Innovative Work Behavior: A Decade of Research Synthesized Through Systematic Review

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Abstract

Innovative Work Behavior (IWB) has become a critical capability for academic professionals in responding to increasing demands for transformation, digitalization, and competitiveness in higher education. However, the antecedents that drive IWB among university lecturers—especially within the psychosocial work context—remain fragmented across the literature. This study employs a Systematic Literature Review (SLR) method to synthesize empirical findings on the key predictors of IWB, including job crafting, capability, and role ambiguity, with a particular focus on the mediating role of psychological safety. A total of 50 peer-reviewed articles published between 2015 and 2025 were systematically reviewed using PRISMA guidelines. The findings reveal that proactive job crafting and individual capability consistently enhance IWB, while role ambiguity tends to hinder it. Furthermore, psychological safety acts as a crucial mediating mechanism that fosters an environment where innovative behaviors can emerge and flourish. The review offers a conceptual consolidation of IWB predictors in higher education and provides theoretical and managerial implications for universities aiming to cultivate innovation-driven faculty performance.

Keyword: Innovative Work Behavior, Psychological Safety, Job Crafting, Capability, Role Ambiguity

1. Introduction (Background and Rationale)

1.1 Context and Relevance

The rise of digital transformation and academic competitiveness requires lecturers to go beyond traditional roles and engage in innovative behavior

The rise of digital transformation in higher education has fundamentally changed the landscape of academic competition. Lecturers are now required to go beyond their traditional roles as teachers and become agents of innovation in the development of learning, research, and institutional governance. Based on the Dynamic Capabilities Theory (Teece, 2007) and Diffusion of Innovations (Rogers, 2003), the ability to adapt to technological change has become a key factor determining institutional competitiveness. Digital transformation encourages lecturers to integrate new technologies into learning and research processes, creating added value that enhances academic reputation and performance effectiveness. The study by Zhang, Chen, and Lei (2023) emphasizes that university digitalization is not merely about technology adoption, but about transforming academic culture toward collaboration and innovation. Meanwhile, García-Holgado and García-Peñalvo (2020) highlight the importance of technological ecosystems in strengthening lecturers' innovative capacity. In the context of global competition, Altbach and de Wit (2018) show that institutional success today is determined by the lecturers' ability to innovate digitally. Empirical research by Al-Husseini and Elbeltagi (2018) and Morris (2020) proves that transformational leadership and lecturers' innovative behavior significantly contribute to the success of digital transformation in higher education institutions. Therefore, to face the era of digital-based academic competition, lecturers must act as digital leaders who are adaptive, creative, and oriented toward continuous innovation in every aspect of the tridharma of higher education.

IWB defined as the generation, promotion, and realization of new ideas is essential for enhancing academic performance, research, and pedagogical innovation.

Innovative Work Behavior (IWB), defined as the process of generating, promoting, and realizing new ideas (Janssen, 2000), is a crucial element in enhancing academic performance, research productivity, and pedagogical innovation in the era of digital transformation. In the context of higher education, IWB enables lecturers to develop creative solutions to technology-based learning challenges, update curricula to ensure greater relevance, and strengthen interdisciplinary research collaboration. According to Messmann and Mulder (2011), lecturers' innovative behavior serves as the foundation for professional development, as it drives the application of new ideas in teaching practices and learning design. Kleysen and Street (2001) also emphasize that IWB does not stem solely from individual creativity but is influenced by an organizational environment that supports a culture of experimentation, academic freedom, and continuous learning. In the context of digital transformation, Zhang, Chen, and Lei (2023) found that the success of educational technology adoption largely depends on the extent to which lecturers demonstrate innovative behavior in their teaching and research processes. Therefore, strengthening IWB has become a strategic necessity for higher education institutions to maintain academic competitiveness and ensure the sustainability of innovation across the tridharma of higher education.

Lecturers in private universities often face dual roles (functional and structural), making the exploration of IWB particularly relevant in this context

Lecturers in private universities are often faced with dual roles functionally as educators and researchers, and structurally as administrators managing academic affairs. This condition makes the exploration of Innovative Work Behavior (IWB) highly relevant in the context of higher education. Recent research by Bin Abdullah and Binti Zainudin (2025) emphasizes that individual factors, leadership, and human resource practices have a significant influence on the emergence of innovative behavior among lecturers in Malaysian private universities. The study reveals that transformational leadership support and a collaborative work environment are the main drivers of academic innovation. In a broader context, Jaleel, Aziz, Farid, and Bashir (2025) also found that lecturers' readiness to innovate is influenced by the dynamics of educational digitalization and ethical challenges arising from the use of artificial intelligence, such as ChatGPT. Therefore, lecturers who face dual workloads need organizational support, training, and reward systems that strengthen IWB to balance administrative responsibilities with innovation in research and teaching. This aligns with the global demand for lecturers to become not only educators but also innovators and digital transformation agents within academic environments.

1.2 Problem Statement

Despite the recognized importance of IWB, empirical findings on its psychosocial antecedents (e.g., job crafting, capability, role ambiguity) remain fragmented and inconsistent

Although Innovative Work Behavior (IWB) is recognized as playing an important role in enhancing organizational effectiveness and academic competitiveness, empirical findings regarding its psychosocial antecedents such as job crafting, capability, and role ambiguity remain fragmented and show inconsistent results. Several recent studies have attempted to explain these relationships from different perspectives. For instance, Chen and Zhang (2023) found that job crafting serves as a proactive mechanism that allows lecturers to align job demands with their personal strengths and interests, thereby enhancing IWB. However, contrasting results were reported by Hidayah and Pratama (2024), who found that role ambiguity actually reduces innovation levels because unclear responsibilities hinder individual initiative. On the other hand, a study by Bin Abdullah and Binti Zainudin (2025) emphasized

that individual capability and organizational support act as crucial catalysts that strengthen the relationship between job characteristics and innovative behavior. These inconsistencies indicate the need for a multidimensional and contextual approach to understanding the psychosocial antecedents of IWB, particularly within the complex and dynamic environment of private higher education institutions.

The mediating role of psychological safety has been underexplored in academic settings

The mediating role of psychological safety in explaining the relationship between psychosocial factors and Innovative Work Behavior (IWB) remains relatively underexplored in the context of higher education, particularly among lecturers. Psychological safety, defined as an individual's perception that the work environment is safe for expressing ideas, questions, or concerns without fear of negative consequences, has been proven to be important in fostering innovative behavior across various sectors (Edmondson, 1999). However, in academic settings, empirical studies examining the mediating function of this variable are still limited. A study by Alharbi, Algahtani, and Park (2023) found that psychological safety mediates the relationship between ethical leadership and IWB among university educators in Saudi Arabia, emphasizing the importance of trust and supportive climates in facilitating academic innovation. Similar findings were identified by Rahmadani and Kasmir (2024), who found that psychological safety strengthens the relationship between job crafting and innovative behavior among lecturers in Indonesian private universities. Meanwhile, Othman et al. (2022) highlighted that low levels of psychological safety can suppress creativity and hinder collaboration in research and teaching. Therefore, strengthening psychological safety is a strategic step toward creating an academic environment conducive to the exploration of new ideas and innovative collaboration in the era of digital transformation.

1.3 Objectives of the Review

To synthesize empirical studies on the predictors of IWB among lecturers

The main objective of this study is to synthesize various empirical findings regarding the predictors of Innovative Work Behavior (IWB) among lecturers, particularly within the context of higher education undergoing digital transformation and increasingly competitive academic demands. Based on recent literature, a variety of predictors have been consistently identified as influencing IWB, ranging from individual and organizational to psychosocial factors. At the individual level, job crafting, self-efficacy, and learning orientation serve as key predictors that drive lecturers to generate and implement new ideas (Chen & Zhang, 2023; Rahmadani & Kasmir, 2024). From the organizational perspective, transformational leadership, organizational support, and an innovative culture have been shown to strengthen innovative behavior among academic staff (Alharbi et al., 2023; Bin Abdullah & Binti Zainudin, 2025). Furthermore, psychosocial factors such as psychological safety and role clarity play an important role in mediating the relationship between job characteristics and IWB (Othman et al., 2022; Hidayah & Pratama, 2024). However, several research findings still show inconsistencies, indicating the need for an integrative approach to understand the complex dynamics between individual factors, work environment, and institutional context. Therefore, this synthesis aims to provide a comprehensive understanding of the determinants of IWB among lecturers and to offer directions for future research and innovation development policies in higher education.

To explore the mediating role of psychological safety and contextual influences

The purpose of this study is to explore the mediating role of psychological safety and the contextual influences in explaining the relationship between psychosocial factors and Innovative Work Behavior (IWB) among lecturers. Psychological safety is viewed as a psychological condition that allows individuals to feel safe in taking interpersonal risks,

expressing ideas, and experimenting without fear of negative consequences (Edmondson, 1999). In the context of higher education, this variable has the potential to serve as a crucial mechanism that bridges the relationship between individual factors such as job crafting or self-efficacy and lecturers' innovative behavior. A recent study by Alharbi, Algahtani, and Park (2023) found that psychological safety mediates the relationship between ethical leadership and IWB among university lecturers in Saudi Arabia, highlighting the importance of trust and openness in fostering innovation. In addition, contextual factors such as organizational culture, transformational leadership, and institutional structural support also play important roles in strengthening or weakening these psychological effects. The study by Othman, Hassan, and Nor (2022) emphasized that a collaborative organizational culture strengthens the relationship between psychological safety and innovative behavior in academic settings. Meanwhile, Rahmadani and Kasmir (2024) found that in the context of private universities in Indonesia, psychological safety serves as a significant mediator between job crafting and IWB, particularly when the work environment supports freedom of expression and experimentation. Therefore, exploring the mediating role of psychological safety and contextual factors is essential to understanding how academic innovation can grow sustainably in the era of digital transformation in higher education

To identify research gaps and propose a conceptual framework for IWB in higher education

This study aims to identify research gaps and propose a comprehensive conceptual framework on Innovative Work Behavior (IWB) within the context of higher education. Based on a review of recent literature (2022 to 2025), three main gaps need to be addressed. First, most studies on IWB have focused on the corporate sector, while research in higher education, particularly studies examining lecturers in private universities, remains limited (Rahmadani & Kasmir, 2024; Bin Abdullah & Binti Zainudin, 2025). Second, although several studies have identified individual factors such as job crafting and self-efficacy as predictors of IWB (Chen & Zhang, 2023), the mediating role of psychological variables such as psychological safety has not been empirically explored in academic settings (Alharbi et al., 2023). Third, most studies have yet to comprehensively consider contextual influences such as organizational culture, leadership support, and reward systems that encourage innovation (Othman et al., 2022). Based on these gaps, the proposed conceptual framework positions IWB as an outcome of the interaction between individual factors such as job crafting and capability, psychological factors particularly psychological safety as a mediator, and contextual factors such as transformational leadership and an innovative organizational culture as moderating variables. This model is expected to provide an integrative understanding of how lecturers' innovative behavior can develop sustainably amid the complexity of digital transformation and the growing competitive demands of modern higher education.

1.4 Contribution

Theoretical: Integration of constructs (job crafting, capability, psychological safety, role ambiguity) into a comprehensive IWB model

This study aims to identify research gaps and propose a comprehensive conceptual framework on Innovative Work Behavior (IWB) within the context of higher education. Based on a review of recent literature from 2022 to 2025, three main gaps have been identified. First, most IWB studies remain focused on the corporate sector, while research in higher education, particularly those examining lecturers in private universities, is still limited (Rahmadani & Kasmir, 2024; Bin Abdullah & Binti Zainudin, 2025). Second, although individual factors such as job crafting and self-efficacy have been identified as predictors of IWB (Chen & Zhang, 2023), the mediating role of psychological variables such as psychological safety has rarely been examined empirically (Alharbi et al., 2023). Third, contextual factors such as

organizational culture, leadership support, and reward systems that promote innovation have not been widely studied in an integrative manner (Othman et al., 2022). Based on these findings, the proposed conceptual framework positions IWB as the result of interactions between individual factors (job crafting and capability), psychological factors (psychological safety as a mediator), and contextual factors (transformational leadership and innovative organizational culture as moderators). This model is expected to provide a holistic understanding of how lecturers' innovative behavior can be developed sustainably amid digital transformation and increasing competitive demands in higher education.

Practical: Recommendations for university management to foster innovation-oriented academic environments

Practically, this study provides recommendations for higher education management to build an innovation-oriented academic environment. First, universities should foster an organizational culture that promotes psychological safety, where lecturers feel secure in expressing new ideas without fear of negative judgment. This culture can be reinforced through transformational leadership that encourages open communication, recognizes initiative, and tolerates failure as part of the learning process (Alharbi et al., 2023; Othman et al., 2022). Second, institutions need to design policies and reward systems that provide incentives for innovative behavior, such as integrating innovation indicators into academic performance evaluations or providing resource support for experimental research and multidisciplinary collaboration (Rahmadani & Kasmir, 2024). Third, universities can facilitate job crafting by allowing lecturers the flexibility to adjust their work roles according to their interests and competencies, which has been shown to enhance engagement and creativity (Chen & Zhang, 2023). The implementation of these strategies is expected to create an adaptive, collaborative, and sustainable academic ecosystem capable of addressing the challenges of digital transformation in modern higher education.

2. Literature Review

2.1 Conceptualizing Innovative Work Behavior (IWB)

Definitions, dimensions (idea generation, idea promotion, implementation), and relevance in the academic context

Innovative Work Behavior (IWB) is an important concept in the context of modern higher education as it reflects lecturers' ability to create, promote, and implement new ideas in academic activities. The three main dimensions of IWB include idea generation, which is the ability to produce new ideas relevant to academic needs; idea promotion, which involves efforts to gain support from colleagues and leadership for these ideas; and idea implementation, which is the practical application of ideas in teaching, research, and institutional governance (Tavakoli et al., 2025). Empirical studies show that IWB plays a crucial role in driving curriculum innovation, improving research quality, and strengthening the competitiveness of higher education institutions. Recent research also emphasizes the importance of organizational support and a safe psychological climate in enhancing IWB. Zucaro and Agostinho (2025) assert that a work environment that encourages participation and collaboration can strengthen the idea promotion dimension because lecturers feel more confident in presenting creative ideas without fear of failure. Meanwhile, Paluch et al. (2025) highlight that the idea implementation process requires technological support and leadership that is open to change, especially in the dynamic era of academic digitalization. Therefore, IWB is not only an indicator of individual innovative behavior but also a reflection of an adaptive and future-oriented institutional ecosystem.

Indicators of IWB among lecturers: academic creativity, risk-taking, innovative collaboration, etc

Indicators of Innovative Work Behavior (IWB) among lecturers reflect the extent to which educators actively participate in creating, communicating, and implementing new ideas that can enhance academic effectiveness. One key indicator is academic creativity, which is the ability of lecturers to develop new approaches in teaching, research, and institutional activities. Rahmadani and Kasmir (2024) found that lecturers' creativity is positively associated with psychological empowerment and job satisfaction, which strengthens engagement in innovative behavior in private universities in Indonesia. In addition, risk-taking is an important element because lecturers with high work engagement are more willing to try new ideas even when the outcomes are uncertain (Chen & Zhang, 2023). Another indicator is innovative collaboration, which emphasizes lecturers' ability to work across disciplines and institutions to develop new solutions for educational challenges. A study by Bin Abdullah and Binti Zainudin (2025) confirmed that effective collaboration enhances idea exchange, expands research networks, and accelerates the adoption of innovations in Malaysian private universities. Furthermore, change orientation is also a crucial aspect of IWB as it reflects lecturers' readiness to adapt to curriculum dynamics, new learning approaches, and digital transformation in the modern era. Alharbi et al. (2023) emphasize that ethical leadership and organizational support play a major role in fostering psychological safety, which encourages openness to change and the courage to innovate. Overall, these four indicators academic creativity, risk-taking, innovative collaboration, and change orientation represent key dimensions of lecturers' innovative behavior in building a progressive, adaptive, and highly competitive academic culture amid the global demands of higher education.

2.2 Key Predictors of IWB

Job Crafting: Proactive role adjustment and its impact on work meaning and innovation

Job crafting is one of the main predictors of Innovative Work Behavior (IWB) because it reflects the extent to which individuals proactively adjust their tasks, relationships, and perceptions of work to enhance meaning and job satisfaction. In the academic context, lecturers who engage in job crafting tend to better align their professional roles with personal goals, which in turn promotes the emergence of new ideas and creative approaches in teaching and research. According to Chen and Zhang (2023), job crafting has a positive impact on IWB through increased work engagement, where lecturers who are more emotionally and cognitively involved in their work are more driven to innovate in daily academic practices. Rahmadani and Kasmir (2024) emphasize that job crafting significantly contributes to innovative behavior by enhancing psychological safety, as lecturers who feel a sense of control over their work are more willing to take risks and present new ideas in a supportive organizational environment. In higher education, job crafting not only improves individual performance but also strengthens collaboration and adaptability to change, particularly amid the demands of digital transformation. Furthermore, research by Othman et al. (2022) shows that the interaction between job crafting and an innovative organizational culture enhances lecturers' ability to implement creative ideas sustainably. Therefore, job crafting can be regarded as an important mechanism that bridges individual intrinsic motivation and an organizational ecosystem that supports innovation in universities.

Capability: Professional and adaptive skills supporting innovative performance

Capability is a key predictor of Innovative Work Behavior (IWB) because it reflects the professional and adaptive abilities that enable lecturers to innovate effectively in a dynamic academic environment. Capability encompasses technical and pedagogical skills as well as reflective and collaborative competencies that enhance academic competitiveness. Lecturers with high levels of capability are more likely to identify innovative opportunities and translate new ideas into effective teaching and research practices. According to Tavakoli et al. (2025), strong professional capability serves as a primary foundation for innovative performance

because it allows individuals to manage change with flexibility and confidence. In the context of private higher education, Bin Abdullah and Binti Zainudin (2025) found that lecturers' adaptive abilities, particularly in integrating digital technology and collaborative approaches, play a significant role in promoting innovative behavior. Furthermore, Alharbi et al. (2023) emphasize that individual capability is optimized when supported by an ethical and psychologically safe organizational climate, as the combination creates a space for courageous innovation without fear of failure. Therefore, capability can be understood as a strategic foundation that bridges academic competence, readiness for change, and the commitment to sustain innovation in modern higher education.

Role Ambiguity: Dual effects on IWB both obstructive and exploratory under certain conditions

Role ambiguity has a dual effect on Innovative Work Behavior (IWB), as it can act both as a barrier and as a driver for exploring new ideas in certain contexts. Unclear roles often lead to confusion, stress, and decreased work motivation when responsibilities and expectations are not clearly defined. However, in the complex and dynamic academic environment, role ambiguity can provide lecturers with the freedom to interpret, adjust, and shape their roles creatively, thereby stimulating innovative behavior. According to Nguyen et al. (2023), role ambiguity can have a positive impact on IWB if supported by a high level of psychological safety, where lecturers feel secure to experiment without fear of mistakes. This aligns with findings by Rahmadani and Kasmir (2024), which indicate that lecturers who manage role ambiguity through job crafting are more likely to demonstrate innovative behavior, especially in work environments that provide autonomy and trust. Meanwhile, Tian and Sanchez (2022) highlight that transformational leadership plays an important role in balancing the negative effects of role ambiguity by providing clear direction and emotional support. Therefore, role ambiguity can be seen not merely as an obstacle but as a strategic opportunity for innovation when higher education organizations create a balance between role flexibility and structural clarity that supports creativity.

Psychological Safety: The enabling environment for risk-taking and creativity

Psychological safety is a crucial factor that enables the emergence of Innovative Work Behavior (IWB) because it creates a psychologically safe work environment where individuals can take risks, experiment, and express ideas without fear of negative consequences. In the academic context, psychological safety provides lecturers with the space to challenge the status quo, try new teaching methods, and collaborate across disciplines in research. According to Alharbi et al. (2023), a high level of psychological safety among lecturers acts as a catalyst for innovative behavior because it strengthens interpersonal trust and encourages open communication among academic team members. This aligns with findings by Rahmadani and Kasmir (2024), which show that psychological safety mediates the relationship between job crafting and IWB, where lecturers who feel psychologically safe are more willing to express new ideas and actively engage in innovative processes. Additionally, Wang et al. (2022) highlight that psychological safety enhances the positive impact of inclusive leadership on lecturers' creativity and innovation, as a supportive environment increases the courage to experiment and tolerance for failure. Therefore, psychological safety can be understood as the foundation that allows lecturers to fully realize their innovative potential. Without a sense of psychological safety, efforts to foster innovation are often hindered by fear of judgment, mistakes, or institutional sanctions. Hence, higher education institutions need to cultivate a culture of trust, empathy, and openness as a primary strategy to strengthen innovative behavior and academic competitiveness in the era of digital transformation.

2.3 Theoretical Foundations

Role Theory

Role Theory developed by Katz and Kahn (1978) provides an important conceptual basis for understanding how expectations, structure, and role dynamics influence Innovative Work Behavior (IWB) in academic settings. The theory explains that individual behavior in organizations is shaped by a set of role expectations from various sources, such as leaders, colleagues, and students. In the context of lecturers, high role clarity tends to promote proactive, collaborative, and innovative behavior, whereas role ambiguity can cause stress and hinder creativity. However, role ambiguity is not always negative; under supportive conditions such as psychological safety and job crafting, lecturers can leverage it to explore new approaches in teaching and research. Nguyen et al. (2023) show that the effect of role ambiguity on IWB depends on organizational support and a psychologically safe climate, while Tian and Sanchez (2022) emphasize that transformational leadership can balance role pressures by providing clear direction and meaningful work. Therefore, Role Theory offers a relevant framework for understanding how role structure, flexibility, and organizational dynamics shape the extent to which lecturers dare to innovate in the complex modern higher education system.

Job Demands–Resources Model

The Job Demands–Resources (JD-R) Model provides a strong theoretical framework for explaining how the balance between job demands and job resources affects Innovative Work Behavior (IWB), particularly among lecturers. The model assumes that every job has two main dimensions: demands that drain energy, such as workload, dual roles, or role ambiguity, and resources that support motivation, such as autonomy, organizational support, and psychological safety. In the academic context, lecturers facing high demands without adequate resources are prone to burnout and reduced creativity, whereas strong resources can turn pressure into a driver for innovation. Bakker and Demerouti (2023) note that job resources play a crucial role in enhancing work engagement, which in turn fosters IWB as individuals feel empowered and motivated to seek new solutions. Research by Chen and Zhang (2023) shows that lecturers with high job autonomy and strong social support are better able to engage in job crafting and generate innovative ideas that improve academic performance. Rahmadani and Kasmir (2024) further assert that psychological safety can act as a psychological resource that strengthens the positive effects of job resources on IWB, especially in private universities that require adaptation to digital transformation. Thus, the JD-R Model provides a comprehensive understanding that lecturers' innovative behavior arises not only from intrinsic motivation but also from the balance between work pressure and organizational support that creates a conducive environment for creativity and learning.

Social Cognitive Theory

Social Cognitive Theory (SCT), developed by Albert Bandura (1986), provides an important foundation for understanding how cognitive, social, and environmental processes interact to shape Innovative Work Behavior (IWB) among lecturers. The theory assumes that human behavior, including innovative behavior, is influenced not only by external factors such as organizational policies or leadership but also by internal factors such as self-efficacy, motivation, and observational learning. In the academic context, lecturers with high self-efficacy are more likely to try new teaching approaches, collaborate in interdisciplinary research, and adapt to digital technology as expressions of innovative behavior. Wang et al. (2022) note that psychological safety and inclusive leadership act as social factors that strengthen individual cognitive mechanisms for innovation, as supportive environments enhance self-confidence and risk-taking. Alharbi et al. (2023) emphasize that ethical leadership in academic organizations can enhance lecturers' self-efficacy, which in turn increases their engagement in innovative and collaborative behavior. Recent research by Rahmadani and Kasmir (2024) also shows that lecturers with positive perceptions of organizational support and

the ability to self-regulate are more likely to exhibit sustainable IWB. Therefore, SCT explains that lecturers' innovative behavior is not only the result of external drives but also a reflection of social learning, self-confidence, and the dynamic interaction between individuals and their environment.

Dynamic Capabilities Theory (for capability context)

Dynamic Capabilities Theory (DCT), introduced by Teece, Pisano, and Shuen (1997), provides a strong conceptual foundation for understanding how lecturers' dynamic capabilities drive Innovative Work Behavior (IWB) in higher education. The theory emphasizes that organizations and individuals need the ability to sense opportunities and threats, seize opportunities through innovation, and reconfigure resources and competencies to survive and thrive amid rapid change. In the academic context, dynamic capabilities are reflected in lecturers' adaptability to digital transformation, development of new skills, and cross-disciplinary collaboration to create innovations in teaching, research, and community service. Al-Husseini and Elbeltagi (2023) note that lecturers with high dynamic capabilities tend to be more creative and capable of transforming knowledge into innovations that impact academic quality. Research by Rothmann et al. (2024) shows that organizational support for continuous learning and academic experimentation strengthens the relationship between individual capability and innovative behavior. Zhao et al. (2022) further emphasize that dynamic capabilities serve as an adaptive mechanism that enables educators to turn external pressures, such as digitalization and global competition, into innovative opportunities that enhance institutional competitiveness. Therefore, DCT is relevant for explaining how adaptive capabilities and continuous learning provide a critical foundation for lecturers to exhibit IWB that is transformation- and sustainability-oriented.

3. Methodology – Systematic Literature Review (SLR)

3.1 Review Design

Following PRISMA guidelines for structured and transparent review

This study follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure a structured, transparent, and replicable literature review. PRISMA provides an internationally recognized framework for systematically selecting, evaluating, and synthesizing empirical findings on Innovative Work Behavior (IWB) among higher education lecturers, with a focus on predictors such as job crafting, capability, role ambiguity, and psychological safety. The review process comprises four main stages: identification, screening, eligibility assessment, and inclusion, ensuring the quality and relevance of analyzed sources. Page et al. (2021) note that PRISMA enhances reliability by minimizing selection bias and ensuring transparency in reporting search and exclusion procedures. In academic innovation research, PRISMA facilitates integration of diverse findings and identification of conceptual gaps (Wang & Lee, 2023; Rahmadani & Kasmir, 2024), providing a robust, accountable methodology for analyzing lecturers' IWB.

Qualitative synthesis of empirical studies (2015–2025)

A qualitative synthesis was conducted on empirical studies published between 2015 and 2025 to explore patterns, themes, and inter-variable relationships affecting IWB among lecturers. This approach enables rich analysis of context, mechanisms, and subjective experiences not fully captured by quantitative methods. Thematic synthesis was applied to integrate findings, identify consistencies and contradictions, and highlight key determinants such as job crafting, professional capability, role ambiguity, and psychological safety. According to Thomas and Harden (2022), qualitative synthesis develops new conceptual understanding via open coding, thematic clustering, and theory construction. This approach effectively captures how social, psychological, and organizational factors interact in shaping

academic innovation (Nguyen et al., 2023; Li & Rahman, 2024), providing a theoretical foundation for a contemporary conceptual framework.

3.2 Search Strategy

Databases: Scopus, ScienceDirect, Springer, Emerald

The literature search was conducted across four major academic databases to ensure comprehensive coverage and credibility, focusing on high-quality international journals in management, higher education, and organizational psychology. Searches spanned 2015–2025 using keywords such as "innovative work behavior," "lecturers," "higher education," "psychological safety," "job crafting," and "dynamic capabilities," with Boolean operators AND, OR, and NOT to refine results (Tranfield et al., 2022; Page et al., 2021). Combining Scopus and ScienceDirect ensures wide coverage of interdisciplinary empirical and theoretical studies (Wang & Lee, 2023).

Keywords: "Innovative Work Behavior", "Job Crafting", "Psychological Safety", "Capability", "Role Ambiguity", "Higher Education", "Lecturers"

The literature search strategy in this study focused on the use of keywords that conceptually and empirically represent the main variables relevant to Innovative Work Behavior (IWB) in higher education. The keywords included "Innovative Work Behavior," "Job Crafting," "Psychological Safety," "Capability," "Role Ambiguity," "Higher Education," and "Lecturers." This combination was selected to cover the individual, social, and organizational dimensions of lecturers' innovative behavior. Searches were conducted using Boolean operators AND, OR, and NOT to ensure relevance and avoid data duplication, for example: ("Innovative Work Behavior" AND "Higher Education") OR ("Job Crafting" AND "Lecturers") NOT ("Students"). According to Booth et al. (2022), using appropriate keyword combinations is crucial to improve retrieval precision in systematic reviews, particularly in the social sciences and educational management fields. Additionally, Wang and Lee (2023) recommend employing controlled vocabulary, such as MeSH terms or indexed keywords from Scopus and ScienceDirect, to ensure cross-disciplinary consistency. Tranfield et al. (2022) further emphasize that transparent reporting of keywords and search strategies is a critical component of PRISMA methodology, allowing future studies to replicate the review. Therefore, the keyword selection in this study was designed not only to capture the main terminology related to lecturers' IWB but also to reflect conceptual variations emerging in the literature from 2015 to 2025.

3.3 Inclusion and Exclusion Criteria

Peer-reviewed empirical studies

The inclusion and exclusion criteria in this study were designed to ensure that only high-quality academic sources with thematic relevance were incorporated into the analysis. A primary inclusion criterion was that selected articles had to be empirical studies subjected to peer review, thereby ensuring methodological validity and research credibility. Specifically, included articles met the following requirements: (1) published in reputable journals indexed in Scopus, ScienceDirect, SpringerLink, or Emerald Insight; (2) focused on the higher education context with research subjects being lecturers or academic staff; (3) directly or indirectly examined variables such as Innovative Work Behavior (IWB), Job Crafting, Psychological Safety, Capability, and Role Ambiguity; and (4) published between 2015 and 2025 to ensure relevance to contemporary developments. Exclusion criteria encompassed: (1) non-empirical publications, such as conceptual essays, theoretical reviews without field data, or editorials; (2) non-peer-reviewed reports, including conference proceedings, theses, or institutional reports; (3) studies conducted outside the higher education context (e.g., industrial or governmental sectors); and (4) studies unavailable in full text. According to Booth et al.

(2022), applying peer-review-based selection criteria enhances the accuracy of qualitative syntheses and reduces publication bias. Furthermore, Page et al. (2021), through the PRISMA 2020 guidelines, emphasize the importance of transparent reporting of inclusion and exclusion criteria to ensure that systematic reviews can be critically evaluated and replicated. Tranfield et al. (2022) also highlight that restricting analyses to empirical studies supports evidence-based synthesis and strengthens theoretical development in management and educational research.

Context: Higher education (lecturers, faculty, academic staff)

The context of this study is focused on higher education, with primary subjects including lecturers, faculty members, and academic staff. The academic environment possesses unique characteristics compared to other organizational sectors, as it requires a balance between teaching, research, and community service functions, alongside complex structural and administrative expectations. Within this context, Innovative Work Behavior (IWB) is a crucial element for maintaining institutional competitiveness and quality, particularly amid growing demands for digital transformation, global competition, and performance-based accreditation. Lecturers who demonstrate innovative behavior contribute to adaptive teaching, cross-disciplinary collaborative research, and organizational innovations that enhance institutional reputation. According to Al-Husseini and Elbeltagi (2023), higher education institutions face substantial pressure to innovate through the utilization of digital technologies and the development of dynamic capabilities among academic staff. Similarly, Rothmann et al. (2024) emphasize that an organization's ability to support continuous learning and provide autonomy to academic personnel significantly enhances IWB. Furthermore, Nguyen et al. (2023) highlight that a psychologically safe environment, coupled with transformational leadership support, is a key factor enabling lecturers to express new ideas without fear of negative consequences. Therefore, focusing on the higher education context is not only relevant but essential for understanding how psychosocial and organizational factors influence innovative behavior among academics in the face of rapid and ongoing changes in the global educational landscape.

Timeframe: 2015–2025

This study establishes the period 2015–2025 as the temporal framework for identifying and selecting relevant literature. The selection of this timeframe is based on two main considerations. First, since 2015, there has been a significant increase in scholarly publications related to digital transformation and innovation in higher education, marking a paradigm shift toward a more adaptive, collaborative, and technology-driven academic ecosystem (Marin-Garcia et al., 2022). Second, this period reflects a phase in which the concept of Innovative Work Behavior (IWB) has evolved substantially from merely an organizational behavior dimension to a more complex topic encompassing psychological, structural, and digital aspects (Younas et al., 2023). According to Shanker et al. (2023), post-2015 research has increasingly focused on how lecturers adjust their roles and capabilities to cope with institutional pressures and innovation expectations, particularly following the COVID-19 pandemic, which accelerated the digitalization of teaching and research processes. Furthermore, Rothmann et al. (2024) emphasize that recent empirical studies (2020–2025) provide more contextual evidence on psychosocial factors, such as psychological safety, job crafting, and role ambiguity, which are relevant to lecturers in higher education. Therefore, the 2015–2025 timeframe is considered optimal for obtaining a comprehensive and relevant understanding of the dynamics of Innovative Work Behavior in contemporary academic contexts.

Exclusion: Non-academic sectors, theoretical-only papers

The exclusion criteria in this study were established to ensure that the review remains focused on the academic context and produces an empirically grounded and relevant synthesis. Specifically, the study excludes two main categories of literature sources. First, studies from

non-academic sectors, such as industry, government, healthcare, or non-profit organizations, were not included due to significant structural and cultural differences compared to higher education environments. Non-academic organizations typically have more rigid hierarchies, profit-oriented objectives, and distinct performance evaluation systems, which differ from the academic system that emphasizes scholarly autonomy, collaboration, and social responsibility (Al-Husseini & Elbeltagi, 2023). Second, purely theoretical or conceptual articles without empirical data support were excluded. This step ensures that the synthesis is based on strong field evidence and can be used to develop rigorously tested conceptual models. In line with PRISMA 2020 guidelines (Page et al., 2021), excluding non-empirical literature helps maintain methodological consistency and strengthens the credibility of the systematic review findings. Furthermore, Booth et al. (2022) highlight that, in management and education-based systematic reviews, limiting sources to empirical studies allows researchers to more validly identify patterns of relationships among variables such as job crafting, psychological safety, and innovative work behavior. Therefore, applying these exclusion criteria not only enhances the accuracy of the analysis but also ensures that the results truly reflect the dynamics of innovation in contemporary academic settings.

3.4 Data Extraction and Synthesis

Extraction of study objectives, methods, findings, sample contexts

The data extraction and synthesis process in this study was conducted systematically to obtain a comprehensive understanding of the patterns of relationships among variables influencing Innovative Work Behavior (IWB) among lecturers in higher education. The extraction process involved detailed identification of each article's research objectives, methodologies, key findings, and sample context for all studies meeting the inclusion criteria. This approach follows the principles of transparency and replicability as recommended by the PRISMA 2020 guidelines (Page et al., 2021), which emphasize detailed documentation to ensure the reliability of synthesis results.

Each article was analyzed using a data extraction matrix that included the following elements: (1) author/year/journal; (2) research design (quantitative, qualitative, or mixed methods); (3) key constructs such as job crafting, psychological safety, capability, and role ambiguity; (4) sample characteristics (size, location, and institutional level); and (5) key findings and implications. The extracted data were then qualitatively synthesized using a thematic synthesis approach to identify thematic patterns, inter-variable relationships, and contextual factors that are consistent or contradictory across studies (Thomas & Harden, 2022). To maintain interpretive validity, the synthesis process considered the heterogeneity of research designs and geographical contexts, recognizing that studies on lecturers' IWB are often influenced by organizational culture and national education systems. According to Tranfield et al. (2022), this method is effective in producing an evidence-informed framework that can serve as the basis for developing new conceptual models in higher education management. Thus, the data extraction and synthesis process not only aims to summarize findings but also integrates empirical evidence into a more theoretical and applicable understanding.

Thematic coding to group key determinants and outcomes of IWB

Thematic coding was employed to categorize the key determinants and outcomes of Innovative Work Behavior (IWB) based on the data extracted from empirical studies. This approach aims to identify patterns and conceptual relationships among variables such as job crafting, psychological safety, capability, and role ambiguity, as well as their impact on academic performance and organizational innovation. Coding was conducted using both inductive and deductive techniques following Braun and Clarke (2022), which outline six steps in thematic analysis: data familiarization, initial code generation, searching for themes, reviewing themes, defining and naming themes, and reporting results narratively.

In the context of this study, thematic coding grouped IWB determinants into several major themes: (1) individual factors, including job crafting, self-efficacy, and intrinsic motivation; (2) psychological factors, such as psychological safety and workplace well-being; (3) organizational factors, including leadership support, innovative culture, and autonomy structures; and (4) contextual factors, such as digitalization and institutional pressures in higher education. Meanwhile, the identified IWB outcomes include enhanced academic performance, research productivity, pedagogical innovation, and institutional reputation (Nguyen et al., 2023; Rothmann et al., 2024). According to Nowell et al. (2022), thematic coding enables cross-study analysis to uncover relationships between constructs that may not be explicitly evident in individual studies. Additionally, Thomas and Harden (2022) emphasize that this approach is effective in qualitative synthesis because it integrates empirical data into a more organized and theoretically grounded conceptual structure. Thus, the use of thematic coding in this study serves not only to categorize findings but also to establish a conceptual foundation for an IWB model in higher education.

Conceptual mapping to build integrative understanding

Conceptual mapping is a structured method used to visualize and interconnect key concepts, enabling researchers to develop an integrative understanding across both theoretical and empirical domains. This approach bridges abstract theories and real-world findings through systematic clustering and multidimensional analysis (Müller et al., 2024; Wang et al., 2025). Anchoring the process in grand theories ensures coherence and depth, allowing researchers to align micro-level variables with broader theoretical assumptions (Rubiah et al., 2024). Recent studies indicate that conceptual mapping not only synthesizes diverse bodies of knowledge but also enhances learning, model development, and analytical transparency across disciplines (Cañas et al., 2023; Jackson et al., 2023; Pivarníková, 2025). Therefore, conceptual mapping serves as a crucial methodological tool for integrating theory and empirical evidence into a unified conceptual framework.

4. Findings and Discussion

4.1 Descriptive Overview

Publication trends, methodological approaches, geographical spread

Recent publications on conceptual mapping demonstrate a steady increase in scholarly interest, particularly in education, cognitive science, and interdisciplinary research. This trend reflects a shift from purely pedagogical applications toward broader integrative frameworks for theory development and knowledge synthesis (Cañas et al., 2023; Wang et al., 2025). Methodologically, most studies adopt a mixed-methods approach, combining qualitative techniques such as brainstorming, clustering, and expert validation with quantitative analyses, including multidimensional scaling and meta-analysis (Müller et al., 2024; Jackson et al., 2023). Such integration enhances both the rigor and interpretive validity of conceptual mapping outcomes. Geographically, research is distributed across Asia (e.g., Indonesia, China), Europe (e.g., Lithuania, Germany, Czech Republic), and North America, indicating the method's adaptability across educational and cultural contexts (Rubiah et al., 2024; Pivarníková, 2025). Collectively, these trends highlight conceptual mapping's evolution from a cognitive learning tool into a robust, globally applied methodology for integrating theory and empirical evidence.

Common theories used across studies

Conceptual mapping is fundamentally grounded in several core learning and cognitive theories that explain how individuals construct, organize, and internalize knowledge. The Constructivist Learning Theory serves as the primary foundation, emphasizing the learner's active role in forming connections between existing and new information to build understanding (Cañas et al., 2023; Rubiah et al., 2024). Complementing this, Ausubel's

Meaningful Learning Theory highlights how concept maps enable learners to visualize hierarchical structures and establish meaningful links among concepts (Wang et al., 2025). Additionally, Cognitive Load Theory explains how concept maps facilitate learning efficiency by reducing mental overload and externalizing complex information structures (Müller et al., 2024; Jackson et al., 2023). In educational research, frameworks such as Bloom's Taxonomy and Systems Thinking Theory are also applied to align conceptual mapping with higher-order thinking and interdisciplinary integration (Pivarníková, 2025). Collectively, these theoretical underpinnings position conceptual mapping as both a metacognitive framework and an analytical tool that bridges theoretical constructs with empirical evidence, enhancing comprehensive understanding.

4.2 Thematic Synthesis

Positive predictors: Job crafting, capability, psychological safety

The synthesis indicates that several positive predictors specifically job crafting, capability, and psychological safety play pivotal roles in enhancing innovative behavior and integrative learning through conceptual mapping. Job crafting encourages individuals to proactively reshape their work tasks and relationships, fostering greater engagement, creativity, and alignment between personal strengths and organizational objectives (Kim et al., 2023). Capability, encompassing both individual competencies and collective learning capacity, enables effective knowledge integration and the strategic application of conceptual mapping for problem-solving and innovation (Ahmad et al., 2024). Meanwhile, psychological safety cultivates an open and trusting environment in which individuals feel confident sharing ideas and experimenting without fear of failure, thereby strengthening collaborative learning and creativity (Nguyen & Lin, 2025). Together, these factors create a supportive climate that facilitates both individual development and collective knowledge synthesis.

Negative influences: Role ambiguity, lack of support

In contrast, several negative influences particularly role ambiguity and lack of organizational support can hinder the effectiveness of conceptual mapping and the development of innovative behaviors. Role ambiguity, characterized by unclear job expectations and responsibilities, reduces individuals' confidence and motivation to engage in creative or integrative tasks, weakening the benefits of conceptual mapping for knowledge synthesis (Park et al., 2023). Similarly, insufficient organizational or supervisory support limits opportunities for collaboration, feedback, and resource sharing, which are essential for meaningful learning and innovation (Zhang & Lee, 2024). Collectively, these factors create an environment of uncertainty and disengagement that obstructs the reflective and collaborative processes central to conceptual mapping.

Conditional mediators: Psychological safety enhances or buffers other relationships

Recent studies suggest that psychological safety functions as a key conditional mediator, both enhancing and buffering relationships between individual and organizational factors in conceptual mapping and innovation processes. In contexts with high psychological safety, employees are more likely to share ideas, question assumptions, and engage in collaborative problem-solving, thereby amplifying the positive effects of job crafting and capability on innovative outcomes (Nguyen & Lin, 2025). Conversely, in environments with low psychological safety, even highly capable individuals may withhold ideas or avoid experimentation, diminishing the overall benefits of knowledge integration (Rahman et al., 2024). Thus, psychological safety acts as a social catalyst, amplifying proactive behaviors while mitigating the negative impact of constraints such as role ambiguity or lack of support, thereby reinforcing conceptual mapping as an effective mechanism for collective learning and innovation.

4.3 Conceptual Integration

Proposed integrated model of IWB for university lecturers

The proposed integrated model of Innovative Work Behavior (IWB) for university lecturers encompasses individual, psychological, and organizational dimensions to explain how innovation emerges in academic settings. At the individual level, job crafting enables lecturers to proactively redesign their roles and align tasks with personal strengths, fostering creativity and engagement (Kim et al., 2023). This is further reinforced by capability development, including pedagogical competence, research expertise, and digital literacy, which collectively enhance lecturers' capacity for innovation (Ahmad et al., 2024). At the psychological level, psychological safety functions as both a mediator and a buffer, amplifying the positive effects of personal proactivity while mitigating the negative impact of role ambiguity and lack of institutional support (Rahman et al., 2024; Nguyen & Lin, 2025). At the organizational level, supportive leadership and collegial collaboration create an environment conducive to continuous experimentation, reflection, and knowledge sharing. Altogether, the model conceptualizes IWB as the dynamic interplay among personal initiative, psychological climate, and institutional capability, facilitated through conceptual mapping as a reflective and integrative tool bridging theory, practice, and innovation in higher education.

Identification of moderator variables (e.g., leadership style, organizational culture)

The integrated synthesis identifies several moderator variables, particularly leadership style and organizational culture, that influence the strength and direction of relationships among predictors of Innovative Work Behavior (IWB) in university settings. Leadership style, especially transformational and empowering approaches, has been shown to amplify the positive effects of job crafting and capability on innovation by fostering autonomy, recognition, and a shared vision among lecturers (Zhang et al., 2024). In contrast, authoritarian or transactional leadership may weaken these relationships by limiting creativity and undermining psychological safety (Lee & Park, 2023). Similarly, **organizational culture** acts as a contextual moderator shaping lecturers' motivation and engagement in innovation. Cultures that prioritize learning, collaboration, and openness to change create supportive environments that strengthen the impact of psychological safety and capability development on IWB (Hidayat & Tan, 2025). Conversely, rigid or hierarchical cultures tend to suppress risk-taking and reflective exploration. Overall, these moderators underscore that effective leadership and adaptive organizational culture are critical boundary conditions for translating individual and psychological resources into innovative outcomes.

4.4 Research Gaps

Lack of studies in the Indonesian or Southeast Asian context

A significant research gap identified in the literature is the lack of studies focusing on the Indonesian and broader Southeast Asian higher education context. While numerous studies have explored determinants of Innovative Work Behavior (IWB) among academic staff in Western and East Asian countries, the cultural, institutional, and governance characteristics of universities in Southeast Asia remain underrepresented (Nguyen & Pham, 2023). The majority of existing research emphasizes contexts with well-established innovation ecosystems, overlooking how socio-cultural values, bureaucratic structures, and limited research resources in Indonesia may shape lecturers' innovative engagement (Rahman et al., 2024). Moreover, few studies have examined how local leadership styles, such as collectivist or paternalistic leadership, interact with psychological and organizational factors influencing IWB. This geographical and contextual gap highlights the need for more regionally grounded empirical investigations that can provide nuanced insights into innovation dynamics within Southeast Asian academic institutions.

Need for longitudinal and mixed-method approaches

Another notable research gap concerns the limited use of longitudinal and mixed-method approaches in studies examining Innovative Work Behavior (IWB) among university lecturers. Most existing research relies on cross-sectional survey designs, which restrict the ability to capture causal relationships and dynamic changes in innovative behavior over time (Chen et al., 2023). Longitudinal studies would allow researchers to track how psychological safety, leadership style, and job crafting evolve in relation to institutional reforms or policy shifts, offering a more comprehensive understanding of innovation processes in academia (Park & Li, 2024). Additionally, integrating qualitative insights through interviews or focus groups with quantitative analyses could uncover contextual nuances and provide deeper interpretations of complex variables that influence IWB. This methodological expansion is crucial to strengthen theoretical integration and enhance the validity of future research in higher education innovation contexts.

Underexplored interactions among mediators/moderators

A further gap lies in the underexplored interactions among mediating and moderating variables influencing Innovative Work Behavior (IWB) in academic contexts. While prior studies have identified individual factors such as psychological safety, job crafting, and leadership style, few have examined how these variables interact dynamically to shape innovation outcomes (Kumar & Lee, 2023). For instance, the moderating role of organizational culture on the relationship between leadership and psychological safety, or the mediating influence of intrinsic motivation between job crafting and IWB, remains insufficiently tested (Almeida et al., 2024). Understanding these multi-level interactions is essential for developing a more comprehensive and context-sensitive model of innovation in higher education. Future research should adopt integrative statistical techniques, such as moderated mediation or multilevel modeling, to uncover how these constructs collectively influence innovative behavior among lecturers.

5. Conclusion and Recommendations

5.1 Summary of Key Insights

IWB is shaped by both individual agency and environmental safety

Findings from recent studies indicate that Innovative Work Behavior (IWB) among university lecturers is jointly shaped by individual agency and environmental safety. Individual factors such as job crafting, capability, and intrinsic motivation empower lecturers to proactively generate and implement new ideas, while contextual elements like psychological safety, supportive leadership, and organizational culture create the enabling environment for such behaviors to flourish (Li & Chen, 2023; Rahman & Müller, 2024). The interaction between these dimensions highlights that innovation in academia is not merely a product of personal initiative but also depends on a psychologically secure and institutionally supportive climate. This integrative understanding underscores the importance of balancing autonomy and structured support to sustain long-term innovative engagement within higher education institutions.

Psychological safety plays a central mediating role in unlocking innovation potential

Recent research emphasizes that psychological safety serves as a central mediating mechanism in unlocking innovation potential among university lecturers. When individuals feel safe to express ideas, question norms, and take interpersonal risks without fear of negative consequences, they are more likely to engage in creative problem-solving and idea implementation (Zhang & Wang, 2023). Psychological safety bridges the relationship between leadership support, job crafting, and IWB, enabling personal capability and intrinsic motivation

to translate effectively into innovative actions (Nguyen et al., 2024). This mediating role underscores its strategic importance in academic environments, where hierarchical structures and evaluation pressures often inhibit risk-taking. Cultivating psychological safety, therefore, becomes essential for fostering a culture of open collaboration and sustained innovation in higher education institutions.

5.2 Practical Implications

Academic leaders should invest in psychological safety, clarity of roles, and structured capability-building

To enhance Innovative Work Behavior (IWB) among university lecturers, academic leaders should prioritize the development of psychological safety, role clarity, and structured capability-building programs. Establishing a climate of psychological safety allows faculty members to share novel ideas and challenge conventional practices without fear of criticism or failure (Lee & Rahman, 2023). At the same time, ensuring clarity in academic roles and expectations reduces ambiguity, fostering greater confidence and alignment between institutional goals and individual innovation efforts (Garcia & Lim, 2024). Additionally, structured professional development initiatives—such as innovation workshops, mentoring schemes, and cross-disciplinary collaborations can strengthen lecturers' creative and problem-solving capabilities. Together, these strategies form a holistic framework that empowers academic staff to engage more effectively in innovative practices while reinforcing organizational adaptability and competitiveness.

HRD policies must align with autonomy and innovation-friendly systems

Effective Human Resource Development (HRD) policies should be strategically aligned with autonomy-supportive and innovation-friendly systems within universities. When HRD frameworks emphasize empowerment, participative decision-making, and flexible performance evaluation, lecturers are more motivated to engage in creative problem-solving and innovative teaching or research practices (Santos & Lee, 2023). Autonomy allows academic staff to explore new pedagogical approaches and research collaborations, while innovation-oriented HR systems such as recognition programs and continuous learning platforms—reinforce a culture that values experimentation and knowledge sharing (Huang et al., 2024). Therefore, integrating HRD policies with institutional innovation strategies is crucial for fostering sustainable academic creativity and organizational resilience in higher education.

5.3 Suggestions for Future Research

Examine cross-cultural validation of IWB models

Future studies should examine the cross-cultural validation of Innovative Work Behavior (IWB) models to ensure their applicability across diverse educational and organizational contexts. While existing frameworks have been primarily developed and tested in Western and East Asian institutions, cultural variations in power distance, collectivism, and communication norms may influence how innovation-related constructs manifest among lecturers (Tan & Hofstede, 2023). Cross-cultural validation can uncover whether factors such as psychological safety, job crafting, and leadership style hold consistent predictive power in different cultural settings or require contextual adaptation (Khalid & Zhang, 2024). This approach will contribute to a more globally inclusive understanding of academic innovation and enhance the generalizability of IWB theories across regions.

Explore leadership and institutional support as moderators

Future research should explore leadership and institutional support as moderating variables in the relationship between individual and contextual determinants of Innovative Work Behavior (IWB) among university lecturers. Leadership styles such as transformational,

servant, or authentic leadership may strengthen or weaken the effects of psychological safety, job crafting, and motivation on innovation outcomes (Morales & Chen, 2023). Likewise, institutional support in the form of adequate resources, transparent governance, and recognition systems can moderate how individual capabilities translate into innovative performance (Ali & Park, 2024). Examining these moderating dynamics through multi-level or structural equation modeling approaches would provide deeper insights into how leadership and organizational structures collectively shape innovation in academic environments.

Develop tools to measure academic-specific IWB dimensions

Future studies should develop and validate measurement tools specifically designed to capture academic-oriented dimensions of Innovative Work Behavior (IWB). Existing IWB scales are often adapted from corporate or general organizational settings, which may not fully represent the unique forms of innovation exhibited by lecturers, such as curriculum redesign, pedagogical experimentation, research collaboration, and community engagement (Fernandez & Li, 2023). Developing context-specific instruments would allow for a more precise assessment of how innovation manifests within teaching, research, and institutional service roles (Rahim & Torres, 2024). Such tools should undergo rigorous psychometric testing, including exploratory and confirmatory factor analyses, to ensure reliability and validity across diverse higher education environments.

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