between soft practices of TQM and improved customer service.

1.5 Hypothetical Research Framework

The research is based on a hypothetical model that illustrates the nature of the relationships between its variables. Soft practices of TQM represent the independent variable, while improved customer service represents the dependent variable. Cooperative supply chains act as the mediating variable, enhancing or explaining the strength of the relationship between the independent and dependent variables.

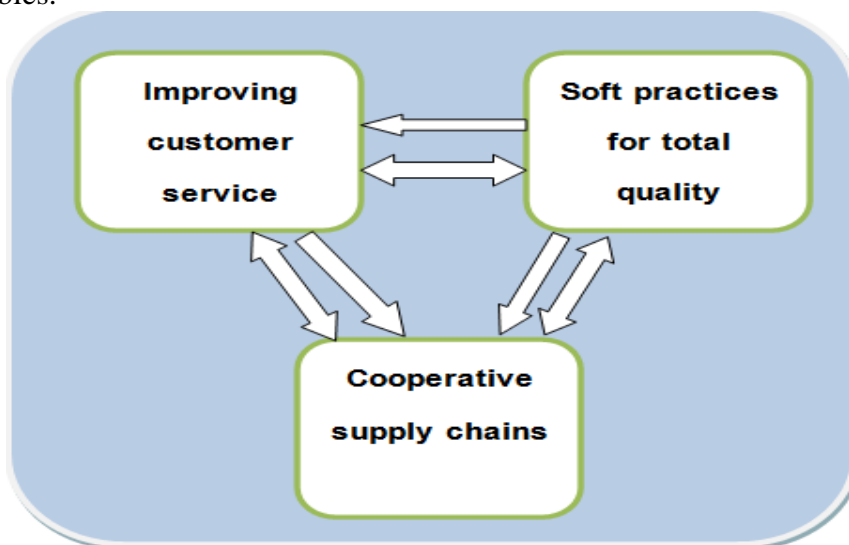


Figure (1): Hypothetical Research Plan

1.6. Research Population and Sample

The research sample consists of all employees in the Iraqi Ministry of Communications who are directly involved in administrative and service activities and supply chains, totaling 85 employees.

The Iraqi Ministry of Communications was chosen as the field of application due to its service importance, the large customer base benefiting from its services, and its continuous need to develop the quality of its services and improve citizen satisfaction.

2. The Theoretical Aspect of the Research

2.1. Soft Practices of Total Quality Management

✓ 2.1.1. The Concept of Soft Practices of Total Quality Management

Soft practices of total quality management are considered the cornerstone of developing long-term institutional performance, as they focus on the human element, organizational behavior, and institutional culture. These practices go beyond the procedural aspect of quality to include effective leadership, employee empowerment, teamwork, and effective internal communication. Recent studies indicate that organizations implementing these practices possess a greater capacity for innovation and continuous process improvement, as well as enhanced resilience to environmental challenges and evolving customer demands (Oakland, 2021: 47; Zeng et al., 2021: 1924).

These practices focus on transforming the organizational culture into one of continuous learning, where all employees become partners in performance improvement, rather than mere implementers of higher directives. The literature suggests that empowering employees and involving them in decision-making increases commitment to quality and reduces resistance to change (Fonseca & Domingues, 2023: 215; Ali & Johl, 2023: 1869).

✓ 2.1.2. The Importance of Soft Practices in Total Quality Management

The significance of these practices stems from their ability to enhance employee satisfaction and intrinsic motivation, which directly translates into improved performance and customer service. Organizations that focus on the human aspect of quality can improve operational processes, enhance interdepartmental collaboration, and maximize the utilization of existing knowledge and expertise within the organization (Al-Haddad et al., 2022: 92; Sreedharan & Raju, 2020: 758).

In government and service organizations, these practices are essential to ensuring the delivery of high-quality services that meet beneficiary expectations and enhance the organization's credibility and efficiency (Calvo-Mora et al., 2022: 330; Talib, 2020: 90). Furthermore, focusing on soft practices helps build a flexible work environment capable of responding quickly and effectively to internal and external changes.

✓ 2.1.3. Objectives of Soft Practices in Total Quality Management

Soft practices aim to strengthen senior leadership's commitment to quality, improve employee efficiency through continuous training and empowerment in decision-making, and instill a culture of continuous improvement within the organization. Recent studies indicate that these goals lead to sustainable improvement in organizational performance, increased resilience to environmental changes, and higher customer satisfaction (Psomas & Antony, 2019: 104; Siva et al., 2024: 40).

The objectives of these practices also include developing communication and collaboration skills among employees, building organizational trust, and enhancing the organization's capacity for continuous innovation and renewal. This contributes to making quality a strategic tool for achieving organizational excellence, rather than merely a traditional administrative measure (Karia & Asaari, 2023: 58).

✓ 2.1.4. Characteristics of Soft Practices in Total Quality Management

Soft practices are characterized by several features, most notably:

- Focusing on the human element as a key factor in quality improvement.

- Fostering a culture of organizational learning and knowledge sharing among employees.
- Encouraging teamwork and collaboration between departments.
- Flexibility and adaptability to environmental changes and variables.
- Building trust and internal commitment between employees and management, which positively impacts overall performance and the achievement of quality objectives (Ali & Johl, 2023: 1875; Zeng et al., 2021: 1933).

2.2 Collaborative Supply Chains

✓ 2.2.1. The Concept of Collaborative Supply Chains

Collaborative supply chains are defined as networks of relationships between various parties involved in the supply chain, both within and outside the organization, to achieve process integration, improving the flow of materials and information, reducing redundancy and duplication, and enhancing overall performance efficiency (Mentzer et al., 2020: 62; Wieland & Wallenburg, 2022: 6).

Studies also indicate that these chains rely on continuous coordination and information exchange among partners, as well as building mutual trust, which leads to improved organizational resilience to environmental changes and customer demands (Ivanov & Dolgui, 2021: 2910).

✓ 2.2.2. The Importance of Collaborative Supply Chains

These chains play a fundamental role in improving coordination between internal and external departments, enhancing operational efficiency, and achieving integration between suppliers and customers. It also helps improve the ability to make strategic decisions more quickly and accurately, and increases resilience in the face of crises and operational challenges (Gligor et al., 2022: 121; Kamalahmadi & Mellat-Parast, 2023: 108429).

✓ 2.2.3. Objectives of Collaborative Supply Chains

The objectives of these chains focus on enhancing internal and external integration, building relationships based on trust and mutual commitment, improving the efficiency of operational processes, and increasing the ability to respond to changing market demands. Studies indicate that achieving these objectives directly translates into improved service quality and increased customer satisfaction (Cao & Zhang, 2021: 391; Dubey et al., 2024: 68).

✓ 2.2.4. Characteristics of Collaborative Supply Chains

They are characterized by several features, including:

- Long-term partnerships among all participating parties.
- Transparent and highly accurate information exchange.
- Continuous coordination among different units to ensure smooth operations.
- High flexibility in dealing with operational challenges and environmental changes.
- High capacity to improve overall performance and achieve institutional sustainability (Ivanov & Dolgui, 2021: 2915; Gligor et al., 2022: 128).

2.3. Improving Customer Service

✓ 2.3.1. The Concept of Improving Customer Service

Improving customer service is the process of raising the quality of services provided to meet customer expectations and needs, whether in terms of speed of completion, accuracy of performance, good customer service, or effective response to complaints and feedback (Zeithaml et al., 2020: 21; Homburg et al., 2023: 5).

Recent studies focus on the holistic customer experience, which encompasses all points of interaction with the organization, not just the moment of service delivery. The customer experience is considered a direct indicator of the quality of organizational performance and success (Becker et al., 2020: 462).

✓ 2.3.2. The Importance of Improving Customer Service

Improving service contributes to enhancing customer satisfaction, increasing loyalty, improving the organization's reputation, and building long-term trust. In government institutions,

this is crucial for ensuring public satisfaction and increasing the credibility of service providers (Klaus & Maklan, 2022: 145; Nguyen et al., 2024: 242).

✓ **2.3.3. Customer Service Improvement Objectives**

The service improvement process aims to:

- Increase overall customer satisfaction.
- Enhance the customer experience at all interaction points.
- Foster customer loyalty and trust in the organization.
- Achieve a balance between performance efficiency and service quality by developing employee skills and improving internal coordination (Roy et al., 2023: 113480; Lemon & Verhoef, 2024: 28).

✓ **2.3.4. Challenges of Customer Service Improvement**

Organizations face several challenges, including:

- Varying customer expectations and the difficulty of fully meeting them.
- Limited financial and human resources.
- Weak coordination between internal units, leading to reduced service quality.
- Difficulty in effectively managing feedback and complaints. Recent studies indicate that overcoming these challenges requires adopting modern management practices based on quality and institutional collaboration and using innovative methods to improve customer experience and enhance customer satisfaction (van Vaerenbergh & Orsingher, 2022: 160; Nguyen et al., 2024: 247).

3. The Practical Aspect of the Research

Table (1): Soft Practices of Total Quality Management

Dimension	Mean	Deviation	Level of application
Quality-Supporting Leadership	4.05	0.61	high
Employee Empowerment	3.91	0.65	high
Teamwork	3.88	0.69	high
Organizational Communication	3.96	0.63	high
Overall Average	3.95	0.62	high

The results indicate that the organization relies heavily on soft practices of Total Quality Management (TQM), demonstrating clear support for quality from senior management, along with a focus on employee empowerment, teamwork, and effective organizational communication, all of which contribute to improved organizational performance.

Table (2): Collaborative Supply Chains

Dimension	Mean	Deviation	Level of Application
Information exchange	3.82	0.67	high
Coordination and integration	3.76	0.70	high
Trust and partnership	3.85	0.64	high
Overall average	3.81	0.66	high

The results show that the organization has a good level of cooperation in its supply chains, relying on information sharing and coordination between different departments, as well as building trust-based partnerships, which help enhance operational efficiency.

Table (3): Customer Service Improvement

Dimension	Mean	Deviation	Level of Application
Speed of service delivery	4.08	0.60	high
Service quality	4.02	0.58	high
Complaint response	3.97	0.66	high
Customer satisfaction	4.10	0.57	high
Overall average	4.04	0.59	high

The results indicate a high level of service quality for customers, as the organization prioritizes speed of service delivery, quality improvement, and effective response to customer complaints, leading to high levels of customer satisfaction.

Table (4): Correlation Coefficients

Relationship	Correlation ship coefficient	Significance level
Soft practices × Service improvement	0.73	0.000
Soft practices × Supply chains	0.69	0.000
Supply chains × Service improvement	0.76	0.000

The results show strong positive correlations between the research variables, indicating that increased application of soft practices contributes to enhanced collaboration in supply chains and improved customer service.

Table (5): Hypothesis Testing Results

Hypothesis	Tested Relationship	Beta	T-value	Sig	R ²	Decision
First	Soft Practices → Service Improvement	0.71	10.24	0.000	0.50	Acceptable
Second	Soft Practices → Supply Chains	0.67	9.11	0.000	0.45	Acceptable
Third	Supply Chains → Service Improvement	0.74	10.56	0.000	0.55	Acceptable
Fourth	Soft Practices → Service Improvement (with Intermediaries)	0.40	-	0.001	-	Acceptable
Fourth	Supply Chains → Service Improvement	0.49	-	0.000	-	Acceptable

The regression analysis results showed a significant positive impact of soft practices on improving customer service. It also revealed that collaborative supply chains play a mediating role in strengthening this relationship, thus confirming the importance of organizational integration in enhancing service performance.

4. Conclusions and Recommendations

4.1. Conclusions

1. The level of implementation of soft practices for Total Quality Management was high, supported by leadership, employee empowerment, and enhanced teamwork and organizational communication.
2. Collaborative supply chains are implemented at a good level, which promotes information exchange, coordination, and trust among stakeholders.
3. Customer service improvement was at a high level in terms of service speed, quality, and responsiveness to complaints.
4. There are strong and statistically significant correlations between soft practices, supply chains, and improved customer service.
5. Collaborative supply chains play a partial mediating role in the relationship between soft practices and improved customer service.

4.2. Recommendations

1. Continue supporting soft practices in leadership, employee empowerment, and teamwork to improve organizational performance.
2. Enhance employee training and development to raise their skill and efficiency levels.
3. Develop organizational communication channels to ensure the smooth flow of information and rapid decision-making.
4. Enhance cooperation and integration within collaborative supply chains and build trust with partners.
5. Improve customer complaint response mechanisms and utilize them to enhance service quality.

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تأثير الممارسات الناعمة لإدارة الجودة الشاملة في تحسين جودة خدمة الزبائن: الدور الوسيط لسلاسل التجهيز التعاونية

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المستخلص

يهدف هذا البحث إلى دراسة تأثير الممارسات الناعمة لإدارة الجودة الشاملة في تحسين خدمة الزبائن، مع اختبار الدور الوسيط لسلاسل التجهيز التعاونية في تعزيز هذه العلاقة. تنطلق الدراسة من أهمية تبني المنظمات الحكومية لمفاهيم الجودة الشاملة باعتبارها مدخلاً حديثاً لتحسين مستوى الخدمات المقدمة للمواطنين. وقد تم اختيار وزارة الاتصالات العراقية ميداناً للتطبيق، لكونها من الجهات الحيوية التي تتعامل بشكل مباشر مع شريحة واسعة من المستفيدين. اعتمد البحث على المنهج الوصفي التحليلي، وتم جمع البيانات من مجتمع بحث مكون من (85) موظفاً، وتحليلها باستخدام الأساليب الإحصائية الملائمة لاختبار الفرضيات المقترحة، بما يسهم في الوصول إلى نتائج يمكن الاستفادة منها في تحسين الأداء الخدمي وتطوير السياسات الإدارية.