

Determinants of GenZ' innovative work behavior in East Java: the mediating role of job performance

Shinta Setia¹, Nanda Dwi Maharani²

¹*Faculty of Economics and Business, University of Hayam Wuruk Perbanas, Surabaya, Indonesia.*

²*Faculty of Economics and Business, University of Brawijaya, Malang, Indonesia.*

Received: May 31, 2026; Revised: August 16, 2026;
Accepted: August 19, 2026; Published: November 28, 2026

Abstract

Innovative work behavior (IWB) is a critical component of organizational competitiveness in the post-pandemic digital transformation era, which is marked by rapid technological change and high uncertainty. This study's objective is to examine the relationship between IWB and work stress, work engagement, and leader-member exchange (LMX), using job performance as a mediator. The Structural Equation Modeling (SEM-PLS) method was employed in this study's quantitative methodology. 145 Generation Z workers in East Java provided information via a Likert-scale survey. Three key conclusions are revealed by the data. First, work engagement significantly and favorably affects IWB and job performance. Second, while it has no influence on job performance, LMX significantly and favorably affects IWB. Third, although it has no direct impact on IWB, work stress has a detrimental and substantial impact on job performance. Additionally, the mediation study demonstrates that employee innovation is largely driven by work success. These results have three useful ramifications for businesses: Integrating mindfulness-based stress management programs; adaptive workloads into performance appraisal systems; and Training leaders to build high-quality LMX that focuses on emotional support and providing innovative autonomy.

Keywords: *work stress, work engagement, leader-member exchange, job performance, innovative work behavior.*

Introduction

According to a report by the Indonesian Ministry of Manpower (2026), by 2030, an estimated 170 million new jobs will be generated globally. However, 92 million current jobs could be lost at the same time, meaning that about 59% of the workforce now has to upskill and upgrade their abilities. In this context, innovative work behavior (IWB) defined as the intentional generation, promotion, and realization of novel and useful ideas within organizational roles (Amabile, 1988; Nguyen, 2023) has become a critical determinant of organizational competitiveness and long-term sustainability. A recent global survey revealed a worrying paradox. The SHRM Global Report (2025) indicated that 52 percent of workers experience chronic burnout due to excessive workload, which not only reduces productivity but also suppresses innovative capacity. The McKinsey Southeast Asia Report (2025) further confirms that post-pandemic economic uncertainty and digital fatigue have increased work stress levels by up to 40 percent in the Southeast Asian region, including Indonesia. Indonesia recorded 25.47 percent of workers working more than 49 hours per week, a condition strongly correlated with emotional disengagement and the phenomenon of quiet quitting (CNN Indonesia, 2025; Gallup, 2024). These alarming statistics underscore the urgency of a deeper understanding of the determinants of IWB, particularly the complex interactions between job stress, work engagement, and leader-member exchange (LMX) in the contemporary organizational context. Understanding its antecedents demands robust theoretical integration that can explain the complex interplay between job characteristics, relational resources, and employee outcomes.

Despite the theoretical richness of JD-R and LMX, their integration to explain IWB remains theoretically underexplored, as these perspectives are still commonly examined separately (Bakker & Demerouti, 2017; Martin et al., 2023). Recent scholarship has explicitly called for integrating these lenses to understand how job characteristics and relational resources jointly shape employee outcomes, particularly among younger cohorts (Susetio et al., 2025). This represents a theoretical gap. Empirically, while work stress impairs employee functioning, its relationship with innovation is rarely direct; evidence suggests that workplace pressures influence discretionary behaviors through intervening mechanisms such as burnout and performance degradation (Montani & Staglianò, 2022; Aman Ullah et al., 2025; Liu et al., 2024). Conversely, work engagement serves as a robust motivational engine that drives both routine task execution and proactive innovation, as the broaden and build theory suggests that positive psychological states build enduring personal resources (Fredrickson, 2001; Christian et al., 2011; Kaltiainen & Hakanen, 2022; Hill et al., 2024). Furthermore, research confirms that stronger job performance provides the foundation from which employees can undertake discretionary innovative activities (Nguyen, 2023). However, the specific mediating role of job performance in linking these antecedents to IWB remains insufficiently examined within a unified structural model (Zhang et al., 2023; Martin et al., 2023), representing a critical empirical and methodological gap.

East Java province presents a particularly interesting yet underexplored context for examining IWB among Gen Z workers. Unlike Greater Jakarta, the focus of most Indonesian IWB studies (Hidayati, 2026; Karimah & Al Karim, 2025), East Java exhibits four distinct characteristics that could fundamentally alter the relationship between work stress, work engagement, LMX, and innovative behavior. First, the economic structure and digitalization gap. East Java's economy remains dominated by the manufacturing sector (37 percent of GRDP), micro, small, and medium enterprises (MSMEs) (28 percent), and agro-industry (15 percent), sectors characterized by routine tasks, limited employee autonomy, and slower technology adoption (BPS East Java, 2026). The McKinsey Indonesia Digital report (2026) showed that only 34% of East Java had adopted AI and digitalized processes, compared to 78% in DKI Jakarta and 61% in West Java. This digital divide creates technostress, a specific form of work stress arising from the mismatch between Gen Z's digital expectations and the technological realities of the workplace (Ragu-Nathan et al., 2008; Tarafdar, et al. 2019) which in this case can affect IWB through different mechanisms than traditional work stress. Furthermore, East Java's cultural context combines paternalistic leadership traditions and Javanese ethical values such as *ngoyo* (working beyond normal capacity) and *nrimo* (passive acceptance) that may fundamentally alter the JD-R and LMX pathways (Supriyono, 2024; Karimah & Al Karim, 2025). This unique configuration suggests these relationships may operate differently than in Western or metropolitan settings, justifying specific empirical investigation and highlighting a clear contextual gap.

The novelty of this study is threefold. First, it synthesizes JD-R and LMX perspectives to distinguish between direct and performance mediated innovation pathways in a single cohesive model (Bakker & Demerouti, 2017; Graen & Uhl-Bien, 1995). Second, it challenges the assumed universal positive link between LMX and routine performance, positing that in paternalistic cultures, LMX may function more critically as a psychological safety enabler for innovative behavior rather than as a driver of daily productivity an argument supported by recent research (Yoon et al., 2024; Martin et al., 2023). Third, it addresses contextual and methodological gaps by empirically testing these relationships among Gen Z employees in East Java using SEM-PLS. Based on this framework, this study aims to: (1) examine the direct effects of work stress, work engagement, and LMX on job performance and IWB; and (2) investigate the mediating role of job performance in these relationships. By integrating these perspectives, this research contributes to a more nuanced understanding of IWB determinants that accounts for contextual vulnerabilities and cultural values in the

developing world, moving beyond Western centric models.

Work stress is defined as an individual's psychological, physiological, and behavioral responses when job demands do not align with their skills, resources, or capabilities (Lazarus & Folkman, 1984; Karasek & Theorell, 1990). According to JD-R Theory, stress emerges from a sustained imbalance between job demands such as workload, time pressure, and role conflict and available job resources, including autonomy, social support, and performance feedback (Bakker & Demerouti, 2017; Schaufeli & Taris, 2014). When this imbalance persists, it activates a health-impairment process that progressively depletes employees' psychological and physical resources, leading to emotional exhaustion, reduced energy, and diminished capacity to perform effectively (Schaufeli & Taris, 2014; Sonnentag & Fritz, 2022).

Empirical evidence strongly supports the negative relationship between work stress and job performance. Montani and Staglianò (2022) found that post-pandemic work stress significantly reduced employee performance through the mechanism of emotional exhaustion, particularly when knowledge-sharing mechanisms were weak. Similarly, Sonnentag and Fritz (2022) confirmed that chronic stress causes emotional exhaustion, which directly diminishes routine work performance over time. In the Indonesian context, Karimah and Al Karim (2025) demonstrated that work stress has a significant positive effect on turnover intention and a negative effect on performance among Generation Z employees. (Augustine et al., 2025) also found that job stress reduces employee performance through the mechanism of psychological resource depletion among Gen Z workers in Indonesian startups. These findings are consistent with the JD-R framework, which posits that high job demands without adequate resources drain individual energy through the health-impairment pathway, ultimately decreasing job performance (Bakker & Demerouti, 2017; Schaufeli, 2017).

H1: Work stress has a significant negative impact on job performance.

Work engagement is defined as a positive, fulfilling, work-related state of mind characterized by three primary dimensions: vigor (high energy and mental resilience while working), dedication (strong involvement, pride, and enthusiasm), and absorption (full concentration and immersion in work) (Schaufeli et al., 2002; Schaufeli & Bakker, 2004). Engagement represents the antithesis of burnout and is often conceptualized as the positive counterpart to job burnout (Schaufeli, 2017). Theoretically, engagement is explained through the JD-R Theory's motivational process, wherein the availability of workplace resources such as autonomy, social support, and feedback triggers a motivational process that results in engagement (Bakker & Demerouti, 2017). Employees who are engaged possess greater psychological energy, strong identification with their work, and a willingness to invest extra effort beyond minimum requirements (Schaufeli, 2017).

Meta-analytic evidence confirms that work engagement is positively associated with both task and contextual performance. Christian, Garza, and Slaughter (2011) conducted a quantitative review demonstrating that engagement is a robust predictor of performance outcomes across multiple sectors and occupations. Kaltainen and Hakanen (2022) further established that employee well-being and job resources foster stronger performance outcomes through the motivational pathway. In the Indonesian Gen Z context, (Augustine et al., 2025) confirmed that engagement increases performance and decreases turnover intention. Reviana and Wulani (2026) also proved that engagement mediates the influence of self-efficacy on innovative behavior among Gen Z employees in three East Java cities (Surabaya, Malang, and Kediri), indicating that engaged employees demonstrate higher levels of both routine and innovative performance. From the JD-R perspective, engagement triggers a motivational process that encourages employees to invest sustained effort, thereby improving job performance (Bakker & Demerouti, 2017).

H2: Work engagement has a significant positive impact on job performance.

Leader-Member Exchange (LMX) theory, rooted in Social Exchange Theory (SET), proposes that leaders develop different quality relationships with each subordinate, ranging from high-quality exchanges characterized by trust, respect, and mutual obligation, to low-quality exchanges based primarily on formal contractual relationships (Graen & Uhl-Bien, 1995; Blau, 1964). High-quality LMX provides socio-emotional resources, including support, information, and influence, which create reciprocal obligations for subordinates to reciprocate with enhanced effort and performance (Martin et al., 2016).

Meta-analytic evidence generally supports a positive association between LMX quality and employee performance. Martin, Guillaume, Thomas, Lee, and Epitropaki (2016) found that LMX is positively related to task performance, organizational citizenship behavior, and overall performance ratings. Gerstner and Day (1997) similarly confirmed that higher-quality LMX relationships are associated with better performance outcomes across various organizational settings. However, recent research on Generation Z employees suggests that the relationship between LMX and routine performance may be more complex. Divya Prabha and Priyadarsini (2024) found that in Generation Z employees, relationships with leaders did not produce a significant indirect effect on work behavior through mediation mechanisms, unlike Millennial employees. This indicates that Gen Z workers may not use relationships with superiors as the primary basis for improving their routine performance, as their performance is determined more by intrinsic motivation and the meaning of work than the quality of vertical relationships (Hart, 2025). In paternalistic organizational cultures such as Indonesia, supportive leadership may also be interpreted as part of a normative relational obligation, potentially altering its motivational consequences for routine performance (Hofstede, 2020; Supriyono, 2024). Despite these contextual complexities, the dominant theoretical and empirical literature supports a positive relationship between LMX and job performance.

H3: Leader-Member Exchange (LMX) has a significant positive impact on job performance.

Innovative Work Behavior (IWB) requires cognitive resources, initiative, and sustained effort to develop, promote, and implement useful new ideas (Amabile, 1988; Nguyen, 2023). Unlike routine task performance, IWB involves discretionary activities that demand cognitive flexibility, creativity, and risk-taking all of which are psychologically demanding. Excessive stress can drain the psychological and cognitive resources needed for these discretionary activities and redirect attention toward coping with immediate work demands, thereby reducing the capacity for innovation (Bakker & Demerouti, 2017; Schaufeli & Taris, 2014).

Empirical evidence suggests that job stress can constrain employee innovation, although the effect may depend on contextual and intervening mechanisms. Montani and Staglianò (2022) found that COVID-19-induced job stress negatively affected employee innovation through the mechanism of emotional exhaustion, with knowledge sharing moderating this relationship. Zhang, Zhou, and Ni (2023) demonstrated that challenge-hindrance stress influences employee innovation differently depending on job autonomy and LMX quality, suggesting that the stress-innovation relationship is not always direct or uniform. Liu, et al (2024) showed that the influence of inhibiting factors on innovation is often indirect and mediated by variables such as bootlegging innovation or creative self-efficacy. In the Indonesian context, studies on Gen Z employees have confirmed that work stress significantly increases turnover intention and reduces performance (Karimah & Al Karim, 2025; Augustine et al., 2025), but its direct effect on innovation may operate through mediating mechanisms rather than direct pathways. From the JD-R perspective, when stress consumes the energy required for exploration and idea implementation, employees are expected to show lower levels of IWB.

H4: Work stress has a significant negative impact on innovative work behavior.

The broaden-and-build theory of positive emotions proposes that positive psychological states broaden individuals' thought-action repertoires and build enduring personal resources that support creative and innovative behavior (Fredrickson, 2001). Similarly, work engagement provides vigor, dedication, and absorption that can support persistence in generating, promoting, and implementing new ideas (Schaufeli et al., 2002; Schaufeli & Bakker, 2004). Engaged employees possess greater psychological energy, stronger identification with their work, and a willingness to invest extra effort, all of which are essential for discretionary innovative activities (Schaufeli, 2017).

Empirical research strongly supports the positive relationship between engagement and IWB. Hill, et. al. (2024) found that innovative behavior driven by engagement has a positive impact on employee career satisfaction and psychological well-being among Generation Z and Millennial employees in the sports sector. Susetio, Aditya, and Meilani (2025), in a systematic literature review integrating JD-R, SET, and SDT perspectives, concluded that job resources such as empowering leadership, employee well-being, and flexible work arrangements consistently predict higher levels of engagement in Generation Z. In the Indonesian context, Reviana and Wulani (2026) proved that work engagement mediates the influence of self-efficacy on innovative behavior among Gen Z employees in East Java. Nguyen and Petchsawang (2024) confirmed that work engagement mediates the relationship between various determinants and innovative behavior among Generation Z in Vietnam. Within the JD-R framework, engagement represents a motivational state through which resources are translated into proactive and discretionary behavior (Bakker & Demerouti, 2017).

H5: Work engagement has a significant positive impact on innovative work behavior.

IWB entails social and professional risk because new ideas may challenge established routines, disrupt existing power structures, and can fail during implementation (Amabile, 1988). Psychological safety the belief that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes is a critical enabler for such risky discretionary behavior (Edmondson, 1999). High-quality LMX provides trust, support, and socio-emotional resources that create the psychological safety necessary for employees to propose and implement new ideas without excessive fear of negative consequences (Graen & Uhl-Bien, 1995; Martin et al., 2023).

Empirical research confirms the positive relationship between LMX and IWB. Martin, Ono, Legood, Dello Russo, and Thomas (2023) demonstrated that LMX improves psychological well-being, which is an important foundation for creative and innovative behavior. Yoon, Kim, and Yun (2024) found that supervisor-related knowledge and support mechanisms facilitate creative behavior, with LMX serving as a key contextual factor. Anand, Mishra, and Mohanty (2025) identified LMX as a key factor in facilitating innovation among Gen Z workers. High-quality LMX can serve as a buffer against stress and simultaneously enable subordinates to propose new ideas that may conflict with established practices (Yoon et al., 2024). In paternalistic organizational cultures such as East Java, supportive leadership may function more critically as a psychological safety enabler for high-risk innovative behavior rather than as a direct driver of routine productivity (Hofstede, 2020; Supriyono, 2024). Therefore, employees who experience stronger leader-member relationships are expected to be more willing to propose and implement innovative ideas.

H6: Leader-Member Exchange (LMX) has a significant positive impact on innovative work behavior.

Job performance is defined as behavior under the control of the individual that contributes to the achievement of organizational goals (Campbell, 1990; Rotundo & Sackett, 2002). The performance literature distinguishes two main components: task performance

(performance of core tasks that directly support the technical functions of the organization) and contextual performance (behaviors that support the psychological and social environment of the organization) (Rotundo & Sackett, 2002). Employees who complete core tasks effectively possess slack resources including time, cognitive energy, and psychological space to engage in the exploration of new ideas and experimentation (Amabile, 1988). Conversely, low-performing employees tend to be preoccupied with basic performance improvement efforts and thus lack the capacity to innovate (Nguyen, 2023).

Furthermore, high performance is often accompanied by rewards, recognition, and positive feedback from superiors, all of which enhance intrinsic motivation and self-efficacy to move toward strategic innovation (Bandura, 1997; Amabile, 1988). Research by Hughes et al., (2018) confirmed a significant positive relationship between performance and IWB across sectors and cultures. Nguyen (2023) also found that performance was the strongest predictor of innovative behavior in Vietnamese employees, especially in the context of a transforming economy. Thus, employees who perform their core responsibilities effectively are more likely to possess the credibility, confidence, and capacity required to pursue discretionary innovative activities.

H7: Job performance has a significant positive impact on innovative work behavior.

The Mediating Role of Job Performance (H8, H9, H10) JD-R Theory predicts that high job demands deplete employee resources and weaken effective functioning through the health-impairment process (Bakker & Demerouti, 2017; Schaufeli & Taris, 2014). Because innovation requires cognitive and psychological resources beyond those needed for basic task completion, stress-related deterioration in core performance can reduce the capacity available for IWB (Amabile, 1988; Nguyen, 2023). Evidence that stress and workplace pressure influence innovation through intervening mechanisms further supports the possibility of an indirect pathway (Montani & Staglianò, 2022; Aman Ullah et al., 2025). Aman Ullah et al., (2025) demonstrated that workplace telepressure influences innovative performance through the mediation of work-family conflict and job burnout, indicating that the effect of workplace pressure on innovation is indirect and requires an intermediary variable. In the Indonesian Gen Z context, Widiyawati and Zamralita (2025) discovered that job stress partially mediates the relationship between workplace ostracism and employee performance. Accordingly, work stress is expected to constrain innovative behavior partly by first reducing job performance.

H8: Job performance mediates the relationship between work stress and innovative work behavior.

Engagement encourages employees to invest sustained energy and effort in their work, which strengthens task and contextual performance (Christian et al., 2011; Schaufeli, 2017). Effective performance can then provide employees with greater credibility, confidence, and available resources to undertake innovation-related activities (Bandura, 1997; Nguyen, 2023). Research suggests that engagement is an important pathway linking personal or job resources with innovative and positive work outcomes among younger employees (Hill et al., 2024; Susetio et al., 2025). Reviana and Wulani (2026) confirmed that engagement mediates the influence of self-efficacy on innovative behavior in Gen Z employees in East Java. Thus, engagement is expected to promote IWB not only directly but also indirectly through stronger job performance.

H9: Job performance mediates the relationship between work engagement and innovative work behavior.

LMX theory suggests that high-quality leader-member relationships provide valuable socio-emotional resources and create reciprocal obligations that can enhance employee contribution (Graen & Uhl-Bien, 1995; Martin et al., 2016). When these resources improve

employees' effectiveness in their primary roles, stronger performance may subsequently provide the capacity and credibility needed to engage in IWB (Nguyen, 2023). At the same time, evidence indicates that LMX may influence creativity through relational and psychological mechanisms that do not necessarily depend on routine performance (Martin et al., 2023; Yoon et al., 2024). Divya Prabha and Priyadarsini (2024) found that in Generation Z employees, relationships with leaders did not produce a significant indirect effect on work behavior through a mediation mechanism, unlike Millennial employees. Testing job performance as a mediator therefore allows this study to determine whether the LMX-IWB relationship operates through improved core performance or primarily through a more direct innovation-enabling pathway.

H10: Job performance mediates the relationship between LMX and innovative work behavior.

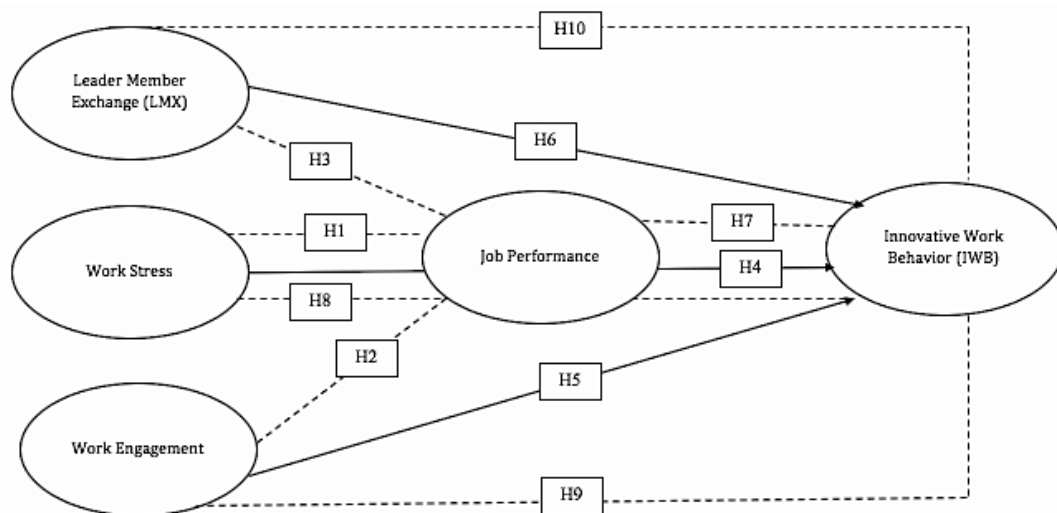


Figure 1. Research Framework

Methods

This study employed a quantitative research design with a cross-sectional survey approach to examine the relationships between work stress, work engagement, leader-member exchange (LMX), job performance, and innovative work behavior (IWB) among Generation Z employees in East Java, Indonesia. The cross-sectional design was deemed appropriate for testing the hypothesized relationships within the theoretical framework of the Job Demands-Resources (JD-R) Theory and Social Exchange Theory (SET) as it allows for the simultaneous examination of multiple predictors and mediating effects (Sekaran & Bougie, 2016), and was selected because it enables efficient data collection from a relatively large sample within a constrained timeframe and provides a snapshot of employee perceptions at a specific point in time, which is suitable for exploratory research (Hair et al., 2017). The target population comprised Generation Z employees working in various organizations across East Java Province, defined as individuals born between 1997 and 2012 consistent with prior studies (Anand et al., 2025; Karimah & Al Karim, 2025), with East Java selected as the research context due to its unique economic and cultural characteristics a strong economic base in manufacturing and micro, small, and medium enterprises (MSMEs), combined with paternalistic leadership traditions and Javanese ethical values such as *ngoyo* (working beyond normal capacity) and *nrmo* (passive acceptance) that may fundamentally alter the JD-R and LMX pathways (Supriyono, 2024; Karimah & Al Karim, 2025).

Table 1. Operational Definition of Variables

Variables	Statement/Declaration
Innovative Work Behavior From Tate, Whatley and Clugston (1997); Dodanwala et al., (2021)	IWB.1 - I create new ideas to solve difficult problems.
	IWB.2 - I am looking for a new working method
	IWB.3 - I create solutions from my own thoughts to solve problems.
	IWB.4 - I support innovative ideas
	IWB.5 - I got my boss's approval to come up with innovative ideas.
	IWB.6 - I get my coworkers excited about innovative ideas.
	IWB.7 - I turn innovative ideas into useful practices
	IWB.8 - I introduce innovative ideas into the work environment systematically.
	IWB.9 - I evaluate the usefulness of innovative ideas
Leader-Member Exchange from Lyden and Maslyn (1998)	LMX.1 - I really like my boss as he is personally.
	LMX.2 - My boss is the type of person I want to be friends with.
	LMX.3 - My boss is very pleasant to work with.
	LMX.4 - My boss defended my work results in front of the leadership, even without knowing clearly what the problem was.
	LMX.5 - My boss will defend me if I am attacked by someone else.
	LMX.6 - My boss will defend me in front of other people if I make an unintentional mistake.
	LMX.7 - I do work for my boss beyond what is my job description.
	LMX.8 - I am willing to put in extra effort, beyond what is normally required, to advance the interests of my work group.
	LMX.9 - I was impressed with my boss's knowledge of his work.
	LMX.10 - I appreciate my boss's competence in work.
	LMX.11 - I admire my boss's professional skills.
Work Stress from Tate, Whatley and Clugston (1997); Dodanwala et al., (2021)	WS.1 - I feel emotionally drained by my work
	WS.2 - I feel tired with my job
	WS.3 - I feel frustrated with my job
	WS.4 - I feel stressed about my job
	WS.5 - I lost my appetite due to problems related to my work.
	WS.6 - Work-related problems keep me awake at night
	WS.7 - Work related problems make my stomach hurt
	WS.8 - Work related problems make my heart beat faster than usual
Job Performance from Lai et al. (2020)	JP.1 - I always strive to deliver work that exceeds company standards
	JP.2 - My work performance reflects my best efforts and abilities.
	JP.3 - I feel my performance makes a positive contribution to achieving team goals
	JP.4 - I am consistent in maintaining the quality of my work results at all times
	JP.5 - I am able to complete my work according to applicable procedures
	JP.6 - I carry out my primary job responsibilities without delay
Work Engagement from Schaufeli & Bakker (2021)	WE.1 - When I work, I feel full of energy
	WE.2 - I feel excited when I work
	WE.3 - When I wake up in the morning, I feel like going to work
	WE.4 - My work inspires me
	WE.5 - I am enthusiastic about my work
	WE.6 - I take pride in the work I do
	WE.7 - I feel happy when I work hard
	WE.8 - I often lose track of time while working

The study employed purposive sampling, selecting respondents based on specific criteria: (1) aged 18–28 years, (2) employed in organizations in East Java, (3) having at least six months of work experience, and (4) participating voluntarily (Sekaran & Bougie, 2016). Although the minimum PLS-SEM sample requirement was 40 respondents based on the 10-times rule (Hair et al., 2017), the study obtained 145 valid respondents, providing adequate statistical power. Data were collected online through Google Forms during January–February 2026.

The questionnaire was developed in Bahasa Indonesia using established measurement scales translated through a forward-backward procedure (Brislin, 1980). A pilot test involving 30 Generation Z employees outside the final sample was conducted to assess clarity and face validity, followed by minor wording revisions. The questionnaire comprised demographic information and measures of innovative work behavior, LMX, work stress, job performance, and work engagement using a five-point Likert scale. The survey was distributed through professional networks, industry associations, social media, WhatsApp, and Telegram, with follow-up reminders sent after two weeks. Ultimately, 145 respondents meeting all selection criteria were included in the analysis.

Result and Discussions

The research questionnaire was successfully distributed to 145 respondents as the research sample. Data were analyzed using the SEM-PLS method with the assistance of SmartPLS 3.0. Outer model evaluation was conducted through convergent validity and composite reliability tests.

Table 2. Response Data

	Frequency	Percent
Gender		
Man	58	40
Woman	87	60
Last education		
Senior High School	52	35.9
Diploma	18	12.4
S1	73	50.3
S2	2	1.4
Length of working		
6 months to 1 year	38	26.2
More than 1 to 3 years	60	41.4
More than 3 years to 6 years	33	22.8
More than 6 years to 10 years	14	9.7

Convergent validity was assessed using outer loadings, with a minimum threshold of ≥ 0.50 (Chin, 1998; Hair et al., 2017). Following an iterative deletion procedure, IWB1 and IWB3, LMX5–LMX9, WE3 and WE8, and JP1 and JP2 were removed due to loadings below 0.50, while all WS items were retained. After deletion, all constructs achieved AVE values above 0.50 (0.514–0.593) and Composite Reliability values above 0.70 (0.853–0.910), confirming adequate convergent validity and reliability. Discriminant validity was assessed using the HTMT criterion, with values required to be below 0.90 (Henseler et al., 2015). All HTMT values met this criterion, with the highest value being 0.806 between IWB and JP. Therefore, the constructs demonstrate adequate discriminant validity, confirming that they

are empirically distinct.

Table 3. Convergent Validity Test Results

Variable	Indicator	Loading Factor	Conclusion
Innovative Work Behavior (IWB)	IWB2	0.609	Valid
	IWB4	0.688	Valid
	IWB5	0.731	Valid
	IWB6	0.749	Valid
	IWB7	0.750	Valid
	IWB8	0.812	Valid
	IWB9	0.659	Valid
Leader Member Exchange (LMX)	LMX1	0.643	Valid
	LMX2	0.685	Valid
	LMX3	0.762	Valid
	LMX4	0.613	Valid
	LMX10	0.766	Valid
	LMX11	0.829	Valid
	WS1	0.712	Valid
Work Stress	WS2	0.682	Valid
	WS3	0.813	Valid
	WS4	0.727	Valid
	WS5	0.775	Valid
	WS6	0.793	Valid
	WS7	0.781	Valid
	WS8	0.690	Valid
Job Performance	JP3	0.731	Valid
	JP4	0.762	Valid
	JP5	0.782	Valid
	JP6	0.802	Valid
Work Engagement	WE1	0.671	Valid
	WE2	0.822	Valid
	WE4	0.657	Valid
	WE5	0.808	Valid
	WE6	0.772	Valid
	WE7	0.769	Valid

Table 4. Heterotrait-Monotrait Ratio (HTMT)

	Innovative Work Behavior	Job Performance	LMX	Work Engagement	Work Stress
Innovative Work Behavior	1				
Job Performance	0.806	1			
LMX	0.606	0.488	1		
Work Engagement	0.733	0.718	0.643	1	
Work Stress	0.314	0.405	0.280	0.312	1

Based on the analysis results presented in the table, Reliability was tested using Cronbach's Alpha and Composite Reliability (CR) with a threshold of >0.70. Convergent validity was tested using Average Variance Extracted (AVE) with a threshold of >0.50 (Hair et al., 2017).

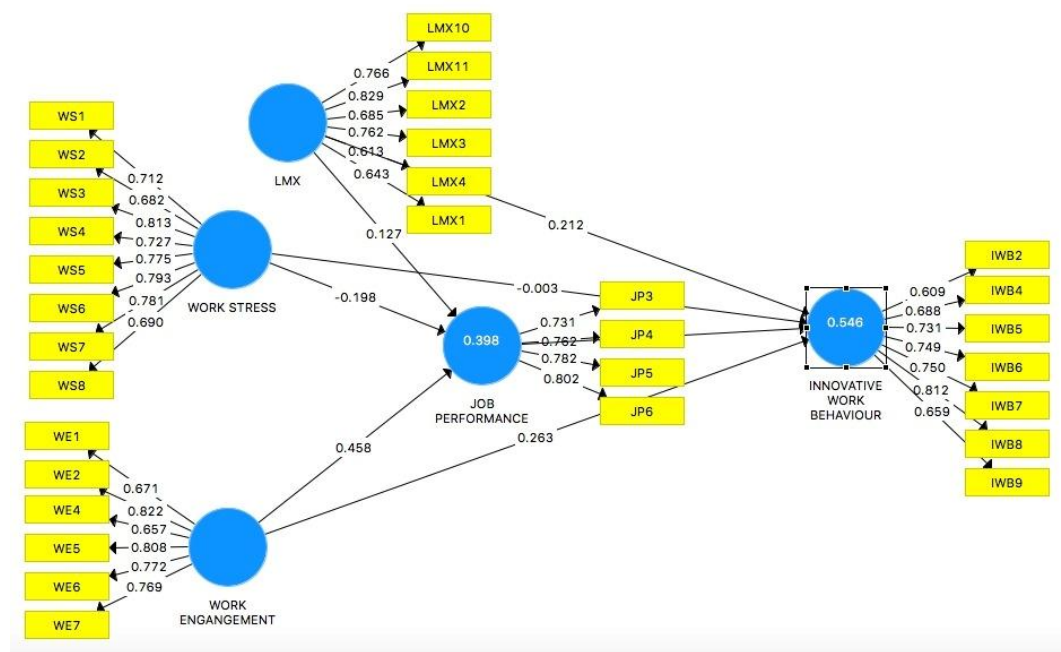


Figure 2. Conceptual Research

Table 5. Composite Reliability Test Results

Variable	Cronbach's Alpha	AVE	Composite Reliability
Innovative Work Behavior	0.841	0.514	0.880
Job Performance	0.771	0.593	0.853
LMX	0.823	0.519	0.865
Work Engagement	0.845	0.567	0.886
Work Stress	0.889	0.560	0.910

All constructs in this study had Composite Reliability (CR) values above the recommended threshold of ≥ 0.70 (Hair et al., 2017). The Work Stress construct recorded the highest CR value of 0.910, which is included in the excellent category (very high reliability). The other four constructs, namely Work Engagement (0.886), Innovative Work Behavior (0.880), LMX (0.865), and Job Performance (0.853), are all in the very good category with CR values above 0.80. Thus, all research instruments are declared reliable with high internal consistency.

Table 6. Model Fit

	Saturated Model	Estimated Model
SRMR	0.083	0.083
Chi-Square	955.373	955.373
d_ULS	3.446	3.446
d_G	1.248	1.248
NFI	0.640	0.640

Model fit evaluation using SmartPLS indicates an acceptable fit. The SRMR value of 0.083 is below the recommended threshold of 0.10, indicating a small discrepancy between the observed and model-implied matrices (Hu & Bentler, 1999; Hair et al., 2017). Although the NFI (0.640) is below the conventional 0.90 threshold, lower values are common in complex PLS-SEM models with relatively small samples and NFI is less suitable as a primary fit

indicator in PLS-SEM (Hair et al., 2017; Henseler et al., 2016). The d_{ULS} (3.446) and d_G (1.248) further support the model's adequacy. Therefore, the SRMR of 0.083 provides the main evidence of acceptable model fit, supporting the validity of the structural model and subsequent hypothesis testing.

Table 7. Collinearity Statistics – VIF

Indicators	VIF
IWB2	1.383
IWB4	1.545
IWB5	1.627
IWB6	1.707
IWB7	1.698
IWB8	2.082
IWB9	1.504
LMX1	1.757
LMX2	1.874
LMX3	1.938
LMX4	1.429
LMX10	1.780
LMX11	1.856
WS1	2.065
WS2	2.103
WS3	2.642
WS4	1.821
WS5	2.465
WS6	2.319
WS7	2.300
WS8	2.217
JP3	1.415
JP4	1.482
JP5	1.491
JP6	1.590
WE1	1.746
WE2	2.232
WE4	1.656
WE5	2.007
WE6	2.065
WE7	1.880

Based on the Collinearity Statistics (VIF) analysis for this research model, all VIF values for the indicators of each construct fall below the recommended thresholds. The highest VIF value was recorded for indicator WS3 (2.642), followed by WS5 (2.465) and WS6 (2.319), while the lowest value was observed for IWB2 (1.383). Overall, the VIF values ranged from 1.383 to 2.642, well below the critical limit of 3.3 (Hair et al., 2017; Kock, 2015). These results indicate the absence of serious multicollinearity issues among the indicators in the research model. Furthermore, given that all VIF values are below 3.3, these findings also serve as a preliminary indication that Common Method Bias (CMB) does not pose a threat to the study's validity (Kock, 2015). Consequently, the data used in this study meet the fundamental assumptions for further analysis and are suitable for interpretation.

Table 8. Hypothesis Test Results (Path Analysis)

Hypothesis	Original Sample	Sample Mean	Standard Deviation	T Statistics (O/STDEV)	P Values	Information
H1	-0.198	-0.204	0.059	3.348	0.000	Accept
H2	0.458	0.451	0.079	5.764	0.000	Accept
H3	0.127	0.137	0.070	1.812	0.071	Reject
H4	-0.003	-0.004	0.063	0.048	0.962	Reject
H5	0.263	0.263	0.102	2.580	0.000	Accept
H6	0.212	0.215	0.078	2.729	0.000	Accept
H7	0.405	0.404	0.088	4.591	0.000	Accept
H8	-0.080	-0.084	0.035	2.300	0.022	Accept
H9	0.185	0.184	0.059	3.133	0.002	Accept
H10	0.051	0.054	0.028	1.836	0.067	Reject

The research findings show that not all hypotheses proposed in this study received empirical support. Hypothesis testing in this study was conducted using the bootstrapping method in SEM-PLS with a significance level of 5% (T-Statistics > 1.96 and P-Values < 0.05). Of the ten hypotheses proposed, seven hypotheses were accepted and three hypotheses were rejected. In the direct effect, H1 which states that work stress has a negative effect on job performance is accepted ($p = 0.000$). H2 which states that work engagement has a positive effect on job performance is also accepted ($p = 0.000$). Conversely, H3 which states that LMX has a positive effect on job performance is rejected because it is not significant ($p = 0.071$). Furthermore, H4 which states that work stress has a negative effect on innovative work behavior is rejected ($p = 0.962$). H5 which states that work engagement has a positive effect on innovative work behavior is accepted ($p = 0.000$). H6 which states that LMX has a positive effect on innovative work behavior is accepted ($p = 0.000$). H7 which states that job performance has a positive effect on innovative work behavior is also accepted ($p = 0.000$).

In the mediation effect, H8 which states that job performance mediates the effect of job stress on innovative work behavior is accepted ($p = 0.022$). H9 which states that job performance mediates the effect of job engagement on innovative work behavior is accepted ($p = 0.002$). Meanwhile, H10 which states that job performance mediates the effect of LMX on innovative work behavior is rejected because it is not significant ($p = 0.067$). Thus, overall it can be concluded that job engagement and LMX are the main drivers of innovative work behavior, both directly and through job performance, while job stress only has an indirect effect through decreased performance. The finding that work stress negatively affects job performance ($\beta = -0.198$, $p < 0.001$) supports the health-impairment pathway of JD-R Theory (Bakker & Demerouti, 2017; Schaufeli & Taris, 2014), indicating that excessive job demands can deplete psychological resources and reduce performance. The effect size ($\beta = -0.198$) is within the range reported in meta-analytic research (-0.15 to -0.25), but is weaker than the effect of work engagement ($\beta = 0.458$). This suggests that the motivational pathway may be more influential than the health-impairment pathway among Gen Z employees in East Java.

The finding also challenges the assumption that health-impairment processes are universally dominant. Cultural values emphasizing perseverance (ngoyo) and acceptance (nrimo) may enable employees to maintain routine performance despite stress, with its effects appearing more subtly through reduced innovation capacity. Thus, this study extends JD-R Theory by showing that the health-impairment pathway operates in the East

Java context but is less dominant than the motivational pathway, while suggesting that cultural values may moderate the stress-performance relationship and warrant further investigation.

The finding that work engagement strongly predicts job performance ($\beta = 0.458$, $p < 0.001$) supports the motivational pathway of JD-R Theory, indicating that engaged Gen Z employees in East Java demonstrate higher routine performance. The effect is more than twice as strong as the negative effect of work stress ($\beta = -0.198$), suggesting that motivational resources have greater influence than health-impairment processes in this context. This extends Christian et al. (2011) by showing that engagement remains a powerful driver of performance in a collectivist, high power distance setting, while also demonstrating that the relative strength of JD-R's dual pathways may be context-dependent. The finding also supports broaden-and-build theory (Fredrickson, 2001), suggesting that positive psychological states can build personal resources and translate into tangible behavioral outcomes. Thus, work engagement appears particularly salient for Gen Z employees in East Java, even within a cultural context where work motivation may differ from Western settings.

The non-significant relationship between LMX and job performance ($\beta = 0.127$, $p = 0.071$) challenges the universal applicability of LMX Theory, which has generally found positive LMX-performance relationships in Western contexts (Gerstner & Day, 1997; Martin et al., 2016). This suggests that LMX's performance-enhancing effects may be culturally contingent, particularly in paternalistic and high power distance settings. In East Java, leader benevolence, protection, and emotional support may be perceived as normative expectations rather than discretionary resources requiring reciprocal performance, suggesting a cultural boundary condition for Social Exchange Theory (SET) (Blau, 1964; Graen & Uhl-Bien, 1995). The finding also contributes to generational work-value literature. Consistent with Hart (2025), Gen Z may place greater importance on intrinsic motivation, meaningfulness, autonomy, authenticity, and self-leadership than vertical relationships. Thus, the results suggest that LMX Theory may need to consider both cultural context and generational shifts in explaining routine job performance.

The non-significant direct effect of work stress on IWB ($\beta = -0.003$, $p = 0.962$) suggests that stress does not directly suppress innovation but operates through reduced job performance. From a JD-R perspective, stress may deplete the cognitive resources, time, and psychological energy needed for innovation, with its impact emerging when performance deteriorates. This supports the resource allocation perspective on innovation (Amabile, 1988), which emphasizes the need for sufficient resources beyond routine task completion. In the East Java context, employees may maintain performance despite stress through *ngoyo* (working beyond normal capacity), allowing innovation to remain unaffected directly.

Thus, the finding refines JD-R Theory by showing that the health-impairment pathway affects innovation indirectly rather than directly, challenging the assumption that stress directly suppresses creativity and supporting Liu et al. (2024), who found that inhibiting factors influence innovation through intervening mechanisms.

The significant positive effect of work engagement on IWB ($\beta = 0.263$, $p < 0.001$) supports JD-R Theory's motivational pathway and demonstrates that engagement promotes discretionary innovative behavior. Consistent with broaden-and-build theory (Fredrickson, 2001), engaged employees possess greater psychological energy, stronger work identification, and willingness to invest extra effort, supporting creative behavior (Schaufeli, 2017). Although its effect is weaker than job performance ($\beta = 0.405$), engagement provides the motivational energy that encourages innovation, while performance provides the foundational capacity and credibility. Thus, the finding extends JD-R Theory by showing that the motivational pathway influences not only routine performance but also proactive and risk-taking behaviors such as innovation, while supporting broaden-and-build theory's proposition that positive psychological states build resources for creativity.

The significant positive relationship between LMX and IWB ($\beta = 0.212$, $p < 0.001$), despite the non-significant LMX-performance relationship (H3 rejected), indicates that LMX functions differently as an innovation enabler and performance driver. This extends LMX Theory by showing that high-quality leader-member relationships can create psychological safety that encourages risky discretionary behaviors such as proposing novel ideas (Edmondson, 1999). Employees may feel safe challenging established routines without fear of negative consequences, even when LMX does not enhance routine performance. In the East Java context, Gen Z employees may not reciprocate supportive LMX through higher routine performance but may respond through innovative behavior. Thus, LMX provides relational resources that influence innovation through psychological safety, suggesting that innovation represents a distinct form of social exchange reciprocation and that LMX Theory should distinguish between mechanisms underlying routine performance and innovative outcomes.

The strong positive effect of job performance on IWB ($\beta = 0.405$, $p < 0.001$) supports the resource-based perspective on innovation (Amabile, 1988; Nguyen, 2023), indicating that effective routine performance provides the foundation for discretionary innovative behavior. Employees who perform well may possess greater credibility, confidence, and cognitive resources to engage in innovation. Notably, its effect exceeds those of work engagement ($\beta = 0.263$) and LMX ($\beta = 0.212$), suggesting that job performance is the strongest proximal determinant of IWB, consistent with Nguyen (2023). From a JD-R perspective, job performance can itself function as a resource that enables innovation. Thus, the finding extends JD-R Theory by positioning performance as an important resource for discretionary innovative behavior and supports the view that innovation builds upon, rather than competes with, effective routine performance.

The significant indirect effect of work stress on IWB through job performance ($\beta = -0.080$, $p = 0.022$) supports the fully mediated pathway proposed in this study. This finding extends JD-R Theory by showing that the health-impairment pathway affects discretionary innovation through performance degradation rather than directly. Stress may impair routine functioning, reducing the resources available for innovation, consistent with the resource allocation perspective. Although the indirect effect is modest, it is significant, indicating that stress can meaningfully reduce IWB through lower performance. The finding may also reflect cultural coping mechanisms such as *ngoyo* (perseverance) and *nrimo* (acceptance), whereby Gen Z employees continue completing routine tasks despite stress, causing its effects to emerge through performance decline and resource depletion rather than directly suppressing innovation. Thus, the results clarify how stress influences innovation and reinforce the role of job performance as a key mediating mechanism.

The significant indirect effect of work engagement on IWB through job performance ($\beta = 0.185$, $p = 0.002$) supports the motivational pathway of JD-R Theory, indicating that engagement enhances innovation partly by strengthening routine performance. The indirect effect is substantial and approaches the direct effect of engagement on IWB ($\beta = 0.263$), suggesting that approximately 41% of its total effect operates through job performance. This highlights performance as an important mechanism linking motivation to innovation. The finding also supports broaden-and-build theory (Fredrickson, 2001), showing that engagement builds performance-related resources that facilitate subsequent innovative behavior. Thus, engagement may create a positive resource-building cycle in which stronger engagement enhances performance and, in turn, enables innovation.

The non-significant indirect effect of LMX on IWB through job performance ($\beta = 0.051$, $p = 0.067$) indicates that LMX influences innovation directly rather than through performance enhancement. This supports the psychological safety mechanism, suggesting that high-quality LMX promotes IWB through relational trust and psychological safety rather than improved routine performance. Thus, LMX Theory can distinguish between a performance-

mediated pathway (LMX → Performance → IWB) and a direct psychological pathway (LMX → IWB), with the latter being more relevant for Gen Z employees in East Java. This finding also aligns with Divya Prabha and Priyadarsini (2024), who found that leader relationships did not significantly influence Gen Z work behavior through mediation. Therefore, Gen Z employees may not translate supportive leader relationships into higher performance but may use these relationships as a basis for innovation.

Conclusion

This study found that seven of the ten hypotheses were supported. Work engagement significantly enhances innovative work behavior, both directly and through job performance, indicating that engaged Generation Z employees tend to be more innovative and productive. LMX directly supports innovation but does not significantly affect job performance or indirectly influence innovation through performance. Meanwhile, job stress reduces job performance and indirectly inhibits innovation through lower performance, although it has no direct effect on innovative work behavior. These findings highlight job performance as an important mechanism linking work engagement and stress to innovation.

Despite its cross-sectional design, self-reported data, limited sample of 145 Generation Z employees in East Java, and restricted variables, this study contributes by integrating JD-R and LMX perspectives and identifying distinct motivational and relational pathways to innovation. Practically, organizations should strengthen work engagement through flexibility and job crafting, manage job stress, and develop supportive leadership that encourages autonomy and innovation. Future research should use larger and more diverse samples, longitudinal and multi-source data, and additional variables to further examine these relationships.

References

- Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior*, 10, 123–167. <https://doi.org/10.12691/education-4-14-6>
- Aman Ullah, A., Aziz, A., Ariza-Montes, A., & Han, H. (2025). Workplace telepressure and innovative work performance: A moderation mediation study through work-family conflicts and job burnout. *European Journal of Innovation Management*, 28(3), 1164–1180. <https://doi.org/10.1108/EJIM-12-2023-1090>
- Anand, P., Mishra, S., & Mohanty, K. (2025). How do the Gen Z engage at work? A research review and conceptual model. *Parikalpana: KIIT Journal of Management*, 21(1), 154–169. <https://doi.org/10.23862/kiit-parikalpana/2025/v21/i1/250107>
- Augustine, F., Mulyadi, H., & Sari, R. P. (2025). The influence of job stress and toxic workplace environment on turnover intention with employee engagement as mediating variable on gen Z employees at startup company. In *International Journal of Social Science and Business* (Vol. 9, Issue 2, pp. 245–258).
- Bakker, A. B., & Demerouti, E. (2017). Job demands resources theory: Taking stock and looking forward. In *Journal of Occupational Health Psychology* (Vol. 22, Issue 3, pp. 273–285). <https://doi.org/10.1037/ocp0000056>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*.
- Blau, P. M. (1964). *Exchange and power in social life*. John Wiley and Sons.
- BPS East Java. (2026). Statistical Yearbook of East Java Province 2026.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (Vol. 2, pp. 389–444). Allyn & Bacon.
- Campbell, J. P. (1990). *Modeling the performance prediction problem in industrial and*

- organizational psychology - Handbook of industrial and organizational psychology* (Vol. 1). Consulting Psychologists Press.
- Chin, W. W., & Marcoulides, G. (1998). The Partial Least Squares Approach to SEM chapter. In *Advances in Hospitality and Leisure* (Vol. 8, Issue 2).
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89–136. <https://doi.org/10.1111/j.1744-6570.2010.01203.x>
- Divya Prabha, S., & Priyadarsini, K. (2024). Impact of autonomy, organizational support and leader relations on job crafting A comparative study of millennials and generation Z. *Revista Clinica Psicologica*, 33(1), 17–28. <https://doi.org/10.53555/03276716.2024.03>
- Dodanwala, T. C., & Santoso, D. S. (2021). Innovative work behavior scale: Development and validation of psychometric properties in higher education in the GCC countries. *European Journal of Innovation Management*, 26(1), 119–133.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350–383. <https://doi.org/10.2307/2666999>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226. <https://doi.org/10.1037/0003-066X.56.3.218>
- Gerstner, C. R., & Day, D. V. (1997). Meta-Analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82(6), 827–844. <https://doi.org/10.1037/0021-9010.82.6.827>
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, 6(2), 219–247. [https://doi.org/10.1016/1048-9843\(95\)90036-5](https://doi.org/10.1016/1048-9843(95)90036-5)
- Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2017). *Multivariate Data Analysis (7th Edition)* by Joseph F. Hair, William C. Black, Barry J. Babin, Rolph E. Anderson (z-lib.org).pdf (p. 761).
- Hart, G. (2025). Leader-member exchange, responsible artificial intelligence, and self-determination theory: An integrative review of leadership, autonomy, and motivation in AI-augmented workplaces. *Scientific Bulletin Nicolae Balcescu Land Forces Academy*, 30(2), 173–185. <https://doi.org/10.2478/bsaft-2025-0015>
- 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>
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, 116(1), 2–20.
- Hill, J., Kim, M., Oja, B. D., Kim, H. S., & Lee, H. W. (2024). Innovation is the key: Identifying factors to increase career satisfaction and psychological well-being in millennial and generation Z sport employees. *Sport, Business and Management: An International Journal*, 14(3), 296–315. <https://doi.org/10.1108/SBM-02-2023-0011>
- Hofstede, G. (2020). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. Sage Publications.
- Hughes, D. J., Lee, A., Tian, A. W., Newman, A., & Legood, A. (2018). Leadership, creativity, and innovation: A critical review and practical recommendations. *The Leadership Quarterly*, 29(5), 549–569. <https://doi.org/10.1016/j.leaqua.2018.03.001>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55.
- Gallup. (2024). State of the Global Workplace Report.
- Kaltiainen, J., & Hakanen, J. (2022). Fostering Task and Adaptive Performance Through

- Employee Well-Being: The Role of Servant Leadership. *BRQ Business Research Quarterly*, 25(1), 28–43. <https://doi.org/10.1177/2340944420981599>
- Karasek, R. A., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. Basic Books.
- Karimah, A. U., & Al Karim, C. H. (2025). Turnover intention among Gen Z employees: The influence of work stress and openness to experience personality. *Journal of Educational, Health and Community Psychology*, 14(3), 1451–1465. <https://doi.org/10.12928/jehcp.vi.31532>
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, 11(4), 1–10. <https://doi.org/10.4018/ijec.2015100101>
- Lai, F. Y., Tang, H. C., Lu, S. C., Lee, Y. C., & Lin, C. C. (2020). Transformational leadership and job performance: The mediating role of work engagement. *SAGE Open*, 10(1), 1–11. <https://doi.org/10.1177/2158244019899085>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
- Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management*, 24(1), 43–72. <https://doi.org/10.1177/014920639802400105>
- Liu, P., Yuan, Y., Yang, L., Liu, B., & Xu, S. (2024). Innovation comes with responsibility: A dual moderation model of taking charge and innovative job performance. *European Journal of Innovation Management*, 27(8), 2966–2993. <https://doi.org/10.1108/EJIM-08-2022-0420>
- Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2016). Leader-member exchange (LMX) and performance: A meta-analytic review. *Personnel Psychology*, 69(1), 67–121. <https://doi.org/10.1111/peps.12100>
- Martin, R., Ono, M., Legood, A., Dello Russo, S., & Thomas, G. (2023). Leader member exchange (LMX) quality and follower well-being: A daily diary study. *Journal of Occupational Health Psychology*, 28(2), 103–118. <https://doi.org/10.1037/ocp0000344>
- McKinsey Indonesia Digital. (2026). Digital Indonesia Report 2026.
- McKinsey Southeast Asia. (2025). Southeast Asia Economic Report 2025.
- Montani, F., & Staglianò, R. (2022). Innovation in times of pandemic: The moderating effect of knowledge sharing on the relationship between COVID-19-induced job stress and employee innovation. *R&D Management*, 52(2), 193–205. <https://doi.org/10.1111/radm.12489>
- Nguyen, T. P. L. (2023). Factors affecting innovative behavior of Vietnamese enterprises employees. *International Journal of Innovation Science*, 15(1), 186–203. <https://doi.org/10.1108/IJIS-12-2021-0214>
- Nguyen, M. T., & Petchsawang, P. (2024). Encouraging employees' innovative behavior via the mediating effect of work engagement and the moderating effect of their proactive personality: The case of Generation Z in Vietnam. *Cogent Business & Management*, 11(1), 2301162. <https://doi.org/10.1080/23311975.2023.2301162>
- Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The consequences of technostress for end users in organizations: Conceptual development and empirical validation. *Information Systems Research*, 19(4), 417–433.
- Reviana, K. C., Wulani, F., & Pradana, D. W. (2026). Innovative behavior: The role of self-efficacy and work engagement of Gen Z employees. *Telaah Bisnis*, 26(2), 38–47. <https://doi.org/10.35917/tb.v26i2.626>
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance. *Journal of Applied Psychology*, 87(1), 66–80. <https://doi.org/10.1037/0021-9010.87.1.66>

- Schaufeli, W. B. (2017). Applying the Job Demands-Resources model: A “how to” guide to measuring and tackling work engagement and burnout. *Organizational Dynamics*, 46(2), 120–132. <https://doi.org/10.1016/j.orgdyn.2017.04.008>
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the Job Demands-Resources Model: Implications for improving work and health- Bridging occupational, organizational and public health: A transdisciplinary approach. *Springer*, 43–68. https://doi.org/10.1007/978-94-007-5640-3_4
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. B., & Bakker, A. B. (2021). Utrecht Work Engagement Scale (UWES): Test manual. Utrecht University.
- 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>
- Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill-building approach (7th ed.). Wiley.
- SHRM Global Report. (2025). Global Workplace Trends and Employee Well-being.
- Sonnentag, S., & Fritz, C. (2022). Recovery from work: Advancing the field toward the future. *Annual Review of Organizational Psychology and Organizational Behavior*, 9(1), 33–60. <https://doi.org/10.1146/annurev-orgpsych-012420-091316>
- Supriyono, S. (2024). Paternalistic leadership and organizational commitment: The mediating role of job satisfaction in Indonesian SMEs. *Journal of Management Applications*, 22 (1), 88--102.
- Susetio, A. T., Aditya, E., & Meilani, Y. F. C. P. (2025). Work engagement and its related constructs among generation Z: A systematic literature review integrating JD-R, SET, and SDT perspectives. *Testing, Psychometrics, Methodology in Applied Psychology*, 32(4), 864–880.
- Tate, U., Whatley, A., & Clugston, M. (1997). Sources and Outcomes of Job Tension: A Three-Nation Study. In *International journal of management* (Vol. 14, Issue 3, pp. 350–358).
- Tarafdar, M., Cooper, C. L., & Stich, J. F. (2019). The technostress trifecta - techno eustress, techno distress and design: Theoretical directions and an agenda for research. *Information Systems Journal*, 29(1), 6-42.
- Tjoa, Y., & Arief, M. (2022). Determinants of innovative work behavior: The role of job satisfaction as mediation and environmental dynamism as moderating variable. *5th European International Conference on Industrial Engineering and Operations Management*. <https://doi.org/10.46254/EU5.20220445>
- Widiyawati, V. T., & Zamralita, Z. (2025). The role of workplace ostracism on employee performance mediated by work stress among employees. *International Journal of Applied Social Sciences and Humanities*, 4(2), 123–135.
- Yoon, S., Kim, S. L., & Yun, S. (2024). Supervisor knowledge sharing and creative behavior: The roles of employees’ self-efficacy and work family conflict. *Journal of Management & Organization*, 30(6), 1920–1935. <https://doi.org/10.1017/jmo.2022.85>
- Zhang, J., Zhou, M., & Ni, Y. (2023). Challenge-avoidance stress and employee innovation: The moderating role of job autonomy and leader-member exchange. *Journal of Organizational Change Management*, 36(2), 289–306. <https://doi.org/10.1108/JOCM-07-2021-0204>