

ISRG Journal of Economics, Business & Management (ISRGJEBM)



ISRG PUBLISHERS

Abbreviated Key Title: Isrg J Econ Bus Manag

ISSN: 2584-0916 (Online)

Journal homepage: <https://isrgpublishers.com/isrgjebm/>

Volume – III Issue - V (September-October) 2025

Frequency: Bimonthly



Responsible Leadership and Innovation Ability as Dual Mediators of Knowledge Sharing toward Quality Performance: Evidence from Higher Vocational Colleges

Sun Weijuan^{1*}, Cheok Mui Yee²

^{1,2} Universiti Tun Abdul Razak (UNIRAZAK), Malaysia

1WEIHAI VOCATIONAL COLLEGE

| Received: 08.10.2025 | Accepted: 12.10.2025 | Published: 14.10.2025

***Corresponding author:** Sun Weijuan

Universiti Tun Abdul Razak (UNIRAZAK), Malaysia

Abstract

This study examines how Knowledge Sharing (KS) influences Quality Performance (QP) through the dual mediating effects of Responsible Leadership (RL) and Innovation Ability (IA) in Chinese higher vocational colleges. Using data from 406 valid responses, the hypothesized model was tested through Structural Equation Modeling (SEM) and Bootstrap analysis. The results indicate that KS significantly predicts RL ($\beta = 0.55, p < 0.001$) and IA ($\beta = 0.49, p < 0.001$), while both RL ($\beta = 0.33, p < 0.001$) and IA ($\beta = 0.31, p < 0.001$) positively affect QP. The direct effect of KS on QP is not significant ($\beta = 0.08, p = 0.12$), confirming a dual full mediation effect. These findings highlight that KS enhances institutional quality indirectly through ethical leadership and innovation mechanisms, offering theoretical support for integrating Social Capital, Responsible Leadership, and Innovation Diffusion perspectives in educational management.

Keywords: Knowledge Sharing; Responsible Leadership; Innovation Ability; Quality Performance

1. Introduction

In the era of digital transformation and knowledge-driven economies, educational institutions are increasingly recognizing knowledge sharing as a strategic resource for improving organizational quality and competitiveness (Chen et al., 2024).

With the rapid advancement of information technology, vocational colleges have entered a new phase characterized by open collaboration, data-based management, and innovation-oriented reform (Zhang et al., 2024). However, beneath these positive

developments lies a critical concern—how effectively can shared knowledge be translated into tangible improvements in teaching and service quality? This question highlights the urgent need to explore the internal mechanisms through which knowledge sharing contributes to organizational performance in higher vocational education. Therefore, understanding the mediating processes between knowledge sharing and quality performance is both theoretically significant and practically urgent for building sustainable, high-quality institutions.

Existing research on the relationship between knowledge sharing and organizational performance has been grounded in multiple theoretical perspectives, including social capital theory, knowledge-based view, and innovation diffusion theory. Scholars have applied quantitative methods such as structural equation modeling and regression analysis to examine how knowledge sharing influences innovation outcomes and institutional effectiveness. These studies consistently reveal that effective knowledge exchange enhances innovation, collaboration, and service quality. However, three key research gaps remain: (1) limited attention has been paid to leadership ethics and responsibility orientation as mediating mechanisms in the knowledge–performance link; (2) innovation ability is often treated as an outcome rather than a process variable that channels shared knowledge into institutional improvements; and (3) few studies have empirically tested dual-mediation models integrating leadership and innovation within the context of higher vocational colleges, particularly in China.

Based on these gaps, this study investigates how responsible leadership and innovation ability jointly mediate the relationship between knowledge sharing and quality performance in higher vocational colleges. Specifically, the study focuses on middle-level administrators and teaching staff, employing a quantitative design with a structural equation modeling approach to analyze survey data from approximately 400 participants. This research seeks to answer three essential questions: (1) Can knowledge sharing enhance organizational quality performance in vocational education? (2) What role does responsible leadership play in this transformation process? and (3) Does innovation ability strengthen or complement this relationship? The findings are expected to enrich theoretical understanding of knowledge-sharing mechanisms in educational organizations and provide empirical guidance for leadership development and innovation management in vocational institutions.

2. Literature Review and Hypothesis Development

2.1 Knowledge Sharing and Quality Performance

Knowledge sharing (KS) has become a central mechanism for organizational learning and performance enhancement in the knowledge economy. Drawing from Social Capital Theory, KS enhances mutual trust, reciprocity, and collective understanding among members, thereby facilitating collaborative learning and continuous quality improvement (Jorfi, 2024). In educational institutions, the sharing of pedagogical resources, best teaching practices, and administrative experiences forms the foundation for sustainable institutional development (Almuqrin et al., 2020). Recent empirical studies demonstrate that KS positively affects service quality, teaching performance, and process efficiency by promoting open communication and cross-functional collaboration (Shahnawaz & Zaim, 2020). Moreover, KS

contributes to the creation of an innovative culture where members exchange ideas, co-develop solutions, and embed shared knowledge into daily practices (Chen et al., 2021).

However, while the direct link between KS and performance is well established, how KS translates into quality performance through leadership and innovation processes remains insufficiently explored.

H1: Knowledge Sharing positively affects Responsible Leadership.

H2: Knowledge Sharing positively affects Innovation Ability..

2.2 Responsible Leadership as a Mediator

Responsible leadership (RL) has emerged as a vital construct in explaining how ethical and relational dimensions of leadership contribute to sustainable organizational outcomes. RL emphasizes ethical decision-making, stakeholder inclusion, and sustainability orientation as its core dimensions. Recent studies have shown that responsible leaders enhance employee trust, accountability, and moral engagement, thereby fostering a culture of integrity and collaboration (Bhatti & Irfan, 2024).

In higher education, RL is particularly relevant because academic leaders are expected to balance multiple stakeholder interests—students, faculty, and society—while upholding ethical standards and educational missions (Shafait & Huang, 2024). Empirical evidence suggests that RL enhances quality outcomes by building a positive organizational climate and increasing commitment to excellence. Through transparent communication and moral guidance, responsible leaders encourage faculty to engage in knowledge sharing and collective problem-solving, which in turn strengthens teaching and service quality (Waqas et al., 2023).

Therefore, RL can be viewed as a crucial mechanism through which knowledge sharing translates into improved quality performance by reinforcing shared values and institutional responsibility.

H3: Responsible Leadership positively affects Quality Performance.

H5a: Responsible Leadership mediates the relationship between Knowledge Sharing and Quality Performance.

2.3 Innovation Ability as a Mediator

Innovation ability (IA) refers to an organization's capacity to transform shared knowledge into creative practices and novel solutions. According to Innovation Diffusion Theory, the adoption and application of new ideas depend on individuals' creativity, experimentation, and willingness to take risks. In higher vocational education, IA manifests in new teaching methods, curriculum design, and technological adoption that enhance student engagement and institutional competitiveness (Li et al., 2023).

Recent studies indicate that knowledge sharing serves as a key antecedent of innovation, as it allows educators and administrators to integrate diverse expertise and co-create new solutions (Lapsomboonkamol et al., 2022). Moreover, IA mediates the link between KS and performance by enabling institutions to convert tacit knowledge into process and service innovation (Duan & Shen, 2025). Organizations with strong innovation capability are more adaptive to changes, improve operational efficiency, and achieve sustainable performance outcomes (Mohamed et al., 2023).

H4: Innovation Ability positively affects Quality Performance.

H5b: Innovation Ability mediates the relationship between Knowledge Sharing and Quality Performance.

2.4 Dual Mediation Framework

Integrating the above theoretical insights, KS influences quality performance (QP) through two complementary mechanisms: the Ethical-Leadership Pathway and the Innovation-Driven Pathway. The first pathway is grounded in Social Learning Theory, suggesting that responsible leaders act as moral exemplars who shape organizational values and promote accountability, thereby enhancing collective performance(Chao et al., 2023). The second pathway, rooted in Organizational Learning Theory, posits that innovation ability enables the transformation of shared knowledge into actionable improvements and new practices(Ding et al., 2023).

By combining ethical leadership and innovation capacity, vocational colleges can simultaneously cultivate a trustworthy environment and develop creative problem-solving skills—both essential for achieving sustainable quality improvement. Thus, this study conceptualizes a dual mediation model in which responsible leadership and innovation ability jointly explain how knowledge sharing enhances organizational quality performance.

H6: Responsible Leadership and Innovation Ability jointly mediate the relationship between Knowledge Sharing and Quality Performance.

2.5 Conceptual Framework

Based on the aforementioned literature review and theoretical foundations, a variable framework model for this study has been constructed.

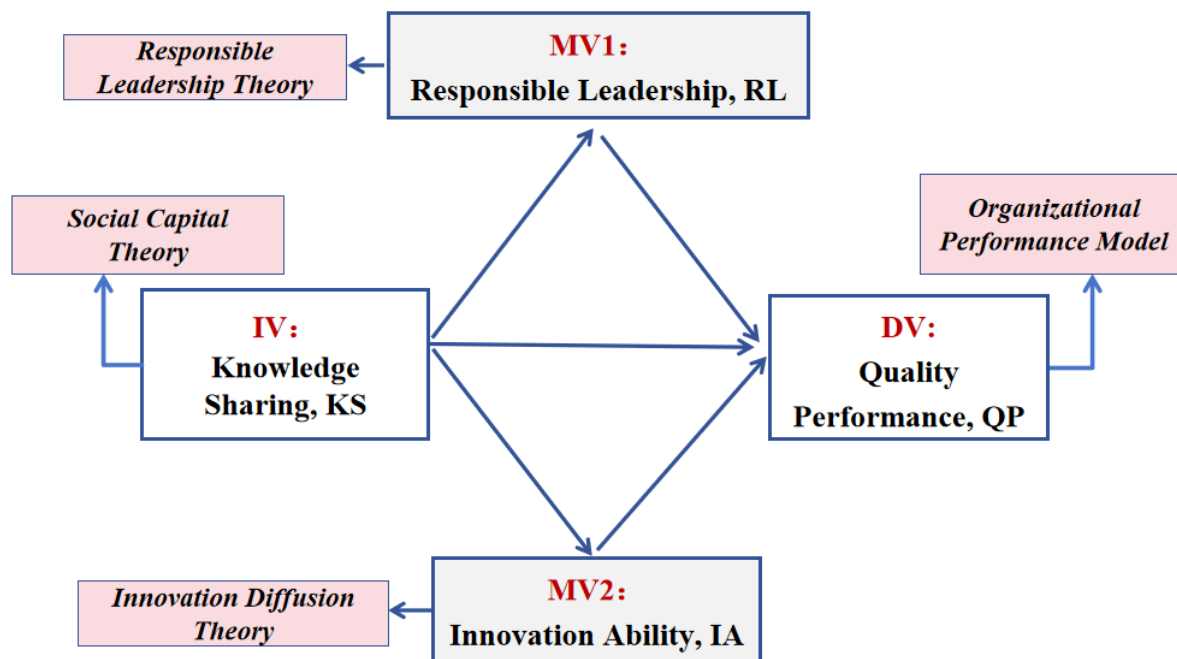


Figure 1. Research Framework Diagram

3. Methodology

3.1 Research Design

This study employed a quantitative research design using a structured survey questionnaire to investigate the relationships among knowledge sharing (KS), responsible leadership (RL), innovation ability (IA), and quality performance (QP) in Chinese higher vocational colleges. The research targeted middle-level administrators and teaching staff across five major regions of China—East, Central, West, North, and South—who are directly involved in institutional management and teaching quality enhancement. A total of 450 questionnaires were distributed through both online and offline channels, and 406 valid responses were retained after data screening, yielding an effective response

rate of 90.2%. A stratified and purposive sampling strategy was adopted to ensure representation across various institutional types (vocational undergraduate, double-high plan, and regular vocational colleges) and to include respondents with relevant experience in governance, innovation, and quality improvement.

3.2 Measurement Instruments

All constructs were measured using multi-item scales adopted and refined from established studies. Each item was rated on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The questionnaire was developed in English and then translated into Chinese using the back-translation method to ensure linguistic and conceptual equivalence. A pilot test with 30 respondents confirmed clarity and content validity.

Table 1. Measurement Instruments for Key Variables

Variable	Dimensions	Scale Type
Knowledge Sharing (KS)	Information exchange, trust, reciprocity	Likert 5-point
Responsible Leadership (RL)	Ethical integrity, stakeholder inclusion, sustainability orientation	Likert 5-point
Innovation Ability (IA)	Creativity, experimentation, risk-taking	Likert 5-point
Quality Performance (QP)	Service quality, teaching quality, process effectiveness	Likert 5-point

3.3 Data Analysis

The collected data were analysed through descriptive statistics, reliability and validity testing, and structural equation modelling (SEM).

Descriptive statistics summarised respondents' demographic characteristics, including gender, age, work experience, professional title, and organisational type.

Cronbach's alpha was employed to assess construct reliability (threshold ≥ 0.70), whilst composite reliability (CR) and average variance extracted (AVE) were calculated to evaluate convergent validity, with CR ≥ 0.70 and AVE ≥ 0.50 . Distinctive validity was confirmed when the square root of AVE exceeded the inter-construct correlation coefficient.

The hypothetical model and dual mediation framework were tested using structural equation modelling in AMOS 28.0 software. Model fit was assessed via χ^2/df (< 3.00), CFI (> 0.90), TLI (> 0.90), RMSEA (< 0.08), and SRMR (< 0.08) indices. Finally, the mediating effects of responsible leadership (RL) and innovative ability (IA) between knowledge sharing (KS) and quality performance (QP) were examined using the Bootstrap method (5000 resamples). Mediating effects were confirmed when the 95% bias-corrected confidence interval did not include zero.

4. Data Analysis and Results

4.1 Descriptive Statistics

A total of 406 valid responses were analyzed. Among the respondents, 51% were female and 49% were male. The average age of participants was 41.6 years, with an average of 16.5 years of work experience in higher vocational education. Regarding academic rank, 50% were lecturers, 24% were associate professors, 14% served as administrators, and 12% were professors. The respondents represented a diverse range of institutional types, including vocational undergraduate colleges (34%), double-high plan colleges (32%), and regular vocational colleges (34%). Regionally, participants were distributed across East (25%), Central (24%), South (20%), West (16%), and North (15%) China, ensuring balanced representation from all major regions.

Overall, the respondents demonstrated moderate perceptions of the four main constructs. The mean scores for Knowledge Sharing ($M = 3.00$, $SD = 0.80$), Responsible Leadership ($M = 3.00$, $SD = 0.84$), Innovation Ability ($M = 3.00$, $SD = 0.86$), and Quality Performance ($M = 3.00$, $SD = 0.82$) indicate generally neutral to moderately positive responses, suggesting room for improvement in knowledge exchange, responsible leadership practices, and innovation enhancement across vocational institutions.

Table 2. Demographic Characteristics of Respondents (N = 406)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	199	49
	Female	207	51
Age (years)	Mean = 41.6	SD = 8.7	—
Work Experience (years)	Mean = 16.5	SD = 7.4	—
Academic Rank	Lecturer	203	50
	Associate Professor	98	24
	Professor	48	12
	Administrator	57	14
Institution Type	Vocational Undergraduate	139	34
	Double-High Plan College	130	32
	Regular Vocational College	137	34
Region	East China	102	25
	Central China	97	24
	South China	81	20
	West China	65	16
	North China	61	15

Table 3. Descriptive Statistics of Main Constructs (N = 406)

Construct	Dimension Examples	M	SD	Scale Type
Knowledge Sharing (KS)	Information exchange, trust, reciprocity	3	0.8	Likert 5-point
Responsible Leadership (RL)	Ethical integrity, stakeholder inclusion, sustainability orientation	3	0.84	Likert 5-point
Innovation Ability (IA)	Creativity, experimentation, risk-taking	3	0.86	Likert 5-point
Quality Performance (QP)	Service quality, teaching quality, process effectiveness	3	0.82	Likert 5-point

4.2 Reliability and Validity Analysis

To ensure the quality and consistency of the measurement instruments, reliability and validity tests were conducted prior to hypothesis testing. Internal consistency was assessed using Cronbach's α , while Composite Reliability (CR) and Average Variance Extracted (AVE) were computed to evaluate convergent validity. Following the criteria proposed by Nunnally and Bernstein (1994) and Fornell and Larcker (1981), acceptable thresholds were set at $\alpha \geq 0.70$, $CR \geq 0.70$, and $AVE \geq 0.50$.

As shown in Table 4, all constructs demonstrated excellent internal reliability, with Cronbach's α values ranging from 0.87 to 0.91. The CR values ranged between 0.88 and 0.93, exceeding the recommended minimum, and the AVE values varied from 0.58 to 0.67, confirming adequate convergent validity. In addition, the square roots of AVE for each construct were greater than their corresponding inter-construct correlations, indicating satisfactory discriminant validity. These results confirm that all measurement scales used in this study are statistically reliable and valid for further analysis.

Table 4. Reliability and Validity of the Measurement Model (N = 406)

Construct	Cronbach's α	CR	AVE	$\sqrt{AVE}$
Knowledge Sharing (KS)	0.89	0.91	0.61	0.78
Responsible Leadership (RL)	0.91	0.93	0.65	0.81
Innovation Ability (IA)	0.88	0.9	0.58	0.76
Quality Performance (QP)	0.87	0.88	0.6	0.77

Note. All Cronbach's α , CR, and AVE values exceed recommended thresholds ($\alpha \geq 0.70$, $CR \geq 0.70$, $AVE \geq 0.50$), confirming reliability and convergent validity. Discriminant validity was confirmed via the Fornell–Larcker criterion.

4.3 Correlation Analysis

Before testing the hypothesized model, a Pearson correlation analysis was conducted to examine the bivariate relationships among the four main constructs: Knowledge Sharing (KS), Responsible Leadership (RL), Innovation Ability (IA), and Quality Performance (QP). As shown in Table 5, all variables were positively and significantly correlated ($p < 0.001$), providing initial support for the hypothesized mediation relationships. Specifically,

Knowledge Sharing was strongly correlated with Responsible Leadership ($r = 0.56$) and Innovation Ability ($r = 0.52$), indicating that higher levels of knowledge exchange within vocational colleges are associated with more responsible and innovative organizational behaviors. Likewise, both Responsible Leadership ($r = 0.49$) and Innovation Ability ($r = 0.47$) were significantly associated with Quality Performance, suggesting that leadership ethics and institutional innovation jointly contribute to overall quality improvement. The moderate to high correlation coefficients also indicate suitable relationships among constructs without multicollinearity issues, confirming the appropriateness of these variables for further structural equation modeling (SEM).

Table 5. Correlation Matrix of Main Constructs (N = 406)

Construct	1	2	3	4	M	SD
Knowledge Sharing (KS)	1	—	—	—	3	0.8
Responsible Leadership (RL)	0.56***	1	—	—	3	0.84
Innovation Ability (IA)	0.52***	0.54***	1	—	3	0.86
Quality Performance (QP)	0.49***	0.49***	0.47***	1	3	0.82

Note. *** $p < 0.001$. All correlations are significant and positive.

4.4 Structural Equation Modeling (SEM) Results

A structural equation modeling (SEM) approach was applied using AMOS 28.0 to examine the hypothesized relationships among Knowledge Sharing (KS), Responsible Leadership (RL), Innovation Ability (IA), and Quality Performance (QP). The two-step modeling procedure recommended by Anderson and Gerbing (1988) was followed, including (1) validation of the measurement model and (2) assessment of the structural model.

4.4.1 Model Fit Evaluation

The overall model exhibited good fit to the data, as shown in Table 6. The key fit indices— $\chi^2/df = 2.14$, Comparative Fit Index (CFI) = 0.94, Tucker–Lewis Index (TLI) = 0.93, Root Mean Square Error of Approximation (RMSEA) = 0.052, and Standardized Root Mean Square Residual (SRMR) = 0.043—all satisfied the commonly accepted thresholds ($\chi^2/df < 3.0$, CFI and TLI > 0.90 , RMSEA and SRMR < 0.08) (Hu & Bentler, 1999). These results indicate that the hypothesized model adequately represents the observed data.

Table 6. Goodness-of-Fit Indices for the Structural Model

Fit Index	Recommended Threshold	Obtained Value	Model Evaluation
χ^2/df	< 3.00	2.14	Good
CFI	> 0.90	0.94	Acceptable
TLI	> 0.90	0.93	Acceptable
RMSEA	< 0.08	0.052	Good

SRMR	< 0.08	0.043	Good
------	--------	-------	------

4.4.2 Structural Path Analysis

The standardized path coefficients for all hypothesized relationships are presented in Table 7. The results show that Knowledge Sharing has a strong and positive effect on Responsible Leadership ($\beta = 0.55$, $p < 0.001$) and Innovation Ability ($\beta = 0.49$, $p < 0.001$). Both Responsible Leadership ($\beta = 0.33$, $p < 0.001$) and Innovation Ability ($\beta = 0.31$, $p < 0.001$) significantly predict Quality Performance, confirming their mediating roles. However,

the direct path from Knowledge Sharing to Quality Performance was not significant ($\beta = 0.08$, $p = 0.12$), suggesting that the relationship between KS and QP is fully mediated through RL and IA.

These findings indicate that responsible leadership and innovation ability serve as key transmission mechanisms through which knowledge sharing contributes to institutional quality enhancement in higher vocational colleges.

Table 7. Standardized Path Coefficients and Hypothesis Testing Results

Hypothesis	Path	β	p-value	Result
H1	KS $\rightarrow$ RL	0.55	< 0.001	Supported
H2	KS $\rightarrow$ IA	0.49	< 0.001	Supported
H3	RL $\rightarrow$ QP	0.33	< 0.001	Supported
H4	IA $\rightarrow$ QP	0.31	< 0.001	Supported
H5a	KS $\rightarrow$ RL $\rightarrow$ QP	Indirect ($\beta = 0.18$)	< 0.001	Supported
H5b	KS $\rightarrow$ IA $\rightarrow$ QP	Indirect ($\beta = 0.15$)	< 0.001	Supported
H6	KS $\rightarrow$ RL & IA $\rightarrow$ QP	Dual mediation confirmed	—	Supported

4.5 Mediation Analysis

To further verify the mediating roles of Responsible Leadership (RL) and Innovation Ability (IA) in the relationship between Knowledge Sharing (KS) and Quality Performance (QP), a Bootstrap resampling method (5000 iterations, 95% confidence interval) was applied using AMOS 28.0. This non-parametric technique provides more accurate estimates of indirect effects compared to traditional Sobel tests and is widely recommended for mediation testing in structural equation modeling (Preacher & Hayes, 2008).

As presented in Table 8, the indirect effects of KS on QP through both mediators were significant, as their 95% bias-corrected confidence intervals did not include zero. Specifically, the indirect effect of KS on QP via RL was $\beta = 0.18$, 95% CI [0.10, 0.27], and

via IA was $\beta = 0.15$, 95% CI [0.08, 0.24]. The direct effect of KS on QP became statistically insignificant ($\beta = 0.08$, $p = 0.12$) when both mediators were included in the model, indicating that RL and IA fully mediated the relationship between KS and QP.

These results confirm a dual mediation mechanism: KS enhances responsible leadership, which strengthens ethical and collaborative environments conducive to quality improvement; simultaneously, KS fosters innovation ability, enabling the transformation of shared knowledge into creative practices that enhance institutional effectiveness. Together, these findings highlight that leadership responsibility and innovation capability are essential pathways through which knowledge sharing contributes to quality performance in higher vocational colleges.

Table 8. Bootstrap Mediation Analysis Results (N = 406)

Mediation Path	Indirect Effect (β)	SE	95% Bias-Corrected CI	Result
KS $\rightarrow$ RL $\rightarrow$ QP	0.18	0.04	[0.10, 0.27]	Significant
KS $\rightarrow$ IA $\rightarrow$ QP	0.15	0.04	[0.08, 0.24]	Significant
KS $\rightarrow$ RL & IA $\rightarrow$ QP (total indirect)	0.33	0.06	[0.23, 0.42]	Significant
KS $\rightarrow$ QP (direct effect)	0.08	0.05	[-0.02, 0.17]	Not Significant
KS $\rightarrow$ QP (total effect)	0.41	0.06	[0.29, 0.51]	Significant

4.6 Summary of Hypothesis Testing

Based on the structural equation modeling and Bootstrap mediation analyses, all six hypothesized relationships were empirically supported. The results reveal that Knowledge Sharing (KS) exerts significant positive effects on both Responsible Leadership (RL) and Innovation Ability (IA), while RL and IA further enhance Quality Performance (QP). Moreover, the mediation tests confirm that RL and IA independently and jointly transmit the effects of KS on QP, forming a dual mediation mechanism.

As summarized in Table 9, hypotheses H1–H6 were all supported. Specifically, H1 and H2 confirm that KS significantly promotes both leadership responsibility and innovation capability; H3 and H4 demonstrate that these two mediators positively influence institutional quality performance; and H5a, H5b, and H6 verify the independent and joint mediating effects of RL and IA. These findings collectively validate the proposed dual mediation framework, emphasizing that knowledge sharing indirectly improves quality outcomes through the combined ethical–innovation pathways within higher vocational institutions.

Table 9. Summary of Hypothesis Testing Result

Hypothesis	Proposed Relationship	Standardized Path (β)	p-value	Result
H1	Knowledge Sharing $\rightarrow$ Responsible Leadership	0.55	< 0.001	Supported
H2	Knowledge Sharing $\rightarrow$ Innovation Ability	0.49	< 0.001	Supported
H3	Responsible Leadership $\rightarrow$ Quality Performance	0.33	< 0.001	Supported
H4	Innovation Ability $\rightarrow$ Quality Performance	0.31	< 0.001	Supported
H5a	Knowledge Sharing $\rightarrow$ Responsible Leadership $\rightarrow$ Quality Performance	0.18 (Indirect)	< 0.001	Supported
H5b	Knowledge Sharing $\rightarrow$ Innovation Ability $\rightarrow$ Quality Performance	0.15 (Indirect)	< 0.001	Supported
H6	Dual Mediation of Responsible Leadership and Innovation Ability	—	—	Supported

5. Discussion

5.1 Discussion of Key Findings

The results of this study reveal a dual mediation mechanism in which Responsible Leadership (RL) and Innovation Ability (IA) jointly mediate the relationship between Knowledge Sharing (KS) and Quality Performance (QP) in Chinese higher vocational colleges.

First, the significant effect of KS on RL confirms that collaborative knowledge environments foster ethical integrity, stakeholder inclusion, and sustainability orientation—core features of responsible leadership. This finding validates Responsible Leadership Theory, demonstrating that ethical leadership behaviors can be socially constructed through trust-based knowledge exchange.

Second, the significant link between KS and IA supports Innovation Diffusion Theory, indicating that open communication networks and knowledge reciprocity enhance creative thinking and experimentation among educators.

Third, RL and IA both significantly predict QP, confirming that responsible, innovative practices directly improve institutional teaching quality, service efficiency, and management processes.

Finally, the non-significant direct path between KS and QP, together with the significant indirect effects, establishes a dual full mediation model, extending Social Capital Theory. This suggests that social capital in vocational colleges must be activated through leadership and innovation pathways to translate into sustainable quality performance.

5.2 Theoretical Implications

This study contributes to theory in several ways.

First, it integrates Social Capital Theory, Responsible Leadership Theory, and Innovation Diffusion Theory into a unified model, offering a holistic understanding of how knowledge sharing transforms into institutional quality through ethical and innovative mechanisms.

Second, it advances responsible leadership research in the education sector by demonstrating that leadership responsibility emerges from collective knowledge interaction rather than solely from individual traits. This expands the theoretical boundary of RL into the domain of knowledge-driven ethics.

Third, the identification of innovation ability as a parallel mediator introduces the concept of a dual ethical–innovation pathway, suggesting that leadership responsibility and innovation are complementary rather than competing logics in achieving educational excellence.

Finally, by testing this dual mediation model in the context of Chinese higher vocational education, the study adds to the global dialogue on how knowledge-based governance and ethical innovation jointly promote organizational sustainability in education.

5.3 Practical Implications and Future Research Directions

From a practical standpoint, the results offer actionable insights for educational managers and policymakers.

First, vocational institutions should cultivate a culture of open knowledge sharing, encouraging faculty collaboration, cross-departmental communication, and professional learning communities to strengthen trust and reciprocity.

Second, leadership training should emphasize responsibility-oriented governance, embedding ethical decision-making, transparency, and stakeholder inclusion into institutional practice.

Third, colleges should establish innovation-supportive ecosystems—for example, funding pedagogical experimentation, rewarding creative teaching design, and promoting interdisciplinary cooperation—to convert shared knowledge into innovative educational practices.

Moreover, policymakers should align evaluation and incentive mechanisms with leadership ethics and innovation outcomes, forming a coherent framework for quality assurance in vocational education.

Future studies may address limitations in this research. Longitudinal designs could capture the dynamic interaction among KS, RL, IA, and QP over time. Multi-source or mixed-method data could reduce common method bias. Comparative research across regions or countries could further explore the generalizability of the ethical–innovation pathway in different institutional and cultural contexts.

6. Conclusion

This study set out to investigate how Knowledge Sharing (KS) affects Quality Performance (QP) through the dual mediating effects of Responsible Leadership (RL) and Innovation Ability (IA) in Chinese higher vocational colleges. Drawing on Social Capital Theory, Responsible Leadership Theory, and Innovation Diffusion Theory, the research proposed and empirically tested a dual mediation model using survey data from 406 faculty members and administrators. The results derived from Structural Equation Modeling (SEM) and Bootstrap analysis provided robust evidence supporting all six hypothesized relationships.

The findings reveal that knowledge sharing exerts its influence on institutional performance primarily through leadership and innovation pathways. Specifically, KS significantly enhances responsible leadership and innovation ability, while both RL and IA, in turn, positively affect quality performance. The non-significant direct relationship between KS and QP indicates a full mediation effect, confirming that the transformation of shared knowledge into organizational quality depends on responsible leadership practices and innovative capabilities. This dual mechanism highlights that ethical governance and creativity act as complementary forces in driving sustainable improvement in vocational education quality.

Theoretically, the study contributes to the growing body of literature on educational management and organizational behavior by integrating ethical and innovation perspectives into the knowledge management framework. It extends Responsible Leadership Theory beyond corporate and political contexts to the educational domain, demonstrating that leadership responsibility is shaped by collaborative learning and mutual trust among educators. It also strengthens the understanding of how innovation mediates the knowledge–performance link, emphasizing the role of creative experimentation and risk-taking in translating knowledge into tangible institutional outcomes.

Practically, the results provide several implications for educational leaders and policymakers. Vocational colleges should cultivate a culture of open knowledge exchange to encourage collective problem-solving and cross-disciplinary learning. Leadership development programs should prioritize ethical competence, stakeholder engagement, and sustainability-oriented management. At the same time, innovation should be institutionalized through incentive mechanisms, project-based learning, and digital transformation initiatives. Together, these strategies can create a responsible and innovative organizational climate that enhances teaching quality, service efficiency, and overall institutional performance.

Despite its contributions, this study is not without limitations. The use of cross-sectional data restricts causal inference, and the reliance on self-reported measures may introduce response bias. Future research could adopt longitudinal or mixed-method approaches and incorporate objective indicators of institutional performance. Comparative studies across different educational systems and cultural settings are also recommended to examine the generalizability of the ethical–innovation model.

In conclusion, this study underscores the critical role of responsible leadership and innovation ability as dual mediators linking knowledge sharing and quality performance in higher vocational colleges. The results suggest that sustainable quality improvement is not merely a product of information exchange but a process of

ethical transformation and creative renewal. By aligning leadership ethics with institutional innovation, vocational colleges can move toward a more resilient, responsible, and high-quality future in the era of knowledge-based education.

References

1. Almuqrin, A., Zhang, Z. J., Alzamil, A., Mutambik, I., & Alhabeeb, A. (2020). The explanatory power of social capital in determining knowledge sharing in higher education: A case from Saudi Arabia. *Malaysian Journal of Library and Information Science*, 25(3), 71–90.
2. Bhatti, O. K., & Irfan, M. (2024). Responsibility-oriented perspective of responsible leadership: Development of a measurement instrument. *Journal of Leadership Studies*, 18(2), 7–28.
3. Chao, H., Fanbo, M., & Patwary, A. K. (2024). Examining organizational commitment to environmental performance among hotel employees: The role of ethical leadership, psychological ownership and psychological empowerment. *SAGE Open*, 14(2), 21582440241255226.
4. Chen, C.-M., Lee, C.-L., Chi, H. J., Yeh, T.-J., & Huang, K. (2021). The correlations among social interaction, knowledge sharing and innovation capability—Case on medical technology industry. *Revista de Cercetare si Interventie Sociala*, 72, 122–136.
5. Chen, L., Chang, Y. C., & Tian, Q. (2024). The mediating role of perceived organizational support in the relationship between transformational leadership and knowledge sharing behavior of university teachers. *SAGE Open*, 14(4), 21582440241307756.
6. Ding, Z., Li, M., Yang, X., & Xiao, W. (2023). Ambidextrous organizational learning and performance: Absorptive capacity in small and medium-sized enterprises. *Management Decision*, 61(11), 3610–3634.
7. Duan, X., Shen, T., Xu, W., Wu, A., & Xie, H. (2025). Examining the mediating role of role identity and knowledge sharing in the association between leadership support and nurses' innovative behaviour: A multicentre cross-sectional study. *Journal of Advanced Nursing*.
8. Jorfi, H. (2024). Examining the effect of organizational culture on social capital with an emphasis on the mediating role of knowledge management. *Quarterly Journal of Research and Planning in Higher Education*, 30(4), 123–137.
9. Lapsomboonkamol, S., Songkram, N., Thamsuwan, P., & Songkram, N. (2022). The mediating effect of knowledge integration on the relationship between capability and innovative behaviour. *Emerging Science Journal*, 6, 92–107.
10. Li, P., Gong, L., Miao, Y., Zhao, Y., Li, A., & Ren, H. (2023). Higher vocational students' innovation and entrepreneurship ability demand prediction. *International Journal of Emerging Technologies in Learning*, 18, 196–209.
11. Mohamed, G. J., Thomas, A. S., & Clemence, N. O. (2023). Role of knowledge sharing in sales force performance: A case study of sales people in financial institutions in Somalia. *Journal of Business and Management Studies*, 5(3), 45–59.*
12. Shafait, Z., & Huang, J. (2024). Examining the impact of sustainable leadership on green knowledge sharing and

green learning: Understanding the roles of green innovation and green organisational performance. *Journal of Cleaner Production*, 457, 142402.

13. Shahnawaz, M., & Zaim, H. (2020). Peer knowledge sharing and organizational performance: The role of leadership support and knowledge management success. *Journal of Knowledge Management*, 24, 2455–2489.
14. Waqas, H. M., & Ali, A. (2023). Enhancing creativity in Punjab's public higher education institutes: Exploring responsible leadership and knowledge sharing impact. *Pakistan Social Sciences Review*, 7(4), 673–685.
15. Zhang, H., Dai, W., & He, J. (2024). An analysis of the differences in information-based teaching to improve the learning achievements of Chinese higher vocational college students. *Asia Pacific Education Review*, 25(5), 1305–1317.