

The Journal of Behavioral Science (TJBS)

Quantitative Research Article

Knowledge Sharing Behavior among Vietnamese Academics: The Dominant Roles of Organizational Culture and Leadership

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Abstract

Background/ problem: While knowledge sharing is vital for academic innovation and institutional performance, its behavioral determinants in emerging higher education systems remain inconclusive, particularly regarding the assumed facilitating role of information technology (IT).
Objective/ purpose: Grounded primarily in social exchange theory, this study investigates the effects of organizational culture, top management support, and personality traits on knowledge sharing behavior among university lecturers, while also examining the moderating role of IT.
Design and Methodology: A cross-sectional quantitative survey was administered to 185 academic staff across universities in Ho Chi Minh City, Vietnam. Hypotheses were tested using partial least squares structural equation modeling (PLS-SEM) and multigroup analysis (MGA).
Results: The model explains 56.0% of the variance in knowledge sharing behavior ($R^2 = .56$). Organizational culture ($\beta = .42, p < .001, f^2 = .34$) and top management support ($\beta = .38, p < .001, f^2 = .32$) emerged as dominant drivers with medium-to-large effect sizes. Extraversion exerted a significant positive impact ($\beta = .32, p < .001, f^2 = .20$), whereas introversion exhibited a small negative effect ($\beta = -.11, p = .03, f^2 = .03$). Conversely, IT had neither a significant direct effect ($\beta = .09, p = .07, f^2 = .02$) nor a moderating effect on organizational relationships. MGA revealed no significant gender differences.
Conclusion and Implications: Findings demonstrate that knowledge sharing is fundamentally a socially embedded behavioral process. Technological infrastructure cannot substitute for interpersonal trust, collaborative norms, and supportive leadership in fostering academic knowledge exchange.

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Article Information

Received: 12.05.26
Revised: 24.06.26
Accepted for Review: 29.06.26

Keywords

Knowledge sharing behavior, higher education, organizational culture, personality traits, PLS-SEM, top management support

In the global knowledge economy, knowledge sharing has become a critical driver of organizational effectiveness, innovation, and sustainable development, particularly in higher education institutions (HEIs). Unlike commercial enterprises, universities rely intrinsically on the voluntary dissemination and integration of academic expertise among faculty members to enhance instructional quality and scientific output. Despite extensive literature on knowledge management, understanding what drives or inhibits knowledge sharing behavior in academic settings remains theoretically contentious and contextually nuanced. Prior investigations have broadly linked knowledge sharing to organizational climate and leadership support (Ha et al., 2025; Lyu & Sun, 2025), and individual psychological dispositions (Chung & Anh, 2022; Nguyen et al., 2025, Shaukat et al., 2023), and technological infrastructure (Zamiri & Esmaeili, 2024). However, these dimensions have frequently been scrutinized in isolation, leaving a critical theoretical gap in understanding how psychological, social, and structural mechanisms interact to shape discretionary behavior.

A prominent theoretical ambiguity lies in the role of information technology (IT). Conventional assumptions rooted in early technology adoption paradigms suggest that digital platforms inherently foster knowledge sharing by lowering transactional costs, mitigating temporal-spatial barriers, and streamlining communication (Kim & Lee, 2006). Nevertheless, empirical findings across emerging contexts remain highly fragmented: some studies report strong facilitation (Akosile & Olatokun, 2020), whereas others argue that technological platforms remain passive conduits that fail to stimulate actual sharing without strong underlying social dynamics (Chung & Anh, 2022; Shahid et al., 2025). This inconsistency highlights the need to re-examine IT not merely as a direct antecedent, but as an environmental contingency that may interact with organizational forces.

From a behavioral science perspective, knowledge sharing represents a complex, voluntary social exchange involving perceived psychological risks, reciprocity expectations, and interpersonal trust (Blau, 2017). In transitional higher education systems like Vietnam, where institutions are undergoing rapid administrative reforms, digital transformation, and performance-driven pressures, technological implementation often outpaces socio-cultural adaptation (Chung & Anh, 2022; Ha et al., 2025). Consequently, faculty members may possess modern digital infrastructure but remain reluctant to share tacit knowledge unless supported by psychological safety and organizational leadership (Blau, 2017; Lo et al., 2021). To provide a coherent explanation of these dynamics, an integrated behavioral model bridging macro-organizational factors, micro-individual traits, and technological factors is imperative. To address these conceptual gaps, this study investigates the extent to which organizational factors (culture and leadership support) and individual personality traits (extraversion and introversion) influence knowledge sharing, while clarifying whether information technology operates as a direct driver or a moderating contingency. By integrating multi-theoretical perspectives, the findings provide actionable insights into cultivating trust-based collaborative environments rather than over-relying on technological investments alone.

Literature Review

This section outlines the theoretical foundations, conceptual definitions of the focal variables, and empirical evidence underpinning academic knowledge sharing behavior. On this basis, the corresponding research hypotheses are formulated, followed by the proposed conceptual framework.

Theoretical Background

Knowledge sharing in higher education is a multi-dimensional discretionary behavior shaped by the interplay of organizational context, individual psychological dispositions, and technological conditions. Because single-perspective models fail to capture the complexity, this study develops an integrated framework synthesizing social exchange theory (SET), social capital theory, social cognitive theory (SCT), and the technology acceptance model (TAM). At the organizational level, the SET posits that faculty engage in voluntary knowledge exchange when they anticipate reciprocity and fairness, while the social capital theory explains how collaborative culture and leadership build relational trust to lower perceived sharing risks (Blau, 2017; Molm, 2003; Nahapiet & Ghoshal, 1998; Putnam, 1993).

At the individual level, the SCT conceptualizes human agency through the triadic reciprocal interaction among cognitive factors, environmental stimuli, and behavior (Bandura, 2002). Within this framework, personality traits (extraversion and introversion) determine communication self-efficacy and individual willingness to share expertise within the same environment (Akhavan et al., 2016; De Vries et al., 2006). Finally, the TAM explains how digital platforms serve as functional conduits whose utilization depends on perceived usefulness and ease of use (Davis, 1989; Kim & Lee, 2006). In summary, this multi-theoretical integration establishes that academic knowledge sharing is driven by personal cognitive traits (SCT), enabled by technical channels (TAM), and sustained by institutional culture and leadership support (SET and the social capital theory).

Knowledge Sharing Behavior in Higher Education Institutions

Knowledge sharing behavior refers to the fundamental social process through which individuals voluntarily exchange task-related information, pedagogical expertise, research ideas, and specialized skills with colleagues (Lyu & Sun, 2025; Wang & Noe, 2010). Within higher education institutions, academic knowledge sharing encompasses the dissemination of both explicit resources (such as curriculum materials and formal guidelines) and tacit intellectual capital (including research insights and experiential problem-solving methodologies) (Ha et al., 2025; Lyu & Sun, 2025). Rather than a purely mechanical or mandatory task, knowledge sharing represents a nuanced, discretionary socio-behavioral endeavor governed by individual cognitive orientations, socio-relational reciprocity, and organizational conditions (Bandura, 2002; Blau, 2017; Bock et al., 2005).

Organizational Culture and Knowledge Sharing Behavior

Organizational culture refers to the collective values, core beliefs, and shared behavioral norms that shape social interactions and professional conduct within an institution (Kathiravelu et al., 2014; Wang & Noe, 2010). From the perspective of the SET, a supportive organizational culture fosters a favorable exchange environment in which individuals perceive knowledge sharing as beneficial and reciprocated. When organizational norms emphasize trust, openness, and collaboration, individuals experience reduced psychological risk and increased expectations of mutual benefit, thereby enhancing their willingness to share knowledge. In addition, the SCT suggests that organizational culture strengthens relational ties and shared values among members, which further facilitates knowledge exchange. A collaborative culture promotes trust and mutual understanding, both of which are essential for effective knowledge sharing in academic environments. Empirical studies have consistently confirmed the positive role of organizational culture in promoting knowledge sharing behavior (Javaid et al., 2020; Kathiravelu et al., 2014; Sawan et al., 2021). Therefore, hypothesis 1 is developed:

H1: Organizational culture has a positive effect on knowledge sharing behavior among lecturers in higher education institutions.

Top Management Support and Knowledge Sharing Behavior

Top management support refers to the extent to which executive leadership actively values, resources, and reinforces collaborative initiatives and knowledge-related endeavors within an organization (Kim & Lee, 2006; Lo et al., 2021). In higher education institutions, effective knowledge management and a collaborative climate are vital to fostering productive academic behaviors while mitigating counter-productive work tendencies among faculty members (Javed et al., 2025; Wang & Noe, 2010). From a SET perspective, when leaders provide resources, encouragement, and recognition, employees perceive organizational support as a form of investment, which they are motivated to reciprocate through positive behaviors such as knowledge sharing (Blau, 2017). Moreover, leadership plays a central role in building social capital by fostering trust and promoting a shared vision (Nahapiet & Ghoshal, 1998). Supportive leaders create a psychologically safe environment in which employees feel valued and are more willing to contribute their knowledge. Prior research has demonstrated that top management support significantly enhances knowledge sharing behavior by reducing perceived barriers and increasing motivation (Lo et al., 2021; Lyu & Sun, 2025). Accordingly, the following hypothesis 2 is proposed:

H2: Top management support has a positive effect on knowledge sharing behavior among lecturers in higher education institutions.

Personality Traits and Knowledge Sharing Behavior

Personality traits represent enduring patterns of thoughts, emotions, and interpersonal behaviors that distinguish individuals and guide their cognitive adaptations within organizations (De Vries et al., 2006; Nguyen et al., 2025). Drawing on the SCT, individual behavior is influenced by personal characteristics, particularly self-efficacy and social interaction tendencies (Bandura, 2002; Paiman et al., 2024). Personality traits such as extraversion and introversion play a significant role in shaping individuals' confidence and

willingness to engage in knowledge sharing activities. Extraverted individuals are typically more sociable, communicative, and confident in interpersonal interactions, which enhances their perceived self-efficacy in sharing knowledge. As a result, they are more likely to actively participate in discussions and collaborative activities. In contrast, introverted individuals may prefer solitary work and exhibit lower levels of social interaction, which can reduce their inclination to share knowledge, especially in environments that require active communication. Their lower confidence in social contexts may act as a barrier to knowledge sharing. Empirical evidence supports the differential impact of these personality traits on knowledge sharing behavior (Akhavan et al., 2016; De Vries et al., 2006; Nguyen et al., 2025; Paiman et al., 2024). Therefore, the following hypotheses 3 and 4 are proposed:

H3: Extraversion has a positive effect on knowledge sharing behavior among lecturers in higher education institutions.

H4: Introversion has a negative effect on knowledge sharing behavior among lecturers in higher education institutions.

Information Technology and Knowledge Sharing Behavior

Information technology (IT) refers to the integrated technological infrastructure, digital communication tools, and knowledge management systems that facilitate the storage, retrieval, and transfer of information across an organization (Kim & Lee, 2006; Zamiri & Esmaeili, 2024). The role of IT in knowledge sharing can be explained through the TAM, which posits that individuals are more likely to use technology when they perceive it as useful and easy to use (Davis, 1989). In academic environments, IT systems such as knowledge management platforms and digital collaboration tools can facilitate knowledge exchange by improving accessibility and communication. When lecturers perceive IT as effective and user-friendly, they are more likely to utilize these systems for sharing knowledge, thereby increasing the frequency and efficiency of knowledge exchange. Previous studies have found that IT positively influences knowledge sharing behavior by reducing barriers related to time, distance, and organizational hierarchy (Akosile & Olatokun, 2020; Hu & Noor, 2024; Huynh et al., 2021; Kim & Lee, 2006). Based on this reasoning, the following hypothesis 5 is proposed:

H5: Information technology has a positive effect on knowledge sharing behavior among lecturers in higher education institutions.

The Moderating Role of Information Technology

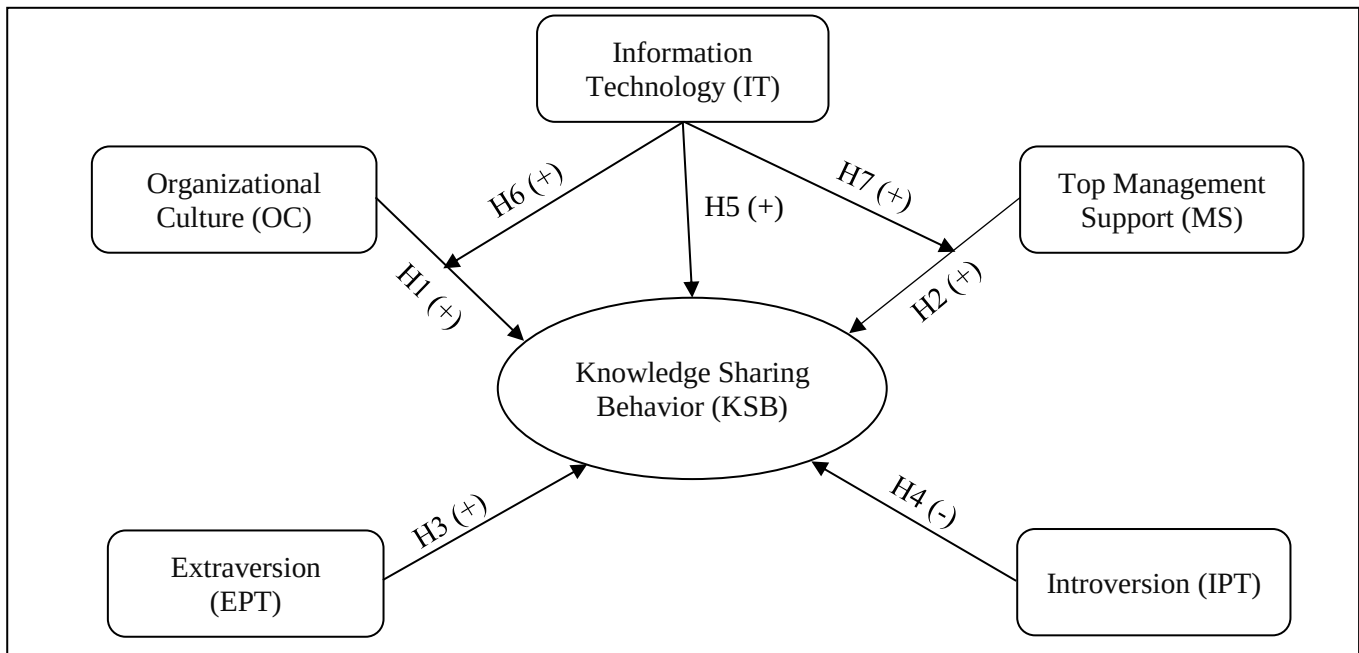
Beyond its direct effect, information technology may also function as a moderating variable that strengthens the relationships between organizational factors and knowledge sharing behavior. From the perspective of TAM, the effectiveness of organizational initiatives depends partly on whether supporting technologies are perceived as useful and accessible. When IT systems are well-developed and user-friendly, they can amplify the positive effects of organizational culture by providing platforms that facilitate collaboration and interaction. Similarly, IT can enhance the impact of top management support by enabling efficient communication and resource distribution, thereby making knowledge sharing initiatives more effective. In contrast, when IT systems are perceived as ineffective or difficult to use, the influence of organizational factors on knowledge sharing may be weakened. Empirical evidence suggests that IT can strengthen the relationship between organizational conditions and knowledge sharing outcomes (Mohammed & Ismael, 2021). Therefore, the following hypotheses 6 and 7 are proposed:

H6: Information technology positively moderates the relationship between organizational culture and knowledge sharing behavior.

H7: Information technology positively moderates the relationship between top management support and knowledge sharing behavior.

Figure 1 shows the proposed conceptual framework of the study linking organizational culture, top management support, personality traits, and information technology with knowledge sharing behavior.

Figure 1
Proposed Conceptual Framework



Method

Research Design

A cross-sectional, quantitative survey design with individual academic staff as the primary unit of analysis was employed to examine the determinants of knowledge sharing behavior. This correlational approach is well suited for testing theory-driven structural relationships and capturing socio-psychological perceptions at a single time point. To evaluate the proposed framework, partial least squares structural equation modeling (PLS-SEM) was utilized due to its predictive capability in handling complex models with multiple latent constructs and moderating effects without strict distributional assumptions (Hair et al., 2022). Additionally, non-parametric multigroup analysis (MGA) was integrated into the design to assess structural invariance across gender cohorts.

Research Context and Sample

The empirical investigation was conducted within higher education institutions located in Ho Chi Minh City, Vietnam, a key educational and economic center undergoing significant institutional modernization and digital transformation. The target population comprised full-time academic staff and lecturers across diverse academic disciplines. A convenience sampling method was employed to recruit respondents across both public and private universities to enhance institutional diversity.

To ensure methodological rigor, an a priori power analysis was conducted via G*Power 3.1.9.7 rather than relying on conventional heuristics (Hair et al., 2022). Based on an F -test omnibus design with seven predictors, $\alpha = .05$, medium effect size ($f^2 = .15$), and power $(1 - \beta) = .95$, the minimum required sample size was 153. The achieved sample of $n = 185$ (actual power = .95) adequately satisfies the threshold for robust structural parameter estimation in PLS-SEM (Hair et al., 2019, 2022).

Data Collection and Non-Response Bias Analysis

The survey questionnaire was administered online and disseminated extensively through professional academic networks, faculty mailing lists, and institutional communication channels across higher education institutions in Ho Chi Minh City. A total of 203 completed questionnaires were submitted. Following data screening for missing entries, straight-lining patterns, and unengaged responses, 185 responses were

deemed valid and retained for the final empirical analysis, representing a high usable completion rate of 91.1%.

Independent-samples *t*-tests comparing early respondents (first 25%, $n = 46$) and late respondents (final 25%, $n = 46$) revealed no statistically significant differences across core latent constructs, including knowledge sharing behavior ($t = 0.29$, $p = .77$), confirming that non-response bias is not a critical threat (Armstrong & Overton, 1977).

Measurement Instruments

All constructs were measured using multi-item scales adapted from established studies to ensure content validity. The questionnaire consisted of six constructs with a total of 29 items, measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Organizational culture and top management support were measured using scales adapted from Javaid et al. (2020) and Lo et al. (2021), respectively. Personality traits, including extraversion and introversion, were adapted from Chung and Anh (2022). Information technology was measured based on Akosile and Olatokun (2020), focusing on the availability, effectiveness, and usability of IT tools. Knowledge sharing behavior was also adapted from Akosile and Olatokun (2020).

All constructs were modeled as reflective constructs, as the observed indicators are manifestations of their underlying latent variables (Hair et al., 2022). To ensure linguistic equivalence, the questionnaire was translated into Vietnamese and back-translated into English following Brislin (1980) procedure.

Common Method Bias

Given that the data were collected using a single survey instrument, common method bias (CMB) was assessed using both procedural and statistical approaches. Procedural remedies were applied during the survey design stage, including ensuring respondent anonymity, reducing evaluation apprehension, and using clear and concise measurement items to minimize ambiguity.

Statistically, Harman's single-factor test was conducted (Podsakoff et al., 2003). The results showed that the first factor accounted for 22.35% of the total variance, which is substantially below the recommended threshold of 50%, indicating that common method bias is unlikely to be a serious concern. In addition, a full collinearity assessment was performed, and all variance inflation factor (VIF) values were below the conservative threshold of 3.3, providing further evidence that common method bias does not significantly affect the results (Kock, 2015).

Data Analysis

Data were analyzed using PLS-SEM with a two-step approach, consisting of measurement model evaluation and structural model assessment (Hair et al., 2022). The measurement model was assessed in terms of indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. The structural model was evaluated using path coefficients, significance levels obtained through bootstrapping (5,000 resamples), and the coefficient of determination (R^2).

To examine moderating effects, interaction terms were constructed and tested within the structural model. Furthermore, Multigroup analysis was performed to assess potential differences between male and female respondents.

Ethical Considerations

This study adhered to established ethical standards for research involving human participants. Participation was voluntary, and informed consent was obtained from all respondents. No personally identifiable information was collected, and all responses were analyzed in aggregate form to ensure anonymity and confidentiality. The data were used solely for academic research purposes.

Results

This section presents the empirical findings of the study, organized into three main parts. First, the demographic profile of the respondents is summarized to provide a context for the sample. Second, the measurement model is evaluated to ensure the reliability and validity of the constructs. Finally, the structural model is examined to test the research hypotheses, including the moderating effects of Information Technology and the differences across genders through multigroup analysis.

Demographic Profile of Respondents

The demographic characteristics of the 185 respondents are summarized in Table 1. The sample exhibits a balanced gender distribution, providing a suitable basis for subsequent multigroup analysis. Respondents are predominantly aged between 30 and 45 and largely hold doctoral degrees, with a smaller proportion in senior academic positions. The sample also spans diverse academic disciplines and levels of professional experience, supporting its representativeness for examining knowledge sharing behavior in higher education institutions.

Table 1

Demographic Profile of the Respondents (n = 185)

Characteristics	Category	Frequency (n)	Percent
Gender	Male	88	47.6
	Female	97	52.4
Age group	Under 30	48	25.9
	30 - 45	133	71.9
	Over 45	4	2.2
Academic rank/ Qualification	Master degree	69	37.3
	Doctoral degree	97	52.4
	Professor or Associate Professor	19	10.3
Research field	Natural Sciences	71	38.4
	Engineering and Technology	60	32.4
	Social Sciences and Humanities	54	29.2
Professional seniority	Under 1 year	33	17.8
	1 - 5 years	75	40.5
	6 - 10 years	37	20.0
	Over 10 years	40	21.6

Measurement Model Evaluation

Indicator Reliability

Indicator reliability was assessed by examining outer loadings. The majority of indicators (26 out of 29) met or exceeded the recommended threshold of .70. However, three indicators IT1 (.47), IT4 (.63) and IT5 (.61) fell below this threshold. Following Hair et al. (2022), indicators with loadings between .50 and .70 may be retained if their removal does not improve composite reliability (CR) or average variance extracted (AVE). Accordingly, IT1 was removed due to its low loading, while IT4 and IT5 were retained because their inclusion did not compromise the construct's reliability and validity (CR = .81; AVE = .52). Indicator MS3 was retained to preserve content validity, as it captures the resource-provision dimension of top management support. Overall, the indicator reliability is considered acceptable.

Internal Consistency Reliability and Convergent Validity

Internal consistency reliability was evaluated using Cronbach's alpha and composite reliability (CR). As shown in Table 2, all constructs achieved CR values above the recommended threshold of .70, ranging from .81 to .92, indicating strong reliability. Cronbach's alpha values were also satisfactory, with most constructs exceeding 0.70. Although the IT construct reported a slightly lower value ($\alpha = 0.70$), it remains acceptable for exploratory research (Hair et al., 2022).

Convergent validity was assessed using average variance extracted (AVE) (Höck & Ringle, 2010). All constructs reported AVE values above the threshold of .50, ranging from .52 to .69, confirming adequate convergent validity.

Table 2

Construct Reliability and Convergent Validity Results

Constructs	Indicators	Factor loadings	α	CR (ρ_c)	AVE
Organizational culture (OC)	OC1	.85	.89	.92	.69
	OC2	.74			
	OC3	.88			
	OC4	.87			
	OC5	.82			
Top management support (MS)	MS1	.83	.79	.88	.64
	MS2	.80			
	MS3	.70			
	MS4	.79			
Extraversion (EPT)	EPT1	.73	.81	.89	.63
	EPT2	.77			
	EPT3	.75			
	EPT4	.75			
	EPT5	.76			
Introversion (IPT)	IPT1	.74	.85	.89	.62
	IPT2	.84			
	IPT3	.75			
	IPT4	.78			
	IPT5	.82			
Information technology (IT)	IT2	.82	.69	.81	.52
	IT3	.79			
	IT4	.63			
	IT5	.61			
Knowledge sharing behavior (KSB)	KSB1	.85	.88	.91	.66
	KSB2	.82			
	KSB3	.85			
	KSB4	.80			
	KSB5	.78			

Note. α : Cronbach's alpha, CR: Composite reliability, AVE: Average variance extracted.

Discriminant Validity

Table 3

Discriminant Validity Results (HTMT Ratio)

	EPT	IPT	IT	KSB	MS	OC	IT x MS	IT x OC
EPT								
IPT	.12							
IT	.31	.14						
KSB	.57	.19	.37					
MS	.12	.10	.13	.43				
OC	.33	.09	.29	.55	.20			
IT x MS	.05	.13	.09	.07	.06	.02		
IT x OC	.18	.09	.20	.09	.03	.06	.26	

Note. EPT: Extraversion, IPT: Introversion, IT: Information technology, KSB: Knowledge sharing behavior, MS: Top management support, OC: Organizational culture.

Discriminant validity was assessed using the heterotrait-monotrait (HTMT) ratio (Henseler et al., 2015) and the Fornell-Larcker criterion (Fornell & Larcker, 1981). As shown in Table 3, all HTMT values ranged from .05 to .66, well below the conservative threshold of .85, indicating adequate discriminant validity. Additionally, the Fornell-Larcker criterion was fully satisfied, as the square root of AVE for each construct exceeds its correlations with other constructs. These findings confirm that all constructs are empirically distinct.

Structural Model Analysis

Prior to evaluating the structural paths, the model was examined for potential collinearity issues using the variance inflation factor (VIF). According to Hair et al. (2019), VIF values should ideally be below the threshold of 3 to ensure the absence of multicollinearity. As presented in Table 4, the VIF values for all exogenous constructs range from 1.02 to 1.18, which are well within the acceptable limit. Notably, the interaction terms (IT x MS and IT x OC) also exhibit low VIF values, indicating that the inclusion of moderating variables does not introduce collinearity concerns. These results confirm that multicollinearity is not a problem in this study, ensuring the reliability of the subsequent path coefficient estimates.

The structural model was assessed using bootstrapping with 5,000 resamples. As summarized in Table 4, organizational culture ($\beta = .42, p < .001$) and top management support ($\beta = .38, p < .001$) have significant positive effects on knowledge sharing behavior, supporting H1 and H2. Regarding personality traits, extraversion positively influences knowledge sharing ($\beta = .32, p < .001$), while introversion has a significant negative effect ($\beta = -.11, p = .03$), supporting H3 and H4. In contrast, information technology does not have a significant direct effect on knowledge sharing ($\beta = .09, p = .07$), leading to the rejection of H5. Additionally, the moderating effects of IT on the relationships between organizational culture and knowledge sharing ($\beta = -.04, p = .36$) and between top management support and knowledge sharing ($\beta = -.05, p = .38$) were not significant. Therefore, H6 and H7 are not supported. Overall, the model explains 56.0% of the variance in knowledge sharing behavior ($R^2 = .56$), indicating moderate explanatory power.

In addition to statistical significance, effect sizes (f^2) were evaluated to assess the practical relevance of the exogenous constructs (Hair et al., 2019, 2022). As presented in Table 4, organizational culture ($f^2 = .34$) and top management support ($f^2 = .32$) demonstrated substantial effect sizes approaching the large threshold ($f^2 \geq .35$), confirming their dominant substantive impact on knowledge sharing behavior. Extraversion exhibited a medium effect size ($f^2 = .20$), whereas introversion produced a small effect size ($f^2 = .03$). In contrast, information technology ($f^2 = .02$) and both interaction terms (IT×OC: $f^2 < .01$; IT×MS: $f^2 < .01$) showed trivial effect sizes below the minimum threshold ($f^2 < .02$), reinforcing the lack of practical significance of technological infrastructure in directly driving or moderating knowledge sharing behavior.

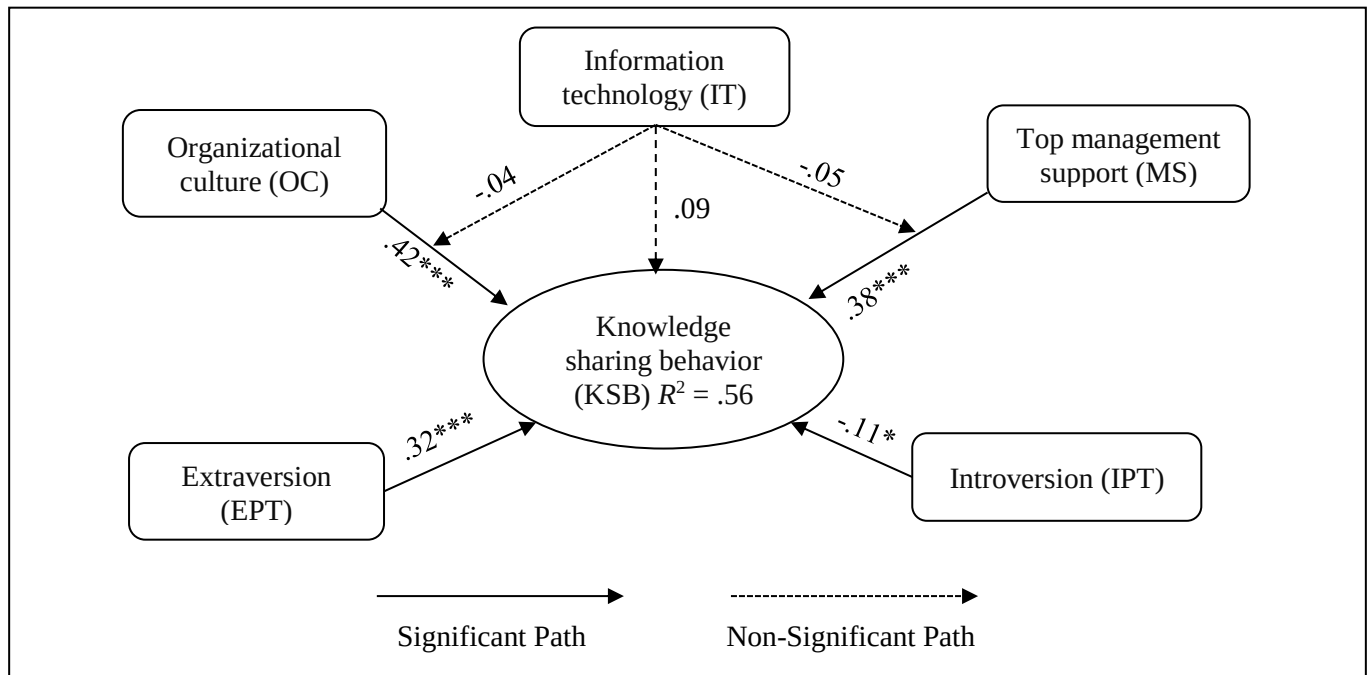
Table 4
Results of Hypotheses Testing and Collinearity Assessment

Hypothesis	Path	(β)	<i>t</i>	<i>p</i>	Effect size (f^2)	VIF	Conclusion
H1	OC → KSB	.42	7.84	< .001	.34	1.18	Supported
H2	MS → KSB	.38	7.99	< .001	.32	1.04	Supported
H3	EPT → KSB	.32	5.91	< .001	.20	1.16	Supported
H4	IPT → KSB	-.11	2.19	.03	.03	1.02	Supported
H5	IT → KSB	.09	1.81	.07	.02	1.13	Not supported
H6	IT x OC → KSB	-.04	.91	.36	<.01	1.14	Not supported
H7	IT x MS → KSB	-.05	.88	.38	< .01	1.10	Not supported
R^2		.56					
Adjusted R^2		.54					

Note. OC: Organizational culture, KSB: Knowledge sharing behavior, MS: Top management support, EPT: Extraversion, IPT: Introversion, IT: Information technology.

Figure 2

The Structural Equation Model Analysis



Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Multigroup Analysis (MGA): The Role of Gender

Multigroup analysis (MGA) was conducted to examine gender differences in the structural relationships. As shown in Table 5, no statistically significant differences were found between male and female groups across all hypothesized paths ($p > .05$).

Although minor variations in path coefficients were observed, none reached statistical significance. This indicates that the determinants of knowledge sharing behavior operate consistently across genders.

Table 5

Multigroup Analysis Results (Gender: Male vs. Female)

Relationships	Path coefficient difference (Male - Female)	p	Conclusion
EPT → KSB	-.01	.93	No significant difference
IPT → KSB	-.04	.75	No significant difference
IT → KSB	-.01	.76	No significant difference
IT x MS → KSB	.18	.18	No significant difference
IT x OC → KSB	-.08	.48	No significant difference
MS → KSB	.14	.15	No significant difference
OC → KSB	.12	.30	No significant difference

Note. EPT: Extraversion, KSB: Knowledge sharing behavior, IPT: Introversion, IT: Information technology, MS: Top management support, OC: Organizational culture.

Discussion and Conclusion

Discussion of Main Findings

This study investigated the empirical relationships between organizational factors (organizational culture and top management support), individual personality traits (extraversion and introversion), and information technology (IT) in shaping knowledge sharing behavior among $n = 185$ academic staff in Vietnamese higher education institutions. Grounded in an integrative framework synthesizing the social

exchange theory (SET), the social capital theory, the social cognitive theory (SCT), and the technology acceptance model (TAM), the structural model successfully accounts for 56% of the variance in knowledge sharing behavior ($R^2 = .56$). Overall, the findings establish that academic knowledge sharing is predominantly driven by organizational climate and leadership backing, followed by interpersonal personality dispositions, whereas technological infrastructure exerts neither a direct nor a moderating effect.

Aligned with the primary objective, organizational culture ($\beta = .42, p < .001, f^2 = .34$) and top management support ($\beta = .38, p < .001, f^2 = .32$) emerged as the dominant structural catalysts of knowledge sharing behavior, supporting H1 and H2. Under the social exchange theory (Blau, 2017) and the social capital theory, knowledge sharing entails perceived personal costs, such as the loss of individual cognitive advantages and the expenditure of scarce intellectual time (Wang & Noe, 2010). A collaborative organizational culture mitigates this perceived vulnerability by establishing structural norms of reciprocity and psychological safety (Ha et al., 2025). When academics perceive a climate of mutual respect, social exchange shifts from transactional calculations to generalized reciprocity, fostering cooperative behavior. Furthermore, top management support functions as a powerful socio-cognitive signaling mechanism (Bandura, 2002). Supportive leaders act as behavioral role models whose endorsement legitimizes knowledge exchange (Javed et al., 2025; Lyu & Sun, 2025). Rather than relying on formal mandates, leadership support cultivates relational capital and alleviates fear of professional vulnerability, effectively motivating faculty to share specialized pedagogical and research insights. In the sociocultural context of Vietnamese higher education, characterized by collectivism and hierarchical respect, academic staff inherently rely on leadership approval and psychological safety cues to mitigate face-saving concerns, transforming knowledge exchange into a socially sanctioned moral norm.

Regarding individual personality traits, the empirical results confirm that extraversion positively influences knowledge sharing ($\beta = .32, p < .001, f^2 = .20$), whereas introversion exerts a significant negative effect ($\beta = -.11, p = .03, f^2 = .03$), thereby supporting H3 and H4. Drawing on the social cognitive theory (Bandura, 2002), extraverted academics possess higher communicative self-efficacy and relational capital, enabling them to initiate tacit knowledge sharing interactions freely (Nguyen et al., 2025; Paiman et al., 2024; Shaukat et al., 2023). Conversely, introversion showed an insignificant or restrictive direct effect on knowledge sharing. Introverted faculty members often experience higher cognitive friction and perceived social cost in spontaneous interactional environments. This behavioral distinction reveals that knowledge sharing in universities is not a uniform disposition; without low-friction, structured, or asynchronous sharing avenues, introverted scholars are more inclined to protect individual knowledge ownership.

In evaluating the role of technology, information technology demonstrated neither a direct effect ($\beta = .09, p = .07, f^2 = .02$) nor a moderating influence on the links between organizational factors and knowledge sharing ($\beta = -.04, p = .36$ for IT x OC; $\beta = -.05, p = .38$ for IT x MS), leading to the rejection of H5, H6, and H7. From a behavioral science viewpoint, technology serves merely as an instrumental conduit rather than an intrinsic behavioral motivator (Zamiri & Esmaeili, 2024). According to the technology acceptance model and SCT, while digital platforms provide the physical infrastructure for interaction, they cannot resolve core socio-emotional barriers, such as relational distrust, intellectual competition, or the absence of reciprocal rewards (Bock et al., 2005). Academic knowledge is predominantly tacit, nuanced, and socially embedded, requiring high-context dialogue that digital repositories alone cannot stimulate (Zamiri & Esmaeili, 2024). Without the foundational social capital and psychological safety established by organizational culture and supportive leadership (Lyu & Sun, 2025; Wang & Noe, 2010), faculty members may perceive digital platforms merely as administrative burdens rather than collaborative facilitators (Bock et al., 2005; Kim & Lee, 2006). Hence, IT availability without socio-emotional impetus fails to transform into active sharing behavior, particularly in Vietnamese universities where institutional digital transformation often outpaces relational trust and collaborative norms (Chung & Anh, 2022; Ha et al., 2025).

Finally, the multigroup analysis revealed that these structural pathways governing knowledge sharing behavior remained invariant across male and female faculty members ($p > .05$ across all paths). This

empirical finding indicates that the socio-psychological mechanisms underpinning knowledge exchange, such as relational reciprocity under SET and leadership signaling, operate consistently regardless of gender (Ha et al., 2025; Nguyen et al., 2025). This outcome directly corroborates recent behavioral research in higher education administration by Lyu and Sun (2025), demonstrating that gender does not significantly moderate the structural links between organizational leadership, social identification, and academic knowledge sharing behaviors (Wang & Noe, 2010).

Limitations and Future Research

Despite its contributions, this study has limitations that offer directions for future research. First, the data was collected primarily from universities in Ho Chi Minh City, which may limit the generalizability of the findings to other regions in Vietnam. Future studies should expand the sample nationwide or compare public and private institutions to enhance external validity. Second, the cross-sectional design captures behavior only at a single point in time; thus, longitudinal research is recommended to track how knowledge sharing evolves during digital transformation. Third, while focusing on personality and organizational factors, future models could incorporate variables like job satisfaction (Wang & Noe, 2010) or perceived trust (Akosile & Olatokun, 2020; Chung & Anh, 2022) to increase explanatory power (R^2). Finally, as this study did not distinguish between tacit and explicit knowledge, future inquiries should investigate if the drivers of sharing differ based on the nature of the knowledge being exchanged.

Implications for Behavioral Science

This study offers substantive theoretical and behavioral contributions. Theoretically, it demonstrates the explanatory power of synthesizing SET, social capital theory, SCT, and TAM into a multi-theoretical framework to capture the interplay between structural norms, social reciprocity, and individual cognitive agency (Bandura, 2002; Blau, 2017). Crucially, the empirical non-significance of IT infrastructure challenges technological determinism, establishing that knowledge sharing in academia is fundamentally a socio-relational process governed by trust rather than an automated byproduct of digital systems (Bock et al., 2005; Zamiri & Esmaeili, 2024). In addition, these findings enrich behavioral science literature by demonstrating how collectivist cultural norms and relational ties in emerging Asian economies govern discretionary academic behaviors, confirming that psychological safety and leadership signaling outweigh technological interventions in high-context educational settings (Lyu & Sun, 2025; Nguyen et al., 2025).

Practically, university administrators should prioritize cultivating relational capital, psychological safety, and collaborative departmental subcultures over excessive investments in standalone digital repositories (Ha et al., 2025; Wang & Noe, 2010). Academic leaders should act as prototypical behavioral models, actively acknowledging and participating in collaborative knowledge transfer (Lyu & Sun, 2025). Furthermore, institutions should implement differentiated collaborative formats, integrating interactive open forums for extraverts with structured, asynchronous peer-review channels to engage introverted faculty effectively (Shaukat et al., 2023).

Conclusion

Within the context of Vietnamese higher education institutions undergoing administrative and digital reforms, this study concludes that academic knowledge sharing is fundamentally a socially embedded behavioral process. Organizational culture, top management support, and extraversion personality traits operate as the primary structural and socio-cognitive catalysts of collaborative behavior, whereas technological infrastructure functions merely as an instrumental conduit. Because technological platforms cannot substitute for interpersonal trust and supportive leadership, higher education institutions must prioritize trust-based work environments and supportive leadership practices to cultivate sustainable, collaborative academic communities.

Authors' Contributions: Conceptualization, B.H.D., and N.T.C.; literature review, B.H.D.; investigation, B.H.D.; data curation, B.H.D.; resources, B.H.D.; methodology, N.T.C.; software, N.T.C.; formal analysis, N.T.C.; validation, N.T.C.; writing-original draft preparation, B.H.D., and N.T.C.; writing-review and editing, N.T.C.

Acknowledgements: The authors would like to thank Ho Chi Minh City University of Technology and Engineering (HCM-UTE) and all participating faculty members for supporting this research project.

Declarations

Funding: The authors received no financial support for the research, authorship, and/or publication of this article.

Conflicts of Interest: The authors declare no conflicts of interest.

Ethical Approval Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Review Board of Ho Chi Minh City University of Technology and Engineering (protocol code 1776/QD-DHSPKT, date July 03, 2024) for studies involving humans.

Declaration of Generative AI: During the preparation of this work, the authors used Gemini 3 Flash in order to improve the language, flow, and readability of the manuscript. Following the use of this tool, the authors independently reviewed, critically assessed, and edited the content as required. The authors assume full responsibility for the integrity and final content of the published work.

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