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Research Paper

Analysis of Gen Z's Readiness to Leverage AI in Green Jobs

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Abstract

As an environmental issues enthusiast and tech-savvy generation, Gen Z is poised to benefit from green and digital transitions by utilizing AI in their preferred green jobs. This study uses a qualitative approach to describe Gen Z's readiness to use AI in green jobs based on the Readiness for Organizational Change theory. The study employed purposive sampling to interview 19 Gen Z employees in green jobs (academia, business, community, and public sectors), supported with literature reviews. The research examines readiness through four key aspects: appropriateness, management support, change efficacy, and personal valence. It also analyzes Gen Z's perceptions of AI's importance, benefits, uses, and the challenges in the application. The findings show that Gen Z employees view AI as essential for enhancing work efficiency and productivity, though they face some challenges. Various organizational approaches to AI adoption highlight that AI integration is not just technological, but also cultural. This research offers insights for organizations to create an enabling environment to use AI effectively. Furthermore, this study encourages the organization's management to gain a deeper understanding of Gen Z employees' application of AI in green jobs to support their workforce in adapting to technological advancements.

Keywords: Artificial Intelligence; Gen Z; Green Jobs; Readiness.

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1. Introduction

Generation Z or Gen Z, defined as the generation born between 1995 and 2010 (Lanier, 2017), has increasingly entered the workforce in recent years. Their presence in the workforce varies across regions; for instance, Gen Z constitutes 31.2% of the workforce in Africa, 25% in the United States, 20% in Canada, 15% in China, and only 4% in Europe (Davis, 2024). In Indonesia, the latest data from the Central Statistics Agency (BPS) in 2022 shows that Gen Z has become the most significant workforce group, making up 27.94% of the total 143.72 million workforce (Dinisari, 2023). This data highlights the emergence of Gen Z as a new and growing segment of the workforce worldwide.

Several studies suggest that Gen Z has a strong interest in sustainability issues. This phenomenon is evident from their heightened awareness of environmentally friendly practices, leading them to support companies committed to sustainable operations (Ariestya *et al.*, 2022). This awareness has significantly influenced their career aspirations, with many opting for green jobs. Research examining the older cohort of Gen Z (aged 18–23) suggests that raising awareness of sustainability can influence their preferences for working at companies that prioritize the environment, even if it means accepting lower income (Yamane & Kaneko, 2021). Singh (2024) reports that 59% of Gen Z are interested in green jobs within the next five years, motivated by environmental concerns (57%), perceived opportunity (51%), and financial incentives (49%). Similarly, a study by Deloitte (2024) notes that over 40% of Gen Z have already transitioned or plan to transition into green sectors due to climate concerns.

Simultaneously, the rapid mainstreaming of technology, especially artificial intelligence (AI) across industries, has positioned Gen Z, the digital natives, to view AI both as a tool to enhance productivity and as a potential threat to their roles in these sectors (Espina-Romero *et al.*, 2023; Magano *et al.*, 2020). Positioned at the crossroads of two major global shifts, the green transition and digital transformation, Gen Z is uniquely affected by what is known as the *twin transition* (Silvano, 2023). This convergence emphasizes how digital innovation can support sustainability through better monitoring, data-driven policy design, and real-time forecasting (OECD, 2023; Muench *et al.*, 2022).

Both transitions will likely drive substantial changes in skills demand and sectoral competitiveness (OECD, 2023). Sustainable development requires individuals to acquire green digital skills and the competencies to adapt products, services, and processes to environmental regulations and requirements (Silvano, 2023). Gen Z's affinity for both sustainability and digital tools potentially positions them to thrive in this evolving landscape.

In the workplace, Gen Z is often expected to possess high technological skills (O'Boyle *et al.*, 2017). Several studies highlight that Gen Z seeks work environments that are friendly, tech-forward, socially responsible, and adaptive to the latest trends (Bielen & Kubiczek, 2020). Their demand for a work culture that embraces technology is evident in their utilization of AI due to the ease and benefits it provides (Suresh *et al.*, 2023). Gen Z perceives AI as a significant opportunity, particularly in driving business growth and development (Kholidy, 2023). Several studies indicate that Gen Z demonstrates a positive attitude and strong interest in using AI in the workplace (Poljašević *et al.*, 2024). AI increases transparency, reliability, and task simplification, influencing user perception (Ismatullaev & Kim, 2022). Furthermore, AI usage impacts employee experiences and job design, involving human-AI collaboration, ability, attitudes, and interactions (Bankins *et al.*, 2023).

Despite these benefits, research by Hameed and Nigam (2022) indicates that Gen Z does not significantly embrace AI because they do not perceive substantial advantages. In addition, there are barriers in the adoption of AI in organizations, such as technical challenges, social considerations, and a lack of stakeholders' perspective (Cubric, 2020). Several concerns persist regarding job security uncertainties and a lack of experience in using AI (Westover, 2024). However, the close relationship between Gen Z and technology remains noteworthy. Thus, the interaction between Gen Z and AI is a subject that warrants further research, particularly from a psychological perspective (Ameen *et al.*, 2023).

Several studies emphasize that organizations must evaluate assets, capabilities, and commitment to AI adoption to ensure success (Jöhnk *et al.*, 2021). AI-driven changes in organizational work patterns can improve organizational performance across various departments, optimize processes, and enhance automation, information flow, and human interaction (Wamba-Taguimdje *et al.*, 2020). Understanding AI readiness is crucial in navigating organizational change, as it involves individual, team, and organizational readiness (Rafferty *et al.*, 2013).

It is essential to acknowledge that research on AI readiness at the individual level, particularly in organizational contexts, remains limited. Jöhnk *et al.* (2021) acknowledge in their study, *"Ready or Not, AI Comes— An Interview Study of Organizational AI Readiness Factors,"* that research into AI adoption by organizations is still in its early stages. Consequently, researchers and practitioners lack comprehensive guidelines on AI adoption. This gap becomes even more pronounced within the context of green jobs. Moreover, existing research indicates that Gen Z holds a range of perspectives regarding the use of AI in the workplace. While some members of Gen Z are enthusiastic and ready to embrace AI, others perceive a lack of sufficient implementation, and some even express concerns about its impact on their work.

Given this situation, the authors are particularly interested in examining Gen Z's readiness to adopt and utilize AI, specifically those engaged in green jobs. In this context, exploring the perspectives of Gen Z individuals on the utilization of AI in their green jobs also becomes relevant. Understanding their views and experiences can offer valuable insights for organizations. Furthermore, this study aims to inform organizational leadership, particularly at the strategic level, about the engagement of Gen Z employees with AI in green job roles. This understanding can help management develop targeted initiatives and policies to better support Gen Z in adapting to technological advancements, ultimately enhancing workforce resilience and productivity in the green economy.

This study aims to describe Gen Z's readiness to use AI in green jobs. The International Labour Organization (ILO) defines green jobs as jobs that contribute to environmental conservation and restoration, whether in traditional sectors such as manufacturing and construction or emerging green sectors like renewable energy and energy efficiency (ILO, 2016). This study describes Gen Z's readiness for using AI in green jobs, drawing on the Readiness for Organizational Change model developed by Holt *et al.* (2007), which assesses readiness through four key dimensions: appropriateness, management support, change efficacy, and personal valence.

2. Methods

A qualitative approach is used in this study as a method to explore in-depth and gain a comprehensive understanding of social phenomena (Neuman, 2014). In this study, the analysis focuses on the readiness to use AI in the workplace by Gen Z employees in the green jobs sector. The basis of this theory comes from the readiness for organizational change (ROC) proposed by Holt *et al.* (2007) with four dimensions of readiness, namely appropriateness, management support, change efficacy, and personal valence. This theory emphasizes the importance of individual readiness in responding to organizational changes, making it highly relevant to this study, which seeks to understand how young professionals perceive and prepare for the integration of AI in their work environments. Therefore, the use of this theoretical framework is considered appropriate for guiding the analysis in this research.

Data collection in this study was conducted only once, in September-October 2024, making this a cross-sectional study. Qualitative techniques were used to gather data, including in-depth interviews through purposive sampling to ensure that the participants selected had specific characteristics relevant to the research objectives, namely being part of Generation Z and working in the green jobs sector. Purposive sampling also allowed for to intentionally select informants with direct experience and contextual insight. The sample was drawn from diverse sectors, academia, business, community, and the public sector, to capture a range of perspectives and ensure the richness and relevance of the data.

A literature review was also conducted to collect information from secondary sources, such as journal articles, books, institutional publications, regulations, websites, and other sources to support the research findings. Data triangulation techniques were also applied, allowing the researcher to gather different perspectives by collecting data from various individuals engaged in the same activity, thereby enhancing data accuracy (Neuman, 2014).

Data analysis techniques were used to process and analyze raw data into explanations, understandings, and interpretations of the research subject. The analysis method employed is the illustrative method, which uses a theory as a reference or conceptual framework that is then filled with empirical data (Neuman, 2014). All data obtained from the in-depth interviews were analyzed through a coding process (open, axial, and selective) to simplify the informants' answers based on the questions posed by the researcher. The limitation of this study is that it focuses on testing the theory of readiness

for change in the use of AI by Gen Z workers in the green jobs sector. The focus on testing the ROC theory shapes the study's objectives and limits its flexibility in addressing unexpected findings that may arise from other readiness factors not captured within this theoretical framework.

3. Results and Discussions

3.1. Green Jobs in Indonesia

Defined by the International Labor Organization (ILO), green jobs are those that contribute to environmental conservation and restoration, either in traditional sectors such as manufacturing and construction or in emerging green sectors like renewable energy and energy efficiency (ILO, 2016). The World Economic Forum (WEF) defines green jobs as roles held by individuals that possess green talent or green skills, the knowledge or abilities workers use to prevent, monitor, or clean up pollution and optimize the management and conservation of natural resources companies use to produce goods and services (World Economic Forum, 2021).

In Indonesia, within mainstream sectors, green jobs have been integrated into corporate governance. There are emerging sustainability divisions within mainstream sectors, especially in companies that adopt clean production practices. Many companies are now legally obligated to publish annual sustainability reports, detailing their sustainability measures, strategies, performance, and governance, under OJK Regulation No. 51/POJK.03/2017.

In inherently green sectors, many institutions already offer green jobs, such as startups in waste management technology (e.g., Waste4Change, Rekosistem), producers of eco-friendly goods made from recycled materials (e.g., Rumah Mahika), organizations focused on biodiversity conservation (e.g., Yayasan Terangi, WWF), and environmental advocacy groups (e.g., Greenpeace Indonesia, Koalisi Ekonomi Membumi) (Green Jobs Indonesia, 2024). Meanwhile, in emerging sectors, numerous green jobs are found in the development of renewable energy power plants, including roles as technical engineers. These opportunities span across various regions, such as Sumatra with its geothermal potential, Java with its solar and hydropower resources, and South Sulawesi and East Nusa Tenggara (NTT) with their wind energy potential (Sugihartono, 2024).

Green jobs in Indonesia are seeing rapid growth, fueled by the expansion of the green economy, including the development of green industries, technologies, and infrastructure (Waluyo, 2024; Bappenas & GIZ, 2023). According to the Global Green Growth Institute (GGGI), Indonesia will need approximately 4.4 million workers in green sectors by 2030 (Susanti & Putri, 2022). Furthermore, Koaksi Indonesia's 2022 study projects that the energy transition alone could generate up to 1.12 million green jobs by 2050 (Pristiandaru, 2024).

Regarding regulations, while Indonesia does not yet have a unified legal framework dedicated to green jobs, several laws contribute to its growth by promoting environmental protection and clean energy transitions. For instance, Law No. 32 of 2009 on Environmental Protection and Management and Government Regulation No. 22 of 2021 encourage environmentally sustainable practices. In the energy sector, regulations such as Government Regulation No. 79 of 2014 on National Energy Policy and Presidential Regulation No. 98 of 2021 on Carbon Pricing are driving demand for green talents with specialized skills in energy efficiency and sustainability. However, these regulations have not yet been consolidated into a comprehensive green jobs policy.

On the policy front, Indonesia has yet to introduce specific policies solely focused on green jobs. However, the nation's increasing commitment to reducing greenhouse gas emissions under the Paris Agreement sets a strong foundation for building a green workforce. Indonesia's efforts began with the 2016 Nationally Determined Contribution (NDC), which pledged to cut emissions by 26% by 2020 and 41% by 2030 with international assistance (Pemerintah Indonesia, 2016). As of 2022, Indonesia's Enhanced NDC aims for a 31.89% reduction through domestic efforts and 43.2% with international support (KLHK, 2022). The government is currently preparing the second NDC (KLHK , 2024). The 2025-2029 National Medium-Term Development Plan (RPJMN) highlights green labor as a key priority in Indonesia's economic transformation strategy (Bappenas, 2023). By prioritizing green labor, the RPJMN acknowledges that fostering environmentally friendly employment opportunities is essential for achieving sustainable economic growth, addressing climate change, and enhancing social welfare.

In addition to regulatory efforts, various government ministries are actively supporting green job growth. Bappenas, for example, has developed a National Occupation Map for Green Jobs within the Indonesian National Qualification Framework (KKNI), which identifies green jobs across sectors such as renewable energy, agriculture, manufacturing, construction, and services (Bappenas, 2023). Several initiatives have been implemented to improve green skills. The government, through the Ministry of Energy and Mineral Resources (ESDM), provides training on the installation and operation of solar power systems. There is also the Pre-Employment Card (*Prakerja*) program, which offers green skills training and had 1.14 million participants in 2024 (Tamara, 2024). The program offers courses on sustainability reporting, carbon accounting, eco-friendly motorbike modification, and waste management (Media Indonesia, 2024). In addition, the Ministry of Tourism, in collaboration with the ILO, has trained tourism practitioners to prepare for green tourism that aligns with green economic development (ILO, 2024). Several online learning platforms also offer both general and specialized green skills training. Green jobs contribute to environmental conservation across various sectors, supported by green skills that enable the workforce to manage resources sustainably and address the challenges of climate change.

3.2. AI in Green Jobs

The integration of AI in green jobs emerged as a transformative force. According to the Directorate General of Treasury (DJPB) of the Ministry of Finance, the OECD has committed to promoting AI applications that improve resource efficiency and reduce negative environmental impacts. This implies that equipping the workforce with AI-related green skills will be essential to ensure that Indonesia can fully harness these technologies to drive sustainability and competitiveness across sectors (Cahya, 2024).

Indonesia has begun responding to this global momentum at the policy level. The Minister of Manpower recently engaged in bilateral discussions with the United States Deputy Secretary of Labor, focusing on the application of AI in labor market analysis and the green jobs service enhancement (Prasasti, 2025). Empirical evidence further supports the role of AI as a driver of sustainability across key economic sectors. In the manufacturing industry, the implementation of AI-based technologies and investments in green energy initiatives have shown the most substantial positive impact on economic growth, surpassing even traditional product innovation (Sarungallo *et al.*, 2024). Complementary findings by Ardiansyah (2025) demonstrate that the integration of green product innovation with AI contributes significantly to firms' competitive advantage by improving operational efficiency, optimizing resource utilization, and enabling the development of environmentally sustainable products. AI integration in Indonesia's sustainable tourism management can enhance customer experiences through personalized recommendations, real-time environmental monitoring, and improved operational efficiency, but challenges like data privacy and ethical considerations must be addressed (Herawati *et al.*, 2025). These examples from the manufacturing and tourism sectors illustrate just two of the many pathways where AI and green practices intersect.

In practice, AI is often used in monitoring and tracking measures to improve efficiency, enhance accuracy, and offer cost-effectiveness. Within a circular economy framework, digital tracking supports reuse and recycling efforts (Muench *et al*., 2022). In Indonesia, one such initiative is *BigVision*, an AI-based monitoring platform developed by Telkom Indonesia. Utilizing CCTV integrated with AI, BigVision enables real-time monitoring of waste management at temporary waste disposal sites (TPS). This technology facilitates centralized oversight across multiple locations through a single dashboard. Its waste detection capabilities are designed to prevent waste accumulation (Telkom Indonesia, 2025).

The integration of data systems and artificial intelligence (AI) tools plays a crucial role in enabling informed decision-making and enhancing the capacity to address complex environmental challenges (Joint Research Centre, 2022). Digital tools, in particular, can facilitate environmental monitoring by collecting vital information on biodiversity loss, helping stakeholders prioritize conservation efforts (Hedberg & Šipka, 2020). In the Indonesian context, *Jejak. In* exemplifies the use of advanced digital innovation, including real-time monitoring, advanced analytics, Internet of Things (IoT) integration, and satellite imaging. Among its products, *CarbonAtlas* enables users to track land use, monitor field activities, and measure environmental impact through a single, user-friendly interface. The platform utilizes a range of custom sensors, measuring water levels, soil quality, bioacoustic signals, and energy usage, to generate high-quality, reliable environmental data.

Another key application of AI is predictive maintenance, which enables repairs to be performed before significant issues develop, thus avoiding unnecessary replacement of functioning parts (Toplic & Berg, 2024). An innovative solution called DIAC-X, developed by Grinviro, demonstrates the use of AI and IoT technologies for real-time wastewater monitoring. This system can analyze historical data and identify recurring patterns, then forecast potential pollution events before they occur. Furthermore, it can generate actionable recommendations to mitigate these impacts (Grinviro , 2024).

In the energy sector, experts estimate that the application of artificial intelligence (AI) can improve efficiency by up to 30% in renewable energy systems (Cahya, 2024). AI can overcome the obstacles of balancing the supply and demand of renewable energy sources like wind and solar since these two energy sources are not always available in all weather conditions. Payton (2023) highlights that the effectiveness of AI is critical for identifying patterns and improving prediction accuracy, enhancing understanding of how to redistribute energy most efficiently.

Globally, various organizations are leveraging AI to support energy transition efforts. Husk Power Systems, a mini-grid company with operations in India and Nigeria, indicates that this organization utilizes predictive AI for demand forecasting and employs AI-driven algorithms to deliver energy at the lowest possible cost. Similarly, Statkraft, a Norwegian-owned energy company, incorporates AI into its trading operations, leveraging machine learning for forecasts and using automated trading algorithms to engage with the market.

In Indonesia, advanced AI applications have also demonstrated promising outcomes. On Sumba Island, AI-managed energy systems have achieved a 95% renewable energy penetration rate by accurately predicting and adapting to seasonal monsoon patterns, drastically reducing diesel backup reliance from 40% to below 5%. Moreover, battery management systems employing AI algorithms have extended storage life by up to 40% through optimized charging and discharging cycles. Notably, during the 2024 Java blackout, AI-managed microgrids on nearby islands remained fully operational, showcasing the resilience and reliability of intelligent energy systems (Christoph, 2025).

In addition to monitoring and forecasting, AI is vital in optimizing system management in the energy sector. Electricity-generating assets can be programmed to automatically adjust their production based on demand forecasts and grid conditions, with these schedules developed using AI (Payton, 2023). Furthermore, smart electricity grids can enhance grid efficiency by managing consumer usage and balancing electricity generation with demand-shifting techniques like peak shaving and valley filling (Muench *et al*., 2022). In Indonesia's case, one notable initiative is the Solar Energy Estimator for Rooftop in Indonesia, developed through a collaboration between GSMA Mobile Innovation Hub (MIH) and Bappenas. This platform leverages digital technologies, specifically Geographic Information Systems (GIS) and machine learning, to map the potential of rooftop photovoltaic (PV) systems in urban areas.

Moreover, AI's applications extend beyond energy management to support low-impact transportation initiatives (Zhao *et al.*, 2020; Budak & Sarvari, 2021). AI also promotes the development of sustainable food systems (Marvin *et al.*, 2022). In addition, AI can encourage sustainable marketing through green purchasing and AI-based decision aids (Bjørlo *et al.*, 2021).

While adopting digital technologies and AI presents considerable opportunities for the green transition, it is crucial to be mindful of the potential environmental costs. The Information and Communication Technology (ICT) sector was estimated to contribute between 3.0% and 3.6% of total global greenhouse gas emissions in 2020, with projections suggesting significant growth in the future (Belkhir & Elmeligi, 2018). This reality emphasizes the need for a careful balance between technological progress and sustainable practices to ensure that the pursuit of green jobs does not inadvertently lead to greater environmental harm.

3.3. Informants' General Profile

This study successfully interviewed 19 informants, selected through purposive sampling. –The general profile of the informants includes information on their characteristics, encompassing educational background, job field, and work experience period. All informants are higher education graduates. A total of 17 individuals hold a Bachelor's degree (S1), reflecting the dominant characteristic in the informants' educational background. There is one informant who has completed a Master's degree and another with a Diploma background, adding variation to the levels of education represented in this study.

Most informants (9 out of 19) are from the private sector. Additionally, six informants are from the community sector, providing insights into social movements in environmental issues. Two informants represent the government sector. It consists of one informant from a central governmental institution and the other from a local governmental agency.

From the government sector, one informant is involved in legal drafting, ensuring that laws and regulations are properly formulated, while another is responsible for maintaining the official website of a government agency. In the private sector, some environmental specialists prepare environmental documents critical for project approvals and sustainability compliance and are responsible for executing and maintaining the company's Process Safety & Risk Management (PSRM) program. Some work with communities through sustainable projects. From the community sector, informants work in various sustainability-related roles. One informant is a project assistant. Others are involved in marketing and planning sustainability programs, consulting on biodiversity and environmental issues, and developing strategies based on sustainability principles. In academia, the informants likely explore innovative solutions for environmental issues and enrich academic insights through publications. This diversity of job roles from government, private, community, and academia highlights the wide-ranging involvement of Generation Z in the green jobs sectors.

The informants' working experience varies, though none have more than five years of experience. Most informants, nine individuals, have 1 to 2 years of working experience, reflecting their growing involvement in the workforce. Additionally, six informants have less than one year of experience, highlighting the perspective of newcomers to the job market. Four informants have 3 to 5 years of experience. This distribution showcases a young, emerging workforce engaging with green jobs and AI early in their careers.

3.4. Informants' Knowledge about Green Jobs

The interviews with the informants reveal that green jobs are understood as work that prioritizes sustainability. These roles aim to restore, maintain, and support environmental preservation and are increasingly relevant in addressing issues stemming from climate change. Informants also described green jobs as positions that involve mapping and organizing efforts to minimize adverse environmental impacts.

Green jobs intersect with Environmental, Social, and Governance (ESG) and the green economy. The informants noted that this sector is broad, encompassing renewable energy, waste management, and environmentally friendly transportation. From an employment perspective, green jobs represent new opportunities emphasizing soft and hard skills. For example, hard skills might include technical roles, such as technicians for solar panels, while soft skills could involve positions like accountants focused on sustainability reporting.

Overall, green jobs are closely linked to sustainable development, the green economy, and employment trends, emphasizing job creation and work-life balance (Stanef-Puica *et al.*, 2022). This definition aligns with the views of Kozar & Sulich (2023), who argue that green jobs in the energy sector emerge naturally due to two primary factors: technological change and a commitment to the Sustainable Development Goals (SDGs) (Kozar & Sulich, 2023).

3.5. Informants' Knowledge about AI

According to the informants, AI is an intelligence that can mimic human capabilities, such as processing data, recognizing patterns, analyzing information, and making decisions. AI can also understand language, recognize images, make choices, and solve problems. It is a technology that employs algorithms and data to comprehend its environment, make informed decisions, and predict outcomes intelligently. Several informants noted that AI represents cutting-edge technology that can facilitate various human tasks. Additionally, some interviewees explained that AI is a product of machine learning.

The informants' diverse opinions indicate that they have a solid understanding of AI. Their views align closely with conceptual definitions found in prior research. The most frequently cited definition of AI describes it as the capability of a system to accurately interpret external data, learn from it, and achieve

specific goals and tasks through flexible adaptation (Kaplan & Haenlein, 2019). Consistent with this perspective, AI can also be understood as a system's ability to interpret external data correctly, learn from it, and utilize that learning to accomplish particular objectives through adaptable methods (Haenlein & Kaplan, 2019).

In various literature, AI is described as a result of computer science and engineering advancements. Deng (2018) explains that AI is a branch of computer science focused on developing theories, methods, algorithms, and applications that simulate and enhance human intelligence through algorithms (Deng, 2018). At a practical level, AI is defined as the ability of machines to imitate human intelligence, employing char. At a practical level, AI is defined as the ability of machines to imitate human intelligence, employing characteristics of human reasoning to solve problems and adapt to changing environments (Sennott *et al.*, 2019).

3.6. Use of AI Platforms/Features/Applications by Informants

According to the ILO, approximately 25% of jobs worldwide are potentially exposed to AI technology (Gmyrek *et al.*, 2023). The rapid adoption of AI in the workplace takes various forms, including applications and other technologies. In this study, the author attempts to classify the use of AI by informants into two categories: platforms and features of applications.

Among the platforms, ChatGPT emerges as the most frequently used by informants, with 14 out of 19 participants reporting its use. Additionally, 4 out of 19 informants indicated they utilize Gemini. Other AI platforms mentioned by informants include Perplexity, Copilot, OpenAI, QuillBot, DeepL, and various chatbots. Regarding application features, several informants noted their use of AI features in applications such as Canva, Google Docs (Gdocs), and Zoom.

3.7. Analysis of Gen Z Readiness Working in the Green Jobs Sector Using AI

This readiness analysis is based on the Readiness for Organizational Change theory proposed by Holt *et al.* (2007). The theory focuses on individual readiness, which refers to an individual's belief in the necessity and effectiveness of organizational change initiatives. This concept comprises four main components: Appropriateness (the individual's belief that the change initiative is necessary aligns with the organization's situation, and will benefit the organization); Management Support (the individual's belief that organizational leaders are committed to and support the implementation of the change); Change Efficacy (the individual's confidence in their ability and skills to perform tasks and activities when the change initiative is enacted); Personal Valence (The individual's belief that the change initiative is personally beneficial).

The ROC's component shall be equipped with specific indicators that support its stance. Appropriateness reflects an individual's belief that organizational change is necessary and aligns with the organization's current state. Management support indicates that organizational leaders are committed to and actively support the implementation of change. Change efficacy refers to employees' confidence in their ability to carry out tasks and activities during the transition. Lastly, personal valence represents the belief that the change will be personally beneficial.

Previous studies applying this theory have identified relevant indicators for each ROC component by contextualizing them within specific case studies. For instance, Nasri *et al.* (2020) employed a quantitative approach to compare the readiness of central and regional government employees for telework during the pandemic, analyzing each ROC component. Similarly, Utami and Appulembang (2021) operationalized Holt *et al.*'s (2007) theory into 16 measurable items and assessed them using a Likert-scale quantitative approach to categorize individuals' readiness for transitioning to online transportation services. Additionally, Alami and Budiani (2024) conducted a correlational quantitative study to examine the relationship between self-efficacy and readiness for change. Fundamentally, assessing readiness using Holt *et al.*'s (2007) ROC model involves three key steps: identifying indicators relevant to the research context, evaluating these indicators using the chosen methodological approach, and analyzing the results.

The following section presents this study's findings on Gen Z's readiness for change in adopting AI within the green jobs sector.

Appropriateness

Appropriateness refers to an individual's belief that the proposed change is necessary, aligned with the current situation, and beneficial for the organization (Holt *et al.*, 2007). Appropriateness describes whether Gen Z employees believe adopting AI technologies will effectively address challenges or improve their work processes within green jobs.

In exploring the Appropriateness dimension of readiness for change, this study examines how Gen Z employees perceive the adoption of AI within organizations engaged in green jobs. Informants described AI as a tool that simplifies their tasks, allowing them to work more effectively. Many expressed that AI supports and facilitates their work, making processes more efficient while achieving effective results.

Additionally, informants highlighted that AI's benefits in green jobs are multifaceted, including increasing work efficiency for certain tasks, looking for information and resources, detailing and elaborating ideas, producing them, and analyzing data. The following table summarizes the tasks to do with the assistance of AI based on the interview results.

Table 1: Green Jobs Tasks Supported by AI

Aspect		Tasks	Specific Role of AI in Supporting Tasks
Efficiency	1.	Automation	AI accelerates routine processes such as data entry, form processing, and reminders, allowing professionals to focus on analysis.
	2.	Administrative work	AI-powered tools like chatbots and virtual assistants manage administrative tasks such as document organization, scheduling meetings, managing emails, and streamlining project documentation.
	3.	Writing	AI tools assist in drafting documents by refining language, improving clarity, and offering writing suggestions. This is especially useful in green jobs, where the documents often contain context-specific terminology.
	4.	Document summarization	AI extracts key insights from lengthy documents, such as Environmental Impact Assessment (EIA) reports, ESG frameworks, or environmental regulations, making it easier for professionals to stay informed and act efficiently.
Information	1.	Information search	AI accelerates access to credible and relevant environmental information based on keywords.
	2.	Study reference search	Researchers and consultants use AI to quickly identify scholarly articles, case studies, and technical references. Work in green jobs often involves referring to best practices or innovations.
Elaboration and Detailing	1.	Cost and budget breakdown	AI helps structure a project based on user input, improving planning and resource allocation.
	2.	Idea detailing	AI develops ideas into actionable plans, offering relevant examples or datasets.
	3.	Preparation of SOPs	AI generates outlines and content for operational procedures based on best practices, such as hazardous waste handling, water treatment operations, or environmental protocols.
Ideation	1.	Product design	AI assists in designing eco-products by suggesting features, materials, names, or visuals that align with market needs and sustainable trends.
	2.	Brainstorming	AI offers alternative ideas based on trend analysis and prior innovations, helping generate creative concepts for campaigns or project interventions
	3.	Proposal creation	AI supports the structure, logic, and persuasive elements of project proposals.
Analysis	1.	Stakeholder mapping	AI analyzes project documents, datasets, or media to identify and classify stakeholders, helping ensure inclusive project implementation.
	2.	Data analysis	In green sectors, AI processes environmental, energy, or social datasets to generate graphs, detect patterns, and support assessments.
	3.	Decision-making	AI provides scenario-based recommendations using simulations.
	4.	Validate and check the accuracy of the work	AI reviews documents or data for consistency, logic, and compliance, helping improve quality control in reports.

Source: Author's Data Processing, 2024

Based on a Google Form survey, Gen Z frequently uses platforms such as ChatGPT, Gemini, Perplexity AI, and Google Search for writing assistance, document summarization, and information gathering. Productivity tools like Google Docs, Zoom, and Notion support administrative tasks and collaborative work, while Canva and AI-powered design tools assist in visualizing product ideas and creating communication materials. For analysis and decision-making, they turn to platforms like Google Sheets enhanced with AI add-ons, which allow users to generate formulas, automate data cleaning, interpret trends, and summarize large datasets directly within spreadsheets. Additionally, AI chatbots embedded in workspaces are used for quick validation and insights. To improve cross-language communication, Gen Z also uses tools like ELSA Speak and translation apps such as Google Translate and DeepL for real-time, AI-enhanced translation and contextual understanding.

Gen Z employees in green jobs perceive that AI can significantly ease tasks that are predominantly administrative or labor-intensive. While some tasks involve creativity and analysis, such as idea detailing and proposal creation, the majority revolve around streamlining routine processes and reducing manual effort. This result aligns with the study by Microsoft (2023), stating that 3 in 4 individuals are comfortable using AI for administrative tasks. These tasks, when supported by AI, allow employees to focus on more complex and strategic work.

"*… With AI, I can focus on more complex and strategic tasks*." (I8)

Interestingly, AI is not only used for administrative tasks but also for more in-depth work like analysis.

"*... I use AI to help me select, evaluate, and conduct due diligence on startups related to sustainability in order to secure financial support so that we can generate a good return for the company*." (I7)

"*... Because my job is in marketing, using AI makes it easier for me to map stakeholders*." (I11)

These examples also align with Microsoft's study, which shows that 87% of Indonesians use AI for analytical work and 88% for creative aspects of their roles. This data highlights that AI is not just confined to basic tasks but extends to deep work, such as generating new ideas and conducting comprehensive analyses. Looking ahead, task automation in 2027 is projected to significantly impact various job functions, with automation expected to handle 35% of reasoning and decision-making tasks and up to 65% of information and data processing (Toplic & Berg, 2024).

When discussing the relevance of AI to their organizational environment, Gen Z employees believe that AI is well-suited to address their organization's current challenges. Many organizations, especially in the green sector, often deal with high workloads, tight deadlines, and resource constraints. AI is seen as an effective tool to alleviate these pressures by automating repetitive tasks and enhancing efficiency. For individual employees who are often overwhelmed with multiple responsibilities, AI provides support that enables them to complete tasks more quickly and transition seamlessly to the next assignment.

Management Support

Management support, also known as senior leader support, refers to the belief that organizational leaders are committed to and actively support the implementation of changes (Holt *et al.*, 2007). This support is critical in shaping employees' readiness for change. It can manifest in various ways, including clear guidance from leaders and provisions of necessary resources, assuring that adopting AI is essential for the organization's success (Holt *et al.*, 2010). In the context of green jobs, management support plays a crucial role in determining how successfully AI is integrated into Gen Z's work environments. This dimension evaluates how effectively managers prepare employees for the responsible use of AI.

Business leaders increasingly recognize the value AI can bring. According to Microsoft (2023), leaders in Indonesia are 3.6 times more likely to view AI as a tool to boost productivity rather than reduce headcount (41% vs. 11%). Additionally, 90% of leaders acknowledge that the employees they hire will need new skills to prepare for the growth of AI, underscoring the importance of equipping teams with the proper training and tools to succeed in AI-enhanced workplaces.

However, while management support is important, it does not always guarantee reducing individual resistance to change. Research by Frick *et al.* (2021) suggests that leadership support alone may not

significantly lessen resistance to AI adoption. Nonetheless, it remains essential to create a supportive environment where employees are more likely to embrace AI.

In current conditions, some leaders remain hesitant to adopt AI technologies. The reasons for this reluctance vary, but it often stems from a lack of understanding of AI's benefits or failing to recognize its relevance to their specific operational contexts.

Conversely, several organizations' leaders have successfully integrated AI into their workflows. For instance, a youth-focused environmental NGO utilizes AI for drafting letters, speeches, and broadcasting announcements about activities. Similarly, an NGO leverages AI to create online proposal submissions, enhancing operational efficiency. Environmental consulting NGOs also apply AI in various tasks, including document outline creation, editorial writing, brainstorming, summarizing information, and reporting.

In the private sector, companies increasingly recognize AI's value in their operations. A firm focused on sustainable investments employs AI for due diligence on startups, ensuring informed financial decisions. Additionally, a private company in the sustainable tourism sector utilizes AI for data analysis, automating routine tasks, enhancing customer service, and optimizing marketing efforts. Furthermore, a manufacturing company integrates AI for administrative tasks and design work.

Academic researchers in environmental sciences also harness AI to support their research activities, using it for literature searches, adjusting grammar, and streamlining their writing processes. This application of AI helps researchers become more efficient in their work, allowing them to focus on critical analyses and innovative solutions. Overall, these examples illustrate a growing trend among organizations that recognize the value of AI in enhancing productivity and streamlining operations.

The informants were asked whether their organization leaders have special appeals on using AI in their work in green jobs. Most informants stated that these directions are generally given verbally during coordination meetings. Their leaders have recommended various tasks. One primary area is the preparation of administrative documents, such as letters and meeting notes. Another significant application of AI is in technical document preparation, particularly for translation tasks. AI-powered translation tools are noted to provide more accurate and contextualized results compared to traditional platforms.

Data management is another critical area where AI can play a transformative role. Leaders have encouraged using AI for data search and summarization, enabling professionals to extract relevant information more efficiently. Furthermore, automating routine tasks and monitoring performance can free up valuable time for employees to focus on more strategic initiatives.

Specific roles within organizations also highlight the uses of AI.

"*… I was directed to find data references that the project proponent did not provide*." (I10)

This incomplete data has been a significant issue for environmental consultants, impacting their ability to conduct thorough assessments and make informed decisions.

"*… In planning a project, I need to develop concept notes and theories of change. My superior encourages me to utilize AI for that*." (I5)

Commands on the use of AI also apply to technical tasks for various works.

"*… My superior suggested utilizing AI for customer service through chatbots.*" (I8)

The recommendation to implement AI-driven chatbots for customer service reflects an understanding that automation can streamline interactions with clients, improve response times, and provide consistent support. Chatbots can handle frequently asked questions and routine inquiries, freeing human agents to focus on more complex issues that require personal attention.

Similarly, another insight into using AI for marketing and branding efforts underscores the importance of data-driven strategies in today's competitive business realms.

"*… I am advised to leverage AI for marketing and branding efforts*." (I18)

Despite the growing recognition of AI's potential, not many organizational leaders provide clear guidelines and supervision regarding its use. However, some informants' leaders provide rules for using

AI in their green jobs. One key rule leadership emphasizes is using AI wisely, encouraging staff to integrate it thoughtfully into their workflows. Additionally, leaders advise against relying solely on AI-generated content. They stipulate that no more than half of the substance in any written work should come from AI, promoting a balanced approach that preserves the integrity of human input. However, this guidance is not formalized through Standard Operating Procedures (SOPs); instead, it is conveyed informally as general advice or expectations from leadership.

Furthermore, it is crucial to curate the information obtained from AI chatbots before utilizing it in decision-making or reporting. Leaders highlight the need to verify the accuracy of data acquired through these tools, fostering a culture of critical evaluation among employees. Finally, reviewing the outputs produced by AI is another important practice encouraged by organizational leaders. This review process helps maintain quality and allows for necessary adjustments, ensuring that the results align with the organization's standards and objectives.

An interesting finding emerged from discussions with individuals in the government sector regarding their leaders' approach to AI adoption. Many leaders do not utilize AI, fail to provide advice or direction, and do not offer supervision or establish rules surrounding its use. This limited engagement is largely attributed to a lack of digital literacy and technical capacity among senior officials. As a result, the responsibility for integrating AI tools into day-to-day tasks is often left to younger employees, particularly those from Gen Z. This dynamic highlights the urgent need for capacity-building programs targeted at leadership levels to ensure more strategic, consistent, and safe implementation of AI in public institutions.

In contrast, a private manufacturing company exemplifies best practices in adopting AI. Leaders within this organization actively promote AI usage by delivering clear instructions via email, ensuring that employees understand how to utilize these technologies effectively. The IT team supervises the use of AI. To maintain data security and prevent misuse, access to AI tools is restricted to company-issued laptops and official accounts. This level of supervision reflects a deliberate strategy to balance innovation with accountability. Moreover, by limiting access and providing premium AI tools, the organization ensures that AI is used purposefully to enhance productivity, support sustainability targets, and align with green job objectives without compromising ethical or operational standards. These contrasting approaches highlight the importance of leadership support and structured implementation in facilitating successful AI adoption across different sectors.

Research shows that when these are in place, Gen Z employees are more likely to embrace AI in their green jobs (Al-Sharafi *et al.*, 2023; Cao *et al.*, 2021). According to these findings, it becomes increasingly clear that organizational leaders must respond with robust policy initiatives to facilitate this transition (Toplic & Berg, 2024). The policy can put more consideration into the following points.

1. Skilling (reskilling and upskilling)

   First, skilling must be a top priority for organizational leaders to prepare the workforce for the evolving job landscape. A further challenge is ensuring access to training opportunities and adequate income support for workers to complete such training.

2. Income support during the transition

   Leaders should implement policies that provide financial assistance to workers, as studies from Mauritius and Uruguay indicate that those who receive such support exhibit higher training completion and job placement rates (Liepmann & Escudero, 2020).

3. The creation of quality employment

   While the training of AI systems has opened up job opportunities in regions like Asia and Africa, many of these roles remain low-paid and lack essential employment rights and benefits. Therefore, leaders must ensure that skill upgrades are accompanied by improvements in working conditions, including securing formal contracts, establishing set hours, providing minimum pay, and ensuring safe work environments for all employees. By addressing these critical areas, organizational leaders can help ensure that the transition to an AI-driven and sustainable economy benefits everyone involved.

Change Efficacy

Change efficacy refers to an individual's belief that they possess the ability and skills to carry out tasks and activities when changes are implemented (Holt *et al.*, 2007). In an organizational context, this aspect of change pertains to an individual's capacity to execute initiatives during the change process. This means that individuals must have confidence in changing their work behaviors to support implementing these initiatives (Armenakis *et al.*, 2007).

In this study, change efficacy describes Gen Z employees' confidence in implementing AI in their jobs effectively. This factor reflects whether they feel both individually and collectively capable of using AI responsibly and maintaining a competitive edge, leveraging their unique human skills alongside AI technologies.

In exploring the Change Efficacy dimension, this study describes how Gen Z employees in green jobs perceive their ability to use AI effectively. It is important to recognize this because the informants often utilize AI as a source of information. Confidence in their ability to use AI also impacts decision-making processes when working with AI (Zhang *et al.*, 2020).

All informants expressed a sense of capability to use AI effectively. However, some reported experiencing difficulties, particularly in crafting detailed and effective prompts to achieve desired outcomes and selecting the appropriate keywords. Additionally, their use of AI is often limited to free software versions, which can restrict functionality. Informants also acknowledged that working with AI necessitates a deep understanding of specific concepts, as it requires grasping the complexity of the information provided.

Some informants mentioned that they rarely use AI, only when necessary or for specific tasks. The primary motivation for utilizing AI tends to arise under time pressure. Therefore, many informants felt they lacked proficiency in AI, citing that effective use requires considerable time and experience. Furthermore, they noted that one essential skill in using AI is validating and confirming data and information. A significant challenge associated with AI use involves sorting through and making decisions about the data and information obtained (Duan *et al.*, 2019).

Informants recognized that a range of essential skills is needed before effectively leveraging AI in their work.

> "*It is not really necessary for the AI I use, but perhaps beyond the AI I am using, specialized skills are needed*." (I4)

The skills that need to be acquired before using AI are summarized in the following table.

Table 2: Skills to Use AI

Type	Description
Ability to Operate Digital Devices	1. Computer 2. Tab 3. Smartphone
Critical Thinking and Analysis	1. Logical thinking 2. Evaluating and selecting sources or references 3. Analyzing data and information obtained 4. Contextualizing data and information
Data Management	1. Data input 2. Data processing 3. Data analysis
Prompting Skills	1. Finding clear keywords 2. Providing specific commands 3. Formulating question
Security	1. Personal information 2. Organizational confidential information 3. Passwords 4. Cyber threats such as viruses or malware
Being Humane	1. Self-awareness

Type	Description
	2. Ethics 3. Leadership skills 4. Social skills 5. Political instincts 6. Intuition 7. Empathy

Source: Author's Data Processing, 2024

The ability to use technology is a fundamental foundation since AI relies on software and hardware that require technical understanding to operate efficiently. According to several informants, individuals must possess and be capable of operating devices. Operating AI using someone else's digital devices poses a risk, especially concerning sensitive work-related information, such as personal data and corporate information.

"... (having and being able to operate) the use of digital software/platforms." (I18)

One of the key skills before using AI is having strong logic, as analytical thinking is necessary to comprehend and manage AI algorithms. This skill is crucial for selecting and evaluating sources. Furthermore, critical thinking relates to the analysis and contextualization of the data and information obtained. Some informants indicated that AI can only provide general and normative information. Logical reasoning is essential to ensure that decisions made based on AI outputs align with job objectives and professional responsibilities.

"*I believe that the ability to analyze data and make data-driven decisions is essential, as AI fundamentally relies on data*." (I13)

Having strong critical thinking and analytical skills is vital for making decisions relevant to specific situations and conditions. Additionally, informants emphasized the importance of critical thinking in data management. Data management refers to the processes of input, processing, and analyzing data. This skill is indispensable when using AI at work, as it relates to the quality, confidentiality, and security of data (Xu *et al.*, 2022). According to various informants, data management is a necessary skill for AI users in their professional tasks.

Prompting skills, or the ability to provide precise and clear instructions to AI, are crucial to achieving desired results.

"*... it is necessary to understand the topic's algorithms so that AI will better comprehend what we are asking*." (I14)

Prompting involves formulating questions and issuing specific commands to AI. These skills ensure that all data and algorithms used are accurate, reliable, consistent, relevant, unbiased, and complete (Srinivasan & Boer, 2020).

Furthermore, self-awareness becomes a critical aspect of using AI, as individuals must understand how AI affects work and the role of humans within that context.

Skills related to data security must also be considered, encompassing personal information, confidential organizational data, passwords, and cybersecurity threats such as viruses or malware.

"*Considering data security and the use of electronic devices for work*." (I12)

Several studies highlight the importance of skills in managing data security. There are two sides to security in the context of AI usage. While AI can safeguard data and support privacy, it can also pose risks due to its adversarial nature, potentially threatening data and information privacy (Majeed & Hwang, 2023). It may also unintentionally disclose and disseminate sensitive information through the data entered into it (Perino *et al.*, 2022).

Informants emphasized the importance of having a heightened awareness of human identity when using AI in the workplace. The skills to effectively use AI are indeed valuable and enhance productivity. A strong understanding, such as self-awareness, is essential in interpreting all data and information obtained from AI. Additionally, several informants noted that in the context of decision-making, all data and information derived from AI require a full human consciousness that prioritizes intuition, empathy,

and ethics. A robust understanding of self-awareness in AI usage is equally crucial, as this technology often raises questions about privacy, bias, and moral responsibility.

Several informants stressed that AI lacks certain human capabilities, such as social skills and political instincts. Therefore, data and information cannot be the sole basis for executing tasks. Having a good understanding of assessing situations and conditions is vital because not all activities should be grounded solely in data and information.

Informants also discussed various efforts they undertake to improve their skills in using AI at work. Some mentioned participating in seminars and workshops to gain in-depth insights and practical guidance from experts. Others specifically engage with online tutorials and training to independently master certain skills that align with their professional needs. Furthermore, some informants indicated that they continuously refine their reasoning skills by reading research findings to enrich their theoretical understanding and practical applications, ensuring the quality of AI-generated outcomes. Learning through direct practice is also viewed as an effective way to develop skills in using AI.

These various efforts reflect informants' commitment to continually enhancing their AI skills. This concern is not unfounded, as there is apprehension regarding the growing capabilities of AI and its potential to replace many tasks currently performed by humans. One study also emphasizes the importance of relevant training about AI advancements. The emerging worries surrounding AI are justified since it can reshape job structures alongside the automation of AI-based tasks (Santhosh *et al.*, 2023).

Personal Valence

Personal valence refers to individuals' belief that the proposed changes will benefit them personally (Holt *et al.*, 2007). This concept also encompasses an individual's assessment of the positive and negative outcomes of the change, the fairness of implementing the change initiatives, and how individuals are treated during the change process.

In this study, personal valence specifically pertains to the anticipated personal benefits or rewards that Gen Z employees expect to gain from adopting AI in green jobs. It explores how employees perceive AI as an opportunity for career advancement, skill development, and increased job satisfaction, and how these perceptions motivate them to embrace the change.

In exploring the Personal Valence dimension, this study examines how Gen Z employees in green jobs perceive the impact of AI on their professional experiences. All informants noted that they experience significant advantages from using AI, particularly in enhancing time efficiency and productivity. AI facilitates and accelerates the acquisition of relevant data and information needed for tasks, making work easier and more practical. In many instances, AI often serves as an assistant and brainstorming partner, providing different and broader perspectives.

"...*the use of AI can enhance knowledge and insights regarding the work being done*." (I13)

From this explanation, it is evident that AI can clarify various new concepts and contexts in work, thereby supporting the acceleration of understanding. Several other informants added that AI is especially useful in teamwork. Understanding among team members is crucial, particularly regarding new terminology that needs to be quickly grasped.

"...*related to the use of language, because sometimes there are many terms that are not understood, and the assistance from AI is very supportive*." (I3)

AI is frequently used as an assistant in tasks that involve repetitive data processing and information management. Additionally, AI is utilized for administrative duties, such as drafting email templates, messages, and documents. Some informants explained that AI can aid technical tasks, allowing individuals to focus more on substantial work.

"*I do not need to focus on trivial (technical) things; I can focus on deepening my expertise*." (I7)

This aligns with previous research indicating that AI platforms, such as chatbots and ChatGPT, can assist various human tasks without replacing them (Trivedi *et al.*, 2023). Currently, AI has many limitations, as it can only perform certain types of human tasks. However, according to informants, AI

offers numerous benefits and supports the execution of work. For example, in document preparation, AI helps refine the work process, particularly in creating more structured, systematic, and appealing documents. Furthermore, AI can be utilized as a tool to review and correct completed work.

Several informants also mentioned that AI can enhance creativity in their tasks. Often, AI provides ideas that had not been previously considered, encouraging innovation and exploration in the execution of work.

In relation to long-term impacts, several informants shared reflections on their use of AI in green jobs, particularly concerning ethics and the importance of maintaining professional integrity and work quality.

"Using AI makes me realize that technology must be used wisely to uphold the integrity of my work." (I11)

This sentiment is echoed by I8, who works in the entrepreneurship sector, particularly in tourism.

"Using AI has helped me develop new skills, such as understanding the ethics of AI use." (I8)

These reflections suggest that, beyond improving productivity, AI also prompts users to consider the ethical implications of its use and encourages responsible technology adoption. However, most of the feedback from informants emphasized AI's short-term benefits, particularly how it makes their current tasks easier and more efficient, rather than its long-term implications.

When discussing AI's influence on workplace social relationships, informants share mixed perspectives. Most informants felt that using AI does not contribute positively to interactions and social relationships with coworkers. Furthermore, they emphasized that interactions with colleagues have been declining. These findings align with literature indicating that workplace interactions with AI can increase the need for social affiliation, leading to loneliness and decreased well-being after work (Tang *et al.*, 2023). The impact of AI usage also affects workers' identities and the social environment in the workplace, depending on how the technology is applied and its influence on the social order of work (Selenko *et al.*, 2022)

Some informants explained that AI still holds significant benefits for social relationships, particularly regarding aligning perceptions. AI is very helpful in learning new concepts in the workplace, thus accelerating understanding. This becomes crucial in teamwork situations, where alignment of understanding among team members is necessary for effective collaboration. Additionally, the improvements made by AI often serve as discussion points for validation, thereby strengthening bonds with colleagues. The use of AI also makes teamwork more tactical, as it can provide guidance on effective approaches and stages in executing tasks. This aligns with findings by Bankins & Formosa (2020), which state that AI in the workplace transforms interactions from merely using technology as a tool to engaging it as an active partner in work, potentially influencing social relationships among workers (Bankins & Formosa, 2020).

Regarding concerns about the negative impacts of AI on individual jobs, this study seeks to explore informants' perspectives on the threats posed by AI in the workplace. Various literature explains that AI has both positive and negative long-term impacts, emphasizing the importance of individuals possessing the skills, competencies, and professional ethics necessary (Charlwood & Guenole, 2022).

The findings of this study indicate that the majority of informants do not worry that their jobs will be replaced by AI. For instance, one informant explained:

"*Yes, some routine tasks in my job could be replaced by AI. However, roles requiring creativity and human interaction are difficult to replace. AI functions more as a supportive tool*." (I8)

These findings contrast with a survey conducted by Microsoft, which indicated that 48% of people in Indonesia are worried that AI will replace their jobs, and 75% would delegate as much work as possible to AI to reduce their workloads (Microsoft, 2023).

It must be acknowledged that the impact of AI in the workplace is not always negative, as recognized by the most of the informants. Furthermore, while AI can perform various human tasks, it remains a tool that aids and supports work execution and has many limitations, thus not posing a threat.

Responses from several informants indicated that the presence of AI should be optimized in work execution. AI can support the quality of work by automating data input and processing, scheduling, and synthesizing discussion results. However, the use of AI must still be well-controlled, as it could lead to dependency.

"*The negative impact of AI in the workplace is that excessive reliance on AI can make people lazy*." (I2)

Many jobs require skills that AI does not possess, such as coordinating with various parties, communication (strategizing with a team), and creativity. Some informants felt that AI cannot perform complex tasks, such as decision-making processes. Additionally, AI does not possess human skills like negotiation and empathy. Currently, AI can only perform certain types of tasks and lacks the mechanical, analytical, intuitive intelligence, and empathy that play vital roles in service-oriented tasks (Huang & Rust, 2018). The summary of findings based on informants' statements regarding job skills that will not be replaced by AI is presented in the following table.

Table 3. Skills to Not Be Replaced by AI, According to the Informants

1.	Adaptation to technology	8.	Political instinct
2.	Critical thinking	9.	Human relation
3.	Ethical	10.	Emotional
4.	Intuition	11.	Interpersonal skill
5.	Creativity and Innovation	12.	Complex problem solving
6.	Leadership	13.	Empathy
7.	Social skill	14.	Negotiations

Source: Author's Data Processing, 2024

Based on the previous table, it can be understood that many job skills cannot be replaced by AI. Jobs that are typically replaced by AI are data-driven, repetitive, and administrative in nature. Furthermore, AI tends to replace specific tasks within jobs rather than entire positions. This indicates that humans are still needed for more complex tasks requiring intuitive and empathetic skills (Huang & Rust, 2018).

An interesting finding from one informant is illustrated in the following statement.

"*Because AI only refers to data, it may not consider important social or cultural values, potentially leading to results that do not meet local community needs*." (I13)

According to I13, who frequently conducts field visits, AI is unable to address and consider social aspects. Statements from several informants also indicate that while AI can indeed change the way work is performed, it is challenging for AI to take over all tasks that humans can do.

"*…if it cannot adapt to the context and conditions of the work, then the services provided will only be generic and may miss the target*." (I14)

As AI develops, it could still pose a threat in the workplace, such as the risk of job loss, which may lead to the creation of socio-economic disparities (Badhurunnisa & Dass, 2023). Some informants are also aware that in the future, AI could evolve and become a threat to their jobs. They acknowledged that certain types of technical and repetitive tasks, such as administration, operator/admin services, and data entry, could potentially be replaced by AI since it can perform these tasks more efficiently than humans.

Conclusion

The findings of this study provide insight into how Gen Z employees in green jobs perceive AI adoption in the workplace by describing it through the ROC framework. The results indicate that Gen Z employees widely acknowledge AI as a necessary tool for improving work efficiency and effectiveness. Given the fast-evolving nature of green jobs organizations today, this belief aligns with the broader workplace trend of digital transformation. The role of management in AI adoption varies significantly across organizations. Some organizations take a passive stance, while others actively support AI adoption through guidelines, training, or strategic initiatives. This disparity highlights that AI implementation is not solely a technological shift but also an organizational and cultural one. While all informants expressed confidence in using AI, challenges remain, particularly in mastering effective AI prompts and ensuring meaningful outputs. Interestingly, the required skills are not just technical but also ethical and humane, as employees recognize the need to use AI in a way that aligns with human values and moral considerations. Informants largely view AI as beneficial for individual productivity, particularly in terms of time efficiency and workload management. However, AI's impact on workplace social dynamics is more complex.

This study enhances the understanding of Gen Z's readiness to use AI in green jobs, particularly their perceptions of its importance and benefits, preferred platforms and features, and the challenges they face in its application. It also explains how AI supports efficiency and productivity while highlighting barriers like technical challenges and ethical considerations. By providing a qualitative perspective, this study contributes to discussions on organizational change and technology adoption in the green jobs sector.

In practice, this study is essential for organizations in the green jobs sector seeking to adopt AI in their decision-making and daily operations, for organizations looking to incorporate AI, establishing favorable facilitating conditions is key, including policies and programs that not only promote technological adoption but also address the ethical, emotional, and professional expectations of Gen Z employees. However, it is important to set boundaries on AI usage to ensure that services remain personalized and deeply engaging. While AI enhances operational efficiency, it should not replace human judgment, which is essential for delivering high-quality, client-focused solutions. The organization's high-level management shall increase its confidence in making decisions and guiding Gen Z employees in using AI. This includes fostering a culture of responsible AI use, ensuring transparency, encouraging critical thinking, and upholding data integrity. In addition, Gen Z employees in the green jobs sector are encouraged to upskill to ensure they effectively utilize AI, so they can fully harness AI tools while maintaining the quality, purpose, and integrity of their work.

Ultimately, aligning AI adoption strategies with both technological advancements and human-centered values will ensure that organizations not only stay innovative and efficient but also meet the evolving needs, ideals, and aspirations of the emerging green workforce.

Limitations

This study is limited by the lack of existing references on Gen Z's readiness to use AI in green jobs, making it difficult to compare findings with previous research. Additionally, further studies could delve into industry-specific challenges within the diverse green jobs sector, explore cross-generational perspectives on AI adoption, and assess AI's impact on green job performance and productivity.

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