Organizational Commitment and O&M Management Quality: Roles of Tacit Knowledge and Trust

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Abstract

This study explores the intricate relationship between organizational commitment and operation and maintenance (O&M) management quality in the context of the mobile communications industry. By examining a sample of 468 O&M personnel, the research delves into the mediating role of tacit knowledge sharing and the moderating role of interpersonal trust in the relationship between organizational commitment and O&M management quality. The findings reveal that organizational commitment has a significant positive impact on O&M management quality, with tacit knowledge sharing functioning as a partial mediator in this relationship. However, interpersonal trust is found to negatively moderate both the relationship between organizational commitment and tacit knowledge sharing and the relationship between organizational commitment and O&M management quality. These results underscore the importance of nurturing organizational commitment and tacit knowledge sharing while carefully managing interpersonal trust in order to enhance O&M management quality in the mobile communications industry. The study provides valuable insights for practitioners and researchers seeking to improve O&M practices and achieve higher levels of operational efficiency and reliability.

Keywords: *Organizational commitment, Tacit knowledge sharing, Interpersonal trust, O&M management quality, Mobile communications industry, Knowledge management strategies.*

1. Introduction

The mobile communications industry stands as a pillar of modern society, driving seamless global connectivity and communication. The operational efficiency and reliability of these networks hinge on effective operation and maintenance (O&M) management. O&M personnel, tasked with ensuring the smooth functioning of mobile communication networks, must possess not only technical expertise but also a profound commitment to their organization. This study delves into the complex interplay between organizational commitment and O&M management quality, with a specific focus on the mediating role of tacit knowledge sharing and the moderating role of interpersonal trust. Organizational commitment, as defined by Meyer and Allen (1991), encapsulates an employee's psychological attachment to the organization, manifested through loyalty, dedication, and a willingness to contribute to organizational goals. In the context of the mobile communications industry, O&M personnel with high organizational commitment are likely to demonstrate increased dedication and enthusiasm towards their work, potentially enhancing O&M management quality. However, despite its importance, the precise mechanisms through which organizational commitment influences O&M management

quality remain largely unexplored in the literature. Tacit knowledge, characterized by its difficulty in articulation and codification, is a critical component in knowledge-intensive industries such as mobile communications (Polanyi, 1966). O&M personnel often rely on tacit knowledge to diagnose and resolve complex technical issues swiftly and effectively. The sharing of this tacit knowledge within the organization can foster team collaboration, improve problem-solving capabilities, and ultimately elevate O&M management quality. Consequently, this study hypothesizes that tacit knowledge sharing serves as a mediator in the relationship between organizational commitment and O&M management quality. Moreover, interpersonal trust, defined as the degree of confidence and reliance individuals have in each other (Mayer et al., 1995), plays a pivotal role in shaping knowledge sharing behaviors within organizations. While high levels of interpersonal trust can facilitate the sharing of tacit knowledge, they may also lead to complacency and a diminished focus on organizational commitments. Therefore, this study also examines the moderating role of interpersonal trust in the relationships between organizational commitment, tacit knowledge sharing, and O&M management quality. The objectives of this study are multifaceted. Firstly, it aims to scrutinize the relationship between organizational commitment and O&M management quality within the mobile communications industry. Secondly, it seeks to uncover the mediating role of tacit knowledge sharing in this relationship. Lastly, it investigates the moderating influence of interpersonal trust on the relationships between organizational commitment, tacit knowledge sharing, and O&M management quality. By providing empirical evidence on these mechanisms, this study contributes to the existing literature, illuminating the intricate dynamics through which organizational commitment impacts O&M management quality in the mobile communications industry. Furthermore, the findings of this study have practical implications for improving O&M management practices, emphasizing the importance of cultivating organizational commitment, promoting tacit knowledge sharing, and effectively managing interpersonal trust.

2. Literature Review
2.1 Organizational Commitment
Organizational commitment has been a focal point in organizational behavior research, with scholars offering various definitions and exploring its multidimensional nature. Meyer and Allen's (1991) seminal work provides a comprehensive framework that distinguishes between three primary components of organizational commitment: affective, continuance, and normative. Affective commitment pertains to an employee's emotional bond and sense of belonging to the organization. Continuance commitment, on the other hand, is driven by the perceived costs and benefits associated with staying or leaving the organization (Meyer & Allen, 1991). Lastly, normative commitment is rooted in an individual's sense of duty and obligation to remain loyal to the organization (Meyer & Allen, 1991). The antecedents of organizational commitment have been widely explored, with studies highlighting the influence of organizational culture, leadership style, job satisfaction, and perceived organizational support (O'Reilly & Chatman, 1986; Mowday et al., 1979; Rhoades & Eisenberger, 2002). For instance, a positive organizational culture that fosters employee engagement and a supportive work environment is likely to enhance affective commitment (O'Reilly & Chatman, 1986). Similarly, effective leadership that inspires and motivates employees can strengthen their emotional ties to the organization (Mowday et al., 1979). The consequences of organizational commitment are equally significant, with research indicating that high levels of commitment are associated with improved job performance, reduced turnover intentions, and increased organizational citizenship behaviors (Steers, 1977; Meyer & Allen, 1997; Podsakoff et al., 2000). These outcomes are particularly crucial in the mobile communications industry, where O&M personnel play a vital role in maintaining network reliability and efficiency. Despite the importance of organizational commitment in this context, research specifically examining its relationship with O&M management quality remains scarce. This study aims to contribute to this gap by investigating how organizational commitment influences O&M management quality in the mobile communications industry.

2.2 Tacit Knowledge Sharing

Tacit knowledge, as defined by Nonaka and Takeuchi (1995), represents the knowledge that is difficult to articulate and formalize, often embedded in an individual's experience, skills, and intuition. In contrast to explicit knowledge, which can be easily documented and shared, tacit knowledge is more challenging to transfer and is often critical in knowledge-intensive industries (Cavusgil et al., 2018). Sharing tacit knowledge within organizations is crucial for fostering innovation, enhancing problem-solving capabilities, and improving overall performance (Hendriks, 1999). The literature identifies several key factors that influence individuals' willingness to share their tacit knowledge. These factors include personal motivation, organizational culture, and interpersonal trust (Bock et al., 2005; Chow et al., 2018; Lin, 2007). For example, a supportive organizational culture that encourages knowledge sharing and collaboration creates an environment where employees are more likely to share their tacit knowledge (Davenport & Prusak, 1998). Similarly, interpersonal trust between employees facilitates knowledge sharing by reducing fears of exploitation or retaliation (Dirks & Ferrin, 2002). In the context of O&M management in the mobile communications industry, tacit knowledge sharing is particularly critical. Given the complexity and dynamic nature of mobile communication networks, O&M personnel often rely on their tacit knowledge to diagnose and resolve issues efficiently. However, despite the importance of tacit knowledge sharing in this context, limited research has explored its role in improving O&M management quality. This study aims to address this gap by examining the relationship between tacit knowledge sharing, organizational commitment, and O&M management quality.

2.3 Interpersonal Trust

Interpersonal trust, defined as the confidence and reliance individuals have in each other within organizations, is a multifaceted construct that encompasses both cognitive and emotional dimensions (Mayer et al., 1995; Lewis & Weigert, 1985). It is a crucial factor in facilitating knowledge sharing, collaboration, and innovation within organizations (Chow et al., 2018; Edmondson, 1999; Lin, 2007). In the context of knowledge sharing, interpersonal trust reduces the perceived risks associated with sharing sensitive or proprietary information, thereby encouraging the transfer of tacit knowledge (Bock et al., 2005). However, interpersonal trust can also have a dark side. When trust is excessively high, employees may become overly reliant on each other, leading to complacency and reduced vigilance towards organizational commitments (McAllister, 1995). This can potentially undermine O&M management quality, as employees may neglect their responsibilities towards the organization in favor of interpersonal relationships. Therefore, it is crucial to examine the moderating effect of interpersonal trust on the relationships between organizational commitment, tacit knowledge sharing, and O&M management quality. Despite the recognized importance of interpersonal trust in organizations, its role in the context of O&M management in the mobile communications industry remains underexplored. This study seeks to contribute to the existing literature by investigating how interpersonal trust moderates the relationships between these key variables.

2.4 Operation and Maintenance Management Quality

Operation and maintenance (O&M) management quality refers to the extent to which O&M activities are executed efficiently and effectively, leading to improved system performance, reliability, and user satisfaction (Li, 2019). In the mobile communications industry, O&M management quality is paramount for ensuring the seamless functioning of mobile communication networks and meeting the evolving needs of customers. Previous research has identified several factors that influence O&M management quality, including process standardization, resource allocation, and team collaboration (Han & Zhang, 2015; Hong, 2019). For instance, standardizing O&M processes can improve efficiency and reduce errors, while effective resource allocation ensures that the necessary resources are available to support O&M activities (Han & Zhang, 2015). Additionally, team collaboration is crucial for sharing knowledge

and expertise, enabling O&M personnel to work together effectively to resolve issues (Hong, 2019). However, limited research has explored the role of organizational commitment and tacit knowledge sharing in improving O&M management quality. Given the complexity and dynamic nature of mobile communication networks, understanding how these factors contribute to O&M management quality is essential for organizations seeking to enhance their network reliability and customer satisfaction. This study aims to fill this gap by investigating the relationships between organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality in the mobile communications industry.

2.5 Research Hypotheses

Based on the comprehensive literature review, the following hypotheses are proposed to guide the research:

(1) H1: Organizational commitment has a significant positive impact on O&M management quality. This hypothesis is grounded in the existing literature, which highlights the positive consequences of organizational commitment, such as improved job performance and reduced turnover intentions (Steers, 1977; Meyer & Allen, 1997; Podsakoff et al., 2000). It is expected that employees with high levels of organizational commitment will be more motivated to perform their O&M duties effectively, leading to improved O&M management quality.

(2) H2: Tacit knowledge sharing mediates the relationship between organizational commitment and O&M management quality. This hypothesis builds on the literature that emphasizes the importance of tacit knowledge sharing in fostering innovation and improving performance (Cavusgil et al., 2018; Hendriks, 1999). It is proposed that employees with high levels of organizational commitment will be more willing to share their tacit knowledge with colleagues, which in turn will enhance O&M management quality by improving problem-solving capabilities and efficiency.

(3) H3: Interpersonal trust moderates the relationship between organizational commitment and tacit knowledge sharing, such that the positive relationship is stronger when interpersonal trust is low. This hypothesis is based on the literature that highlights the dual role of interpersonal trust in knowledge sharing (Bock et al., 2005; McAllister, 1995). While interpersonal trust can facilitate knowledge sharing by reducing perceived risks, excessively high trust may lead to complacency and reduced vigilance towards organizational commitments (McAllister, 1995). Therefore, it is expected that the positive relationship between organizational commitment and tacit knowledge sharing will be stronger when interpersonal trust is low, as employees will be more motivated to share their knowledge to maintain their organizational commitments.

(4) H4: Interpersonal trust moderates the relationship between organizational commitment and O&M management quality, such that the positive relationship is stronger when interpersonal trust is low. This hypothesis extends the previous one by examining the moderating effect of interpersonal trust on the relationship between organizational commitment and O&M management quality. It is proposed that when interpersonal trust is low, employees will be more focused on fulfilling their organizational commitments, leading to improved O&M management quality. Conversely, when interpersonal trust is high, employees may become overly reliant on each other and neglect their responsibilities towards the organization, potentially undermining O&M management quality.

By examining these hypotheses, this study aims to contribute to the existing literature on organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality in the mobile communications industry. The findings of this study will provide valuable insights for organizations seeking to improve their O&M management quality and enhance network reliability and customer satisfaction.

3. Methodology

3.1 Research Design

The research design adopted for this study is quantitative, utilizing a questionnaire survey as the primary instrument for data collection. This approach is chosen due to its ability to provide generalizable results from a large sample of O&M personnel in the mobile communications industry. The questionnaire is specifically designed to capture data on organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality. These constructs are selected based on their relevance to the research question and their potential impact on the effectiveness of O&M teams in mobile communication companies (Sun & Zuo, 2024a). The quantitative design allows for the measurement of these constructs using validated scales, which ensures the reliability and validity of the data collected. Furthermore, the use of a questionnaire survey enables the researchers to reach a wide range of participants in a cost-effective and time-efficient manner. By collecting data from a large sample, the study aims to identify patterns and relationships that may not be apparent in smaller or more qualitative studies.

3.2 Sampling Method

The target population for this study consists of O&M personnel working in mobile communication companies. To access this population, a convenience sampling method is employed. Convenience sampling is chosen due to its practicality and the researchers' ability to leverage their professional networks and industry contacts to recruit participants. This method allows for the rapid collection of data from a readily available pool of respondents (Sun & Zuo, 2024b). A total of 600 questionnaires are distributed to O&M personnel in various mobile communication companies. The questionnaires are distributed both online and offline, depending on the preference of the participants and the accessibility of the companies. The researchers ensure that the sample is diverse in terms of job roles, experience levels, and company sizes to increase the generalizability of the findings. Of the 600 questionnaires distributed, 468 valid responses are obtained, yielding a response rate of 78%. This response rate is considered satisfactory for a quantitative study and provides a sufficient sample size for statistical analysis. The high response rate may be attributed to the relevance of the study topic to the participants' professional lives and the clear communication of the study's objectives and benefits.

3.3 Data Collection

The data collection process for this study involves two main steps: questionnaire development and distribution. The first step is the development of the questionnaire, which is based on existing literature and validated scales for the constructs of interest. The researchers conduct a thorough review of the literature to identify relevant scales and adapt them to the specific context of O&M personnel in the mobile communications industry. The questionnaire is structured in a way that ensures clarity and ease of understanding for the participants. It includes demographic questions to gather information about the participants' background, such as their age, gender, job role, and years of experience. The main part of the questionnaire consists of Likert-type scales, where participants are asked to rate their level of agreement or disagreement with statements related to organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality. Once the questionnaire is developed, it is pilot-tested with a small sample of O&M personnel to ensure its clarity, reliability, and validity. The feedback from the pilot test is used to make necessary revisions to the questionnaire before it is finalized and distributed to the target population. The second step in the data collection process is the distribution of the questionnaire. The researchers use both online and offline methods to reach a wide range of participants. The online method involves sending the questionnaire via email or through professional networking platforms, while the offline method involves visiting the companies and distributing the questionnaires in person. The researchers provide clear instructions on how to complete the questionnaire and ensure that participants

have ample time to do so. To maximize the response rate, the researchers follow up with participants who have not responded, either through email reminders or phone calls. This approach helps to minimize the risk of non-response bias and ensures that the sample is as representative as possible of the target population.

3.4 Analytical Approach

The collected data are analyzed using statistical software, specifically SPSS and AMOS. These software tools are chosen due to their capability in handling large datasets and performing complex statistical analyses. The first step in the analytical process is to conduct descriptive statistics to summarize the sample characteristics, such as the participants' demographics and the distribution of their responses to the questionnaire items. Next, reliability and validity tests are conducted to ensure the quality of the measurement scales. Reliability is assessed by examining the internal consistency of the scales using Cronbach's alpha coefficient. Validity is assessed by examining the correlation between the scales and other relevant variables, as well as by comparing the results to existing literature on the topic. Once the reliability and validity of the scales are established, correlation analysis is performed to examine the relationships between the constructs of interest. This analysis helps to identify potential associations between organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality. The results of the correlation analysis provide insights into the strength and direction of the relationships between these constructs. Finally, multiple regression analysis is employed to test the hypotheses of the study. This analysis allows for the examination of the impact of the independent variables (tacit knowledge sharing, interpersonal trust, and O&M management quality) on the dependent variable (organizational commitment). Control variables are included in the regression models to account for potential confounding factors, such as demographics and job characteristics, which may influence the relationships being studied. The multiple regression analysis provides coefficients that indicate the strength and direction of the relationships between the variables. These coefficients are interpreted in the context of the research question and the existing literature to draw conclusions about the impact of tacit knowledge sharing, interpersonal trust, and O&M management quality on organizational commitment among O&M personnel in the mobile communications industry.

4. Findings and
4.1 Sample Characteristics

The study involved a sample of 468 O&M personnel from various mobile communication companies. The demographic characteristics of the respondents are presented in Table 4.1.

Table 4.1: Demographic Characteristics of Respondents

Characteristic	Category	Frequency	Percentage
Gender	Male	346	73.9
	Female	122	26.1
Age	26-34	338	72.2
	35-44	98	20.9
	45-54	24	5.1
	55+	8	1.7
Education Level	Bachelor's Degree	199	42.7
	Master's Degree	148	31.6
	Doctorate	22	4.7
	High School/Other	99	21.1
Organization Type	Communication Service Operators	232	49.6
	Communication Service Technical Support Providers	172	36.8
	Other	64	13.7

As shown in Table 4.1, the majority of the respondents are male (73.9%), with the largest age group being those aged 26 to 34 years old (72.2%). In terms of education, most respondents have a bachelor's degree (42.7%), followed by a master's degree (31.6%). Regarding the type of

organization, the largest group works for communication service operators (49.6%), followed by communication service technical support providers (36.8%).

4.2 Reliability and Validity Tests
The reliability of the measurement scales was assessed using Cronbach's alpha coefficients. The results are presented in Table 4.2.

Table 4.2: Cronbach's Alpha Coefficients for Measurement Scales

Scale	Cronbach's Alpha
Organizational Commitment	0.978
Tacit Knowledge Sharing	0.886
Interpersonal Trust	0.816
O&M Management Quality	0.924

As shown in Table 4.2, the Cronbach's alpha coefficients for all measurement scales are above the commonly accepted threshold of 0.70, indicating high internal consistency and reliability. The validity of the scales was established through exploratory and confirmatory factor analyses. The factor loadings, which indicate the strength of the relationship between the items and their respective constructs, were all above 0.60, confirming the factorial structure of the constructs. Furthermore, the discriminant validity of the constructs was established through the comparison of the average variance extracted (AVE) for each construct, which was greater than the squared correlations between the constructs, confirming their distinctiveness.

4.3 Correlation Analysis
Correlation analysis was conducted to examine the relationships between the study variables. The results are presented in Table 4.3.

Table 4.3: Correlation Matrix for Study Variables

Variable	1	2	3	4
1. Organizational Commitment	-	0.898*	-0.167*	0.811*
2. Tacit Knowledge Sharing	0.898*	-	-0.214*	0.765*
3. Interpersonal Trust	-0.167*	-0.214*	-	-0.149*
4. O&M Management Quality	0.811*	0.765*	-0.149*	-

Note: *$p < 0.001$

As shown in Table 4.3, organizational commitment is significantly positively correlated with tacit knowledge sharing (r = 0.898, $p < 0.001$) and O&M management quality (r = 0.811, $p < 0.001$). Interpersonal trust, on the other hand, is negatively correlated with both organizational commitment (r = -0.167, $p < 0.001$) and O&M management quality (r = -0.149, $p < 0.001$). These results provide initial support for the proposed relationships between the study variables.

4.4 Hypothesis Testing
Multiple regression analysis was used to test the hypotheses. The results are presented in Table 4.4.

Table 4.4: Regression Results for Hypotheses Testing

Hypo.	Independent Variable	Dependent Variable	β	t-value	p-value
H1	Organizational Commitment	O&M Management Quality	0.898	12.47	<0.001
H2	Tacit Knowledge Sharing (Mediator)	O&M Management Quality	0.18	2.98	<0.001
H3	Interpersonal Trust (Moderator)	Tacit Knowledge Sharing	-0.316	-4.12	<0.001
H4	Interpersonal Trust (Moderator)	O&M Management Quality	-0.237	-3.26	<0.001

As shown in Table 4.4, the results of the regression analysis support all the hypotheses. Specifically, organizational commitment has a significant positive impact on O&M management quality (β = 0.898, $p < 0.001$), supporting H1. Tacit knowledge sharing partially mediates the relationship between organizational commitment and O&M management quality (β = 0.18, $p <$

0.001), supporting H2. This indicates that organizational commitment not only directly influences O&M management quality but also indirectly through tacit knowledge sharing. Furthermore, interpersonal trust negatively moderates the relationship between organizational commitment and tacit knowledge sharing (β = -0.316, p < 0.001), supporting H3. This suggests that as interpersonal trust decreases, the positive relationship between organizational commitment and tacit knowledge sharing weakens. Similarly, interpersonal trust negatively moderates the relationship between organizational commitment and O&M management quality (β = -0.237, p < 0.001), supporting H4. This indicates that as interpersonal trust decreases, the positive relationship between organizational commitment and O&M management quality also weakens. Overall, the results provide strong support for the proposed relationships between organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality in the context of mobile communication companies.

5. Discussion
5.1 Implications for Theory
The present study significantly contributes to the existing literature on organizational commitment, tacit knowledge sharing, and O&M management quality by offering novel insights and extending theoretical boundaries. By applying organizational commitment theory to the O&M management context within the mobile communications industry, this study reveals the critical role that organizational commitment plays in enhancing O&M management quality. This extension is particularly important as it highlights the relevance of organizational commitment in a domain that has traditionally focused more on technical and operational aspects, rather than on the psychological and behavioral factors that underpin organizational performance (Sun & Zuo, 2023a). Furthermore, the study sheds light on the mediating role of tacit knowledge sharing in the relationship between organizational commitment and O&M management quality. This finding is significant because it elucidates the mechanisms through which organizational commitment translates into improved operational outcomes. Prior research has often treated tacit knowledge sharing as an independent variable or an outcome, but this study demonstrates its crucial role as a conduit for the positive effects of organizational commitment (Sun et al., 2024). By emphasizing the importance of tacit knowledge sharing, this study encourages future researchers to explore the nuanced ways in which knowledge exchange processes can facilitate the translation of organizational commitment into tangible improvements in management quality. The introduction of interpersonal trust as a moderating variable further enriches the theoretical landscape. The negative moderating effect of interpersonal trust on the relationships among organizational commitment, tacit knowledge sharing, and O&M management quality challenges conventional wisdom that trust universally enhances organizational outcomes. This finding suggests that excessive trust can lead to complacency and reduced vigilance, thereby undermining the positive effects of organizational commitment (Sun & Zuo, 2023c). This nuanced understanding of interpersonal trust contributes to the ongoing debate on the role of trust in organizational settings and highlights the need for a more balanced approach to managing trust in practice. Overall, the study's theoretical contributions are threefold: it extends the application of organizational commitment theory to O&M management, elucidates the mediating role of tacit knowledge sharing, and introduces interpersonal trust as a moderating variable. These contributions not only deepen our understanding of the complex relationships among these constructs but also pave the way for future research to explore additional facets of organizational behavior and performance in the mobile communications industry.

5.2 Implications for Practice
The practical implications of this study are equally significant, offering actionable insights for organizations seeking to improve their O&M management quality. Firstly, organizations should prioritize enhancing employee organizational commitment by creating a supportive and inclusive work environment. This can be achieved through a variety of initiatives, such as

implementing employee recognition programs that acknowledge and reward outstanding contributions, providing career development opportunities that encourage skill enhancement and career progression, and fostering participatory decision-making processes that give employees a voice in shaping organizational policies and practices (Sun et al., 2024). By cultivating a work environment that promotes organizational commitment, organizations can harness the full potential of their employees, leading to improved O&M management quality and overall organizational performance. Secondly, organizations should actively promote tacit knowledge sharing among O&M personnel. This can be facilitated through the establishment of knowledge management systems that enable employees to document, store, and retrieve valuable tacit knowledge, as well as through cross-functional collaboration and open communication channels that encourage the exchange of ideas and best practices (Sun & Zuo, 2023c). By fostering a culture of knowledge sharing, organizations can enhance the collective expertise of their O&M teams, leading to more effective problem-solving and decision-making processes. Thirdly, organizations must carefully manage interpersonal trust to ensure that it does not undermine the positive effects of organizational commitment on O&M management quality. This involves implementing controls and monitoring mechanisms that prevent complacency and ensure that employees remain vigilant towards their organizational responsibilities (Sun et al., 2024). While trust is generally considered a positive force in organizational settings, this study highlights the potential risks associated with excessive trust. By maintaining a balanced approach to managing trust, organizations can harness its benefits while mitigating its potential drawbacks. In summary, the practical implications of this study emphasize the importance of enhancing organizational commitment, promoting tacit knowledge sharing, and managing interpersonal trust effectively. By implementing these strategies, organizations in the mobile communications industry can improve their O&M management quality and achieve sustainable competitive advantages.

5.3 Limitations and Future Research Directions

Despite its contributions, this study is not without limitations. Firstly, the sample size is relatively small and limited to O&M personnel from mobile communication companies in a specific region. This limitation raises concerns about the generalizability of the findings to other industries and geographical contexts. Future research could address this limitation by expanding the sample size and including participants from diverse industries and regions, thereby increasing the robustness and applicability of the findings (Sun & Zuo, 2023b). Secondly, the study relies on self-reported data, which may be subject to social desirability bias. This bias can influence participants' responses and potentially distort the study's findings. To mitigate this limitation, future research could employ objective measures of O&M management quality, such as performance metrics or third-party evaluations, to validate the self-reported data and ensure the accuracy of the findings (Sun et al., 2024). Thirdly, the study focuses solely on the mediating role of tacit knowledge sharing and the moderating role of interpersonal trust in the relationship between organizational commitment and O&M management quality. While these variables provide valuable insights into the mechanisms underlying the relationship, other potential mediators and moderators may also exist. Future research could explore additional constructs, such as organizational culture, leadership style, or employee engagement, to gain a more comprehensive understanding of the factors that influence O&M management quality (Sun & Zuo, 2023a). Furthermore, future research could delve deeper into the nuances of interpersonal trust, examining the conditions under which it acts as a positive or negative moderator in organizational settings. This would involve investigating the interplay between trust and other organizational factors, such as communication patterns, decision-making processes, and reward systems, to determine how these factors jointly influence O&M management quality (Sun et al., 2024). In conclusion, while this study offers valuable insights into the relationships among organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality, it also identifies several avenues for future research. By addressing the study's limitations and exploring additional constructs, future

researchers can further refine our understanding of these complex relationships and provide even more actionable insights for organizations in the mobile communications industry and beyond.

6. Conclusion
6.1 Summary of Key Findings
The present study has delved deeply into the intricate interplay between organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality within the mobile communications industry. The results obtained through rigorous analysis provide compelling evidence that organizational commitment serves as a cornerstone for enhancing O&M management quality. This positive relationship underscores the importance of fostering a strong sense of loyalty and dedication among employees, as it directly contributes to improved operational efficiency and maintenance practices. Furthermore, the study has elucidated the mediating role of tacit knowledge sharing in this relationship. Tacit knowledge, being inherently difficult to codify and transmit, plays a crucial yet often overlooked role in the transfer of expertise and best practices within organizations. The findings indicate that when employees are committed to their organization, they are more likely to engage in the sharing of tacit knowledge, which in turn boosts O&M management quality. This highlights the need for organizations to cultivate a culture that encourages and facilitates the exchange of such knowledge. The moderating effect of interpersonal trust on the relationships between organizational commitment, tacit knowledge sharing, and O&M management quality is another significant contribution of this study. Interestingly, the results reveal that high levels of interpersonal trust can actually attenuate the positive effects of organizational commitment and tacit knowledge sharing on O&M management quality. This counterintuitive finding suggests that while trust is generally considered a positive force in organizational dynamics, it may have complex interactions with other factors, particularly in the context of maintenance management. This underscores the importance of carefully managing trust relationships to ensure they do not inadvertently undermine operational goals.

6.2 Theoretical Contributions
The findings of this study make several important theoretical contributions to the literature on organizational commitment, tacit knowledge sharing, and O&M management quality. First, they extend the existing understanding of organizational commitment by demonstrating its direct link to O&M management quality in the mobile communications industry. Previous studies have largely focused on the relationship between organizational commitment and various organizational outcomes, such as employee performance and retention. However, this study sheds light on a new and important outcome: the quality of operational and maintenance practices. Second, the study contributes to the literature on tacit knowledge sharing by highlighting its mediating role in the relationship between organizational commitment and O&M management quality. This finding underscores the importance of considering the role of tacit knowledge in knowledge management and organizational learning, particularly in industries where such knowledge is critical for operational success. Third, the study's findings on the moderating effect of interpersonal trust offer a novel perspective on the complex interactions between trust, commitment, knowledge sharing, and operational outcomes. This contribution challenges the commonly held belief that trust is always a positive force in organizational dynamics and suggests that its effects can be more nuanced and context-dependent than previously thought.

6.3 Practical Implications
From a practical standpoint, the findings of this study have significant implications for organizations in the mobile communications industry seeking to improve their O&M management practices. First and foremost, organizations should prioritize cultivating a strong sense of organizational commitment among their employees. This can be achieved through a

variety of means, such as providing opportunities for career development, recognizing and rewarding employee contributions, and fostering a positive work environment. Second, organizations should take steps to promote the sharing of tacit knowledge among employees. This can involve creating platforms and mechanisms for knowledge exchange, encouraging collaboration and communication, and providing training and support to help employees effectively share their expertise. By facilitating the flow of tacit knowledge, organizations can enhance their O&M management quality and improve overall operational efficiency. Third, organizations should carefully manage interpersonal trust relationships to ensure they do not inadvertently undermine operational goals. While trust is generally considered a positive force, the findings of this study suggest that it can have complex interactions with other factors, such as organizational commitment and tacit knowledge sharing. Therefore, organizations should monitor trust levels and take steps to address any potential negative effects on O&M management quality.

6.4 Directions for Future Research

While this study has made important contributions to the literature, there are several avenues for future research that could further deepen our understanding of the relationships between organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality. First, future studies could expand the sample size to include a more diverse range of organizations within the mobile communications industry. This would increase the generalizability of the findings and allow for a more nuanced analysis of the relationships between the variables of interest. Second, future research could employ objective measures of O&M management quality to complement the subjective measures used in this study. This would provide a more comprehensive understanding of the relationship between organizational commitment and O&M management quality and allow for a more accurate assessment of the practical implications of the findings. Third, future studies could explore additional mediators and moderators in the relationship between organizational commitment and O&M management quality. For example, it would be interesting to examine the role of organizational culture, leadership style, or employee motivation in shaping this relationship. By identifying additional factors that influence the relationship, future research can provide a more comprehensive understanding of the complex dynamics at play in organizational settings.

6.5 Concluding Thoughts

In conclusion, this study has provided valuable insights into the relationships between organizational commitment, tacit knowledge sharing, interpersonal trust, and O&M management quality in the mobile communications industry. The findings highlight the importance of fostering a strong sense of organizational commitment, promoting the sharing of tacit knowledge, and carefully managing interpersonal trust relationships to enhance O&M management practices. These insights have important theoretical and practical implications for organizations seeking to improve their operational efficiency and maintain a competitive edge in a rapidly evolving industry. As the mobile communications industry continues to grow and evolve, it is critical for organizations to stay ahead of the curve by adopting innovative management practices and leveraging the full potential of their workforce. By heeding the lessons learned from this study, organizations can take important steps toward achieving these goals and ensuring their long-term success.

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