THE ROLE OF DIGITAL LEADERSHIP IN IMPLEMENTING THE GREEN TALENT MANAGEMENT IN THE DIGITAL ERA

K.P.Suharyono S.Hadiningrat[1]
Febri Pramudya Wardani[2]
Verry Albert Jekson Mardame Silalahi [3]
Fikri Achmad Abdullah[4]

1. Lecturer in Institut Bisnis dan Multimedia (IBM) Asmi Jakarta
2. Institut Bisnis dan Multimedia (IBM) Asmi Jakarta
3. Institut Bisnis dan Multimedia (IBM) Asmi Jakarta
4. Student in S2 Magister Management in Institut Bisnis dan Multimedia Asmi Jakarta
   (*) Corresponding Author : harysmwt@gmail.com

ABSTRACT

Digital leadership plays a central role in implementing Green Talent Management (GTM) in the digital age, particularly in the Indonesian context. Given significant challenges such as the lack of electricity and internet infrastructure in approximately 2,500 villages, the role of digital leadership is crucial in bridging this gap. This article analyzes global and national conditions related to GTM, demonstrating how digital skills and sustainability integrate to enhance workforce competitiveness. The research method employed descriptive qualitative research with a thematic narrative approach to illustrate the role of digital leadership in implementing GTM in the digital age. It found that adaptive and innovative digital leadership is capable of advocating for digital infrastructure development, creating alternative solutions, and empowering local communities through technology-based training. Recommendations are generated for global and national leadership, including the need for international collaboration, investment in infrastructure development, and efforts to empower communities with relevant education. Thus, this article contributes to a better understanding of the role of digital leadership in addressing the challenges of sustainability and digital transformation in Indonesia.

Keywords: Digital Leadership, Green Talent Management, Digital Era

A. INTRODUCTION

The current era of globalization and digitalization demands that human resource management adapt rapidly to technological developments and new paradigms regarding sustainability, ensuring a balance between the planet, people, and profit (Elkington, 1994). The rapid and unpredictable development of information and communication technology requires visionary digital leadership capable of seizing opportunities along with advancements in the digital era to ensure organizations, companies, and institutions remain competitive.

The digital era not only brings innovation to business processes but also raises awareness of the importance of environmental sustainability. Amid the global challenges of climate change and sustainability, Indonesia, as a country with abundant natural resources, has a significant responsibility to implement sustainable talent management practices. The concept of Green Talent Management (GTM) in Indonesia, which prioritizes talent management from an environmental perspective, is now a primary focus for many companies. GTM presents itself as a new paradigm that prioritizes talent management with environmental considerations.

In Indonesia, where climate change and environmental preservation are increasingly pressing, the implementation of GTM is crucial, especially in the context of companies committed to social responsibility and sustainability. However, the implementation of Green Talent Management (GTM) in Indonesia still faces various challenges, ranging from a lack of understanding among organizational/company/agency leaders, limited resources skilled in sustainability, and a gap in digital infrastructure. This is where digital leadership plays a crucial role. Leaders who are able to leverage technology to support green initiatives and build an environmentally friendly organizational culture can be key to success in addressing these challenges.

This article aims to explore the role of digital leadership in implementing Green Talent Management in Indonesia. By utilizing a digital approach, it is hoped that organizations can be more effective in managing talent and achieving their stated sustainability goals. With a technology-based approach, it is hoped that organizations in Indonesia can improve the skills and environmental awareness of their talent, while simultaneously achieving broader sustainability goals.

B. LITERATURE REVIEW

1. Digital Leadership

Digital leadership refers to a leader's ability to leverage information and communication technology to manage an organization and inspire teams. In today's digital era, where technological innovation is rapidly evolving, leaders are required to be adaptive and responsive to change. Digital leadership encompasses the application of various digital tools to improve efficiency, productivity, and employee engagement. Globally, developed countries are often technological pioneers, creating a significant gap with developing countries.

On the one hand, developed countries, with full access to technology, can innovate and increase their competitiveness. On the other hand, developing countries, including Indonesia, often lag behind in technology adoption. This makes them potential markets for products and services from developed countries, while also making them vulnerable to the absorption of values that

may not always align with sustainability. Digital leaders in developing countries must play an active role in balancing this gap, leveraging technology to empower local resources and create sustainable opportunities.

Marz et al. (2021) argue that modern leaders must be able to integrate personal maturity, competency development (including digital technologies such as AI, Big Data, IoT), and the ability to inspire as the foundation for achieving organizational sustainability goals. According to Makedon et al. (2022) and Qureshi (2019), digital leadership is the capacity to guide a company in achieving its goals and building a sustainable competitive advantage. Digital leaders support the company's transformation process by integrating digital culture and competencies.

2. Green Talent Management (GTM)

Green Talent Management (GTM) is a talent management approach that focuses on developing and managing human resources with environmental considerations. This concept encompasses recruitment, training, and development practices that support sustainability and corporate social responsibility. In a world increasingly pressured by environmental issues, GTM is crucial for creating organizations that are not only profitable but also contribute positively to society and the environment.

According to Al-Swidi, Saleh, & Gelaidan (2021), Green Human Resource Management (GHRM) is the entire Human Resource Management process that brings awareness to every employee regarding environmentally friendly behavior in the workplace, including recruitment, training, rewards, and workforce development activities. Hutomo et.al (2020) stated that Green Human Resource Management (GHRM) aims to create an environmentally friendly organization by integrating sustainability values into the recruitment, training, performance management, and compensation processes. Then, Macfarlane et al. (2012) stated that GTM is a human resource management approach in managing employees who have the awareness and capacity to implement sustainable business practices, with indicators that include Soft Talent Management/STM (human aspects such as commitment and motivation) and Hard Talent Management/HTM (performance systems and talent control). As for the goal is to develop a superior team, obtain replacement candidates for key executive positions, and develop career opportunities that can retain the best pro-environment executives. (Smilansky, 2008). Green Talent Management is an integrated and procedural process used by organizations to attract, recruit, retain, develop, and transfer talent, as well as to unlock the potential of employees to achieve the company's strategic, pro-environmental goals.

Nuri (2025) states that Green Human Resource Management (GHRM) is a combination of HR management and environmental management. Its goal is to encourage organizations to operate

more environmentally friendly through changes in behavior and work culture. Three key drivers of GHRM include: a) Association Compliance, which involves organizational participation in industry associations that encourage adherence to sustainability standards; b) Top Management Commitment, which emphasizes the importance of top management support in resource allocation and a green work culture; and c) Human Resources, which act as agents of change toward environmentally friendly behavior, requiring encouragement through training and recruitment that prioritizes environmental awareness. Furthermore, there are four challenges to implementing GHRM: a) management, where there is still a lack of understanding among leaders regarding the importance of green resources; b) human resources who are not ready to adapt and do not yet have a green work culture.

C. METHOD

This study uses a descriptive qualitative research method with a thematic narrative approach to describe the phenomenon of digital leadership's role in the implementation of Green Talent Management (GTM). This approach utilizes thematic narrative-based interpretation of meaning and context, rather than statistical measurement. Hadiningrat et al. (2025) explain that qualitative research examines social phenomena using a comprehensive social approach analyzed using qualitative, non-statistical methods. Data collection techniques will focus on obtaining rich and in-depth data, with the researcher as the primary instrument. The techniques used include:

1. In-depth Interviews: Conducted with key informants who have direct knowledge or experience related to digital leadership and GTM in organizations.

2. Documentation Study: Collecting and analyzing relevant documents (e.g., sustainability reports, HR policy documents, training materials) to support the interview findings.

3. Data Analysis: This study will adopt a qualitative analysis framework that emphasizes organizing data into key themes and presenting them in a coherent narrative, in accordance with the qualitative research tradition often discussed by Burhan Bungin (2020).

    a. Theme Identification (Thematic): The collected data (from interviews and documents) will undergo a reduction and grouping process to identify emerging central themes, such as the role of digital leadership and GTM implementation.

    b. Narrative Analysis: Once themes are formed, the findings will be presented in narrative form. This narrative approach allows researchers to structure the research findings as a context-rich story, reflecting the experiences, perspectives, and implementation processes of the informants. This helps capture the depth of meaning behind the role of digital leadership in GTM.

    c. Data Analysis Techniques

Data analysis will be conducted continuously (interactively) throughout the data collection process, following a common analysis model in qualitative research. The analysis stages include:

1) Data Reduction: Selecting, focusing, simplifying, and transforming raw data obtained from the field.

2) Data Presentation: Describing the reduced data in a structured thematic narrative.

3) Conclusion Drawing: Interpreting and verifying the conclusions drawn from the emerging themes, which are then presented as answers to the problem formulation.

D. RESULTS AND DISCUSSION

This discussion will narratively analyze the role of Digital Leadership in implementing Green Talent Management (GTM) in the digital era. GTM is a strategic approach that focuses on developing and managing talent with knowledge and skills in sustainable practices. GTM focuses not only on developing environmentally relevant technical skills but also encompasses organizational cultural innovation that supports social and environmental responsibility. In this regard, digital leadership plays a key role in creating a framework that drives the success of GTM. Successful implementation is largely determined by leadership, specifically Digital Leadership.

The relationship between the POAC Dimensions, Green Talent Management Elements (GTM_E1–GTM_E5), and Digital Leadership can be seen in the following table:

Dimensi / GTM Elemen	GTM_E1 Rekrutmen & Seleksi Berbasis Keberlanjutan	GTM_E2 Pengembangan Kompetensi Ramah Lingkungan	GTM_E3 Pelatihan Kebijakan Lingkungan & Inovasi Hijau	GTM_E4 Manajemen Kinerja Berorientasi Keberlanjutan	GTM_E5 Rete & Perencanaa Suksesi Buda Hijau
Planning (Perencanaan)	DL memimpin desain proses rekrutmen hijau; peran: sponsor strategi keberlanjutan & desain program karir hijau	DL memfasilitasi kurikulum kompetensi hijau; peran: pembawa kebutuhan kompetensi hijau ke desain pelatihan	DL mengarahkan kurikulum pelatihan lingkungan & inovasi hijau; peran: fasilitator inovasi	DL menetapkan kerangka KPI keberlanjutan untuk perencanaan kinerja; peran: penentu arah KPI	DL merancang program rete & suksesi buc hijau; peran: pelindung budaya hijau

Organizing (Organisasi)	DL membentuk tim/tugas lintas fungsi untuk keberlanjutan; peran: sponsor struktur organisasi hijau	DL menyusun rencana pengembangan kompetensi sebagai bagian desain organisasi; peran: pemimpin perubahan	DL menetapkan program pelatihan lingkungan sebagai bagian struktur organisasi; peran: pemangku kebijakan	DL mengatur sistem penilaian kinerja berkelanjutan; peran: pemilik sistem evaluasi	DL memformulas... rencana reten... dan suksesi; peran: arsitek kultur
Actuating (Pelaksanaan)	DL mendorong implementasi rekrutmen hijau dan onboarding berkelanjutan; peran: agen	DL mengawal pelaksanaan program kompetensi hijau; peran: sponsor	DL memimpin pelaksanaan pelatihan kebijakan & inovasi hijau; peran: sponsor	DL memimpin eksekusi kinerja berkelanjutan; peran: pemantau eksekusi &	DL mengarah... program retensi/sukses... lapangan; per... mentor perubahan
Controlling (Pengendalian)	DL menetapkan metrik/indikator dan melacak kemajuan rekrutmen hijau; peran: pengawas kinerja KPI	DL memantau kemajuan pengembangan kompetensi hijau; peran: peninjau capaian	DL memonitor kepatuhan pelatihan kebijakan hijau; peran: auditor pembelajaran	DL mengawasi hasil kinerja keberlanjutan dan umpan balik; peran: evaluator sistem	DL memonito... efektivitas ret... & suksesi bud... hijau; peran: penilai risiko budaya

Description: The role of the DL, as per the table, is to act as a strategic sponsor, change agent, and controller of information flow for green initiatives across all POAC dimensions.

• In Planning and Organizing, the DL focuses on sustainability planning, organizational structure design, and data ethics policies related to green transformation.
• In Actuating, the DL leads the implementation of green programs, operational training, and innovation initiatives.
• In Controlling, the DL is responsible for managing performance indicators, compliance audits, and sustainability impact evaluations.

1. Current Global Conditions and Indonesia
a. Global Conditions
The digital era, dominated by developed countries, has created new standards in sustainable business practices, including Green Innovation (GTM). Developed countries tend to be quicker to

adopt Green Innovation practices and integrate them with digital transformation to achieve optimal performance and sustainability.

b. Conditions in Indonesia

1) Competitiveness and Workforce Challenges

Data shows that Indonesia is facing declining competitiveness, exacerbated by the fact that the majority of its workforce is still high school/vocational high school graduates, whose productivity has not yet kept pace with the demands of the digital and green economy. The GTM concept has emerged as a strategic necessity to redirect the national employment system to be more sustainable.

2) GTM Implementation

Case studies in Indonesia show that Green Talent Management (GTM), which encompasses Green Soft™ and Green Hard™, has an impact on employee innovative work behavior. This indicates that the GTM concept has begun to be implemented, although it may not yet be fully integrated with the digital dimension.

3) Digital Integration and Sustainability

Research has analyzed how digital transformation, agile leadership, and green innovation practices influence the performance and sustainability of companies in Indonesia. This demonstrates a growing awareness of the need to integrate digital and green aspects.

Currently, many organizations in Indonesia are beginning to recognize the importance of integrating environmentally friendly talent management practices. However, significant challenges remain, such as a lack of awareness at the management level, limited human resource skills in sustainability practices, and inadequate facilities to support green initiatives. It is in this context that digital leadership plays a crucial role. Leaders with the vision and ability to leverage modern technology can facilitate more effective GTM implementation, foster collaboration, and create an organizational culture that supports sustainability.

4) Obstacles and Challenges to GTM Implementation

In Indonesia, where environmental issues such as deforestation, pollution, and climate change are increasingly pressing, implementing GTM presents a challenge for leaders to address. Although many companies in Indonesia have begun adopting green practices, a lack of a deep understanding of GTM, weaknesses in digital leadership, and the digital infrastructure gap often hinder progress. Digital infrastructure development is uneven, with approximately 2,500 villages lacking electricity or internet access. In this context, developed countries, which often prioritize sustainable management practices, can serve as models, but developing countries must find their own ways to implement them according to local needs and challenges. Furthermore, there is a perception that developing countries are being targeted as market share by developed countries. The implementation of GTM, supported by digital leadership, still faces several major obstacles, both structural and cultural:

a) Digital and Green Skills Gap

A fundamental challenge in Indonesia is the low percentage of educated workers with skills relevant to the demands of the digital and green economy. Resistance to Change: In the context of digital transformation in general, the main challenge faced by companies is resistance to change and a lack of digital skills among employees. This certainly hinders the adoption of technology-based GTM practices.

b) Technology Adoption Gap:

Developing countries like Indonesia still lag behind developed countries in technology adoption, which can slow the integration of digital tools essential for efficiently monitoring and managing GTM initiatives.

c) Digital Infrastructure and Superstructure Gap

Infrastructure Conditions: In Indonesia, there are still approximately 2,500 villages without electricity and internet access. This is a serious challenge that hinders public access to technology and widens the digital divide between urban and rural areas. This lack of infrastructure results in limited access to the information, funding, and knowledge necessary to effectively implement Green Talent Management (GTM).

Impact on GTM: Without adequate internet access and electricity, the implementation of technology-based GTM programs will be hampered. For example, virtual training, cloud-based HR management systems, and digital communications will be inaccessible to communities in the region. This could potentially reduce their career opportunities in sectors increasingly reliant on green and digital technologies.

Factors supporting the successful integration of GTM and digitalization include:

a. Adaptive Leadership: Agile and transformational leadership has been shown to significantly influence the success of digital innovation and the implementation of sustainable practices.

b. Integration of HRM Practices: The integration of Green Human Resource Management (GHRM) practices with the digital dimension (resulting in Green-Digital HRM) has been shown to improve HR performance and pro-environmental work behavior.

c. Strategic Needs: The awareness that GTM is a strategic necessity for national competitiveness amidst global demands is a key driver for organizational innovation.

Digital leadership plays a central role as a catalyst in overcoming challenges and leveraging the supporting factors mentioned above:

a. Providing direction, inspiration, and leading their teams in implementing GTM in the digital era to achieve the strategic goals of the organization/company/agency.

b. Building a Digital and Green Culture: Digital leaders play a role in internalizing environmental values (ecological leadership) into work design, training, and organizational culture, while digital leadership strengthens the digitalization of workflows and platform-based learning.

c. Facilitating Green-Digital HRM: Digital leaders ensure that GTM practices (such as green recruitment and environmental data-driven performance management) are accessible and implemented through digital platforms, thereby increasing efficiency and consistency.

d. Encouraging Sustainable Innovation: With a clear vision, digital leaders can direct the organization to utilize technology (such as big data or IoT) to measure the environmental impact of employee activities and develop innovative, sustainable solutions. Effective leadership in this regard creates an ecosystem that supports green learning and innovation.

e. Advocacy and Strategic Planning: Digital leaders can take the initiative to advocate for infrastructure development, including promoting collaboration between the government, the private sector, and NGOs to improve internet and electricity accessibility in remote areas. Visionary leadership can create a strong narrative about the importance of digital connectivity in sustainability programs.

f. Innovative Solutions: Digital leaders can utilize alternative technologies, such as the use of renewable energy (solar panels) to provide electricity in isolated villages. Furthermore, the use of satellite technology to provide internet access can also be a short-term solution worth considering.

g. Community-Based Training: Through local initiatives, digital leaders can organize training and workshops to increase community awareness of digitalization and sustainability. This is crucial for empowering communities to utilize available technology and building local capacity to support the implementation of Good Corporate Governance (GTM) in the MSME sector.

h. Establishing strategic partnerships based on a penta-helix collaboration involving government, academia, industry, communities, and the media in digital infrastructure development. Digital leadership can support fundraising and resource mobilization to address infrastructure issues in underserved villages, ensuring equitable access to green and digital technologies.

i. Implementing Flexible Policies: Digital leaders need to encourage policies that support Good Corporate Governance (GTM) programs in remote areas. Developing subsidy or incentive programs for companies committed to investing in infrastructure in challenging areas could be a relevant step.

E. CONCLUSION AND RECOMMENDATION

1. Conclusion

From the discussion above, it can be concluded that Digital Leadership plays a crucial role in determining policies and driving the implementation of Green Talent Management (GTM), especially in the context of the evolving digital era. For Indonesia, through an analysis of internet infrastructure and superstructure, it is clear that to achieve efficiency and sustainability in the HR sector, challenges such as lack of electricity and internet access in remote areas must be addressed.

Furthermore, innovative digital leadership can bridge this gap by advocating for infrastructure development, offering alternative solutions, and empowering communities. The integration of digitalization and sustainable practices not only improves workforce competency but also creates new opportunities for more sustainable economic growth by prioritizing the balance between planet, people, and profit. In parallel with the strengthening and optimization of GTM implementation in Indonesia, it is crucial for Digital Leadership to actively seek solutions to existing infrastructure and superstructure challenges. By utilizing innovative and collaborative approaches, digital leadership can reduce the digital divide, empower communities, and encourage the implementation of future-oriented sustainable practices.

2. Recommendations

Based on the conclusions above, it is recommended to:

a. Global Leadership

• Encouraging International Cooperation: Global parent organizations and developed countries are expected to strengthen partnerships with developing countries, such as Indonesia, in developing digital infrastructure, especially in underserved regions.

• Investment in Sustainable Technology: Encourage multinational companies to invest in green technology and digital outreach in marginalized sectors to encourage them to adopt sustainable practices.

b. National Leadership in Indonesia

• Infrastructure Policy Development: The government must implement integrated policies that specifically prioritize the development of electricity and internet infrastructure in remote villages.

• Community Training and Education: Provide education and training programs based on a blended learning model to improve digital skills and sustainability awareness among local communities.

• Technology-Based Community Initiatives: Establish working groups involving the private sector, NGOs, and local communities to explore and implement technology solutions tailored to specific regional needs.

• Support for Local Innovation: Gather support for local innovations in the use of green technology that can address specific problems in their communities.

REFERENCES

Agrawal, K. (2016). *Integrasi praktik HRM hijau dan kepemimpinan di era digital*. Jurnal Manajemen Sumber Daya Manusia, 5(2), 45-57.

Al-Swidi, A., Saleh, A. A., & Gelaidan, M. (2021). *Peran Green Human Resource Management (GHRM) dalam memengaruhi kinerja dan perilaku kerja pro-lingkungan*. International Journal of Sustainability in Economic, Social, and Cultural Contexts, 7(3), 123-135.

Bańka, M., et al. (2022). *Transformasi Digital, Kepemimpinan Agile, dan Inovasi Berkelanjutan di Indonesia*. Jurnal Ekonomi dan Bisnis, 12(1), 98-113.

Badan Pusat Statistik (BPS). (2020). *Database Mengenai Ketersediaan Infrastruktur Dasar di Indonesia*. Diambil dari https://www.bps.go.id

Bungin, Bungin. (2020). Post-Qualitative. Social Research Methods : Kuantitatif-Kualitatif-Mixed Methonds. Kencana. Jakarta.

Hadiningrat, K.P.Suharyono, et.al. (2025) *Riset Kualitatif. Jilid 1*. CV Feniks Muda Sejahtera. Palu.

Hadiningrat, K.P.Suharyono, Djonisajoko, Trismawan dan Yuwono, Teguh.(2025a). *Manajemen SDM Kontemporer Transformasi Ketenagakerjaan Indonesia Menuju Era Revolusi Industri 4.0 Perspektif Ketahanan Nasional*. E-book. Deepublish. Yohyakarta.

Kementerian Telekomunikasi dan Informatika Republik Indonesia. (2021). *Laporan Mengenai Akses Internet di Wilayah Terpencil*. Jakarta: Kementerian Telekomunikasi dan Informatika.

World Bank. (2021). *Indonesia Digital Economic Report: A Digital Future for All*. Diambil dari https://www.worldbank.org

Survei tentang ketimpangan digital di Indonesia: Kondisi dan upaya pemecahan masalah. (2021). *Laporan Penelitian Kebijakan*. Jakarta: Institute for Policy Research.

Penelitian tentang peran kepemimpinan digital dalam pengembangan talenta hijau di era digital. (2022). *Jurnal Manajemen dan Bisnis Berkelanjutan, 3*(2), 55-75.
www.johnelkington.com

https://unair.ac.id/green-human-resource-management-terobosan-menuju-indonesia-hijau/