

Organizational, Leadership, and Communication Drivers of Knowledge Management in Higher Education

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Abstract

Knowledge management among lecturers remains a critical challenge in higher education institutions, particularly in adapting to dynamic organizational and leadership demands. This study aims to analyze the influence of organizational support and agile leadership on lecturers' knowledge management mediated by interpersonal communication. The research addresses the limited empirical evidence on how social mechanisms and leadership adaptability shape knowledge management practices in higher education. The research population was drawn from three private universities in Bogor City. The study used a quantitative approach with an explanatory research design and involved a sample of 100 respondents. Data were analyzed using inferential statistical techniques to examine both direct and indirect relationships among variables. The results showed that agile leadership had a significant effect on knowledge management both directly and indirectly. Organizational support mediated by interpersonal communication did not show a significant direct effect on knowledge management. These findings indicate that adaptive leadership and social interaction play a more decisive role than formal institutional support. The study concludes that social mechanisms and agile leadership primarily drive lecturers' knowledge management. The findings imply that higher education institutions should prioritize leadership development and interpersonal communication strategies to enhance knowledge management practices. The novelty of the research introduces a new model of lecturer knowledge management based on the social mechanism of agile leadership.

Keywords: Agile Leadership, Higher Education Institutions, Interpersonal Communication, Knowledge Management, Organizational Support.

1. Introduction

Over the past ten years, private universities (PTS) have emerged as the linchpin of Indonesia's higher education landscape, enrolling the majority of the nation's student populace while executing the state's directive through the operationalization of the Tridharma of higher education. PTS confront a structural conundrum, wherein the comparatively heavy pedagogical obligations of lecturers constrain opportunities for collaborative research and the methodical dissemination of scholarly knowledge. Knowledge management constitutes a pivotal concern, fundamentally shaping the sustainability and caliber of private higher education. In this context, private tertiary institutions occupy a strategic position in enhancing the national human capital, given their role in educating a substantial segment of Indonesian students while fulfilling the state-mandated Tridharma responsibilities (Ibarra-Cisneros et al., 2023).



Theoretically, knowledge management in higher education cannot be separated from the Knowledge-Based View (KBV) framework, which views knowledge as a strategic organizational resource that is rare, difficult to imitate, and can be a source of long-term competitive advantage. Within the KBV framework, lecturers are not only conveyors of learning materials but also knowledge agents who actively develop and transfer knowledge through research activities, publications, academic mentoring, and other professional interactions. Private universities are required to increase research productivity, teaching quality, and community service contributions by strengthening knowledge management practices at both the individual and academic organizational levels (Subhani, 2024).

Knowledge management in the academic context has a direct impact on research productivity because the effectiveness of knowledge exchange determines the opportunities for formal and informal collaboration between lecturers to write journal articles. Knowledge management positions lecturers' knowledge as an institutional asset, enabling individual academic contributions to become collective capital for the university. Organizational support mediates commitment and the propensity to share knowledge by increasing a sense of ownership within the institution (Choi et al., 2022). Perception of organizational support has a positive relationship with intrinsic academic motivation, which then gives rise to a tendency to help colleagues in the research, learning, and community service processes (Winarno et al., 2021).

In addition, lecturers face multidimensional pressures in the form of national accreditation policies, competition for institutional reputation, demands for internationally recognized publications, and the need for technology-based learning innovation. This accumulated pressure places lecturers in a work situation that demands high productivity, not yet fully supported by structured and sustainable knowledge management mechanisms. Lecturers face increasing performance demands for the Tridharma of Lecturers in line with national accreditation regulations, competition for institutional reputation, pressure for internationally recognized scientific publications, and the need for technology-based learning innovation (Ibarra-Cisneros et al., 2023).

The performance of lecturers' Tridharma (Three Pillars of Excellence) depends on the effectiveness of knowledge management because their tacit knowledge about pedagogy, research methodology, and community service practices is not always well documented. Lecturers tend to store most of their tacit knowledge within their personal experiences, making the process of knowledge transfer between lecturers slow and unstructured. These knowledge management obstacles demonstrate that improving information systems alone is insufficient without addressing organizational variables and the behavior of lecturers as key actors (Subhani, 2024).

The unequal availability of research facilities between study programs widens the gap in academic productivity, directly impeding the flow of internal knowledge. The unequal availability of research facilities between study programs contributes to the gap in publication productivity, which in turn leads to an unequal flow of internal academic knowledge (Cabrillo et al., 2024). Knowledge management practices that continue to rely on individual lecturers' initiatives tend to result in fragmented and inconsistent documentation of research outputs, learning innovations, and community service activities, thereby limiting their visibility, accessibility, and potential for reuse by other academics (Alavi & Leidner, 2021; Fan & Beh, 2024b; Mustapha, 2023). This situation highlights the need to strengthen information systems, along with attention to organizational factors and the behavior of lecturers, who are the primary actors in the process of knowledge creation and sharing. The academic work environment requires a systematic mechanism for managing lecturer knowledge because the

output of the Tridharma (Three Pillars of Knowledge) is highly dependent on the internal processes of knowledge creation, exchange, and utilization that occur daily in academic activities (Dei & Van Der Walt, 2020).

The implementation of Knowledge Management (KM) at many universities in Bogor City still faces various structural, cultural, and individual challenges, as evidenced by limited institutional policies and inconsistent knowledge-sharing practices that impede systematic documentation and collaboration. Previous case studies on KM implementation in Indonesian higher education have reported similar issues, including weak formal KM policies, reliance on informal interactions for sharing tacit knowledge, and limited use of structured documentation mechanisms, which collectively constrain cross-program collaboration and reuse of academic knowledge (Astuti, 2023; Astuti et al., 2023; Sopandi & Saud, 2016). Furthermore, the effectiveness of Knowledge Management (KM) often depends on organizational factors that support the creation of a conducive environment for knowledge flow, including reward systems, institutional policies, research facilities, and top management support. Organizational support strengthens the commitment to knowledge sharing by increasing affective commitment and a sense of identification with the institution (Choi et al., 2022). Knowledge-sharing behavior increases when individuals perceive organizational support that is fair, consistent, and relevant to academic contributions (Winarno et al., 2021). Organizational support does not automatically result in increased knowledge-sharing behavior because there are social and psychological factors that mediate this relationship (Choi et al., 2022; Fan & Beh, 2024; Yang et al., 2024).

Furthermore, agile leadership is promoted as a relevant leadership style in an era of disruption and rapid change. Agile leadership emphasizes flexibility, adaptation, experimentation, responsiveness, and collaboration. On the other hand, the structure of academic organizations differs from that of business organizations. Lecturers have high professional autonomy, and leadership legitimacy is more moral than structural. Therefore, the impact of agile leadership on knowledge behavior is not always linear and is strongly influenced by academic culture, trust, and the dynamics of communication between lecturers. Agile leadership plays a role in increasing the effectiveness of knowledge management, fostering an adaptive, innovative, and collaborative work environment. Agile leadership is considered capable of supporting academic innovation and organizational learning in the context of higher education institutions experiencing significant changes due to digitalization, new curriculum demands, and hybrid learning models (Nadine Barrett-Maitland et al., 2024; Rialti, 2024).

In academic activities, interpersonal communication is a core element in the knowledge management system for the exchange of contextual, subjective, and reflective academic experiences so that lecturers can learn directly through the practices of colleagues. Organizational support enhances interpersonal communication when institutions provide academic meeting spaces, internal scientific activities, and collaboration incentives. Agile leadership enhances interpersonal communication when academic leaders encourage collaborative platforms, research forums, study groups, and informal academic interactions. Interpersonal communication becomes a mechanism for actualizing organizational support and agile leadership because the realization of knowledge management requires social interaction between actors, not just the availability of facilities and structural direction. Leadership can only enhance interpersonal communication if there is a supportive organizational structure and culture (Porkodi, 2024). Interpersonal communication of lecturers is greatly influenced by organizational structure, workload, incentives, and academic culture (Alshurideh et al., 2022; Yeboah, 2023).

The context of private universities has limited research funding, community service grants, and scientific publication facilities so that lecturers are more in need of knowledge management to increase scientific productivity collectively. From an empirical perspective, research on KM in Indonesia more often focuses on technological aspects and organizational structure, while the influence of POS and agile leadership on KM has not been widely studied simultaneously. Responding to the research gap and the complexity of knowledge management in higher education in Bogor City, this study empirically examines the mediating role of interpersonal communication in the relationship between organizational support and agile leadership with KM. Interpersonal communication can function as a mediator in the relationship between organizational support, agile leadership, and knowledge management effectiveness because the communication variable bridges lecturers' perceptions and social relationships with knowledge-sharing mechanisms.

This research model integrates organizational support, agile leadership, and interpersonal communication as mediators, providing a scientific contribution to the development of the resource-based view concept in the context of higher education. This model assumes that an institution's collective knowledge capital is not formed automatically from structural policies or individual competencies, but rather through quality academic social relationships. In addition, this study also aims to identify the role of interpersonal communication as a mediating variable that bridges the influence of organizational support and agile leadership on knowledge management, understood within behavioral mediation theory and contemporary structural approaches. In general, this study evaluates the direct relationship between variables but also explains the social processes of knowledge flow that occur effectively in academic environments.

2. Literature Review

2.1. Knowledge Management

Knowledge Management (KM) within higher education constitutes a systematic methodology for generating, capturing, disseminating, and leveraging knowledge to enhance the operational efficacy of academic institutions. KM conceptualizes knowledge as a strategic organizational resource, underscoring the processes of creating, amassing, distributing, and exploiting both tacit and explicit knowledge to cultivate organizational value. The SECI (Socialization, Externalization, Combination, Internalization) framework highlights that the transformation between tacit and explicit knowledge transpires through iterative social interactions. Meanwhile, the Knowledge-Based View (KBV) posits knowledge as a critical wellspring of enduring competitive advantage (Alavi & Leidner, 2021; Nonaka, 1994; Nonaka & Takeuchi, 1995). Within the Knowledge-Based View (KBV) framework, knowledge is viewed as a strategic resource that can generate sustainable competitive advantage if managed through effective organizational mechanisms (Grant, 1996). KM in lecturers is influenced by intrinsic motivation, interpersonal relationships, academic leadership, and institutional support (Fan & Beh, 2024). In addition, a cooperative academic culture and flexible organizational system also determine the effectiveness of KM (Yeboah, 2023). In Indonesian higher education environments, the main challenges of KM relate to the lack of knowledge-sharing forums, high workloads, minimal incentives, and fragmentation of collaboration across study programs (Winarno et al., 2021).

2.2. Organizational Support Theory (OST)

OST explains that individual perceptions of organizational support (Perceived Organizational Support, POS) influence work attitudes and behavior through reciprocal mechanisms; when employees feel valued and supported, they tend to reciprocate with commitment, performance, and prosocial behavior such as knowledge sharing (Eisenberger et al., 1986). Meta-analyses and reviews show that POS often works through psychosocial mediators (trust, affective commitment) to influence knowledge sharing, not always directly (Eisenberger et al., 2002; Yang & Zhou, 2022). In the context of higher education, perceived organizational support encompasses research facilities, professional development policies, proportional workload, access to learning resources, academic rewards, and a supportive work climate. The relationship between organizational support and knowledge sharing is not always linear or significant. Organizational support does not directly influence knowledge sharing without social mediators, such as trust, collective motivation, or the quality of interpersonal relationships (Choi et al., 2022). Lecturers feel institutional support only when policies are aligned with their academic needs, not just in the form of structural facilities (Chen & Zhang, 2024). In addition, new organizational support will impact KM by creating an academic environment conducive to collaboration (Fan & Beh, 2024).

2.3. Agile Leadership

Agile leadership is conceptualized as a leadership paradigm that prioritizes adaptability, collaborative engagement, expedited decision-making, iterative experimentation, and the empowerment of teams to navigate swiftly evolving external conditions. This form of leadership fosters the circulation of information and cultivates organizational learning, thereby expediting the transference of knowledge and the generation of innovation (Joiner & Josephs, 2007; Rialti & Filieri, 2024). Agile leadership is a leadership approach that emphasizes agility, adaptability, collaboration, and innovation. In the business world, agile leadership has been proven to accelerate decision-making, increase organizational flexibility, and drive digital transformation (Rialti et al., 2024). Agile leadership only impacts academic behavior when supported by a collaborative culture and a climate of innovation (Barrett-Maitland et al., 2024). Leadership style has an indirect influence on knowledge sharing through mediators such as trust and a supportive work environment (Saif et al., 2024). In addition, the influence of agile leadership on organizational behavior is greatly influenced by the readiness of institutional structures and the dynamics of interpersonal relationships (Porkodi, 2024).

2.4. Interpersonal Communication

Interpersonal communication constitutes the process of transmitting messages between individuals, distinguished by relational intimacy, immediate feedback, and the co-construction of shared meaning within a social context (DeVito, 2019). DeVito emphasized that interpersonal communication is not only oriented towards the content of the message but also the quality of the relationship formed through the interaction. In an organizational context, interpersonal communication is a primary means of building trust, openness, and shared understanding, which is crucial in the process of sharing experiences and knowledge, particularly tacit knowledge that is difficult to codify formally (Nonaka & Takeuchi, 1995).

Based on Social Exchange Theory, it is said that individuals tend to be actively involved in communication and knowledge exchange when interpersonal relationships are perceived as fair and mutually beneficial (Blau, 2017). Uncertainty Reduction Theory explains that interpersonal communication functions to reduce uncertainty and ambiguity in work

relationships, thereby increasing clarity and mutual understanding (Berger & Calabrese, 1975).

Empirically, numerous studies have shown that interpersonal communication is the strongest predictor of KM in higher education. Interpersonal communication is a key driver of academic knowledge sharing (Z. Fan & Beh, 2024a). Interpersonal relationships significantly increase the transfer of tacit knowledge in the scientific community (Wu et al., 2022). Interpersonal communication has a dominant role in creating a sustainable KM culture compared to structural factors such as organizational facilities (Yeboah, 2023). This argument is supported by research that shows that the quality of academic communication determines the institution's ability to integrate knowledge into the learning and research process (Alshurideh et al., 2022).

2.5. Conceptual Framework

This study examines the factors driving the effectiveness of Knowledge Management (KM) among lecturers at Private Universities (PTS) in Bogor City. In the context of higher education, KM is a systematic process for managing both tacit and explicit knowledge, such as teaching experience. Effective knowledge management is crucial for PTS to improve the quality of learning, research, and institutional competitiveness amidst increasingly fierce competition.

Theoretically, this model proposes that KM is driven by a supportive organizational environment and leadership and is reinforced by the quality of interpersonal communication. The direct influence in the model suggests that organizational support, agile leadership, and interpersonal communication each significantly contribute to KM. The indirect influence of interpersonal communication variables acts as a mediator, transmitting the positive influence of organizational support and agile leadership on KM practices. The following research hypothesis is formulated based on the theoretical framework, which is visually represented in Figure 1:

H1: Organizational support has a positive effect on knowledge management.

H2: Agile leadership has a positive effect on knowledge management.

H3: Interpersonal communication has a positive effect on knowledge management.

H4: Organizational support has a positive effect on interpersonal communication.

H5: Agile leadership has a positive effect on interpersonal communication.

H6: Organizational support has a positive effect on knowledge management mediated by interpersonal communication.

H7: Agile leadership has a positive effect on knowledge management mediated by interpersonal communication.

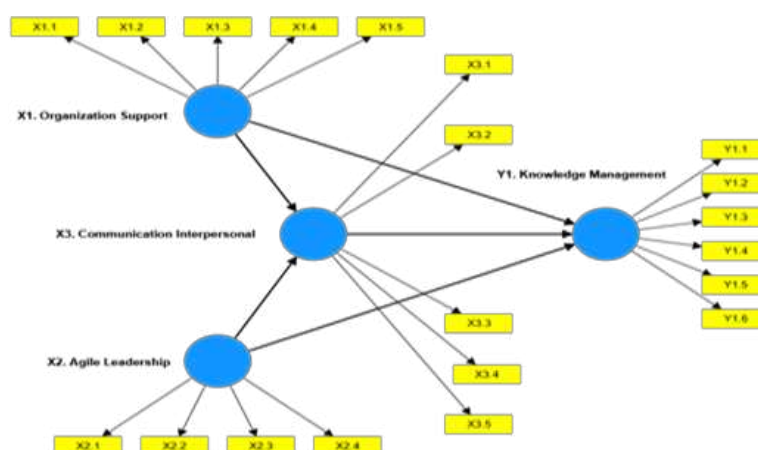


Figure 1. Hypothesis Framework

3. Methods

This study used a quantitative approach employing an explanatory research design to examine the causal relationships between organizational support, agile leadership, interpersonal communication, and knowledge management among university lecturers in Bogor City. The explanatory design was selected to enable hypothesis testing and to explain the causal mechanisms among the studied variables. An explanatory design was chosen because it is suitable for empirically testing theoretical models (Creswell & Creswell, 2017).

Data were collected through a structured questionnaire distributed to respondents who met predefined criteria relevant to the research objectives. The study population consisted of lecturers at private universities in Bogor City, with a sample size of 100 respondents selected using purposive sampling. Purposive sampling was applied to ensure that participants possessed sufficient experience and understanding of organizational and leadership practices within higher education institutions (Patton, 2002). This sample size was considered adequate for Partial Least Squares–Structural Equation Modeling (PLS-SEM) analysis and complied with the “10-times rule” (Barclay et al., 1995).

Data analysis was conducted using PLS-SEM, which was chosen due to its suitability for analyzing complex models involving latent variables and mediating relationships, as well as its robustness to non-normal data distributions (Chin, 1998; Hair Jr et al., 2021). The analysis procedure was carried out sequentially, beginning with the assessment of the measurement model, followed by the evaluation of the structural model.

The research variables included organizational support (perceived organizational support), agile leadership, interpersonal communication, and knowledge management. Interpersonal communication was positioned as a mediating variable that links organizational support and agile leadership to knowledge management (Eisenberger et al., 1986; Joiner & Josephs, 2007; Nonaka & Takeuchi, 1995).

All constructs were treated as reflective constructs and were evaluated through validity and reliability testing. Measurement model evaluation involved assessing indicator reliability, convergent validity, and discriminant validity. Convergent validity was assessed using factor loadings (≥ 0.60) and average variance extracted ($AVE \geq 0.50$), while internal consistency reliability was evaluated using composite reliability (≥ 0.70). Discriminant validity was examined using the Fornell–Larcker criterion and the heterotrait–monotrait (HTMT) ratio (Fornell & Larcker, 1981).

The structural model evaluation focused on examining the strength and significance of the hypothesized relationships. The structural model was assessed using the coefficient of determination (R^2), path coefficients, effect sizes (f^2), and predictive relevance (Q^2). Hypothesis testing was performed using a bootstrapping procedure with 5,000 resamplings to determine the significance of direct and indirect effects (Geisser, 1975; Hair Jr et al., 2021; Stone, 1974). The mediating effect of interpersonal communication was evaluated based on the significance of indirect effects and the magnitude of mediation.

4. Results and Discussion

4.1. Research Results

4.1.1. Measurement Model Evaluation (Outer Model)

1) Convergent Validity

The data analysis was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. The measurement model evaluation aimed to test the

reliability and validity of the research constructs, while the structural model evaluation was used to examine the direct and indirect relationships between variables in accordance with the proposed hypotheses. All indicators showed outer loading values above the recommended minimum limit, thus being declared valid for measuring the research constructs.

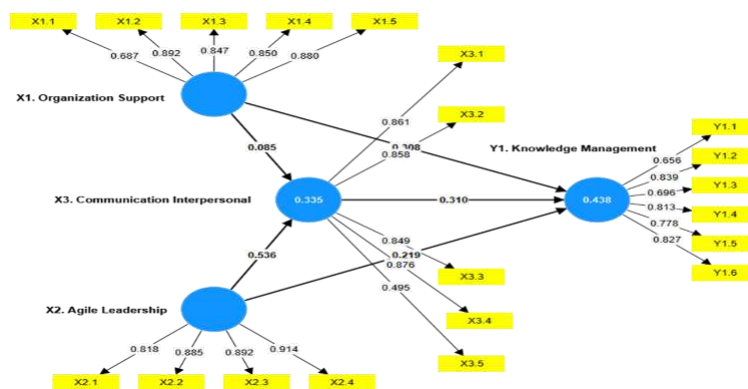


Figure 2. Outer Loading Model

The test results showed that most indicators had outer loading values above the minimum threshold of 0.70, thus being declared valid in measuring the construct they represent. The study found that one indicator in the interpersonal communication construct, namely positivity, showed an outer loading value of 0.495 and was therefore declared invalid (Figure 2). All outer loadings were in the range of 0.656 to 0.914, indicating that each indicator adequately reflected the intended construct and supported the model's convergent validity. This construct still had four indicators (X3.1 to X3.4) with very strong outer loadings (≥ 0.849), thus maintaining the construct's conceptual content. The assessment of the measurement model began by examining the outer loadings. Following the minimum threshold of 0.50 (Hair et al., 2022).

Table 1. Reliability and Convergent Validity of Constructs

Construct	Cronbach's Alpha	Composite Reliability	AVE
Organization Support	0.890	0.919	0.696
Agile Leadership	0.900	0.931	0.771
Communication Interpersonal	0.863	0.897	0.642
Knowledge Management	0.862	0.897	0.595

As shown in table 1, the study reported that all constructs demonstrated Cronbach's alpha and composite reliability values exceeding 0.70, and Average Variance Extracted (AVE) values above 0.50, thereby satisfying the criteria for reliability and convergent validity. The outcomes of these assessments indicate that all research constructs fulfilled the requisite standards, confirming that the employed indicators consistently and accurately operationalize the constructs of organizational support, agile leadership, interpersonal communication, and knowledge management. Theoretically, reliability and convergent validity are the main prerequisites in testing PLS-SEM-based structural models so that the estimated relationships between variables can be interpreted validly (Hair et al., 2022). Organizational support, leadership, and interpersonal communication have high measurement consistency when operationalized in management and higher education research (Donate & Sánchez de Pablo, 2021; Obeidat et al., 2023).

2) Discriminant Validity

Table 2. Discriminant Validity (HTMT Ratio)

Construct	OS	AL	CI	KM
Organization support (OS)	0			
Agile leadership (AL)	0.488	0		
Communication interpersonal (CI)	0.333	0.575	0	
Knowledge management (KM)	0.550	0.598	0.548	0

Based on the Heterotrait–Monotrait Ratio (HTMT) value as in table 2, all constructs have values below the threshold of 0.90, so that discriminant validity is declared fulfilled. The use of HTMT as the main approach in testing discriminant validity is recommended to have a higher level of sensitivity than the Fornell-Larcker criteria (Hair et al., 2017; Henseler et al., 2015). The separation of these constructs is theoretically important because organizational support, agile leadership, and interpersonal communication are different dimensions but are interrelated in influencing knowledge management in higher education environments (Rialti, 2024).

4.1.2. Structural Model Evaluation (Inner Model)

1) Model Fit

Table 3. Fit Model

	Saturated model	Estimated model
SRMR	0.087	0.087
d_ ULS	1.583	1.583
d_ G	0.640	0.640
Chi-square	339.382	339.382
NFI	0.761	0.761

The PLS-SEM model fit evaluation results indicate that the research model has an adequate level of suitability for further analysis. As illustrated in table 3, the SRMR value of 0.087 in the saturated model, estimated slightly above the ideal limit of 0.08, is still acceptable in the context of PLS-SEM, which is oriented towards predictive and theory development (Henseler et al., 2015; Hair et al., 2022). The d_ ULS value (1.583) and d_ G (0.640) indicate no serious deviations between the empirical matrix and the model matrix, so the model specification is considered quite good. The NFI value of 0.761 reflects a moderate level of model fit and is still acceptable, especially in social and behavioral research involving complex latent constructs (Hair et al., 2022). The Chi-square value is not used as the primary basis in assessing the suitability of the PLS-SEM model because it is strongly influenced by sample size and model complexity (Hair et al., 2022).

Overall, these findings confirm that the model does not achieve a perfect fit, but the model is still suitable for interpreting the structural relationships and mediating effects between organizational support, agile leadership, interpersonal communication, and knowledge management. PLS-SEM emphasizes maximizing explained variance and predictive accuracy over absolute goodness of fit (Hair et al., 2017). A PLS-SEM model with moderate fit remains valid and theoretically meaningful in the context of higher education, as long as the model's reliability, construct validity, and predictive power are met (Nguyen, 2022; Rialti, 2024).

2) Multicollinearity Test

Table 4. Multicollinearity Test (VIF)

Construct	VIF Range
Organization Support	1.62 – 3.05
Agile Leadership	1.90 – 3.63
Communication Interpersonal	1.50 – 3.22
Knowledge Management	1.54 – 2.60

The multicollinearity test results as in table 4 showed that all Variance Inflation Factor (VIF) values were below the recommended maximum limit of 5.00. All VIF values were below the maximum limit of 5; thus, it can be concluded that there is no multicollinearity problem in the structural model. Methodologically, the absence of multicollinearity is an important prerequisite for ensuring the stability of path coefficient estimates in PLS-SEM structural models (Hair et al., 2017). The constructs of organizational support, leadership, and interpersonal communication generally do not show excessive correlation in the knowledge management model (Nguyen, 2022).

3) Coefficient of Determination (R^2)

Table 5. Coefficient of Determination (R^2)

Endogenous Variables	R^2	R^2 Adjusted
Communication Interpersonal	0.335	0.321
Knowledge Management	0.438	0.421

The results of the determination coefficient test as in table 5 reveal that organizational support and agile leadership are able to explain 33.5% of the variation in interpersonal communication. Meanwhile, organizational support, agile leadership, and interpersonal communication explain 43.8% of the variation in knowledge management. The adjusted R-squared value indicates that the model has good stability and is not biased due to the number of predictors. In the context of social research and higher education, an R^2 value in the range of 0.25–0.50 is categorized as moderate explanatory power, indicating that the research model is quite strong in explaining the phenomenon studied, although there are still other factors outside the model that also influence the endogenous variables. Lecturer knowledge management is a complex process influenced by various individual, social, and institutional factors (Fullwood et al., 2022). Knowledge management in academic environments and knowledge-based organizations confirms that models with moderate R^2 values still provide meaningful theoretical and empirical contributions (Nguyen, 2022; Obeidat et al., 2023).

4.1.3. Hypothesis Testing

1) Direct Effects

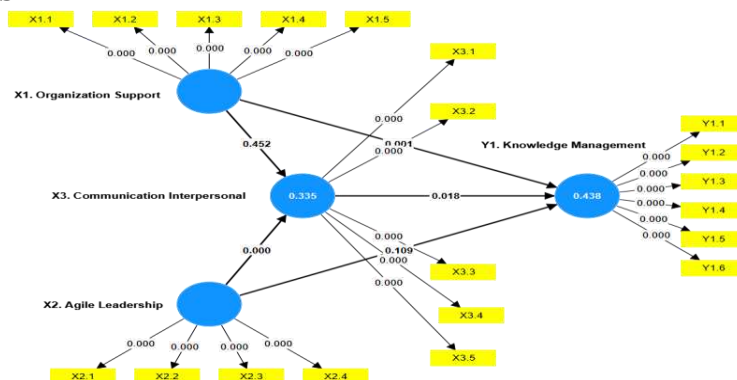


Figure 3. Inner Model Testing

Table 6. Direct Influence Path Coefficients

Path	Coefficient (β)	t-value	p-value	Decision
Organization support → communication interpersonal	0.085	0.752	0.452	Not significant
Organization support → knowledge management	0.308	3.190	0.001	Significant
Agile leadership → communication interpersonal	0.536	5.668	0.000	Significant
Agile leadership → knowledge management	0.219	1.603	0.109	Not significant
Communication interpersonal → knowledge management	0.310	2.375	0.018	Significant

Table 6, also illustrated in Figure 3, displays the direct influence path coefficients test results, which show that organizational support and interpersonal communication significantly influence knowledge management. Meanwhile, agile leadership only significantly influences interpersonal communication, but not directly knowledge management.

2) Indirect Effects (Mediation)

Table 7. Indirect Effects

Mediation Path	Coefficient (β)	t-value	p-value	Types of Mediation
Organization support → communication interpersonal → knowledge management	0.026	0.640	0.522	Unmediated
Agile leadership → communication interpersonal → knowledge management	0.166	2.082	0.037	Partial mediation

Table 7 of the indirect effects analysis indicated that interpersonal communication did not serve as a mediator in the relationship between organizational support and knowledge management; however, it was found to partially mediate the relationship between agile leadership and knowledge management.

3) Effect Size (f^2)

Table 8. Effect Size (f^2)

Path	f^2	Category
Agile Leadership → Communication Interpersonal	0.346	Large
Organization Support → Knowledge Management	0.134	Medium
Communication Interpersonal → Knowledge Management	0.114	Medium
Agile Leadership → Knowledge Management	0.051	Small
Organization Support → Communication Interpersonal	0.009	Very small

The results of the effect size test as in table 8 show that agile leadership has a large effect size on interpersonal communication ($f^2 = 0.346$), indicating that adaptive and flexible leadership provides a substantive contribution in shaping the quality of lecturers' interpersonal communication. Conversely, the effect of organizational support on interpersonal communication is relatively small, indicating that interpersonal communication

is more influenced by leadership factors than by organizational structural support. In addition, organizational support and interpersonal communication have a medium effect size on knowledge management, while agile leadership shows a small effect size on knowledge management directly.

Overall, the significance of this research finding confirms that strengthening knowledge management in higher education must be achieved through a combination of strong organizational support, adaptive leadership, and effective interpersonal communication. The f^2 effect size provides information regarding the practical significance of a relationship, not always reflected in statistical significance (Hair et al., 2022). Leadership operates through interaction, communication, and social relationships (Uhl-Bien, 2006). Agile leadership has a strong impact on the dynamics of communication and collaboration in knowledge-based organizations (Rialti, 2024). The moderate contribution of organizational support and interpersonal communication to knowledge management supports organizational support theory, which emphasizes the role of the work environment in facilitating knowledge-sharing behavior (Donate & Sánchez de Pablo, 2021).

4.2. Discussion

4.2.1. The Influence of Organizational Support on Interpersonal Communication

Structural organizational support and formal policies do not necessarily directly improve the quality of lecturers' interpersonal communication. In the context of higher education, lecturers' interpersonal communication is often more influenced by relational factors and academic culture than by formal organizational support. Lecturers tend to communicate based on professional networks, shared academic fields, and informally developed academic norms. Organizational support plays a more significant role in providing resources than in directly shaping interpersonal interaction patterns (Obeidat et al., 2023). Organizational support does not always have a direct impact on communication quality unless mediated by leadership factors or the psychological climate of the organization (Nguyen, 2022). This finding implies that improving lecturers' interpersonal communication requires interventions at the social and cultural level rather than relying solely on formal organizational structures.

4.2.2. The Influence of Organizational Support on Knowledge Management

Organizational support is a key factor in encouraging lecturers to systematically manage and share knowledge. Theoretically, this finding aligns with perceived organizational support (POS) theory, which posits that when individuals perceive organizational backing, they are more inclined to engage in extra-role behaviors that benefit the organization, including the dissemination and management of knowledge (Eisenberger et al., 2002). Within the academic milieu, support manifested through research policies, incentive structures, professional development programs, and technological infrastructure reinforces lecturers' knowledge management practices. Empirical evidence further suggests that organizational support exerts a significant direct effect on knowledge sharing and knowledge management behaviors within higher education contexts (Donate & Sánchez de Pablo, 2021; Fullwood et al., 2022). This result suggests that higher education institutions should prioritize strengthening institutional policies, incentives, and infrastructure to directly support lecturers' knowledge management activities.

4.2.3. The Influence of Organizational Support on Knowledge Management

Adaptive, responsive, and participatory agile leadership can create a climate of open and collaborative communication among lecturers. The theory of leadership as a social process (leadership-as-process) views leadership not simply as a formal position but as an interactive process that occurs through communication and social relationships (Uhl-Bien, 2006). Agile leaders encourage two-way dialogue, openness of ideas, and the active exchange of knowledge. Agile leadership has a strong influence on communication, collaboration, and collective learning in knowledge-based organizations, including educational institutions (Rialti & Filieri, 2024). This finding highlights that leadership-driven interaction mechanisms are more influential than formal support systems in shaping interpersonal communication patterns among lecturers.

4.2.4. The Influence of Agile Leadership on Knowledge Management

Agile leadership does not automatically improve knowledge management without intermediary mechanisms. These findings reinforce the view that the influence of leadership on organizational outcomes is indirect, particularly in the context of academic organizations with a high degree of autonomy. Lecturers do not always respond directly to leadership in their knowledge-sharing behavior but rather through the quality of interactions and communication fostered by leaders. The influence of leadership on knowledge management is generally mediated by social factors such as communication, trust, and a collaborative climate (Nguyen et al., 2022; Rialti & Filieri, 2024). This result reinforces the theoretical perspective that leadership influences organizational outcomes indirectly through social and relational mechanisms rather than through direct control.

4.2.5. The Influence of Interpersonal Communication on Knowledge Management

Interpersonal communication has a positive and significant effect on knowledge management. This finding confirms that the quality of interpersonal communication is a key determinant of lecturers' knowledge management. Theoretically, social exchange theory states that quality social interactions encourage individuals to share valuable resources, including knowledge (Blau, 2017). Within the higher education context, effective interpersonal communication facilitates scholarly discourse, collaborative research endeavors, and the dissemination of best practices. It exerts a significant direct influence on knowledge sharing and the enactment of knowledge management within academic institutions (Alshurideh et al., 2022; Obeidat et al., 2023).

Overall, the direct influence between variables indicates that organizational support and interpersonal communication play a direct role in improving lecturers' knowledge management, while agile leadership plays a key role in shaping interpersonal communication. These findings confirm that the success of knowledge management in higher education is determined not only by structural and leadership factors but also by the quality of social interactions among lecturers. These findings confirm interpersonal communication as a central mechanism for facilitating knowledge creation, sharing, and utilization in academic environments.

4.2.6. The Effect of Organizational Support on Knowledge Management Mediated by Interpersonal Communication

Organizational support does not have an indirect effect on knowledge management through interpersonal communication, as indicated by the very small and insignificant

mediation coefficient. This finding suggests that organizational support, in the form of academic facilities, faculty development policies, and administrative support, is insufficient to create intense interpersonal communication patterns among faculty to encourage effective knowledge management practices (Choi et al., 2022; Yang & Zhou, 2022). Theoretically, organizational support theory explains that the impact of organizational support is only felt when there is a perception of respect, a sense of psychological safety, and a reciprocal commitment between the institution and the individual. Furthermore, the transfer of tacit knowledge, the core of knowledge management, is highly dependent on interpersonal relationships, intense dialogue, and social capital, not just structural facilities (Fan & Beh, 2024a; Yeboah, 2023). The SECI model also emphasizes that knowledge creation and sharing require consistent social interaction, so administrative organizational support does not necessarily result in adequate communication (Vyas, 2024). Organizational support is only effective in encouraging knowledge sharing if mediated by affective commitment or trust, not interpersonal communication (Choi et al., 2022). The effects of organizational support are more often manifested through social capital rather than direct interpersonal interactions (Yang & Zhou, 2022). The communication climate is more influenced by collaborative norms than structural support (Chen et al., 2023). Formal facilities do not automatically encourage knowledge sharing without repeated face-to-face forums such as colloquia and communities of practice (Fan & Beh, 2024b). Interpersonal communication in university environments thrives through trust and emotional closeness, not organizational facilities (Alshurideh et al., 2022). The characteristics of interpersonal relationships play a greater role in knowledge sharing than formal organizational support (Wu et al., 2022). Structural factors only support knowledge sharing when integrated with social processes (Vyas, 2024). High workloads, fragmentation between study programs, and an academic culture that emphasizes individual achievement are natural barriers to the growth of interpersonal communication (Fan & Beh, 2024). Organizational support does not influence knowledge management through interpersonal communication because a social ecosystem that allows for intense academic interaction has not yet been formed. This finding implies that universities should invest in developing agile leadership competencies to foster communication-rich environments that support sustainable knowledge management.

4.2.7. The Influence of Agile Leadership on Knowledge Management Mediated by Interpersonal Communication

Agile leadership exerts a significant indirect influence on knowledge management through interpersonal communication. A significant mediation coefficient indicates that adaptive, open, and collaborative leaders are able to create a more dynamic communication environment, thus encouraging the knowledge management process (Barrett-Maitland et al., 2024; Rialti & Filieri, 2024). Findings indicate that a flexible and responsive leadership style creates a dialogic atmosphere that is essential for knowledge exchange between faculty members. Agile leaders can strengthen these relationships through empowerment, rapid response, and active involvement, thus encouraging members to communicate more intensively (Saif et al., 2024).

The communication process is a crucial mechanism in the SECI model for transforming tacit knowledge into explicit knowledge. Agile leadership supports digital transformation capability by enhancing social interaction (Rialti & Filieri, 2024). Agile leadership fosters organizational learning through fluid and collaborative communication (Barrett-Maitland & Duff, 2024). Trust and communication are key mediators between leadership and knowledge sharing (Saif et al., 2024). Leadership agility plays a role in strengthening collaborative behavior (Porkodi, 2024). The quality of leader-member relationships leads to increased

interpersonal interactions and knowledge sharing. The importance of interpersonal communication as a medium for academic knowledge transfer (Fan & Beh, 2024).

In the context of higher education in Bogor, agile leaders are better able to create spaces for dialogue, encourage collaboration across study programs, and open up opportunities for informal knowledge exchange. An academic environment that grants high autonomy to lecturers requires this type of facilitative leadership to allow interpersonal communication to develop naturally and sustainably. In conclusion, agile leadership operates on the social-psychological level, making it more effective in driving interpersonal communication than structural organizational support. Strengthening the role of agile leaders is key to successful knowledge management in higher education (Barrett-Maitland et al., 2024; Rialti & Filieri, 2024).

5. Conclusion

This study provides empirical evidence that organizational support and interpersonal communication exert a positive and significant direct influence on lecturers' knowledge management, whereas agile leadership does not have a significant direct effect. Rather, agile leadership influences knowledge management indirectly through its positive effect on interpersonal communication, which serves as a key mediating mechanism. These findings suggest that agile leadership operates primarily through social and relational processes, while organizational support functions as a direct structural enabler of knowledge management. Collectively, the proposed model demonstrates moderate predictive power and clarifies the differentiated pathways through which leadership, organizational structures, and communication processes shape lecturers' knowledge management practices in higher education institutions.

Theoretically, this study extends the knowledge management literature by integrating agile leadership and interpersonal communication into an academic context that remains underrepresented in empirical research, particularly in developing countries. The findings advance a nuanced understanding of academic leadership by demonstrating that its effectiveness in promoting knowledge management is contingent upon the quality of interpersonal communication, whereas organizational support follows a more direct and non-mediated mechanism. Methodologically, the application of PLS-SEM with rigorous model evaluation strengthens the robustness of the findings and offers a replicable analytical framework for future studies.

From a practical perspective, the results highlight the importance for higher education institutions to invest not only in formal organizational support systems but also in the development of agile leadership capabilities that foster open, trust-based, and communication-rich academic environments. Initiatives such as collaborative research teams and communities of practice may be particularly effective in sustaining lecturers' knowledge management activities.

Despite its contributions, this study is subject to several limitations. The cross-sectional design limits causal inference and the ability to capture dynamic changes over time, while the focus on private universities in a single geographic context may constrain the generalizability of the findings. Future research is encouraged to employ longitudinal designs, incorporate additional psychological and organizational variables, examine potential moderating factors (e.g., academic rank or tenure), and replicate the model across diverse higher education settings. The use of mixed-method approaches may further enrich understanding of how

interpersonal communication facilitates knowledge management processes in academic environments.

6. References

- Alavi, M., & Leidner, D. E. (2021). Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. *MIS Quarterly*, 25(1), 107–136. <https://doi.org/10.2307/3250961>
- Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2022). The role of interpersonal communication in knowledge sharing and organizational performance. *Journal of Workplace Learning*, 34(3), 242–259. <https://doi.org/10.1108/JWL-08-2021-0082>
- Astuti, E. W. (2023). Literasi Digital Calon Pekerja Indonesia dan Self-control dalam Berbagi Konten Digital. *Jurnal IPTEK-KOM (Jurnal Ilmu Pengetahuan Dan Teknologi Komunikasi)*, 25(1), 1–16. <https://doi.org/10.17933/iptekkom.25.1.2023.1-16>
- Astuti, R., Karyati, T., & Tukiran. (2023). Analisis penerapan knowledge management system pada perguruan tinggi. *Universal Journal of Science and Technology*, 5(1), 1–10.
- Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares approach to causal modeling: Personal computer adoption and use as an illustration. *Technology Studies*, 2(2), 285–309.
- Barrett-Maitland, N., & Duff, S. (2024). Agile leadership and organizational learning: A systematic review. *Journal of Leadership & Organizational Studies*. <https://doi.org/10.1177/15480518231157425>
- Barrett-Maitland, N., Williams-Shakespeare, E., Allen, D., & Edwards-Braham, S. (2024). From tradition to innovation: Proposing agile leadership as the new paradigm for a higher education institution in a developing country. *Power and Education*, 17(2), 255–278. <https://doi.org/10.1177/17577438241307310>
- Berger, C. R., & Calabrese, R. J. (1975). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research*, 1(2), 99–112. <https://doi.org/10.1111/j.1468-2958.1975.tb00258.x>
- Blau, P. (2017). *Exchange and power in social life*. Routledge.
- Cabrilo, S., Dahms, S., & Tsai, F. S. (2024). Synergy between multidimensional intellectual capital and digital knowledge management: Uncovering innovation performance complexities. *Journal of Innovation & Knowledge*, 9(4), 100538. <https://doi.org/10.1016/j.jik.2024.100538>
- Chen, L., Liu, J., & Zhang, Y. (2023). The role of organizational support in fostering knowledge management practices: An empirical study in higher education. *Journal of Knowledge Management*, 27(5), 1234–1256. <https://doi.org/10.1108/JKM-01-2022-0056>
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research/Lawrence Erlbaum Associates*.
- Choi, W., Goo, W., & Choi, Y. (2022). Perceived Organizational Support and Knowledge Sharing: A Moderated-Mediation Approach. *SAGE Open*, 12(2). <https://doi.org/10.1177/21582440221089950>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Dei, D.-G. J., & Van Der Walt, T. B. (2020). Knowledge management practices in universities: The role of communities of practice. *Social Sciences and Humanities Open*, 2, 100025. <https://doi.org/10.1016/j.ssaho.2020.100025>
- DeVito, J. A. (2019). The interpersonal communication book. *Instructor*, 1, 18.
- Donate, M. J., & Sánchez de Pablo, J. D. (2021). Organizational support, knowledge management, and innovation: A systematic review. *Journal of Knowledge Management*,

- 25(3), 673–701. <https://doi.org/10.1108/JKM-08-2020-0615>
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500–507.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, 87(3), 565–573. <https://doi.org/10.1037/0021-9010.87.3.565>
- Fan, X., & Beh, L. S. (2024). Knowledge sharing among academics in Higher Education: A systematic literature review and future agenda. *Educational Research Review*.
- Fan, Z., & Beh, L.-S. (2024a). Knowledge sharing among academics in higher education: a qualitative approach. *VINE Journal of Information and Knowledge Management Systems*, 55(5), 1327–1348. <https://doi.org/10.1108/VJIKMS-12-2023-0347>
- Fan, Z., & Beh, L. S. (2024b). Knowledge sharing among academics in higher education: A systematic review and research agenda. *Educational Research Review*, 42. <https://doi.org/10.1016/j.edurev.2023.100573>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Fullwood, R., Rowley, J., & Delbridge, R. (2022). Knowledge sharing amongst academics: The role of organizational culture and communication. *Studies in Higher Education*, 47(3), 529–543. <https://doi.org/10.1080/03075079.2020.1744127>
- Geisser, S. (1975). The predictive sample reuse method with applications. *Journal of the American Statistical Association*, 70(350), 320–328. <https://doi.org/10.1080/01621459.1975.10479865>
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(S2). <https://doi.org/10.1002/smj.4250171110>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Second Edition. In *California: Sage*.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publishing.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115–135.
- Ibarra-Cisneros, M. A., Reyna, J. B. V, & Hernández-Perlines, F. (2023). Interaction between knowledge management, intellectual capital and innovation in higher education institutions. *Education and Information Technologies*, 28(8), 9685–9708. <https://doi.org/10.1007/s10639-022-11518-2>
- Joiner, B., & Josephs, S. (2007). *Leadership Agility: Five Levels of Mastery for Anticipating and Initiating Change*. Jossey-Bass.
- Mustapha, S. S. (2023). Towards designing a knowledge sharing system for higher learning institutions based on the social feature framework. *Sustainability*, 15(22), 15990. <https://doi.org/10.3390/su152215990>
- Nguyen, T.-T.-N. (2022). The impact of emotional intelligence on knowledge sharing and team performance. *Information and Knowledge Management*, 12(2), 1–12.
- Nguyen, T. M., Malik, A., & Sharma, P. (2022). Knowledge sharing and organizational performance: The mediating role of communication quality. *Journal of Knowledge Management*, 26(2), 372–391. <https://doi.org/10.1108/JKM-01-2021-0058>
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14–37. <https://doi.org/10.1287/orsc.5.1.14>

- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press.
- Obeidat, B. Y., Tarhini, A., Masa'deh, R., & Aqqad, N. (2023). The impact of communication on knowledge management processes in higher education institutions. *Information Development*, 39(1), 80–95. <https://doi.org/10.1177/02666669211054490>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods (3rd ed.)*. Sage Publications.
- Porkodi, S. (2024). The effectiveness of agile leadership in practice: A comprehensive meta-analysis of empirical studies on organizational outcomes. *Journal of Entrepreneurship, Management and Innovation*, 20(2), 117–138. <https://doi.org/10.7341/20242026>
- Rialti, R. (2024). Leaders, let's get agile! Observing agile leadership in successful digital transformation. (*ScienceDirect Article*).
- Rialti, R., & Filieri, R. (2024). Leaders, let's get agile! Observing agile leadership in successful digital transformation projects. *Business Horizons*, 67(4), 439–452. <https://doi.org/10.1016/j.bushor.2024.04.003>
- Rialti, R., Palmaccio, M., Zollo, L., & Ciappei, C. (2024). Agile leadership and digital transformation capability: Evidence from higher education institutions. *Technological Forecasting and Social Change*, 196, 122014. <https://doi.org/10.1016/j.techfore.2023.122014>
- Saif, N., Guan, G., Goh, G., Rubin, A., Shaheen, I., & Murtaza, M. (2024). Influence of transformational leadership on innovative work behavior and task performance of individuals: The mediating role of knowledge sharing. *Heliyon*, 10(11), e32280. <https://doi.org/10.1016/j.heliyon.2024.e32280>
- Sopandi, A., & Saud, U. S. (2016). Implementasi knowledge management pada perguruan tinggi. *Jurnal Administrasi Pendidikan*, 23(2), 85–96.
- Stone, M. (1974). Cross-validated choice and assessment of statistical predictions. *Journal of the Royal Statistical Society: Series B (Methodological)*, 36(2), 111–133.
- Subhani, S. (2024). Knowledge management and higher education institute: Review & topic analysis. *Journal of Innovation and Knowledge*, 9(4), 100568. <https://doi.org/10.1016/j.jik.2024.100568>
- Uhl-Bien, M. (2006). Relational leadership theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly*, 17(6), 654–676. <https://doi.org/10.1016/j.leaqua.2006.10.007>
- Vyas, P. (2024). Knowledge management and higher education institute: Leadership and structural enablers. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(3), 100349. <https://doi.org/10.1016/j.joitmc.2024.100349>
- Winarno, A., Prasetyo, A. P., Dudija, N., Pratami, C. N., & Liu, R. (2021). The impact of perceived organizational support on knowledge sharing: A mediation analysis through an SEM approach. *Journal of Eastern European and Central Asian Research*, 8(4), 570–584.
- Wu, J., Zhang, X., & Su, J. (2022). Interpersonal Relationship, Knowledge Characteristic, and Knowledge Sharing Behavior of Online Community Members: A TAM Perspective. *Computational Intelligence and Neuroscience*, 2022, 4188480. <https://doi.org/10.1155/2022/4188480>
- Yang, H., & Zhou, D. (2022). Perceived Organizational Support and Creativity of Science-Technology Talents in the Digital Age: The Effects of Affective Commitment, Innovative Self-Efficacy and Digital Thinking. *Psychology Research and Behavior Management*, 15(September), 2421–2437. <https://doi.org/10.2147/PRBM.S378141>
- Yeboah, A. (2023). Knowledge sharing in organization: A systematic review. *Cogent Business and Management*, 10(1). <https://doi.org/10.1080/23311975.2023.2195027>