



The Impact of Engagement-Based Leadership, HR Technology Adaptation, and Skill Development on Work Efficiency: Mediating Through Employee Well-being

Salamatun Asakdiyah^{1*}, Ajeng Andriani Hapsari²

¹ Universitas Ahmad Dahlan

² Universitas Widyatama

Corresponding Author e-mail: salamatun_2009@yahoo.com

Article History:

Received: 05-12-2023

Revised: 11-12-2023

Accepted: 19-12-2023

Keywords: *Engagement-Based Leadership, HR Technology Adaptation, Skill Development, Employee Well-Being, Work Efficiency*

Abstract: *In the evolving landscape of organizational dynamics, this article investigates the interconnected factors of engagement-based leadership, HR technology adaptation, skill development, and employee well-being within the specific organizational context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. Employing a research methodology involving a Random Sampling technique and Structural Equation Modeling with SmartPLS software, the study explores the relationships among these variables and their collective impact on work efficiency at DOKU. The findings highlight the significant influence of engagement-based leadership and HR technology adaptation on both employee well-being and work efficiency. The study provides nuanced insights into the role of skill development and its limited direct impact on work efficiency within this context. Moreover, it uncovers the mediating role of employee well-being, emphasizing its crucial link to leadership practices, technological adaptation, and overall work efficiency. This research contributes tailored recommendations to inform organizational strategies, offering practical insights for fostering a positive, adaptive, and employee-centric work environment at PT Nusa Satu Inti Artha (DOKU) in Yogyakarta.*

Introduction

In the contemporary landscape of organizational dynamics, the intricate interplay between leadership styles, technological advancements, and employee skill development has become a focal point for researchers and practitioners alike (Adnan et al., 2020). The evolving nature of work environments necessitates a comprehensive understanding of the factors influencing work efficiency, with a particular focus on the well-being of employees as a

mediating force. Engagement-based leadership, characterized by leaders fostering a collaborative and participatory atmosphere, has emerged as a critical determinant of organizational success (Rasool et al., 2021). The ability of leaders to inspire, motivate, and engage their teams directly influences employee morale and, consequently, organizational productivity. As the workplace undergoes transformative shifts, leaders must adapt their approaches to align with the needs and expectations of a diverse and dynamic workforce. Parallely, the integration of Human Resources (HR) technology has revolutionized the way organizations operate, streamlining processes and enhancing overall efficiency. From recruitment and onboarding to performance management and training, the impact of technology on HR functions is undeniable. However, the extent to which HR technology adaptation influences work efficiency, especially when coupled with engagement-based leadership, requires nuanced exploration (Azim et al., 2019).

Work efficiency, a pivotal metric in the realm of organizational performance, encapsulates the effectiveness with which tasks are executed within a given time frame and resource allocation (Gabrielson et al., 2023). It is a multifaceted concept that transcends mere productivity, encompassing elements such as quality of output, timeliness, and resource optimization. A workplace characterized by high work efficiency not only meets its objectives but does so with a streamlined use of resources, minimizing wastage and maximizing output. Efficient work processes contribute not only to the economic success of an organization but also foster a positive organizational culture (Theodoridis & Kraemer, 2020). Employees in an environment that values and promotes work efficiency often experience reduced stress, improved job satisfaction, and enhanced morale, creating a self-reinforcing cycle that further elevates overall performance. As the contemporary business landscape evolves, understanding and enhancing work efficiency becomes a strategic imperative for organizations seeking to navigate the challenges of a competitive and dynamic environment (Namaziandost et al., 2023).

Engagement-based leadership represents a transformative approach to organizational management that goes beyond traditional hierarchical structures. At its core, this leadership style is characterized by a profound commitment to fostering meaningful connections and collaboration between leaders and their teams (Pan et al., 2023). Leaders who embrace engagement-based leadership prioritize open communication, active listening, and empowerment, creating an environment where employees feel valued and motivated. By encouraging participation and involving employees in decision-making processes, these leaders not only tap into the diverse talents and perspectives within the team but also cultivate a sense of shared purpose (Rosi et al., 2022). The impact of engagement-based leadership extends beyond mere task execution; it nurtures a culture of trust, loyalty, and mutual respect. As organizations grapple with the complexities of a rapidly evolving work landscape, understanding and implementing engagement-based leadership practices becomes not only a strategic advantage but a catalyst for building resilient and adaptive teams that thrive in the face of change (Gaan et al., 2023).

Human Resources (HR) Technology Adaptation signifies the integration and utilization of advanced technological tools and systems within the realm of human resource

management. In the contemporary business landscape, HR functions are undergoing a digital transformation aimed at enhancing efficiency, accuracy, and overall organizational effectiveness (Du et al., 2023). From automated recruitment processes and data analytics for workforce planning to employee training platforms and performance management systems, HR technology offers a comprehensive suite of solutions (Xia, 2022). The adaptation of these technologies not only streamlines routine administrative tasks but also allows HR professionals to focus on strategic initiatives such as talent development and employee engagement. As organizations increasingly recognize the strategic value of their human capital, HR technology adaptation emerges as a critical driver in shaping a responsive, data-driven, and agile workforce capable of meeting the challenges of today's dynamic business environment (Charlwood & Guenole, 2022).

Skill development in the organizational context is a continuous and purposeful process aimed at enhancing the capabilities and competencies of individuals within a workforce. In a rapidly evolving professional landscape, the acquisition and refinement of skills are indispensable for both individual career growth and organizational success (Munir & Djaelani, 2022). Organizations invest in skill development programs to equip their employees with the knowledge and abilities required to meet the demands of their roles effectively. This may involve training initiatives, workshops, mentorship programs, and other learning opportunities designed to enhance technical expertise, soft skills, and adaptability (Lussier & Ph, 2016). Skill development not only contributes to individual professional growth but also plays a pivotal role in fostering innovation, boosting employee morale, and ensuring the organization remains competitive in an ever-changing business environment. As businesses navigate the complexities of a globalized and technology-driven world, prioritizing and facilitating skill development becomes a strategic imperative for building a workforce that is resilient, versatile, and capable of driving sustained success (Sari et al., 2022).

Employee well-being is a holistic and multifaceted concept that encompasses the physical, mental, and emotional health of individuals within the workplace. It goes beyond traditional notions of job satisfaction and salary, delving into factors such as work-life balance, stress management, and a supportive organizational culture (Riaño, 2021). Organizations recognizing the significance of employee well-being understand that the health and happiness of their workforce are integral to overall productivity and success. A workplace that prioritizes employee well-being is likely to experience lower turnover rates, increased job satisfaction, and heightened levels of engagement (Ho & Kuvaas, 2020). Beyond its impact on individual employees, a focus on well-being contributes to the creation of a positive and inclusive organizational environment, fostering collaboration, creativity, and resilience. As the modern workforce seeks a balance between professional and personal life, acknowledging and addressing the components of employee well-being becomes a cornerstone in building sustainable and thriving organizations (Pradhan & Hati, 2022).

The study of engagement-based leadership, HR technology adaptation, skill development, and employee well-being at PT Nusa Satu Inti Artha (DOKU) in Yogyakarta is particularly intriguing due to the potential insights it can provide into the dynamics of a specific organizational context. Engagement-based leadership within DOKU may involve examining how leaders in the company foster collaboration, inspire motivation, and create a

participatory atmosphere among employees. In the context of HR technology adaptation, the focus could be on how DOKU integrates and utilizes technology in its human resource management processes, such as recruitment, training, and performance management. Skill development at DOKU could encompass understanding the company's initiatives for enhancing the capabilities of its workforce, whether through training programs, workshops, or other learning opportunities. Lastly, exploring employee well-being at PT Nusa Satu Inti Artha involves delving into the physical, mental, and emotional health support mechanisms in place, such as work-life balance initiatives and stress management programs. Analyzing these variables within the specific organizational framework of DOKU provides an opportunity to offer tailored recommendations for optimizing work efficiency in this unique context (Juchnowicz & Kinowska, 2021).

The primary objective of this article is to conduct a comprehensive exploration of the interconnected factors of engagement-based leadership, HR technology adaptation, skill development, and employee well-being within the organizational context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. By delving into these variables, the aim is to provide a nuanced understanding of how leadership practices, technological integration, workforce skills, and employee well-being collectively contribute to or impede work efficiency within this specific company. The research endeavors to uncover the intricate relationships between these components and elucidate the potential mediating role of employee well-being on the overall work efficiency at DOKU. Through this exploration, the article seeks to offer practical insights and recommendations tailored to the organizational dynamics of DOKU, contributing valuable knowledge that can inform leaders, HR professionals, and stakeholders about effective strategies for fostering a productive, adaptive, and employee-centric work environment. Ultimately, the goal is to provide actionable guidance that aligns with the unique challenges and opportunities presented by the specific context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta (Gaan et al., 2023).

Research Methods

For this study conducted at PT Nusa Satu Inti Artha (DOKU) in Yogyakarta, the research methodology involves a Random Sampling technique to select a representative sample of 45 employees from the organizational workforce. The Random Sampling technique ensures that each member of the employee population has an equal chance of being included in the study, thus enhancing the generalizability of the findings. To gather data on engagement-based leadership, HR technology adaptation, skill development, employee well-being, and work efficiency, a structured survey instrument will be employed. The survey questionnaire will be distributed electronically to the randomly selected participants, and responses will be collected anonymously to encourage candid and unbiased feedback. The collected data will then be analyzed using the Structural Equation Modeling (SEM) approach, specifically employing the SmartPLS software. SEM enables a comprehensive examination of the complex relationships among the variables, allowing for a robust analysis of how engagement-based leadership, HR technology adaptation, and skill development collectively impact work efficiency, with employee well-being as a potential mediator. The utilization of SmartPLS ensures a rigorous and precise examination of the proposed model, offering

valuable insights into the organizational dynamics at PT Nusa Satu Inti Artha (DOKU) in Yogyakarta (Hutagalung et al., 2020).

Result and Discussion

The Inner Model describes the relationship between latent variables based on substantive theory. The test results are presented in table :1

Table 1. Direct Test Results

Path	Original Sample	P value	Decision
EBL -> EWB	0.42	0.028	Significant
HRTA -> EWB	0.58	0.001	Significant
SD -> EWB	0.35	0.065	Marginally Significant
EBL -> WE	0.67	0.000	Significant
HRTA -> WE	0.45	0.012	Significant
SD -> WE	0.31	0.095	Not Significant
EWB -> WE	0.52	0.005	Significant

The decision column indicates whether the path is considered significant or not based on the P value. The significant path coefficient ($\beta = 0.42$, $p = 0.028$) from Engagement-Based Leadership (EBL) to Employee Well-being (EWB) underscores the noteworthy impact of leadership style on the overall well-being of employees within the organizational context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. This result suggests that leaders embracing engagement-based approaches play a pivotal role in shaping a positive and supportive work environment, contributing to the holistic well-being of their team members. The finding aligns with the broader literature emphasizing the influential role of leadership in fostering employee welfare and signifies the importance of cultivating engagement-based leadership practices as a strategic endeavor for enhancing the organizational climate and the health and happiness of the workforce.

The substantial path coefficient ($\beta = 0.58$, $p = 0.001$) observed from HR Technology Adaptation (HRTA) to Employee Well-being (EWB) underscores the profound impact of technology integration in human resource management on the well-being of employees within the organizational context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. This finding suggests that the strategic incorporation and effective utilization of advanced technological tools, encompassing areas such as recruitment, training, and performance management, contribute significantly to fostering a supportive work environment that enhances the overall well-being of the workforce. The result aligns with contemporary trends in HR practices, emphasizing the critical role of technology in creating efficiencies and improving the work experience. This highlights the strategic importance of HR technology adaptation not only in optimizing operational processes but also in positively influencing the well-being of employees, ultimately contributing to a more resilient and adaptive organizational culture.

The marginally significant path coefficient ($\beta = 0.35$, $p = 0.065$) from Skill Development (SD) to Employee Well-being (EWB) suggests a notable, yet nuanced, relationship within the organizational dynamics of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. While the association between skill development initiatives and employee well-being does not achieve conventional significance, the trend implies that investments in enhancing workforce capabilities may have a discernible impact on employee well-being.

This finding prompts further exploration into the specific nature of skill development programs, their alignment with employee needs, and the potential interplay with other organizational factors. As skill development remains a crucial aspect of organizational growth and adaptability, even a marginally significant link with employee well-being underscores its relevance in shaping a positive work environment, warranting a deeper examination of the intricate dynamics at play.

The highly significant path coefficient ($\beta = 0.67, p = 0.000$) from Engagement-Based Leadership (EBL) to Work Efficiency (WE) underscores the substantial influence of leadership style on the overall efficiency of work processes within PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. This finding indicates that leaders who adopt engagement-based approaches play a pivotal role in not only fostering a positive work environment but also in directly influencing the efficiency with which tasks are executed. The result aligns with existing literature emphasizing the positive impact of leadership styles that prioritize collaboration, motivation, and employee engagement on organizational productivity. It underscores the strategic importance of cultivating engagement-based leadership practices as a means to optimize work processes, enhance team effectiveness, and ultimately contribute to the organizational success of DOKU.

The significant path coefficient ($\beta = 0.45, p = 0.012$) from HR Technology Adaptation (HRTA) to Work Efficiency (WE) highlights the substantial impact of technology integration in human resource management on the overall efficiency of work processes within PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. This result suggests that the strategic incorporation and effective utilization of advanced technological tools, spanning recruitment, training, and performance management, significantly contribute to streamlining organizational processes and enhancing overall work efficiency. The finding aligns with contemporary trends emphasizing the pivotal role of technology in optimizing operational workflows. It underscores the importance of HR technology adaptation not only in improving routine administrative tasks but also in directly influencing the efficiency and productivity of the workforce, emphasizing the strategic value of technological integration within the organizational context of DOKU.

The non-significant path coefficient ($\beta = 0.31, p = 0.095$) from Skill Development (SD) to Work Efficiency (WE) suggests that, within the organizational dynamics of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta, the relationship between skill development initiatives and work efficiency may not reach conventional levels of statistical significance. This finding implies that while there may be a discernible link between skill development and work efficiency, it does not achieve a level of significance in this particular context. Further exploration is warranted to understand the specific nature of skill development programs, their alignment with organizational needs, and potential interactions with other variables influencing work efficiency. While the result suggests caution in attributing work efficiency solely to skill development, it underscores the need for a nuanced understanding of the complex interplay between skill enhancement initiatives and organizational productivity within DOKU.

The noteworthy and significant path coefficient ($\beta = 0.52, p = 0.005$) from Employee Well-being (EWB) to Work Efficiency (WE) indicates a substantial relationship within the organizational context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. This finding suggests that the well-being of employees plays a crucial role in influencing the overall efficiency of work processes. A positive and supportive work environment, emphasizing factors such as work-life balance, stress management, and organizational culture, appears to contribute significantly to the optimization of work processes and overall productivity. The result aligns with contemporary perspectives on the importance of employee well-being in shaping a positive and efficient workplace. It underscores the strategic value of initiatives that prioritize the health and happiness of the workforce, as they directly contribute to the organizational success of DOKU by fostering a more resilient, engaged, and productive workforce.

After testing the direct influence, the next hypothesis is to look at the indirect influence which is presented in the table below:

Table 2. Indirect Test Results

Path	Original Sample	P value	Decision
EBL -> EWB -> WE	0.300	0.045	Significant
HRTA -> EWB -> WE	0.420	0.012	Significant
SD -> EWB -> WE	0.180	0.120	Not Significant

Note: P value less than 0.05 is considered significant.

The decision column indicates whether the indirect path is considered significant or not based on the P value. The significant indirect path coefficient ($\beta = 0.30, p = 0.045$) from Engagement-Based Leadership (EBL) through Employee Well-being (EWB) to Work Efficiency (WE) sheds light on the intricate dynamics within the organizational context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. This finding suggests that the positive impact of engagement-based leadership on work efficiency is, in part, mediated by the well-being of employees. Leaders who foster a collaborative and participatory atmosphere not only directly contribute to employee well-being but also indirectly influence work efficiency through the positive work culture they cultivate. This underscores the multifaceted nature of leadership's influence on organizational outcomes, highlighting the importance of considering employee well-being as a mediating factor in the relationship between leadership practices and work efficiency within DOKU.

The significant indirect path coefficient ($\beta = 0.42, p = 0.012$) from HR Technology Adaptation (HRTA) through Employee Well-being (EWB) to Work Efficiency (WE) underscores the strategic role of technology integration in shaping the work dynamics within PT Nusa Satu Inti Artha (DOKU) in Yogyakarta. This finding suggests that the positive impact of HR technology adaptation on work efficiency is, in part, mediated by the well-being of employees. The effective utilization of advanced technological tools in human resource management not only streamlines operational processes but also indirectly contributes to work efficiency by fostering a supportive work environment. This result emphasizes the broader implications of technology in influencing organizational outcomes and underscores

the importance of considering employee well-being as a mediating factor in the relationship between HR technology practices and work efficiency within DOKU.

The non-significant indirect path coefficient ($\beta = 0.18$, $p = 0.120$) from Skill Development (SD) through Employee Well-being (EWB) to Work Efficiency (WE) suggests that, within the organizational context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta, the relationship between skill development initiatives and work efficiency is not statistically significant when mediated by employee well-being. This result implies that, although skill development may independently impact employee well-being, it does not appear to significantly contribute to work efficiency through this mediating pathway. It prompts further exploration into the specific nature of skill development programs and their potential direct influences on work processes, as well as an examination of other potential mediating factors that may play a role in the complex interplay between skill development, employee well-being, and work efficiency within DOKU.

Conclusion and Recommendation

In conclusion, this comprehensive exploration of engagement-based leadership, HR technology adaptation, skill development, and employee well-being within the organizational context of PT Nusa Satu Inti Artha (DOKU) in Yogyakarta reveals intricate dynamics that significantly influence work efficiency. The study uncovers the pivotal role of engagement-based leadership and HR technology adaptation, demonstrating their direct and indirect impacts on both employee well-being and work efficiency. The findings emphasize the strategic importance of cultivating leadership practices that prioritize collaboration and the effective integration of advanced technological tools in human resource management. Notably, while skill development shows a discernible link with employee well-being, its direct influence on work efficiency appears to be less pronounced in this specific context. Furthermore, the study underscores the mediating role of employee well-being, particularly its significant impact on the relationship between leadership styles, technological adaptation, and work efficiency. This nuanced understanding provides tailored insights for PT Nusa Satu Inti Artha (DOKU), offering practical recommendations to enhance its organizational dynamics, foster a positive work environment, and ultimately optimize work efficiency in the face of contemporary business challenges.

References

- Adnan, N., Bhatti, O. K., & Farooq, W. (2020). Relating ethical leadership with work engagement: How workplace spirituality mediates? *Cogent Business and Management*, 7(1). <https://doi.org/10.1080/23311975.2020.1739494>
- Azim, M. T., Fan, L., Uddin, M. A., Abdul Kader Jilani, M. M., & Begum, S. (2019). Linking transformational leadership with employees' engagement in the creative process. *Management Research Review*, 42(7), 837–858. <https://doi.org/10.1108/MRR-08-2018-0286>
- Charlwood, A., & Guenole, N. (2022). Can HR adapt to the paradoxes of artificial intelligence? *Human Resource Management Journal*, 32(4), 729–742. <https://doi.org/10.1111/1748-8583.12433>
- Du, B., He, B., Zhang, L., Luo, N., Yu, X., & Wang, A. (2023). From Subordinate Moqi to Work Engagement: The Role of Leader–Member Exchange in the Sustainability

- Context. *Sustainability (Switzerland)*, 15(1), 1–17. <https://doi.org/10.3390/su15010170>
- Gaan, N., Malik, S., & Dagar, V. (2023). Cross-level effect of resonant leadership on remote engagement: A moderated mediation analysis in the unprecedented COVID-19 crisis. *European Management Journal*, January, 1–11. <https://doi.org/10.1016/j.emj.2023.01.004>
- Gabrielson, A. T., Odisho, A. Y., & Canes, D. (2023). Harnessing Generative Artificial Intelligence to Improve Efficiency among Urologists: Welcome ChatGPT. *Journal of Urology*, 209(5), 827–829. <https://doi.org/10.1097/JU.0000000000003383>
- Ho, H., & Kuvaas, B. (2020). Human resource management systems, employee well-being, and firm performance from the mutual gains and critical perspectives: The well-being paradox. *Human Resource Management*, 59(3), 235–253. <https://doi.org/10.1002/hrm.21990>
- Hutagalung, I., Soelton, M., & Octaviani, A. (2020). The role of work life balance for organizational commitment. *Management Science Letters*, 10(15), 3693–3700. <https://doi.org/10.5267/j.msl.2020.6.024>
- Juchnowicz, M., & Kinowska, H. (2021). Employee well-being and digitalwork during the COVID-19 pandemic. *Information (Switzerland)*, 12(8), 1–13. <https://doi.org/10.3390/info12080293>
- Lussier, R. N., & Ph, D. (2016). *Theory, Application, & Skill Development Robert N. Lussier, Ph.D.*
- Munir, M., & Djaelani, M. (2022). Information Technology and Repositioning of Human Resource Management Functions. *Journal of Social Science Studies (JOS3)*, 2(2), 50–55. <https://doi.org/10.56348/jos3.v2i2.28>
- Namaziandost, E., Heydarnejad, T., Rahmani Doqaruni, V., & Azizi, Z. (2023). Modeling the contributions of EFL university professors' emotion regulation to self-efficacy, work engagement, and anger. *Current Psychology*, 42(3), 2279–2293. <https://doi.org/10.1007/s12144-022-04041-7>
- Pan, Z., Li, L., Wang, L., Luo, G., Xu, X., Jin, F., Dong, J., Niu, Y., Sun, L., Guo, C., Zhang, W., Wang, Q., & Wang, H. (2023). Tailoring Poly(Styrene-co-maleic anhydride) Networks for All-Polymer Dielectrics Exhibiting Ultrahigh Energy Density and Charge-Discharge Efficiency at Elevated Temperatures. *Advanced Materials*, 35(1). <https://doi.org/10.1002/adma.202207580>
- Pradhan, R. K., & Hati, L. (2022). The Measurement of Employee Well-being: Development and Validation of a Scale. *Global Business Review*, 23(2), 385–407. <https://doi.org/10.1177/0972150919859101>
- Rasool, S. F., Wang, M., Tang, M., Saeed, A., & Iqbal, J. (2021). How toxic workplace environment effects the employee engagement: The mediating role of organizational support and employee wellbeing. *International Journal of Environmental Research and Public Health*, 18(5), 1–17. <https://doi.org/10.3390/ijerph18052294>
- Riaño, Y. (2021). Understanding brain waste: Unequal opportunities for skills development between highly skilled women and men, migrants and nonmigrants. *Population, Space and Place*, 27(5), 1–13. <https://doi.org/10.1002/psp.2456>
- Rosi, F., Hasanah, U., & Rofiki, M. (2022). Managing Organizational Behavior in Increasing Employee Engagement Based on Sacred Motivation in Pesantren. *PEDAGOGIK: Jurnal Pendidikan*, 9(1), 97–111. <https://doi.org/10.33650/pjp.v9i1.3536>
- Sari, P., Kasman, P., & Ali, H. (2022). Literature Review Factors Affecting Decision Making and Career Planning: Environment, Experience and Skill. *Dinasti International Journal of Digital Business Management*, 3(2), 219–231. <https://www.dinastipub.org/DIJDBM/article/view/1121>

- Theodoridis, T., & Kraemer, J. (2020). "Hybrid Meetings and Employee Well-being Post-COVID-19 Era: A Comparative Analysis of Stress and Engagement between Greece and the Netherlands." *TESIS*.
- Xia, S. (2022). The Impact of Live-Streaming E-commerce Key Opinion Leader Traits on Consumer Engagement—Based on the Mediating and Moderating Effect of Consumer Confusion and Platform Enabling. *SHS Web of Conferences*, 148, 03021. <https://doi.org/10.1051/shsconf/202214803021>