Green Human Resource Management Towards Digital Transformation In Municipalities In Irbid Governorate

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A B S T R A C T

This paper aims to investigate the green human resource management towards digital transformation in municipalities in Irbid governorate. More specifically, the study focused on managing green human resources through selection, appointment, training, development, motivation, rewards, and performance appraisal. The first and second order construct towards digital transformation in order to improve municipalities performance. Nevertheless, partial least squares (Smart -PLS-4.0.8.7) were used to test the hypotheses, the results indicate that green human resource management positively affect the digital transformation, green human resource management also positively affect the municipalities performance. In addition, digital transformation mediates the effect of green human resource management on municipalities performance. However, the importance of the practical study for decision makers in the higher administrations in Irbid municipality is represented by providing them with the importance of green human resource management and its role in improving performance through digital transformation, the results of this study also contribute to providing decision makers and policy makers with creating a green business environment that contributes to preserving and preserving the organization's property.

1. Introduction

The practice of managing green human resources is one of the contemporary issues that emerged as a result of the urgent need and the high response to the initiatives of international organizations that play their role in preserving the environment and its resources, as well as technological development and the expansion of global industries and businesses, in addition to the practices and impacts left by these industries and businesses on the environment. Which contributed greatly to the increase in environmental degradation and

the spread of pollution in general. And through the novelty of the concept of green human resource management within organizations and the global interest in it, this led to an increase in awareness of the importance of environmental issues and forced them to adopt environmentally friendly practices, the most important of which is green human resource management, which contributed to reducing costs, increasing human competencies and attracting them to improve productivity, which increased of creativity and excellence in organizations (Sudin, 2011). The importance of green management in general has also emerged in achieving safety in providing products and managing operations, which prompts the organization to raise the efficiency of its production operations, reduce levels of damage and environmental pollution resulting from production processes, as well as avoid legal prosecutions leading to paying compensation to those affected, and inciting environmental and citizen protection associations.

Green human resource management is defined as the contribution of human resource management policies and practices to preserving the environment by defining the organization's directions and activities in protecting and preserving natural resources and working to adopt and encourage green initiatives by increasing employees' awareness and commitment to sustainable environmental issues (Omar, 2019). Green human resource management is an aspect of human resource management and practice. It is not limited to the general functions of human resource management only, but this concept included the inclusion of environmental management and the reduction of environmental pollution practices. This is done through the use of green training, development and evaluation, green recruitment of employees and raising their skills, abilities and professional behaviors in a way that reflects the organization's concern for the environment and reducing wrong practices towards the environment (Al-Sakarna, 2017). The practice of green human resources management helps in achieving social acceptance and good reputation for the organization, and environmental commitment helps the organization to gain social support for it, to consolidate its relations with its current clients and win new clients in the future, and to find solutions to many environmental and social problems, as it cares and focuses on health and the safety of workers, given that organizations adopt the green environment method as a way to achieve competitive advantage and increase the profits of the organization in addition to preserving the environment and the continuity of its activities (Al-Salhi, 2012).

One of the most important pillars on which green human resource management is based is the protection of employees from work risks and professional errors that the employee may be exposed to, which may cause partial or total disability and sometimes death as a result of lack of training and rehabilitation or taking corrective measures based on the performance evaluation system and the provision of security and safety measures professionalism of employees (Skibińska & Kott, 2015). Green human resources management plays a vital role in training employees and equipping them with the knowledge and skills necessary to master the duties entrusted to them to achieve benefit at all levels, whether for themselves, the organization or the environment. The Green Human Resources Department also works to provide a pollution-free work environment while employees perform their duties by developing environmental citizenship behavior among them and maintaining a high level of adherence to occupational safety and security regulations and instructions for workers. Green human resource management practices for organizations are an important approach that helps achieve a culture of sustainability (Sudin, 2011).

This paper aims to investigate the impact of Green Human Resource Management (GHRM) on digital transformation within the municipalities of Irbid Governorate. Specifically, the study seeks to examine how municipalities implement GHRM practices, including selection, appointment, training, development, motivation, rewards, and performance appraisal. It also aims to evaluate the influence of these practices on digital transformation processes and analyse their impact on the overall performance of municipalities. Additionally, the research investigates the mediating role of digital transformation in the relationship between GHRM and municipal performance. The study aims to provide practical recommendations for higher administration decision-makers in Irbid municipalities on the importance of GHRM and its role in enhancing performance through digital transformation. Furthermore, it seeks to contribute to the development of policies and strategies that foster a green business environment, aiding in the conservation of organizational resources and promoting sustainable practices.

2. Literature Review

GHRMis concerned with the organization and management of human resources with the environmental objectives of the organization and the society in which it operates. There are different definitions of the concept of green human resource management, and in general they all seek to clarify the need to achieve a balance between growth and industrial development, to protect the natural environment for the prosperity of future generations (Al-Habib et al., 2014). GHRMcan be defined as following human resource management policies to promote the sustainable use of resources within organizations in a way that preserves the environment (Marhatta & Adhikari, 2013). However, GHRM is also referred to as all the activities involved in the development, implementation and ongoing maintenance of a system aimed at making the organization's employees friends in order to achieve the organization's environmental goals and make a significant contribution to environmental sustainability, as GHRM refers to policies, practices and systems that increase From the awareness, awareness and interest of the organization's employees in the work environment and the society in which it operates (Opatha and Arulrajah, 2013).

Daoud and Ali (2017) focused on the concept of green human resources management, which includes stimulating and increasing employee participation in environmental activities and achieving environmental sustainability by retaining talented employees who have the desire and motivation to practice environmentally friendly activities. In addition, Al-Sakarneh (2017) also believes that GHRM goes beyond the limits of the social responsibility of organizations, as it plays an important role in solving problems related to the environment by training employees about the requirements for implementing laws related to environmental safety. However, green human resources management plays an important role in environmentally friendly activities, by involving employees as part of green initiatives by adopting practices such as employee participation, knowledge management, selection, training, and encouraging diversity to improve the company's environment (Al-Taher et al., 2019). Moreover, green human resources management also became an integral part of the work strategy of organizations in all its forms during the nineties of the last century, by promoting the importance of GHRM directions. For example, a partnership initiative was launched between the United Nations Environment Program, the International Federation of Labor Waste and the International Organization of Employers And the International Labor Organization, as it seeks to promote opportunities, equity, and a just transition to a green economy while providing green jobs that care about the environment, which have become safer and enjoy better wages compared to jobs in similar sectors. The contribution of green human resources management is not limited to the framework of human resources management practices, but extends It refers to the functional areas of green management, including green operations, green marketing, supply chain management, accounting and green financing, and thus carries a holistic view in order to align employees with the environmental strategy of the organization (Mishra, et al., 2014).

GHRM practices play a vital role in enhancing the morale of employees, which may help in achieving a great deal of benefit for both the company and the employees. There are a number of advantages that the organization can achieve as a result of introducing the principles of GHRM at work (Jacob and Cherian, 2012). Also, environmental practices improve company performance and provide a competitive advantage, so companies become interested in environmental issues, and GHRM may play a key role in environmental management. This is a new approach to achieving the human resource function, whose nature is to include environmental goals in all sub-areas of resource management. human resources, from recruitment planning, selection, motivation and development of employees, to their evaluation and impact on work (Bombiak & Marciniuk-Kluska, 2018). Implementing GHRM and incentivizing environmentally oriented employee behavior is beneficial to organizations, as environmental policies in terms of recruitment, performance management, training, development, and rewards are powerful tools for engaging employees in the practical implementation of environmental protection strategies, and resource management tools, processes, and practices may Green humanity leads to increased employee involvement in the process of environmental innovations, reducing environmental waste, improving products, increasing process efficiency, and reducing costs (Carballo et al., 2017).

GHRM is concerned with the organization and management of human resources to align with the

environmental objectives of both the organization and the broader society. Different definitions of GHRM generally emphasize the importance of achieving a balance between growth and industrial development while protecting the natural environment for future generations (Al-Habib et al., 2014). GHRM can be defined as following human resource management policies to promote the sustainable use of resources within organizations in a way that preserves the environment (Marhatta & Adhikari, 2013). It encompasses all activities involved in developing, implementing, and maintaining systems that encourage employees to contribute to the organization's environmental goals and promote environmental sustainability. This includes policies, practices, and systems that increase awareness and interest in environmental issues among employees (Opatha & Arulrajah, 2013). Daoud and Ali (2017) highlighted that GHRM includes stimulating and increasing employee participation in environmental activities and achieving environmental sustainability by retaining motivated employees who practice environmentally friendly activities. Al-Sakarneh (2017) also emphasized that GHRM extends beyond corporate social responsibility by training employees on environmental safety laws. Furthermore, GHRM involves employees in green initiatives through practices such as participation, knowledge management, selection, training, and encouraging diversity, which enhances the company's environmental performance (Al-Taher et al., 2019). In the 1990s, GHRM became integral to organizational strategies, with initiatives promoting green jobs that prioritize environmental care, safety, and better wages. This shift included partnerships among the United Nations Environment Program, the International Federation of Labor Waste, the International Organization of Employers, and the International Labor Organization, aiming for a just transition to a green economy (Mishra et al., 2014). GHRM practices extend to various functional areas, including green operations, marketing, supply chain management, accounting, and financing, aligning employees with the organization's environmental strategy.

GHRM practices enhance employee morale and benefit both the company and its employees by introducing green principles at work (Jacob & Cherian, 2012). These practices improve company performance, provide a competitive advantage, and play a key role in environmental management by integrating environmental goals into all aspects of human resource management, from recruitment to employee evaluation (Bombiak & Marciniuk-Kluska, 2018). Implementing GHRM and incentivizing environmentally oriented behavior is advantageous for organizations. Environmental policies in recruitment, performance management, training, development, and rewards are powerful tools for engaging employees in environmental protection strategies. These tools and practices can increase employee involvement in environmental innovations, reduce environmental waste, improve products, enhance process efficiency, and lower costs (Carballo et al., 2017). Thus, GHRM focuses on aligning human resource practices with environmental objectives to achieve sustainable growth and industrial development while protecting the natural environment. It involves implementing policies that promote sustainable resource use and developing systems to encourage employees to support environmental goals. GHRM extends beyond corporate social responsibility by training employees in environmental safety and involving them in green initiatives, which enhances company performance and provides a competitive advantage. By integrating environmental goals into all aspects of human resource management, GHRM improves employee morale, increases involvement in environmental innovations, reduces waste, and enhances efficiency, ultimately benefiting both the organization and its employees.

3. Hypothesis Development

The increasing focus on sustainability and digital innovation in organizational management has led to the emergence of Green Human Resource Management (GHRM) as a pivotal strategy for enhancing both environmental and operational performance. This study aims to explore the relationships between GHRM, digital transformation, and municipal performance, positing three key hypotheses. Firstly, the hypothesis (H1) suggests that GHRM practices positively influence digital transformation. As organizations integrate eco-friendly practices into their human resource management, they create a culture of innovation and adaptability, essential for digital advancements. Secondly, the hypothesis (H2) proposes that GHRM directly impacts the performance of municipalities. By fostering sustainable practices and environmental awareness

among employees, municipalities can enhance their operational efficiency and service delivery, leading to improved overall performance. Finally, the hypothesis (H3) posits that digital transformation mediates the relationship between GHRM and municipal performance. This suggests that while GHRM directly improves municipal performance, its full potential is realized when combined with effective digital transformation strategies, highlighting the interconnectedness of sustainability and technology in modern organizational frameworks. For example, Abu Khashim (2020) aimed to know the effect of applying occupational safety and security rules on improving workers' performance. The researcher relied on the descriptive approach, and the study found that there is a statistically significant effect of applying the rules of occupational security and safety in improving the performance of workers, and there is a weak correlation between regulations and laws and improving the performance of workers. The study also showed that the company adopts clear and specific laws and regulations, but the company's management does not Direct and periodic follow-up of the implementation of occupational safety procedures. Suharti and Sugiarto (2020) found that implementing green HRM provided benefits to individual employees and to the organization. Employees had better green work results, and at the same time, at the organizational level, the benefits of implementing green human resource management were to create an environmentally friendly organizational culture and work climate, increase the efficiency of various resources, form a positive image of the organization and increase economic and environmental performance. This study is expected to contribute to expanding the literature on the implementation of green HRM and its benefits to companies. Song, (2020) indicated that green human resource management can positively influence green innovation, and that green human capital mediates the relationship between green human resource management and green innovation. In addition, management environment concerns mitigate the impact of green human resource management on green human capital. The results further revealed that the indirect impact of green human resource management on green innovation through green human capital is important for companies that have a high concern in their work environment. Boukhalkhal and Al-Toumi (2019) aimed to identify the extent of workers' attitudes towards the effectiveness of occupational safety measures in reducing work accidents, and to identify workers' attitudes towards the effectiveness of occupational safety measures in reducing work accidents among company workers. The study relied on the analytical descriptive approach, and the sample consisted of (37) workers from the category of executive workers. The results of the study showed that the workers' attitudes are positive towards the effectiveness of occupational safety measures in reducing work accidents, and positive towards the institution's commitment to providing equipment and tools for occupational safety procedures, and towards the institution's commitment to training workers on occupational safety procedures and the institution's commitment to applying occupational safety procedures.

Al-Taher (2019) aimed the study to identify the impact of green human resource management on creativity. Where the study relied on the descriptive analysis approach, the study concluded that there is an inverse relationship between the orientation of green human resources management and the creativity of workers, and one of the applied implications of the study is that it may help decision-makers to better understand the orientation of green human resource management, and the study recommended that future studies focus on Conducting more studies on the relationship between green human resources management orientation and creativity. Al Mamun, (2019) examine the extent of awareness of green human resource management among different levels of human resource managers from different organizations in Bangladesh, where a combination of quantitative and qualitative research methods were used to collect information. The results revealed that the knowledge of green human resource management depends on various factors, as the study focused on increasing the level of awareness about green human resource management among managers from various sectors in Bangladesh, and organizations should employ green human resource management practices required to achieve excellent organizational performance. Moreover, the government may develop policies to promote these practices, as achieving organizational excellence will reflect positively on the economy in the long run, and all of this can be facilitated through proactive regulatory and national human resources development initiatives.

Yong et al., (2019) outlined the factors facilitating the adoption of green HRM in Malaysia. The data required for this study were collected using semi-structured face-to-face interviews with HR managers and managers from four large manufacturing companies in Malaysia. The results of the study revealed that there

are four main factors affecting the adoption of green HRM including stakeholder pressure, comparative advantage, perceived benefits from implementing green HRM, commitment of senior management and green intellectual capital, which means that intellectual capital integrates green innovation or Green environment, and that among the three dimensions of green intellectual capital, green human capital and green structured capital were discussed significantly only by human resource managers and managers, while the role of relational green capital in adopting human resource management was not noticed green.

Al-Ruwaili (2018) examined the role of human resource management practices in promoting a green culture among employees, which will directly affect their performance and behaviour in terms of respecting environmental values and carrying out environmental processes to produce employees and green products that attract consumers. The results indicated that there is a significant impact of green human resource practices on creating green organizational behaviour through the acquisition of environmental employees who enable the organization to work through green instructions and methods. Organization managers are advised to deal with environmental values and clear provisions to protect environmental values. According to the above as shown in *Figure (1)*., the following hypothesis can be reached:

H1: Green human resource management on Digital Transformation.
H2: Green human resource management on Municipalities Performance.
H3: Digital Transformation mediate the effect of Green human resource management on Municipalities Performance.
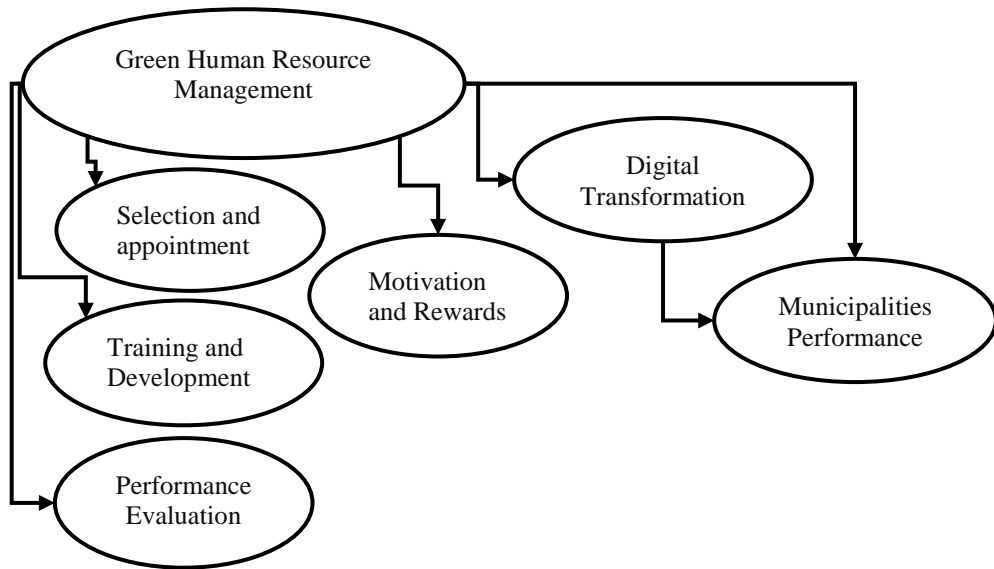

Figure 1. Research Model

4. Methodology

The field analytical descriptive approach was adopted in describing the variables of the study, the impact of green human resources management in its axes (selection and appointment, training and development, motivation and rewards, and performance evaluation), by distributing a questionnaire to the members of the study sample in order to obtain data on the study sample and their opinions. The study population consisted of all workers in Irbid municipalities. (435) questionnaires were distributed, of which (303) were retrieved. After reviewing the questionnaires, it was found that there are (9) questionnaires that are not valid for statistical analysis because their answers are not complete. Thus, the study sample consisted

of (294) male and female employees. The questionnaire also consisted of (18) items that reflect the agreement of the study sample members on the dimensions of the independent variable represented in green human resource management, based on a group of previous studies such as the study of Fathi (2020), the study of Al-Rumaidi et al. (2020).

5. Findings

The Variance Inflation Factor (VIF) and Tolerance values were used in order to ensure that the data is free from the problem of linear duplication between the independent variables, which is the problem whose existence means that an independent variable is a function of another independent variable, that is, it rises with its height and decreases with its decrease. However, VIF found that the study model is devoid of the problem of linear duplication between the independent variables, as the values of the Variation Inflation Coefficient (VIF) were appropriate in that they are less than (10), as well as the Tolerance values that met the acceptance criterion, which is that its value is greater than (0.05). Thus, it can be adopted that the study data take a normal distribution, and thus the possibility of conducting subsequent statistical analyses. However, *Figure (2)* shows Alpha Cronbach for the variables and items.
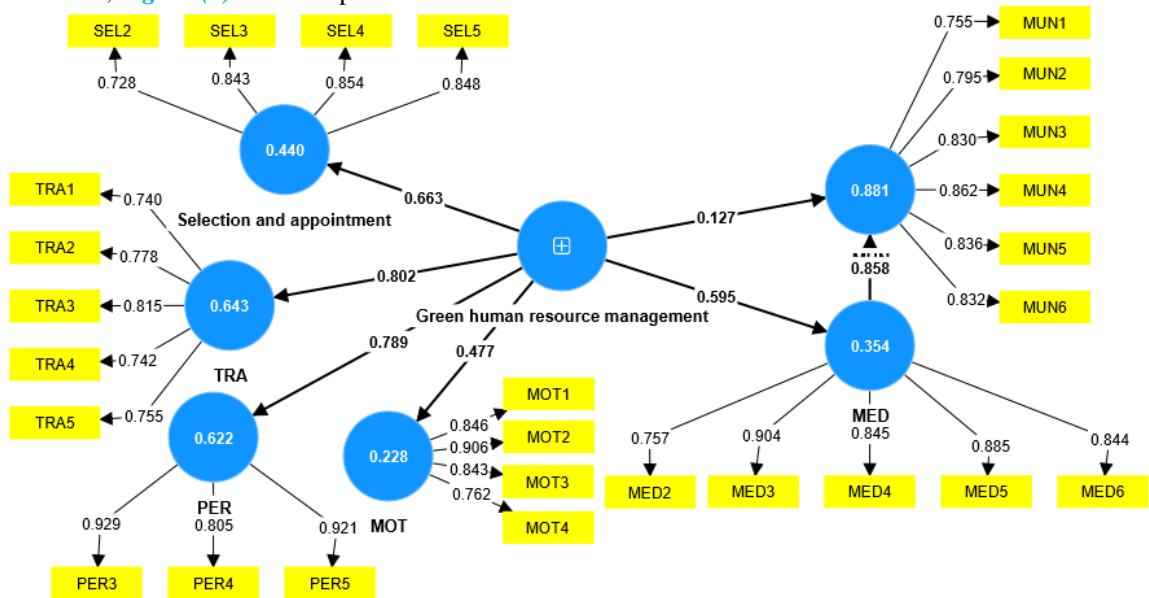

Figure 2. PLS_SEM Algorithm

The *Figure 2* above shows the Alpha Cronbach, which indicate that all items have a reliability and validity greater than 0.70% .In addition, Multiple regression analysis was performed according to (Stepwise), which is based on regression analysis, by including the most powerful variable contributing to the prediction of the dependent variable first in the analysis model, then the second most powerful variable is included in addition to the first variable, and so on until the All predictive variables, variables with low predictive power are not included as the dependent variable.
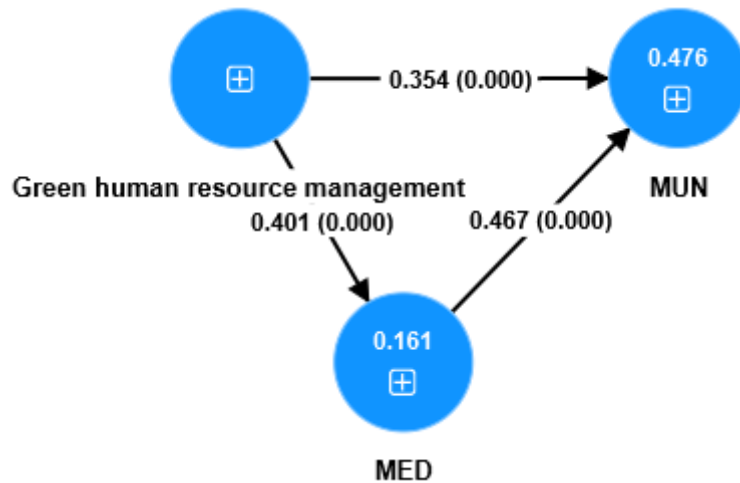
Figure 3. *PLS_SEM Bootstrapping*

Based on *Figure 3* above, the analysis indicates that three dimensions of green HRM contributed to the prediction in the dependent variable .With regard to the implications of theoretical contributions, the study added a model for green human resource management practices by linking the human resource management axes. However, *Table 1* indicates the result of hypotheses Testing.

Table 1: Result of Mediation Testing

Path	β	STDEV	T-values	P Values
Green human resource management → Digital Transformation → Municipalities Performance	0.09	0.04	2.51	0.00
Green human resource management -> → Digital Transformation	0.13	0.05	2.15	0.00
Digital Transformation -> → Municipalities Performance	0.18	0.04	4.53	0.00

For H1, Green human resource management positively affect the Digital Transformation. This is because the indirect effect as shown is significant (B=0.09, T>1.96, P<0.05). Thus, H1 is supported. For H2, Green human resource management positively affect the Municipalities Performance. This is because the indirect effect as shown is significant (B=0.09, T>1.96, P<0.05). Thus, H1 is supported. In addition, for H3, Digital Transformation mediate the effect of Green human resource management on Municipalities Performance. This is because the indirect effect as shown is significant (B=0.09, T>1.96, P<0.05). Thus, H3 is supported. However, this paper reveals several key findings regarding the impact of GHRM on digital transformation and municipal performance. Firstly, the analysis confirms that GHRM practices significantly positively influence digital transformation within municipalities, supporting Hypothesis 1. This indicates that municipalities implementing eco-friendly HR practices are more likely to adopt and benefit from digital technologies. Secondly, Hypothesis 2 is validated, showing that GHRM directly enhances municipal performance. Municipalities with robust GHRM practices report better operational efficiency, higher employee morale, and improved service delivery. Lastly, the study confirms Hypothesis 3, demonstrating

that digital transformation mediates the effect of GHRM on municipal performance. This mediation effect underscores the critical role of digital technologies in maximizing the benefits of GHRM initiatives, suggesting that the integration of GHRM and digital strategies leads to superior outcomes.

The findings of this study align with existing literature that emphasizes the critical role of Green Human Resource Management in driving organizational performance and innovation. According to Agha, Atwa, and Kiwan (2021), strategic intelligence, which encompasses environmental awareness and sustainable practices, significantly impacts firm performance and is mediated by strategic flexibility. This supports our finding that GHRM positively influences digital transformation and municipal performance by promoting a culture of sustainability and innovation. Ahmed et al. (2021) also highlight that strategic intelligence leads to a sustainable competitive advantage for small and medium enterprises. Similarly, our study demonstrates that GHRM practices enhance municipal performance by integrating sustainable practices into everyday operations, thus fostering a competitive edge in public sector performance. Moreover, Al Hada et al. (2021) discuss the relationship between strategic intelligence and psychological resilience, emphasizing that employees' involvement in environmental activities boosts their resilience and performance. This is reflected in our findings, where GHRM practices not only improve digital transformation efforts but also enhance overall employee morale and organizational performance. Al-Daouri and Atrach (2020) note the significant impact of strategic intelligence on strategic flexibility in the banking sector, which parallels our conclusion that digital transformation mediates the relationship between GHRM and municipal performance. This mediation effect underscores the importance of digital tools and technologies in amplifying the benefits of GHRM practices. Furthermore, the holistic approach to GHRM discussed by Alnoukari et al. (2016) aligns with our study's findings that GHRM practices extend beyond traditional HR functions to include green operations, marketing, supply chain management, and accounting. This comprehensive integration ensures that sustainable practices are embedded throughout the organization, leading to improved performance and sustainability. However, the integration of GHRM practices with digital transformation strategies is crucial for enhancing municipal performance. This study contributes to the growing body of literature by demonstrating the significant impact of GHRM on digital transformation and performance, providing valuable insights for policymakers and municipal leaders.

6. Implication

The findings of this study underscore the critical role of Green Human Resource Management (GHRM) in driving digital transformation and enhancing municipal performance. These results have several significant implications for policy development, training and development, strategic planning, resource allocation, organizational culture, and performance metrics. Policymakers should prioritize integrating GHRM practices into public administration to promote sustainability and operational efficiency. Comprehensive policies that support eco-friendly HR practices can lead to substantial improvements in digital transformation and overall municipal performance. Furthermore, municipalities should invest in training programs that educate employees about sustainable practices and digital skills. This dual focus can foster a workforce that is environmentally conscious and adept at leveraging digital tools for enhanced performance. In addition, Decision-makers in municipalities should incorporate GHRM into their strategic planning processes. By aligning GHRM with digital transformation initiatives, municipalities can create a synergistic effect that boosts both environmental sustainability and operational effectiveness. Effective implementation of GHRM and digital transformation requires adequate resources, and municipalities should allocate sufficient budgetary and human resources to support these initiatives, ensuring they are adequately funded and staffed.

Creating a culture that values sustainability and innovation is essential for the success of GHRM. Municipal leaders should promote a culture of continuous improvement where employees are encouraged to engage in green practices and embrace digital solutions. To measure the success of GHRM and digital transformation initiatives, municipalities should establish clear performance metrics. These metrics can help track progress, identify areas for improvement, and demonstrate the impact of these initiatives on overall municipal performance. However, integrating GHRM with digital transformation strategies is crucial for

enhancing municipal performance. The study's insights provide valuable implications for policymakers, municipal leaders, and practitioners, underscoring the need for a holistic approach to sustainability and technology in public administration. By embracing GHRM and digital transformation, municipalities can achieve greater efficiency, sustainability, and service quality, ultimately benefiting the communities they serve.

7. Conclusion

This paper highlights the significant role of Green Human Resource Management (GHRM) in driving digital transformation and enhancing municipal performance. The findings confirm that GHRM practices positively influence digital transformation and directly improve municipal performance. Moreover, the mediation effect of digital transformation emphasizes the importance of integrating sustainable HR practices with digital strategies to achieve optimal outcomes. These insights provide valuable implications for policymakers, municipal leaders, and practitioners, underscoring the need for a holistic approach to sustainability and technology in public administration. By embracing GHRM and digital transformation, municipalities can achieve greater efficiency, sustainability, and service quality, ultimately benefiting the communities they serve. Moreover, for decision-makers in the higher administrations of Irbid municipality, the practical implications of this study are profound. It provides them with evidence of the importance of GHRM in improving performance through digital transformation. The success of many organizations is closely linked to their ability to develop qualified and trained human resources that implement occupational safety and environmental preservation procedures. The study's results are hoped to contribute to creating a green business environment that preserves organizational property and resources by establishing robust security and safety measures. This holistic approach can ensure that municipalities not only meet their performance goals but also contribute to broader environmental sustainability objectives.

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