

The Model of Leadership Innovation Styles and Human Resource Development Utilized by World-Class Universities

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KEYWORDS	ABSTRACT
Leadership, Innovation, Human Resource Development	<p>The contemporary landscape of higher education has been fundamentally transformed by rapid technological advancement, globalization, and evolving societal expectations, necessitating innovative approaches to leadership and human resource development within academic institutions to maintain competitive advantage and achieve world-class status. This research aims to identify the leadership styles, innovation approaches, and human resource strategies used by universities. This study employs a qualitative research approach utilizing a Systematic Literature Review (SLR) methodology, analyzing 26 carefully selected national and international articles published between 2013-2023, sourced from Google Scholar and related to leadership innovation and human resource development in higher education contexts. Data collection was conducted by gathering 26 national and international articles related to the search keywords. The findings reveal that world-class universities implement adaptive leadership models that integrate transformational and situational leadership approaches, emphasize sustainable open innovation practices, and prioritize comprehensive human resource development programs encompassing education, experience enhancement, skills development, and technological capability building. Leadership, innovation, and human resource management are three key elements in the context of sustainable organizational development. This research presents a systematic review of the literature related to these three aspects to gain an in-depth understanding of their relationship and impact on organizational performance. Through a comprehensive investigation of recent journal articles, the authors detail key findings in the literature spanning multiple disciplines. The research implications suggest that successful world-class universities require integrated leadership frameworks that balance innovation capacity with human capital development, providing actionable insights for university administrators and policymakers seeking to enhance institutional performance and global competitiveness.</p>

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INTRODUCTION

Leadership is the process of influencing others in determining organizational goals, motivating follower behavior to achieve goals, influencing followers' interpretation of events, organizing activities to achieve

goals, maintaining cooperation and group work relationships, and gaining support and cooperation from people outside the group or organization.

There is increasing interest in the relationship between leadership and innovation in studies. Researchers have stated that leadership is an important predictor of innovation. A special issue of "The Leadership Quarterly" highlighted the importance of leadership in innovation and organizational development. This article aims to respond to Yukl's call for a more comprehensive model of how leadership influences the exploration and exploitation of the two key components of the innovation process. To achieve this, we will refer to the theoretical framework proposed by Bledow, Frese, Anderson, Erez, and Farr, which outlines a dialectical perspective on innovation. Innovation is defined by West and Farr as "the deliberate introduction and application in a role, group, or organization of a new idea, process, product, or procedure at the relevant unit of adoption, designed to significantly benefit the individual, society, and the group, organization, or society at large" (p. 9). Being innovative involves more than just being creative. Creativity refers to the generation of original and useful ideas, while innovation is distinguished by the implementation of those ideas rather than simply generating them. Its implementation entails selling the idea to other individuals and groups within the organization and proposing it to the market. This means that innovation involves social processes, making it a complex phenomenon. Creativity and implementation do not run linearly; instead, the requirements for generating and implementing ideas alternate throughout the innovation process and are constantly changing. It is this aspect that makes innovation full of paradoxes and tensions, as described by Miron, Erez, and Naveh. However, current literature and research treat innovation as a relatively uniform or linear process by looking for broad and stable antecedents.

Borges et al. (2020:1507) introduced the concept of Sustainable Open Innovation (SOI). They define SOI as "a distributed innovation process based on knowledge flows that are managed intelligently across organizational boundaries, using financial and non-financial mechanisms in line with the organization's business model, thereby contributing to development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Their definition incorporates core elements of the traditional definition of OI, linking it to Brundtland's definition of sustainable development that takes intergenerational considerations into account.

Studies have shown that the digital transformation of corporate entities can improve corporate performance by reducing costs, improving efficiency, and driving innovation. First, digital transformation helps reduce companies' operational costs. Digital technology characteristics such as connection, sharing, and openness determine that firms can effectively disintermediate (Adamides and Karacapilidis, 2020; Nambisan, 2017) to weaken the adverse impact of information asymmetry among trading parties and reduce the costs of information search, negotiation and signing, transaction supervision, and post-conversion (Chen, 2020). Second, digital transformation helps improve the efficiency of enterprise operations. The structured and unstructured information embodied in emerging digital technologies expands the data mining space (Liu & Xu, 2015), accelerates the response speed to long-tail

enterprise customer requests, promotes industry specialization and collaborative operations, and facilitates overall operating efficiency. Third, digital transformation is conducive to promoting enterprise innovation and upgrading. In the industrial development period enabled by digital technology, the importance of data and information elements has been continuously stimulated, the resources and innovative capabilities limited to departments have been released, the trend of continuous learning and dynamic cooperation has increased, and old and new enterprises will be highly integrated in resources, technology, products, experience, and customers to promote the outbreak of enterprise "multi-service" creation effects (Ode & Ayavoo, 2020; Zheng, 2017), thus making additional contributions to value diversification (Ode & Ayavoo, 2020; Zheng, 2017).

Due to market globalization, rapid technological change, and the mobility of knowledge workers over the years, there has been a noticeable shift in the way organizations innovate (Cui, Wu & Tong, 2018). Innovation is no longer the result of technological development and transformation of products and services within the organization alone. Instead, knowledge available from outside organizational boundaries is an important source of innovation. This opportunity has led to the facilitation of an open innovation culture in many organizations (Cui et al., 2018). Due to the increased interaction and connectivity provided by better information technology, many companies are engaging in "open" innovation tasks by joining hands with other organizations, educational/research institutions, and other external sources of knowledge. Research shows that while internal sources of knowledge are very important, external sources are also necessary for firms to achieve the desired level of innovativeness and have superior ability to introduce innovations (Medase & Abdul-Basit, 2020).

In general, the open innovation paradigm aims to help organizations achieve competitive advantage based on the two-way sharing of knowledge and resources. This bidirectional knowledge and resource-sharing process consists of inward open innovation (knowledge inflow) and outward open innovation (knowledge outflow)—models that have been proposed as successful organizational innovations. Inward open innovation is the exploration and formation of new associations with external entities to enhance an organization's innovative capabilities by focusing on knowledge inflows. On the other hand, outward open innovation is the exploitation of organizational expertise and capabilities by commercializing them and focusing on knowledge outflows.

Human resource management is a process of dealing with various problems within the scope of employees, staff, and laborers. Managers and others work to support the activities of the organization or company to achieve predetermined goals.

The primary objectives of this research are to: (1) systematically analyze and synthesize existing literature on leadership innovation styles implemented by world-class universities, (2) examine the relationship between innovative leadership approaches and human resource development strategies in higher education contexts, (3) identify key patterns and best practices in leadership and HR development that contribute to university excellence and

global competitiveness, and (4) develop evidence-based recommendations for university administrators and policymakers seeking to enhance institutional performance. The benefits of this research extend to multiple stakeholders within the higher education ecosystem: for university leaders and administrators, it provides actionable insights into proven leadership models and HR development strategies that can enhance institutional effectiveness; for academic policymakers, it offers evidence-based frameworks for developing policies that support university excellence; for researchers and scholars in higher education management, it contributes to the theoretical understanding of the complex relationships between leadership, innovation, and human capital development; and for students and faculty, it indirectly benefits them through improved institutional performance and enhanced learning environments. The implications of this research are significant for the future of higher education, as it provides a foundation for understanding how world-class universities can maintain their competitive advantage through strategic leadership and human resource development in an increasingly complex and dynamic global educational landscape.

RESEARCH METHODS

This research uses the Systematic Literature Review (SLR) method. This SLR method is a research approach that identifies, analyzes, evaluates, and interprets all previous research results that researchers obtain. The results of this previous research were then reviewed by the researcher using a systematic review and identification of the selected research articles. Triandini et al. (2019) stated that when a researcher wants to use the SLR method, the researcher must identify and review several journals that are conducted systematically and use steps that are consistent with the use of the SLR method (Triandini et al., 2019).

Luluk Latifah and Iskandar Ritonga in their article entitled "Systematic Literature Review (SLR): Competence of Human Resources for the Development of Islamic Banking in Indonesia" wrote that Systematic Literature Review (SLR) is a series of processes to identify, assess, analyze, and interpret everything that is proven in research that has been carried out with the aim of providing answers to questions that arise in certain studies.

The data collection process followed a rigorous systematic approach designed to ensure comprehensiveness and quality of the literature reviewed. Initially, researchers identified 56 articles related to leadership, innovation, and human resource development in higher education through comprehensive searches across multiple databases. The primary data sources included Google Scholar, Scopus, and other reputable academic databases, with search terms including "leadership innovation," "human resource development," "higher education," "university management," and "organizational development." The search strategy employed both individual keywords and Boolean combinations to maximize coverage of relevant literature. From this initial collection of 56 articles, a refined selection process was implemented using specific inclusion and exclusion criteria.

The inclusion criteria for article selection were: (1) articles published in peer-reviewed journals between 2013-2023 to ensure contemporary

relevance, (2) articles specifically addressing leadership, innovation, and/or human resource development in higher education contexts, (3) articles written in English or providing English abstracts for accessibility, (4) articles providing empirical evidence or substantial theoretical contributions to the field, and (5) articles from both national and international publications to ensure diverse perspectives. The exclusion criteria included: (1) articles published before 2013 to maintain focus on recent developments, (2) articles not directly related to higher education contexts, (3) articles lacking methodological rigor or peer review, (4) duplicate publications or multiple versions of the same study, and (5) articles that were purely commentary or opinion pieces without substantial research basis.

Through this systematic selection process, 26 articles were ultimately chosen for detailed analysis, representing the most relevant and high-quality research in the field. Each selected article was thoroughly analyzed using a standardized data extraction framework that captured key information including author details, publication year, journal source, research methodology, main findings, and implications for leadership and HR development in higher education. The quality of each article was assessed based on methodological rigor, theoretical contribution, and relevance to the research questions. The analysis process involved multiple stages of review to ensure accuracy and completeness of data extraction.

When collecting data, researchers used 56 articles related to the model of leadership, innovation, and human resource development in higher education. Articles were obtained from national and international journals, namely from Google Scholar, totaling 56 articles, and articles were reviewed from 2013 to 2023. The articles used were then analyzed and defined in a table with the name of the researcher, year of publication, journal, and research results. The content of this article is a discussion of several articles that have been reviewed and compared to draw conclusions.

RESULTS AND DISCUSSION

How are leadership and human resource development innovations used by world-class higher education institutes?

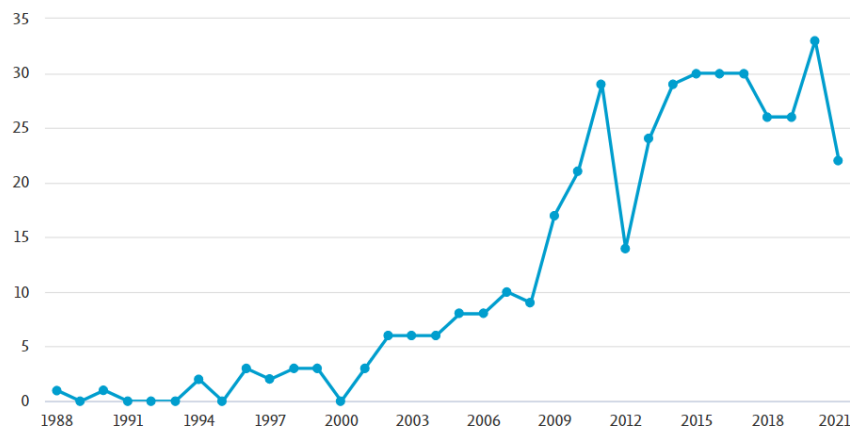


Figure 1. Transforming Leadership

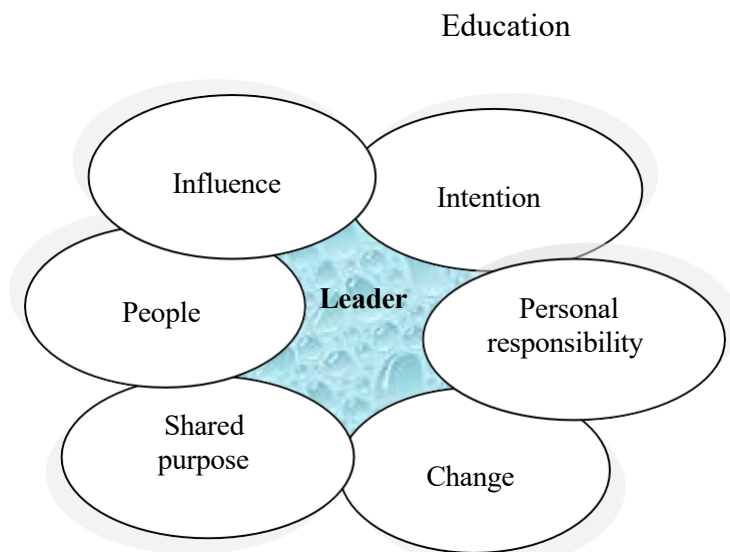


Figure 2. Element of Leadership
(Daft, 1999, p.6)

Leadership is a process that involves two key players: the leader and the follower. The leader is the person who can influence others, while the follower is the person who is being led. According to Northouse, both leaders and followers are integral to the leadership process.

No.	Author	Title of Journal	Year
1.	Aryadhuta	Pengaruh gaya kepemimpinan rektor terhadap kinerja pegawai non edukatif pada universitas negeri surabaya	2013
2.	Kadiyono, dkk.	Develop Leadership Style Model for Indonesian Teachers Performance in Education 4.0 Era	2020
3.	Al-Husseini, Sawasn Jawad	The Impact of Leadership Style on Innovation in Iraq's Higher Education Institutions: The Role of Knowledge Sharing	2014
4.	Michael Fullan	The nature of leadership is changing	2019
5.	G. M. Fix, M. Rikkerink, H. T. M. Ritzen, J. M. Pieters, W. A. J. M. Kuiper	Learning within sustainable educational innovation: An analysis of teachers' perceptions and leadership practice	2021
6.	Elena Beketova, Irina Leontyeva, Svetlana Zubanova, Aleksandr Gryarakhin & Yasily Movchun	Creating an optimal environment for distance learning in higher education: discovering leadership issues	2020

7.	Bambang Karsono, Robertus Suraji, & Istianingsih Sastrodiharjo	The Influence of Leadership Spirituality to Improving the Quality of Higher Education in Indonesia.	2022
8.	Alba Carvalho, Helena Alves & Joao Leitao	What research tells us about leadership styles, digital transformation and performance in state higher education?	2022
9.	Sophie Spratley	Exploring the role of the academic advisor in leadership education	2020
10.	Nicholas Martinez, Matthew J. Sowcik & James Charles Bunch	The impact of leadership education and co-curricular implement on the development of socially responsible leadership outcomes in undergraduate students:	2020
11.	Abd. Syukur, Tri Achmad Budi Susilo, Wike & Rulam Ahmadi	Sustainability of Communication, Organizational Culture, Cooperation, Trust and Leadership Style for Lecturer Commitments in Higher Education	2020
12.	Budi Harto, Saymsu, Yusuf LN, Arief Yanto Rukmana, Rita Komalasari & Andina Dwijayanti.	Bibliometric Analysis of Transforming Leadership Education with Artificial Intelligence.	2021
13.	Dr. Radhita Kapur	Leadership Role In Educational Institutions	2021
14.	Jaan-Pauli Kimpimaki, Iryna Malacina & Oskari Lahdeaho.	Open and sustainable: An emerging frontier in innovation management?	2022
15.	Yongzhang Peng & Changqi Tao	Can digital transformation promote enterprise performance? – From the perspective of public policy and innovation	2022
16.	Stelvia Matos, Eric Viardot, Benjamin K. Sovacool, Frank W. Geels & Yu Xiong	Innovation and climate change: A review and introduction to the special issue	2022
17.	María Soledad Ramírez-Montoya Isolda Margarita Castillo-Martínez, Jorge Sanabria and Jhonattan Miranda	Complex Thinking in the Framework of Education 4.0 and Open Innovation—A Systematic Literature Review	2021
18.	Yuliya Snihur &	A call for action: The impact of	2022

	Nancy Bocken	business model innovation on business ecosystems, society and planet	
19.	M. Muzamil Naqshbandi Sajjad M. Jasimuddin.	The linkage between open innovation, absorptive capacity and managerial ties: A cross-country perspective.	2022
20.	Nafeesa Mughal, Asma Arif, Vipin Jain, Supat Chupradit, Malik Shahzad Shabbir, Carlos Samuel Ramos-Meza, Rinat Zhanbayev.	The role of technological innovation in environmental pollution, energy consumption and sustainable economic growth: Evidence from South Asian economies	2022
21.	Mandana Farzaneh, Ralf Wilden, Leila Afshari, Gholamhossein Mehralian.	Dynamic capabilities and innovation ambidexterity: The roles of intellectual capital and innovation orientation.	2022
22.	Atia Bano Memon, Kyrill Meyer & Muhammad Nawaz Tunio	Toward collaborative networking among innovation laboratories: a conceptual framework	2021
23.	Wayan Edi Arsawan, Viktor Koval, Ismi Rajjani, Ni Wayan Rustiarini & Wayan Gede Supartha and Ni Putu Santi Suryantini	Leveraging knowledge sharing and innovation culture into SMEs sustainable competitive advantage.	2020
24.	Rania Beji, Ouidad Yousfi, Nadia Loukil & Abdelwahed Omri.	Board Diversity and Corporate Social Responsibility: Empirical Evidence from France	2020
25.	Rune K.T, Elinar F. M., Trond N. & Oyvind S.	The return from underperformance to sustainable world-class level: A case study of a male cross-country skier.	2023
26.	Philippe C., Rick L., Andre D. & Fernand G.	Institution in chess: a study with world-class players	2023

After reviewing 26 national and international journals on leadership, innovation, and human resources, a comprehensive understanding of the intricate relationship between these three aspects in the context of organizational development was obtained.

Discussion

The comprehensive analysis of 26 selected articles reveals several

critical patterns and themes regarding leadership innovation and human resource development in world-class universities. These findings are organized into four major categories: leadership style evolution, innovation implementation strategies, human resource development approaches, and organizational performance outcomes.

Leadership Style Evolution in Higher Education

The literature demonstrates a clear evolution from traditional hierarchical leadership models toward more adaptive, collaborative, and digitally-informed approaches. Kadiyono et al. (2020) highlight the necessity for leadership style adaptation in the Education 4.0 era, emphasizing the integration of digital technologies and collaborative decision-making processes. Similarly, Fullan (2019) argues that the fundamental nature of leadership is changing, requiring leaders to develop new competencies in digital literacy, emotional intelligence, and systems thinking. The research by Carvalho et al. (2022) provides empirical evidence that leadership styles incorporating digital transformation principles significantly enhance performance in state higher education institutions.

World-class universities demonstrate particular strength in implementing transformational leadership approaches that emphasize vision creation, intellectual stimulation, and individualized consideration. The study by Al-Husseini and Jawad (2014) reveals that transformational leadership styles significantly impact innovation in higher education institutions, particularly through enhanced knowledge sharing mechanisms. This finding is corroborated by Karsono et al. (2022), who demonstrate that spiritual leadership approaches contribute to improving higher education quality by fostering deeper organizational commitment and values-based decision making.

Innovation Implementation Strategies

The analysis reveals that world-class universities adopt sophisticated innovation management approaches that balance both incremental and radical innovation initiatives. The concept of sustainable open innovation, as discussed by Kimpimaki et al. (2022), emerges as a critical framework for universities seeking to maintain competitive advantage while contributing to societal development. These institutions demonstrate proficiency in managing the paradoxes inherent in innovation processes, particularly the tension between exploration of new opportunities and exploitation of existing capabilities.

Digital transformation emerges as a central theme, with Peng and Tao (2022) demonstrating that digital transformation initiatives can significantly promote organizational performance through improved efficiency, cost reduction, and innovation capacity enhancement. The integration of artificial intelligence in leadership education, as analyzed by Harto et al. (2021), represents a frontier approach that world-class universities are pioneering to enhance both educational delivery and administrative effectiveness.

The literature also emphasizes the importance of collaborative innovation networks. Memon et al. (2021) propose a conceptual framework

for collaborative networking among innovation laboratories, suggesting that world-class universities benefit significantly from establishing and maintaining extensive innovation partnerships with industry, government, and other academic institutions.

Human Resource Development Approaches

World-class universities demonstrate comprehensive and strategic approaches to human resource development that encompass multiple dimensions of professional growth. The analysis reveals that these institutions prioritize continuous learning, skills development, and career advancement opportunities for all staff categories, from faculty to administrative personnel.

The research by Martinez et al. (2020) demonstrates the significant impact of leadership education and co-curricular involvement on developing socially responsible leadership outcomes in students, highlighting how human resource development extends beyond staff to include student development as a strategic priority. This holistic approach to human capital development is further supported by the findings of Syukur et al. (2020), who identify the critical role of communication, organizational culture, cooperation, trust, and leadership style in fostering lecturer commitment in higher education.

Professional development programs in world-class universities typically integrate traditional academic skills enhancement with contemporary competencies such as digital literacy, cultural competence, and innovation management. The study by Spratley (2020) explores the evolving role of academic advisors in leadership education, demonstrating how universities are reconceptualizing traditional roles to better serve modern educational objectives.

Organizational Performance Outcomes

The literature provides substantial evidence that effective integration of innovative leadership styles and comprehensive human resource development strategies leads to superior organizational performance outcomes. These outcomes manifest across multiple dimensions including academic reputation, research output, student satisfaction, staff retention, and financial sustainability.

The research by Arsawan et al. (2020) demonstrates how leveraging knowledge sharing and innovation culture contributes to sustainable competitive advantage, a finding that directly applies to higher education contexts where knowledge creation and dissemination are core functions. Similarly, the work of Farzaneh et al. (2022) reveals the critical role of intellectual capital and innovation orientation in developing dynamic capabilities that enable organizations to adapt and thrive in changing environments.

After reviewing 26 national and international journals on leadership, innovation, and human resources, a comprehensive understanding of the intricate relationship between these three aspects in the context of organizational development was obtained.

CONCLUSION

Based on the systematic literature review of 26 carefully selected national and international journal articles published between 2013-2023, this research reveals that world-class universities employ sophisticated, integrated models of leadership innovation and human resource development that are characterized by several key features: adaptive leadership approaches that combine transformational and situational elements responsive to rapidly changing educational environments; sustainable open innovation strategies that balance internal capability development with external partnership cultivation; comprehensive human resource development programs that encompass continuous learning, digital literacy enhancement, and values-based professional growth; and performance management systems that align individual development with institutional strategic objectives. The findings demonstrate that successful world-class universities do not rely on single leadership models or isolated HR practices, but rather implement holistic systems that recognize the interdependent nature of leadership effectiveness, innovation capacity, and human capital development. This suggests that future research should focus on developing dynamic frameworks that can adapt to the accelerating pace of change in higher education while maintaining the fundamental academic values of knowledge creation, critical thinking, and societal contribution. The implications for university administrators and policymakers are significant, indicating the need for sustained investment in leadership development programs, innovation infrastructure, and comprehensive faculty and staff development initiatives that prepare higher education institutions to maintain their world-class status in an increasingly competitive and rapidly evolving global educational landscape.

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