P-ISSN: 2252-844X
E-ISSN: 2615-1316
Jurnal Manajemen dan Keuangan, VOL. 15, NO. 1, MEI 2026

Fostering Innovation in Indonesian Higher Education: Examining the Antecedents of Lecturers' Innovative Work Behavior

Zulkhalik[1*]), Alim Setiawan Slamet[2]), Furqon Syarief Hidayatulloh[3])
[1*,2,3)]Department of Management, Faculty of Economics and Management, IPB University
Jl. Agatis, Kampus IPB Dramaga, Bogor, West Java, 16680
***E-mail**: zulkhalikzulkhalik@apps.ipb.ac.id*

ABSTRACT

While innovative work behavior has been widely studied across various industries, research in the higher education sector remains limited. Existing studies in Indonesia are still scarce, highlighting the need for further investigation among academic staff in this context. This study investigates the relationships among job crafting, knowledge sharing, work engagement, and innovative work behavior within the academic community of Universitas Samudra. Specifically, the study investigates the direct effects of job crafting, knowledge sharing, and work engagement on lecturers' innovative work behavior. It further assesses the potential mediating role of work engagement in the relationships linking job crafting and knowledge sharing to innovative work behavior. Employing a census sampling method, data were gathered via questionnaire from all 276 lecturers affiliated with the university. The study applied Partial Least Squares Structural Equation Modeling for data analysis. The study shows statistically significant positive relationships: job crafting, knowledge sharing, and work engagement each directly and positively influence lecturers' innovative work behavior. Work engagement emerged as a significant mediator between job crafting and innovative work behavior. However, the study found no evidence of a significant mediating influence of work engagement on the relationship linking knowledge sharing to innovative work behavior. These results offer valuable empirical insights for higher education management. They underscore the importance of fostering job crafting initiatives, cultivating environments conducive to knowledge sharing, and enhancing work engagement as strategic levers to promote greater innovation among academic personnel.

Keyword: *higher education; innovative work behavior; job crafting; knowledge sharing; work engagement*

INTRODUCTION

Organizations are compelled to continuously evolve to achieve competitive advantage. Innovation stands as a critical factor for organizational development and sustainability, demanding robust support for human resources to innovate (Akıncı et al., 2022; Dzhunushalieva & Teuber, 2024). The World Economic Forum identifies analytical and creative thinking as paramount skills in this era, highlighting the imperative for individuals to adapt and devise innovative solutions amidst rapid technological change (GII, 2023). This demand for innovation extends beyond the corporate sphere to encompass non-profit entities, including higher education institutions (HEIs). Within HEIs, innovation manifests through novel approaches, performance enhancements in administrative or academic functions, or transformative experiences rooted in new ways of thinking (White & Glickman, 2007). Thurlings et al. (2015) emphasize three key rationales for innovative behavior in educational institutions: responding to rapid societal shifts, adapting to emerging technologies and pedagogical insights, and serving as exemplars to foster

a more innovative citizenry, thereby enhancing societal competitiveness. To maintain quality and relevance across core activities—teaching, research, community engagement, and administration—universities must now prioritize sustained innovation, integrating new ideas, methods, and technologies into these domains.

To bolster universities' role in the national innovation ecosystem, the Indonesian Ministry of Education, Culture, Research, and Technology (Kemdikbudristek) established Key Performance Indicators (Indikator Kinerja Utama - IKU) as instruments to measure and evaluate university performance (Kepmendikbudristek No. 210/M/2023, replacing No. 3/M/2021). The IKU framework aims to improve HEI quality and competitiveness, achieve national education goals, foster stakeholder synergy, and strengthen the execution of the tridharma (three core missions: education, research, and community service). It enables universities to plan, measure, and evaluate performance continuously, using results to inform strategic planning.

Indonesian state universities (Perguruan Tinggi Negeri, PTN) categorized by their level of autonomy and financial management: autonomous legal entities (PTN-BH), semi-autonomous public service agencies (PTN-BLU), and direct government-funded operational units (PTN Satker) (Law No. 12/2012). Analysis of IKU achievement data (2021-2023) among 11 academic PTN Satkers reveals significant variation, particularly in IKU3 (percentage of lecturers engaged in tridharma activities at other institutions, working as industry practitioners, or supervising student activities outside their study program) and IKU5 (number of lecturer outputs receiving international recognition or applied by society/industry/government per lecturer). Universitas Samudra emerged as a standout performer in 2023, achieving notably high scores in both IKU3 (66.28%) and IKU5 (303%). Lecturer activity reports indicate substantial engagement in cross-institutional tridharma, industry practice, and student supervision, alongside high research output productivity yielding international recognition and practical application. We posit that Universitas Samudra's high IKU3 and IKU5 performance is driven by lecturers' innovative work behavior (IWB), a key catalyst and conduit for HEI innovation (Wahab et al., 2024). Research identifies several antecedents to IWB, namely job crafting, knowledge sharing, and work engagement.

Job crafting (JC) constitutes an employee-driven process of redefining job demands, optimizing resources, or reframing work perceptions to achieve greater congruence between personal competencies and institutional priorities (Tims et al., 2012; Wrzesniewski & Dutton, 2001). Instead of relying on managerial changes, employees adjust tasks, interactions, or cognitive framing to make work more meaningful and enjoyable, thereby boosting satisfaction, performance, and innovative behavior. According to the JD-R model, JC is more likely when sufficient job resources are available (Demerouti, 2014), enabling employees to integrate personal goals and foster lasting positive change within the organization.

Defined as a bidirectional social process (Usoro et al., 2007), knowledge sharing (KS) involves employees mutually transferring expertise, skills, and experiential knowledge across organizational boundaries (Lin, 2007). Its dual nature manifests as: 1) knowledge donating—deliberate sharing of intellectual assets, and 2) knowledge collecting—intentional solicitation of others' know-how (van den Hooff & de Leeuw van Weenen, 2004). Where knowledge donating represents agentic sharing of intellectual capital, knowledge collecting encompasses deliberate solicitation of domain-specific insights from colleagues.

Characterized as an affirmative work-related psychological condition, work engagement (WE) manifests through three dimensions: high energy levels (vigor), strong task commitment (dedication), and complete task immersion (absorption) (Schaufeli et al., 2002). Engaged employees are energetic, resilient, and proactive, viewing work as meaningful and challenging rather than exhausting (Bakker, 2009; Schaufeli, 2012). Although they may experience physical fatigue after working hard, they often interpret this tiredness as a satisfying indicator of accomplishment. Bakker et al. (2011) further highlight that engaged employees benefit from

positive feedback loops through recognition, rewards, and successful performance.

Lecturers, as professional educators and scientists mandated to transform, develop, and disseminate knowledge (Law No. 14/2005), are central to achieving tridharma-related IKU targets like IKU3 and IKU5. Their IWB plays a direct role in enhancing competitive advantage and promoting organizational sustainability by enabling the exploration of new solutions and opportunities (AlEssa & Durugbo, 2022), thereby contributing to improved institutional performance. While IWB has been studied in sectors like banking, hospitality, SMEs, healthcare, IT, and manufacturing (e.g., Afsar et al., 2019, 2020; Akram et al., 2018, 2020; Baig et al., 2022; Guo et al., 2023; Kaur & Rahmadani, 2023; Kim & Park, 2017; Nathaniel & Dewi, 2024; Sharma & Nambudiri, 2020), research within higher education, particularly in Indonesia, remains limited. Existing studies in this context are scarce (e.g., Jia et al., 2022 in China; Matin et al., 2024 across six Indonesian PTNs; Supriyanto et al., 2020 in an Indonesian Islamic State University). This contextual limitation is particularly consequential because lecturers operate in a distinctive work environment in which innovation is simultaneously embedded in teaching, research, community service, academic administration, and cross-institutional engagement. Consequently, this research bridges the identified gap through a dual investigation: (1) examining job crafting, knowledge sharing, and work engagement function as antecedents to lecturer innovative work behavior (IWB) in Indonesian public universities, and (2) exploring the mediating effect of work engagement on the connections between job crafting, knowledge sharing, and IWB.

This research advances scholarly understanding of IWB in the context of higher education while offering actionable insights for practitioners. By identifying key factors influencing IWB, it provides a foundation for future scholarly exploration. Additionally, the results equip university leaders and policymakers with evidence to set performance targets and formulate institutional improvement strategies.

To achieve competitive advantage, organizations must foster employee IWB, thereby enhancing innovation and creativity. Empirical evidence consistently links IWB to JC (Afsar et al., 2019; Baig et al., 2022; Guo et al., 2023; Kaur & Rahmadani, 2023). Specifically within higher education, lecturers who engage in job crafting—redesigning teaching or research tasks—demonstrate enhanced problem-solving and idea generation capabilities (Arachie et al., 2021). The proposed hypothesis is therefore:

H1: JC significantly and positively predicts lecturers' IWB.

Research consistently demonstrates that JC significantly boosts work engagement. Specifically, JC behaviors—like building social and structural resources, pursuing challenging demands, and reducing hindering demands—strongly enhance engagement levels (Vermooten et al., 2019). This correlation further aligns with the conclusions drawn by Nathaniel & Dewi (2024), who pointed out the ability to make work more meaningful and stimulating is a key predictor of higher engagement. Accordingly, Demerouti (2014) emphasizes that JC interventions can effectively prompt employees to adjust their work environments, thereby helping to maintain sustained levels of engagement. Thus, this research posits the hypothesis:

H2: JC demonstrates a significant positive relationship with lecturers' WE.

Research by Nham et al. (2020) shows that KS contributes substantively to enhancing individual innovation capabilities. In particular, KS fosters employees' IWB by providing access to diverse information and experiences that stimulate new ideas (Akhavan et al., 2015). Through collaborative learning and the mutual exchange of expertise, employees can generate new knowledge and strengthen their capacity for creativity. Akram et al. (2018) also emphasize that both dimensions of KS—donating and collecting—foster a constructive workplace atmosphere that stimulates the emergence, dissemination, and implementation of novel ideas. This positive influence of KS on IWB has been supported consistently in various studies (Akram et al., 2020; Kim & Park, 2017; Radaelli et al., 2014). From this perspective, the hypothesis can be stated as

follows:

H3: KS contributes positively and significantly to lecturers' IWB.

Active knowledge sharing (KS) fosters employees' sense of work connection, perceived value, and motivation to apply expertise. This heightened engagement drives greater productivity, fuels innovation, and ultimately boosts organizational success. Research consistently links KS positively with work engagement (WE). Specifically, Juan et al. (2018) demonstrated that KS's structural, relational, and cognitive dimensions each positively affect WE. Supporting evidence (Al-Jabri, 2020; Naim et al., 2024) further confirms KS's significant role in cultivating WE. Consequently, the subsequent hypothesis is advanced:

H4: KS positively and significantly influences lecturers' WE.

Engaged employees—demonstrating energy, dedication, and deep task involvement—are critical for organizations, given engagement's positive association with individual and group performance outcomes. Such a state of engagement facilitates the emergence and implementation of innovative practices across the organization. Empirical evidence confirms that WE fosters knowledge-sharing and novel idea generation (Kim & Park, 2017) and and shows a notable positive relationship with innovative work behavior (Afsar et al., 2020; Jia et al., 2022; Nathaniel & Dewi, 2024). Given this reasoning, the hypothesis is:

H5: Lecturers' IWB is positively and significantly influenced by WE

RESEARCH METHOD

This study examined the IWB demonstrated by lecturers in higher education institutions. Primary data were obtained through an online questionnaire administered to lecturers at Universitas Samudra. The study employed a census approach, inviting all 390 lecturers in the population to participate. While a census offers potential for high accuracy (Kothari, 2004), the final sample represents those who responded. Confidentiality of participant identities was formally ensured, with all provided data restricted strictly to research objectives. Questionnaires, distributed using Google Forms, were available for a two-week period commencing in June 2025. Original English scales were translated into Indonesian; forward and back-translation procedures, along with pilot testing (n=30), ensured conceptual equivalence and comprehensibility. Data were gathered via a 5-point Likert-type scale with endpoints labeled *Never* (1) and *Always* (5).

Job crafting was evaluated using a 9-item instrument adapted from Tims et al. (2012), covering three dimensions: increasing structural job resources, increasing social job resources, and increasing challenging job demands, with three items allocated to each dimension. Knowledge sharing used a 7-item scale (Akram et al., 2018) structured across two dimensions: knowledge donating (3 items) and knowledge collecting (4 items). Work engagement was gauged using the ultra-short Utrecht Work Engagement Scale (Schaufeli et al., 2019), assessing vigor, dedication, and absorption with a single item for each dimension. Innovative work behavior was assessed with a 9-item scale adapted from Dara et al. (2022), featuring three dimensions (idea generation, idea promotion, idea realization) with three items per dimension.

Data analysis was carried out using the Partial Least Squares approach to Structural Equation Modeling (PLS-SEM). The analysis included both measurement model testing and structural model evaluation. Convergent and discriminant validity tests were conducted to assess the constructs' validity (Hair et al., 2019). The structural model analysis employed R^2 (coefficient of determination), f^2 (effect size), and Q^2 (predictive validity) metrics. Hypotheses were deemed supported when the results met the threshold of t-statistic > 1.96 and p-value < 0.05 (Hair et al., 2021).

RESULTS AND DISCUSSION

We received 276 completed questionnaires, yielding a response rate of 70.77%. Respondent characteristics show a near gender balance. The largest age cohort was 30-39 years

(60.9%), followed by 40-49 years (19.6%). Most respondents held a Master's degree (77.2%). The Faculty of Teacher Training and Education represented the largest affiliation (41.7%), and the position of Assistant Professor (Lektor) was most common (59.8%). Regarding work experience, 32.3% reported 5-9 years, while both the <5 years and 10-14 years categories each comprised 24.6% of respondents. A majority (67.4%) possessed lecturer certification. Key characteristics describing the respondents in this study are provided in Table 1.

Table 1. Respondent Characteristics

Characteristics	Criterion	Frequency	Percentage
Gender	Male	141	51.09
	Female	135	48.91
Age	20 - 29	19	6.88
	30 - 39	168	60.87
	40 - 49	54	19.57
	50 - 59	29	10.51
	≥ 60	6	2.17
Level of Education	Master	213	77.17
	Ph.D	63	22.83
Faculty	Faculty of Law	18	6.52
	Faculty of Economics and Bussiness	51	18.48
	Faculty of Agriculture	25	9.06
	Faculty of Teacher Training and Education	115	41.67
	Faculty of Science and Technology	67	24.28
Designation	Lecturer	24	8.70
	Assistant Professor (Asisten Ahli)	67	24.28
	Assistant Professor (Lektor)	165	59.78
	Associate Professor	19	6.88
	Professor	1	0.36
Years of Working	< 5	68	24.64
	5 - 9	89	32.25
	10 - 14	68	24.64
	15 - 19	31	11.23
	20 - 24	6	2.17
	≥ 25	14	5.07
Lecturer Certification	certified	186	67.39
	none	90	32.61

Source: Data processed, 2025

Measurement Model

The assessment of convergent validity involved analyzing outer loadings, Cronbach's alpha, composite reliability, and average variance extracted (AVE). Hair et al. (2010) point out that outer loading values should be ≥ 0.50 can be considered acceptable. Cronbach's alpha values of 0.70 or higher are considered indicative of acceptable internal consistency (Vinzi et al., 2010), and a threshold of 0.70 is established for composite reliability (Hair et al., 2021). In addition, adequate convergent validity requires AVE >0.50 (Chin & Dibbern, 2010). Measurement reliability was confirmed, with both Cronbach's alpha and composite reliability values surpassing 0.70 for every construct. Three variables (KS, IWB, WE) achieved AVE > 0.5, indicating adequate convergent validity, while JC fell below the threshold. To address this, indicators with low loadings (~0.5) should be removed and the model re-evaluated.

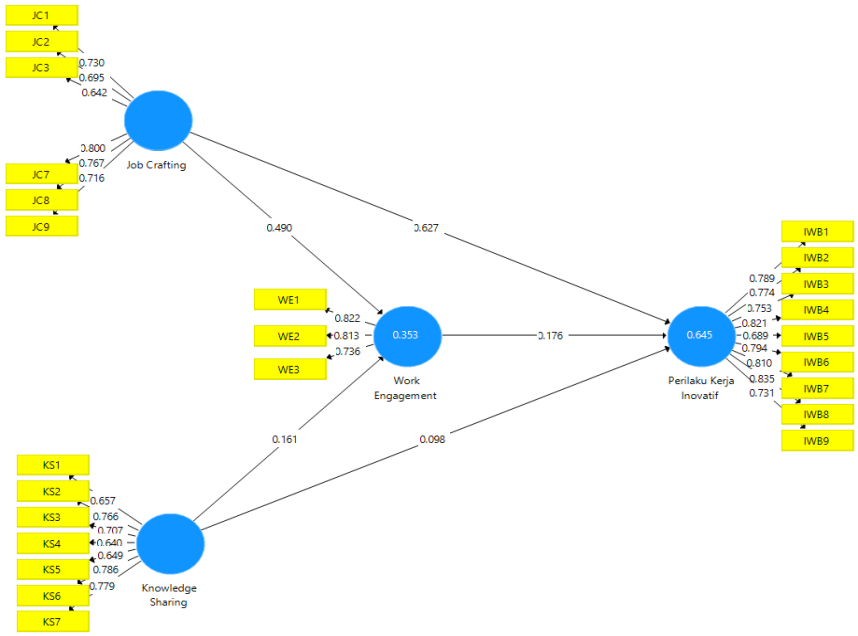


Figure 1. Measurement Model Re-evaluation Results (Post-Elimination)
Source: Data processed results, 2025

Figure 1 above presents the measurement model re-evaluation results following the elimination of indicators JC4, JC5, and JC6. Following the removal of these three indicators and the reanalysis of the measurement model, Cronbach's alpha, composite reliability, and AVE values are summarized in Table 2.

Table 2. Construct Validity and Reliability

Variables	*Cronbach's Alpha*	*Composite Reliability*	AVE	Description
JC	0.820	0.870	0.528	Valid and reliable
KS	0.844	0.879	0.511	Valid and reliable
IWB	0.918	0.932	0.606	Valid and reliable
WE	0.701	0.834	0.626	Valid and reliable

Source: Data processed results, 2025

Given the construct validity and reliability metrics in Table 2, all latent variables are considered valid and reliable, as indicated by internal consistency ($\alpha \geq 0.70$), scale reliability (CR > 0.70), and convergent validity (AVE > 0.50). The findings verify that the measurement model achieves convergent validity, as all indicators reliably measure their designated constructs.

Empirical distinctiveness among constructs is validated through discriminant validity procedures (Hair et al., 2017). Heterotrait–monotrait ratio (HTMT) analysis and cross-loading checks were employed to assess discriminant validity. Cross-loading analysis confirms all indicators load more robustly on their designated latent factors than on unrelated constructs. For instance, all IWB indicators load most strongly on the IWB construct compared to JC, KS, or WE, confirming that each indicator is both specific and relevant to its intended latent variable. Findings establish discriminant validity, with indicator cross-loadings being highest on their parent constructs. Following this, the HTMT analysis, summarized in Table 3, was conducted to further evaluate discriminant validity.

Table 3. HTMT Results

Variables	JC	KS	IWB	WE
JC				
KS	0.645			
IWB	0.896	0.558		
WE	0.759	0.527	0.719	

Source: Data processed results, 2025

Consistent with Henseler et al. (2015), all HTMT estimates adhered strictly to the 0.90 cutoff. When combined with the cross-loading results, this finding further validates that the constructs measure separate underlying concepts which affirms the attainment of discriminant validity in the model.

Structural Model

The coefficient of determination (R^2) indicates how much endogenous variable variation is accounted for by their influencing exogenous variables. This coefficient demonstrates the structural model's effectiveness in explaining variable relationships. The R^2 results are reported in Table 4.

Table 4. Coefficient of Determination (R^2)

Variables	R^2	R^2 Adjusted
IWB	0.645	0.641
WE	0.353	0.348

Source: Data processed results, 2025

As presented in Table 4, IWB variance is 64.5% explained by the structural model (R^2 = 0.645). This indicates that 64.5% of its variation is explained by model variables, while the remaining 35.5% is attributable to extraneous factors beyond this study's scope. WE shows an R^2 of 0.353 (35.3%), implying that most of its variance (64.7%) stems from unmodeled factors. Thus, IWB is moderately well explained by JC and KS (R^2 = 0.645, within the 0.50–0.74 moderate range). Conversely, these variables demonstrate weak predictive power for the mediating WE (R^2 = 0.353, within the 0.25–0.49 weak range). Collectively, the model shows satisfactory explanatory capacity—particularly for IWB.

The f^2 statistic evaluates the comparative effect of an exogenous construct on its associated endogenous variable within the model. It thereby quantifies a variable's substantive influence in explaining other constructs. The effect size analysis shows that JC has the strongest impact, with a large effect on IWB (f^2 = 0.612) and a medium effect on WE (f^2 = 0.257). In contrast, KS has only minimal effects on both IWB (f^2 = 0.018) and WE (f^2 = 0.028). Meanwhile, WE has a small effect on IWB (f^2 = 0.057). Overall, JC emerges as the most influential factor in the model, directly enhancing IWB and indirectly contributing through WE.

In the context of PLS-SEM, Q^2 serves as a criterion for evaluating the predictive relevance of endogenous constructs, obtained through the blindfolding technique. The analysis shows a Q^2 value of 0.384 for IWB, indicating a large effect size (Hair et al., 2017) and confirming predictive relevance for endogenous variation. In contrast, the Q^2 value for WE is 0.215, which falls into the moderate predictive relevance category. This suggests that while the model demonstrates acceptable predictive power for WE, its predictive strength is not as high as for IWB.

Hypothesis Testing

After establishing reliable measurement and structural models, path coefficients for hypothesized relationships are examined. At this point, the process includes evaluating the significance and the size of the direct paths linking exogenous constructs to endogenous constructs within the model. To evaluate direct effects, path coefficients are interpreted with t-statistics and p-values, confirming both relationship directionality and statistical significance. Hypothesized direct effects are quantified in Table 5.

Table 5. Direct Path Coefficient Analysis

Hypotesis	Original Sample	T Statistics	P Values	Description
JC → IWB	0,627	13,849	0,000	Accepted
JC→ WE	0,490	8,159	0,000	Accepted
KS → IWB	0,098	2,257	0,024	Accepted
KS → WE	0,161	2,392	0,017	Accepted
WE → IWB	0,176	3,610	0,000	Accepted

Source: Data processed results, 2025

Effect of Job Crafting on Innovative Work Behavior

A significant positive association emerged between JC and IWB, with strong statistical support ($\beta = 0.627$, $t = 13.849$, $p < 0.05$). The findings highlight that higher levels of JC practices among lecturers correspond to increased IWB. Conversely, lower levels of JC are linked to decreased IWB. This corroborates existing evidence positioning job crafting as a critical antecedent of innovative work behavior (Baig et al., 2022; Guo et al., 2023; Kaur & Rahmadani, 2023). Notably, willingness to undertake additional tasks emerged as the most influential indicator for enhancing innovative practices. This observation corroborates Afsar et al. (2019), who identified increasing job challenge demands as the dimension most substantially impacting innovative work behavior.

Effect of Job Crafting on Work Engagement

JC significantly enhances WE ($\beta = 0.490$, $t = 8.159$, $p < 0.05$), supporting H2. This reveals a proportional relationship: intensified JC practices correlate with heightened WE. Reduced job crafting implementation conversely corresponds to diminished work engagement. These results substantiate job crafting's significant contribution to fostering lecturers' psychological investment in professional responsibilities. As Demerouti (2014) posits, JC interventions empower employees to actively modify work environments, thereby sustaining engagement. This outcome dovetails with earlier studies (Nathaniel & Dewi, 2024; Vermooten et al., 2019) confirming job crafting's influence on work engagement.

Effect of Knowledge Sharing on Innovative Work Behavior

KS has a small but significant positive effect on IWB ($\beta = 0.098$, $t = 2.257$, $p = 0.024$), supporting H3. This suggests that proactive knowledge exchange among lecturers predicts greater IWB. Lecturers' innovative behavioral tendencies are positively influenced by peer information and knowledge transfer intensity. This finding empirically supports previous studies (Akhavan et al., 2015; Akram et al., 2018, 2020; Kim & Park, 2017). Crucially, knowledge collecting—represented by items measuring colleagues' responsiveness to knowledge/skill requests—constitutes the dimension most strongly associated with enhanced innovative behavior. This aligns with (Radaelli et al., 2014), who found that knowledge acquisition through peer interactions elevates innovative capability.

Effect of Knowledge Sharing on Work Engagement

KS positively affects WE at statistically significant levels. The path coefficient (β = 0.161, t = 2.392, p = 0.017) confirms this relationship. These results indicate that greater involvement in knowledge-sharing activities enhances lecturers' engagement at work. This evidence supports what has been reported in previous studies (Al-Jabri, 2020; Juan et al., 2018; Naim et al., 2024), which likewise confirmed KS as a predictor of WE.

Effect of Work Engagement on Innovative Work Behavior

WE demonstrates a considerable positive contribution to lecturers' IWB, with β = 0.176, t = 3.610, and p < 0.05. This suggests that lecturers' psychological investment in their work significantly facilitates innovative behaviors. Higher work engagement levels predict greater likelihood of innovative work conduct, as lecturers who demonstrate vigor, dedication, and absorption in their professional activities tend to engage more in innovation. This reinforces prior research (Afsar et al., 2020; Jia et al., 2022; Kim & Park, 2017; Nathaniel & Dewi, 2024) establishing the work engagement-innovative behavior relationship.

Indirect Effect

In this study, WE functions as a mediating mechanism through which JC and KS influence IWB. To test this mediation, we conducted an indirect effects analysis assessing how the exogenous variables (JC, KS) affect the endogenous variable (IWB) via the mediator WE. Table 6 reports the indirect path coefficients from the mediation model.

Table 6. Indirect Effect Test Results

Variabel	Original Sample	T Statistics	P Values
JC → WE → IWB	0.086	3.275	0.001
KS → WE → IWB	0.028	1.908	0.057

Source: Data processed results, 2025

The indirect effects analysis presented in Table 6 demonstrates WE's significant mediation between JC and IWB. The result is evidenced by a positive path coefficient of 0.086, accompanied by a t-statistic of 3.275 (> 1.96) and a p-value of 0.001 (< 0.05), suggesting that JC indirectly enhances IWB through increased WE. In contrast, WE is not found to mediate the influence of KS on IWB, as reflected by a t-statistic of 1.908 (< 1.96) and a p-value of 0.057 (> 0.05), which together indicate the absence of a significant indirect effect. Thus, WE does not significantly mediate the relationship between KS and IWB. This finding suggests that KS may support lecturers' IWB directly, without necessarily enhancing their WE. Rather than indicating that KS is unimportant for IWB, the result suggests that WE is not a significant mechanism through which KS translates into IWB in this study. Other mechanisms, such as knowledge integration, psychological safety, creative self-efficacy, or organizational support, may better explain this relationship.

CONCLUSION AND SUGGESTION

This study contributes to Human Resource Management (HRM) theory by demonstrating that job crafting, knowledge sharing, and work engagement are important determinants of lecturers' innovative work behavior. The findings extend the Job Demands–Resources perspective by showing that work engagement serves as a motivational mechanism through which job crafting enhances innovative work behavior, while its mediating role in the relationship between knowledge sharing and innovative work behavior is not supported. This distinction suggests that different HR-related factors may foster innovation through different

psychological mechanisms and highlights the importance of examining alternative pathways through which knowledge sharing contributes to innovative behavior.

In light of these findings, several recommendations can be put forward:

1. This study focused exclusively on innovative work behavior within Indonesian State Universities operating under the Work Unit (PTN Satker) model. Future research should expand its scope to include PTN-BLU, PTN-BH, and private higher education institutions in Indonesia.
2. To enhance the precision of future findings, follow-up studies are recommended to incorporate other antecedent variables influencing innovative work behavior, such as social norms, leadership support, and organizational climate.
3. University leaders should cultivate a work environment conducive to personal initiative and constructive social interaction. This approach is suggested as a strategic initiative to boost work engagement and foster innovative behavior among lecturers.
4. It is recommended that university leadership prioritize knowledge sharing as a key strategy to drive institutional innovation.

REFERENCES

Afsar, B., Al-Ghazali, B. M., Cheema, S., & Javed, F. (2020). Cultural intelligence and innovative work behavior: the role of work engagement and interpersonal trust. *European Journal of Innovation Management*, *24*(4), 1082–1109. https://doi.org/10.1108/EJIM-01-2020-0008

Afsar, B., Masood, M., & Umrani, W. A. (2019). The role of job crafting and knowledge sharing on the effect of transformational leadership on innovative work behavior. *Personnel Review*, *48*(5), 1186–1208. https://doi.org/10.1108/PR-04-2018-0133

Akhavan, P., Hosseini, S. M., Abbasi, M., & Manteghi, M. (2015). Knowledge-sharing determinants, behaviors, and innovative work behaviors: An integrated theoretical view and empirical examination. *Aslib Journal of Information Management*, *67*(5), 562–591. https://doi.org/10.1108/AJIM-02-2015-0018

Akıncı, G., Alpkan, L., Yıldız, B., & Karacay, G. (2022). The Link between Ambidextrous Leadership and Innovative Work Behavior in a Military Organization: The Moderating Role of Climate for Innovation. *Sustainability (Switzerland)*, *14*(22). https://doi.org/10.3390/su142215315

Akram, T., Lei, S., Haider, M. J., & Hussain, S. T. (2018). Exploring the Impact of Knowledge Sharing on the Innovative Work Behavior of Employees: A Study in China. *International Business Research*, *11*(3), 186. https://doi.org/10.5539/ibr.v11n3p186

Akram, T., Lei, S., Haider, M. J., & Hussain, S. T. (2020). The impact of organizational justice on employee innovative work behavior: Mediating role of knowledge sharing. *Journal of Innovation and Knowledge*, *5*(2), 117–129. https://doi.org/10.1016/j.jik.2019.10.001

AlEssa, H. S., & Durugbo, C. M. (2022). Systematic review of innovative work behavior concepts and contributions. *Management Review Quarterly*, *72*(4), 1171–1208. https://doi.org/10.1007/s11301-021-00224-x

Al-Jabri, I. M. (2020). Investigating the Mediating Role of Knowledge Sharing on Employee Engagement. *International Journal of Human Capital and Information Technology Professionals*, *11*(1), 47–63. https://doi.org/10.4018/IJHCITP.2020010104

Arachie, A. E., Agbaeze, E. K., Nzewi, H. N., & Agbasi, E. O. (2021). Job crafting, a bottom-up job characteristic of academics with an embeddedness potential. *Management Research Review*, *44*(7), 949–969. https://doi.org/10.1108/MRR-07-2020-0432

Baig, L. D., Azeem, M. F., & Paracha, A. (2022). Cultivating Innovative Work Behavior of Nurses Through Diversity Climate: The Mediating Role of Job Crafting. *SAGE Open*

Nursing, *8*. https://doi.org/10.1177/23779608221095432

Bakker, A. (2009). Building engagement in the workplace. In R. J. Burke & C. L. Cooper (Eds.), *The peak performing organization* (pp. 50–72). Routledge. https://pure.eur.nl/en/publications/building-engagement-in-the-workplace

Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organizational Psychology*, *20*(1), 4–28. https://doi.org/10.1080/1359432X.2010.485352

Chin, W. W., & Dibbern, J. (2010). An Introduction to a Permutation Based Procedure for Multi-Group PLS Analysis: Results of Tests of Differences on Simulated Data and a Cross Cultural Analysis of the Sourcing of Information System Services Between Germany and the USA. In *Handbook of Partial Least Squares* (pp. 171–193). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-32827-8_8

Dara, D., Hamidah, & Saparuddin. (2022). Job autonomy, Work Satisfaction, and Innovative work behavior: Investigation of Indonesian Lecturers. *Journal of Positive School Psychology*, *6*(2), 1422–1435. http://journalppw.com

Demerouti, E. (2014). Design Your Own Job Through Job Crafting. *European Psychologist*, *19*(4), 237–247. https://doi.org/10.1027/1016-9040/a000188

Dewan Perwakilan Rakyat Republik Indonesia. (2005). Law of the Republic of Indonesia Number 14 of 2005 on Teachers and Lecturers. https://www.dpr.go.id/dokumen/jdih/undang-undang

Dewan Perwakilan Rakyat Republik Indonesia. (2012). Law of the Republic of Indonesia Number 12 of 2012 on Higher Education. https://www.dpr.go.id/dokumen/jdih/undang-undang

Dzhunushalieva, G., & Teuber, R. (2024). Roles of innovation in achieving the Sustainable Development Goals: A bibliometric analysis. *Journal of Innovation and Knowledge*, *9*(2). https://doi.org/10.1016/j.jik.2024.100472

Global Innovation Index 2023: Innovation in the face of uncertainty. (2023). https://www.wipo.int/web/global-innovation-index/2023/index

Guo, Y., Jin, J., & Yim, S. H. (2023). Impact of Inclusive Leadership on Innovative Work Behavior: The Mediating Role of Job Crafting. *Administrative Sciences*, *13*(1). https://doi.org/10.3390/admsci13010004

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective* (Seventh Edition). Pearson Education.

Hair, J. F. ., Hult, G. T. M. ., Ringle, C. M. ., & Sarstedt, Marko. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd Edition). SAGE Publications, Inc.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

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*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Jia, K., Zhu, T., Zhang, W., Rasool, S. F., Asghar, A., & Chin, T. (2022). The Linkage between Ethical Leadership, Well-Being, Work Engagement, and Innovative Work Behavior: The Empirical Evidence from the Higher Education Sector of China. *International Journal of Environmental Research and Public Health*, *19*(9). https://doi.org/10.3390/ijerph19095414

Juan, S. H., Wei, I., Ting, K., Kweh, Q. L., & Yao, L. (2018). How Does Knowledge Sharing

Affect Employee Engagement? *Institutions and Economies*, *10*(4), 49–67.

Kaur, G., & Rahmadani, V. G. (2023). Job crafting and innovative behavior among hospitality workers: The moderation effect of work engagement. *Humanitas: Indonesian Psychological Journal*, *20*(1), 80–89. https://doi.org/10.26555/humantias.v20i1.138

Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia. (2023). Decree No. 210/M/2023 on Key Performance Indicators for Higher Education and LLDikti. https://peraturan.go.id/permen

Kim, W., & Park, J. (2017). Examining Structural Relationships between Work Engagement, Organizational Procedural Justice, Knowledge Sharing, and Innovative Work Behavior for Sustainable Organizations. *Sustainability*, *9*(2), 205. https://doi.org/10.3390/su9020205

Kothari, C. R. (2004). *Research methodology : Methods and techniques (2nd revised edition)*. New Age International Publishers.

Lin, H. F. (2007). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower*, *28*(3–4), 315–332. https://doi.org/10.1108/01437720710755272

Matin, M., Sugiarto, S., Ahmad, M., Kholifah, N., & Nurtanto, M. (2024). Positive Influence on Innovative Work Behavior in Higher Education, Indonesia. *Educational Administration: Theory and Practice*. https://doi.org/10.53555/kuey.v30i4.1558

Naim, M. F., Shehzad, N., Al Nahyan, M. T., Jabeen, F., & Usai, A. (2024). The impact of knowledge sharing on employee engagement through the mediating role of competency development and moderating role of social climate. *Journal of Knowledge Management*, *28*(7), 1889–1916. https://doi.org/10.1108/JKM-04-2023-0276

Nathaniel, J., & Dewi, Y. E. P. (2024). Innovative Work Behavior: The Role of Job Crafting and Job Autonomy Mediated by Work Engagement. *Petra International Journal of Business Studies*, *7*(1), 57–65. https://doi.org/10.9744/petraijbs.7.1.57-65

Nham, T. P., Nguyen, T. M., Tran, N. H., & Nguyen, H. A. (2020). Knowledge sharing and innovation capability at both individual and organizational levels: An empirical study from Vietnam's telecommunication companies. *Management and Marketing*, *15*(2), 275–301. https://doi.org/10.2478/mmcks-2020-0017

Radaelli, G., Lettieri, E., Mura, M., & Spiller, N. (2014). Knowledge Sharing and Innovative Work Behaviour in Healthcare: A Micro-Level Investigation of Direct and Indirect Effects. *Creativity and Innovation Management*, *23*(4), 400–414. https://doi.org/10.1111/caim.12084

Schaufeli, W. B. (2012). Work Engagement. What Do We Know and Where Do We Go? Work Engagement in Everyday Life, Business, and Academia. In *Romanian Journal of Applied Psychology* (Vol. 14, Issue 1).

Schaufeli, W. B., Salanova, M., González-romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, *3*(1), 71–92. https://doi.org/10.1023/A:1015630930326

Schaufeli, W. B., Shimazu, A., Hakanen, J., Salanova, M., & De Witte, H. (2019). An ultra-short measure for work engagement: The UWES-3 validation across five countries. *European Journal of Psychological Assessment*, *35*(4), 577–591. https://doi.org/10.1027/1015-5759/a000430

Sharma, A., & Nambudiri, R. (2020). Work engagement, job crafting and innovativeness in the Indian IT industry. *Personnel Review*, *49*(7), 1381–1397. https://doi.org/10.1108/PR-11-2019-0607

Supriyanto, A. S., Sujianto, A. E., & Ekowati, V. M. (2020). Factors Affecting Innovative Work Behavior: Mediating Role of Knowledge Sharing and Job Crafting. *Journal of Asian Finance, Economics and Business*, *7*(11), 999–1007. https://doi.org/10.13106/jafeb.2020.vol7.no11.999

Thurlings, M., Evers, A. T., & Vermeulen, M. (2015). Toward a Model of Explaining Teachers' Innovative Behavior: A Literature Review. *Review of Educational Research*, *85*(3), 430–471. https://doi.org/10.3102/0034654314557949

Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior*, *80*(1), 173–186. https://doi.org/10.1016/j.jvb.2011.05.009

Usoro, A., Sharratt, M. W., Tsui, E., & Shekhar, S. (2007). Trust as an antecedent to knowledge sharing in virtual communities of practice. *Knowledge Management Research and Practice*, *5*(3), 199–212. https://doi.org/10.1057/palgrave.kmrp.8500143

van den Hooff, B., & de Leeuw van Weenen, F. (2004). Committed to share: Commitment and CMC use as antecedents of knowledge sharing. *Knowledge and Process Management*, *11*(1), 13–24. https://doi.org/10.1002/kpm.187

Vermooten, N., Boonzaier, B., & Kidd, M. (2019). Job crafting, proactive personality and meaningful work: Implications for employee engagement and turnover intention. *SA Journal of Industrial Psychology*, *45*. https://doi.org/10.4102/sajip.v45i0.1567

Vinzi, V. E., Trinchera, L., & Amato, S. (2010). PLS Path Modeling: From Foundations to Recent Developments and Open Issues for Model Assessment and Improvement. In *Handbook of Partial Least Squares* (pp. 47–82). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-32827-8_3

Wahab, F. A., Subramaniam, A., Ho, J. A., & Bali Mahomed, A. S. (2024). Augmenting Effect of Inclusive and Ambidextrous Leadership on Public University Academic Staffs' Innovative Performance: The Mediating Role of Innovative Work Behavior. *SAGE Open*, *14*(1). https://doi.org/10.1177/21582440241232761

White, S. C., & Glickman, T. S. (2007). Innovation in higher education: Implications for the future. *New Directions for Higher Education*, *2007*(137), 97–105. https://doi.org/10.1002/he.248

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a Job: Revisioning Employees as Active Crafters of Their Work. In *Source: The Academy of Management Review* (Vol. 26, Issue 2).