

THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP AND AGILE LEARNING ON LECTURERS' INNOVATION PERFORMANCE AT MERCU BUANA UNIVERSITY, JAKARTA, INDONESIA

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Abstract

Amid accelerating digital transformation in Indonesian higher education, this study examines how transformational leadership and agile learning jointly shape lecturers' innovation performance. Adopting a quantitative design with Structural Equation Modeling–Partial Least Squares (SEM-PLS), we surveyed 199 permanent lecturers at Universitas Mercu Buana to test a model in which transformational leadership exerts both direct and indirect effects on innovation through agile learning. Transformational leadership is theorized to build a compelling vision, stimulate intellectual curiosity, and provide individualized support; agile learning is framed as an adaptive capability that promotes rapid sense-making, experimentation, and continuous improvement. The analysis indicates that transformational leadership significantly enhances innovation performance and also strengthens agile learning, which in turn positively predicts innovation, evidencing partial mediation. The findings advance theory by integrating agile learning into innovation performance models for higher education and by clarifying the mechanism through which leadership translates into innovative work outcomes. Practically, the results suggest that university leaders should pair vision-driven leadership with learning architectures that enable flexibility—such as iterative curriculum development, micro-credentialing, and data-informed feedback loops to help lecturers respond effectively to technological and pedagogical change. Investment in leadership development and structured agile learning opportunities can therefore foster resilient, adaptive, and innovative academic cultures. Overall, by demonstrating the complementary roles of transformational leadership and agile learning, this study offers an actionable pathway for Indonesian universities seeking to accelerate innovation during digital transformation initiatives while maintaining academic quality and relevance. Future research should expand to multi-institution samples across regions and mixed-methods designs to validate and enrich insights.

Keywords: Transformational Leadership, Agile Learning, Innovation Performance

1. Introduction

Digital transformation in higher education has fundamentally reshaped the way academic institutions operate and innovate. According to a UNESCO report (2023), over 90% of higher education institutions worldwide have adopted digital learning modalities following the pandemic. However, only 38% have successfully sustained academic innovation in the long term. Furthermore, the World Bank (2022) highlights that the innovation capacity gap among universities in developing countries continues to widen, largely due to disparities in leadership, human resource quality, and learning infrastructure.

Faculty innovation performance has emerged as a strategic indicator for assessing institutional competitiveness and the effective implementation of the tri dharma of higher education—education, research, and community service. This performance encompasses the ability to generate novel ideas, develop relevant teaching methodologies, and contribute meaningfully to research and community engagement (Schiuma et al., 2024; Saif et al., 2024). Nevertheless, an OECD (2022) study emphasizes that one of the major obstacles to academic innovation lies in faculty members' limited adaptability to rapidly changing environments.

Transformational leadership is widely recognized as an effective leadership style for fostering innovation through visionary inspiration, intellectual stimulation, and individualized consideration (Bass & Avolio, 1990; Nguyen et al., 2023). This leadership style promotes emotional engagement and collective commitment, both of which are critical in navigating organizational uncertainty. Meanwhile,

agile learning is a strategic approach that enables faculty to engage in rapid, reflective learning in response to academic and technological changes (Ciric et al., 2019; Morrison, 2021). Individuals with high learning agility tend to internalize feedback, adapt learning strategies, and develop innovative solutions (Megawaty et al., 2023).

However, a comprehensive understanding of how transformational leadership shapes agile learning and ultimately drives innovation within private university contexts in developing countries remains limited. Although various studies have examined the influence of leadership or learning on innovation independently, research exploring the interaction between transformational leadership and agile learning in shaping faculty innovation performance is still scarce. Moreover, the mediating role of agile learning as a bridge between leadership and innovative outcomes has yet to be empirically and systematically explored (Ansari et al., 2024; Fang et al., 2024).

This study aims to address this gap by analyzing the relationships between transformational leadership, agile learning, and faculty innovation performance at Universitas Mercu Buana Jakarta. In doing so, it seeks to contribute theoretically to the literature on higher education management and offer practical implications for strengthening an innovative and adaptive academic culture.

2. Literature Review

2.1 Transformational Leadership

Transformational leadership is characterized by a leader's ability to inspire, intellectually stimulate, and individually support followers to achieve more than expected. Bass and Avolio's (1990) framework outlines four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. In academic settings, such leadership has been found to enhance faculty engagement, foster creativity, and facilitate strategic alignment with institutional goals. Transformational leaders influence not only the behavior but also the values and aspirations of their teams, which are essential in knowledge-intensive environments like higher education. Empirical studies have demonstrated its positive association with job satisfaction, commitment, and innovative work behavior among lecturers.

Furthermore, transformational leadership is especially relevant in times of institutional change and uncertainty, where academic staff require guidance that promotes both autonomy and accountability. Leaders who provide vision and direction while encouraging academic freedom can effectively mobilize the innovative potential of university faculty. Therefore, transformational leadership is posited to directly impact innovation performance and to shape adaptive learning behaviors among lecturers.

Despite its recognized strengths, some studies have questioned whether transformational leadership alone is sufficient to sustain innovation without supporting mechanisms such as adaptive learning cultures. This critique underscores the need to examine not just direct effects but also how leadership practices interact with internal learning capacities.

2.2 Agile Learning

Agile learning refers to the capacity of individuals to rapidly acquire, apply, and adapt knowledge in response to changing conditions. It emphasizes flexibility, continuous feedback, experimentation, and self-directed learning. Originating from agile methodologies in the technology sector, the concept has been adapted for learning and development within organizations, particularly those facing fast-paced and uncertain environments. In higher education, agile learning is crucial as faculty must respond to evolving pedagogical methods, technological tools, and diverse student needs.

Agile learners tend to demonstrate high levels of curiosity, resilience, and a proactive approach to solving problems. They are able to internalize feedback and transform challenges into learning opportunities. Studies have linked agile learning to innovation through mechanisms such as reflective practice, iterative development, and collaborative knowledge creation. In the academic context, lecturers with strong learning agility are more likely to innovate in teaching, research, and community service.

However, while the theoretical promise of agile learning is widely acknowledged, empirical evidence on its mediating role between leadership and innovation remains sparse, especially in emerging educational contexts. Understanding this mediating mechanism is critical to designing faculty development strategies that align leadership with innovation goals.

2.3 Innovation Performance

Innovation performance in academia reflects the extent to which lecturers generate and implement new ideas, improve teaching strategies, contribute to scholarly work, and deliver impactful community engagement. It encompasses both individual creativity and institutional support for innovation. In the context of higher education, performance-based innovation is critical for maintaining relevance, meeting accreditation standards, and advancing knowledge production.

Several factors influence innovation performance, including leadership, organizational culture, motivation, and learning orientation. While external pressures such as policy changes or technological advances may initiate innovation, internal enablers—especially at the individual and leadership levels—determine its success. Innovation performance is thus conceptualized not as a static outcome, but as a dynamic capability shaped by leadership practices and learning behaviors.

2.4 Research Gap and Contributions

Despite the growing body of literature on transformational leadership, agile learning, and innovation performance in organizational contexts, several gaps remain in the academic discourse—particularly within the domain of higher education in developing countries.

First, previous studies have primarily examined the direct effects of transformational leadership on innovative behavior without incorporating individual-level adaptive mechanisms such as agile learning. While leadership is acknowledged as a critical factor in fostering innovation, its indirect pathways—how it shapes cognitive and behavioral agility—remain underexplored.

Second, the role of agile learning as a mediating variable has received limited empirical attention. Although agile learning is increasingly recognized as a dynamic capability for navigating complex and uncertain environments, few studies have explicitly tested its mediating function between leadership and innovation performance, especially among university faculty.

Third, most existing research has been conducted in corporate or Western academic settings, with relatively few studies contextualized within Indonesian higher education. This limits the generalizability of findings and the development of culturally responsive leadership-learning frameworks.

In response to these gaps, this study offers several contributions:

Theoretical Contribution: This research integrates transformational leadership and agile learning within a unified framework to explain innovation performance in academic institutions. It advances the theoretical understanding of how leadership behaviors translate into innovation outcomes through adaptive learning processes.

Practical Contribution: The findings will provide university leaders and policymakers with actionable insights on fostering innovation by simultaneously enhancing leadership capacity and promoting agile learning cultures. The study also proposes a validated measurement model that can be adopted by other institutions for faculty development assessment and planning.

By addressing these theoretical and contextual gaps, this study aims to enrich the scholarly conversation on leadership and innovation in higher education and to support the strategic transformation of academic institutions in emerging economies.

3. Methodology

3.1 Research Design

This study employs a quantitative approach with an explanatory research design aimed at testing the relationships among transformational leadership (X1), agile learning (X2), and innovation performance (Y) among university lecturers. The research is designed to identify both direct and indirect effects through a structural model. Compared to covariance-based SEM, which is more suitable for theory confirmation, PLS-SEM was selected due to its flexibility in handling complex models and its predictive focus (Hair et al., 2021).

3.2 Population and Sample

The population consists of all permanent lecturers at Universitas Mercu Buana Jakarta, totaling 415 individuals. Based on a confidence level of 95% and an error margin of 5%, the minimum required

sample size was calculated to be 199 respondents. This size is adequate for structural equation modeling using SmartPLS.

3.3 Sampling Technique

Cluster random sampling was employed to ensure proportional representation from each faculty. According to Creswell (2012), this method is effective when the population is naturally grouped—in this case, by faculty. Each cluster (faculty) was proportionally represented in the final sample to maintain generalizability within the institutional context.

3.4 Instrument and Measurement

The measurement instruments used in this study are adapted from established and validated scales:

Transformational Leadership (X1) was measured using the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1990).

Agile Learning (X2) was measured using items adapted from Morrison (2021) and Ciric et al. (2019).

Innovation Performance (Y) was measured using items adapted from Schiuma et al. (2024) and Saif et al. (2024). All items used a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3.5 Data Analysis

The data were analyzed using Structural Equation Modeling with Partial Least Squares (SEM-PLS) through SmartPLS 4.0 software. SEM-PLS was chosen due to its predictive capabilities, flexibility with smaller samples, and ability to handle complex models. Bootstrapping with 5,000 resamples was applied to test the significance of direct and indirect effects.

3.6 Instrument Validity and Reliability

Convergent validity was assessed through Average Variance Extracted (AVE), which must exceed 0.5 for each construct. Discriminant validity was examined using the Fornell-Larcker criterion. Composite reliability and Cronbach's alpha were used to assess internal consistency, with values above 0.7 considered acceptable (Hair et al., 2021).

4. Results and Discussion

The measurement model assessment confirms the reliability and validity of all constructs, with Cronbach's Alpha and Composite Reliability values exceeding 0.80, and AVE values above the 0.50 threshold. These results affirm that the indicators used in this study adequately represent their respective latent variables.

Table 1.
Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Agile Learning	0.885	0.886	0.917	0.688
Transformational Leadership	0.814	0.819	0.877	0.641
Innovation Performance	0.849	0.858	0.889	0.574

Table 2.
Outer Loading

Indikator	Agile Learning	Transformational Leadership	Innovation Performance
AL1	0.847		
AL2	0.892		
AL3	0.864		
AL4	0.734		
AL5	0.803		
IP1			0.779

IP2			0.763
IP3			0.780
IP4			0.849
IP5			0.749
IP6			0.703
TL1		0.774	
TL2		0.867	
TL3		0.818	
TL4		0.739	

Table 3

Variabel	R Square	R Square Adjusted
Agile Learning	0.700	0.699
Innovation Performance	0.793	0.791

The structural model exhibits strong explanatory power, with R^2 values of 0.700 for Agile Learning and 0.793 for Innovation Performance, suggesting that transformational leadership and agile learning together account for a significant portion of the variance in innovation behavior among faculty members. Effect size analysis indicates that transformational leadership strongly influences agile learning ($f^2 = 2.338$), while agile learning has a substantial effect on innovation performance ($f^2 = 0.642$). The direct effect of transformational leadership on innovation performance is weaker ($f^2 = 0.095$), highlighting the mediating role of agile learning.

Table 4.
Path Coefficients

	Agile Learning	Kinerja Inovasi
Agile Learning		0.665
Transformational Leadership	0.837	0.256

Bootstrapping results support all hypotheses, with significant path coefficients: transformational leadership positively affects agile learning ($\beta = 0.837$, $p < 0.001$), agile learning significantly enhances innovation performance ($\beta = 0.665$, $p < 0.001$), and transformational leadership also has a smaller yet significant direct effect on innovation performance ($\beta = 0.256$, $p < 0.001$). The indirect effect ($\beta = 0.557$) confirms that agile learning partially mediates the relationship.

These findings underscore agile learning as a key mechanism through which leadership practices translate into innovative academic behavior. The partial mediation confirms that leadership alone is insufficient for sustaining innovation; rather, it must be supported by adaptive learning capacities among lecturers. This supports prior research (Ciric et al., 2019; Morrison, 2021; Megawaty et al., 2023) suggesting that agile learning is instrumental in enabling knowledge workers to remain creative and resilient in volatile environments.

In line with Bass and Avolio's (1990) transformational leadership theory, this study confirms that leaders who provide intellectual stimulation and individualized consideration can significantly enhance adaptive learning cultures within universities. However, the relatively small direct impact on innovation performance signals that transformation must be operationalized through learning environments to realize its full potential.

While the model fit index SRMR slightly exceeds the ideal threshold (0.129 vs. <0.08), the overall significance and consistency of the results justify the model's integrity. No multicollinearity

issues were detected ($VIF < 5$), and model comparison metrics (AIC, BIC) further support the adequacy of the specified structure.

Summary of Contributions:

This study confirms that:

- Agile learning is a statistically robust mediator between transformational leadership and innovation performance.
- Leadership impacts innovation more effectively through adaptive learning environments than through direct influence.
- Strategic emphasis on learning agility in faculty development may serve as a catalyst for sustainable innovation in higher education.

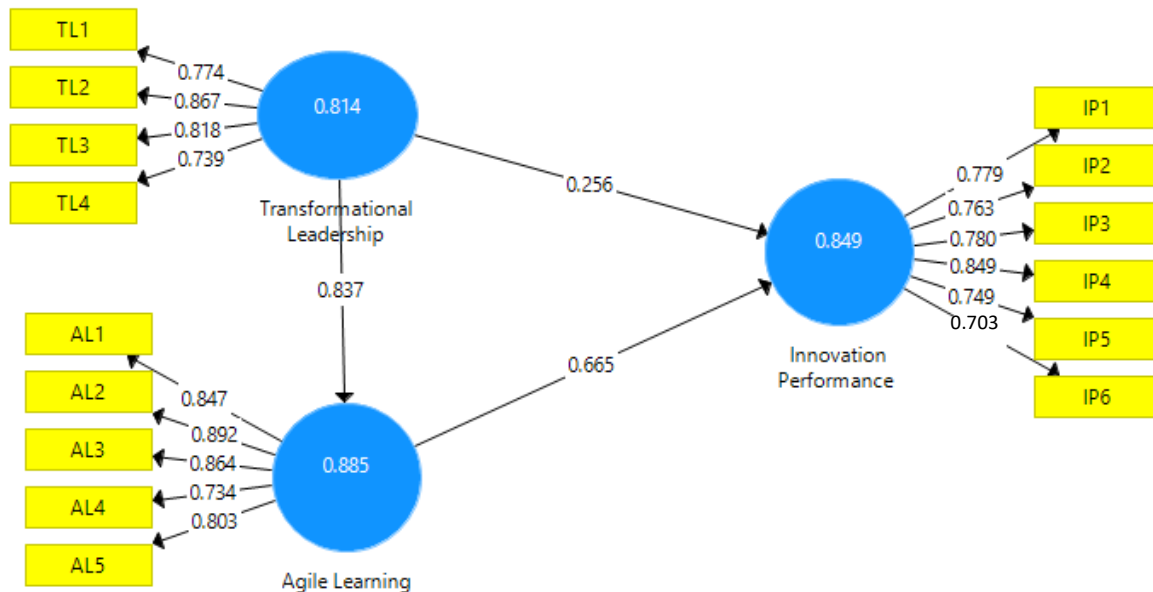


Figure 1. Conceptual framework showing the structural relationships among transformational leadership, agile learning, and innovation performance.

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5. Conclusion

This study demonstrates that transformational leadership significantly influences lecturers' innovation performance in Indonesian higher education, primarily through the mediating role of agile learning. Agile learning emerges as a vital adaptive mechanism that enables lecturers to respond effectively to academic and technological change. The findings emphasize that leadership alone is not sufficient to drive innovation unless accompanied by institutional strategies that cultivate learning agility. This underscores the need for integrated faculty development programs that promote adaptive learning environments and empower academic staff as agents of innovation. Future research may expand this framework to include digital competencies and cross-cultural validation across diverse educational settings.

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