

Optimizing Work Productivity: The Influence of Digital Performance Appraisal on Job Satisfaction through ESG-Oriented Human Resource Practices

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Abstract

With the rise of digital technologies, human resource management has also evolved, and among the various institutions of higher education, it is crucial to have efficient human resource management that fosters employee satisfaction and performance. Human resource management has changed dramatically with the widespread use of digital technologies, and in higher education organizations, HRM is vital to the success of the institution as well as to the satisfaction and performance of its employees. The purpose of this study is to analyze the impact of Digital Performance Appraisal on Job Satisfaction with the mediation of Environmental, Social, and Governance (ESG)-oriented Human Resource Practices. A quantitative research paradigm was employed and the primary data was gathered from 660 employees of higher educational institutions through the use of a structured questionnaire. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to analyze the proposed conceptual framework. The results show that Digital Performance Appraisal has a significant and positive influence on ESG-Oriented Human Resource Practices and Job Satisfaction. Moreover, ESHRP positively and significantly influence Job Satisfaction, and partially mediate the relationship between DPA and Job Satisfaction. The findings emphasize that digital performance management, in combination with sustainable HR practices, is vital to build transparent, ethical, and employee-centered work environments. The study also makes a contribution to the literature because it provides an integrated model that integrates digital HRM practices with ESG-related practices and employee outcomes in the context of higher education institutions. The results further provide practical guidance for institutional management and policy makers to improve employee satisfaction and human resources management effectiveness through digital transformation and sustainable HR strategies.

Keywords: Digital Performance Appraisal; ESG-Oriented Human Resource Practices; Job Satisfaction; Higher Educational Institutions; Digital Human Resource Management; PLS-SEM.

JEL Classification: M10, M12, M15, O33.

Introduction

With the speed of technological advancements in the world, the management of human resources has undergone a drastic change in the way it is done across organizations, even among educational institutions. Digital HRM is becoming a trend at universities and colleges as they seek to enhance administration, transparency and employee performance management. Digital performance appraisal has become an important technological innovation that allows for the continuous monitoring of performance, timely feedback, objective assessment and data-informed decision-making. Digital platforms offer advantages over traditional appraisal systems, such as scalability, improved accuracy, efficiency, and access, as well as enabling staff enhancement and institutional performance. These systems are largely dependent on the perception of employees about the usefulness and ease of use, in accordance with the Technology Acceptance Model of Davis (1989). Thus, higher education institutions are increasingly realizing the significance of digital performance appraisal as a valuable strategy for enhancing productivity in the workplace and fostering a more responsive academic environment.

ESG-Oriented Human Resource Practices and Job Satisfaction

Environmental, Social and Governance (ESG) principles have been a part of the organizations' sustainability policies in recent years. In addition to environmental responsibility, ESG-inclusive human resource practices focus on employee well-being, ethical governance, fairness, diversity and inclusion, and social responsibility. The practices help organisations build workplaces that are open and employee-centred, thereby promoting the sustainability of the organisation and its staff. By combining digital technologies with ESG efforts, the efforts for integrating digital technologies into organizations' ESG initiatives further drive organizational accountability, improve governance mechanisms and help foster responsible HRM (Sklavos et al., 2024; Farinha & de Fátima Pina, 2025). In higher education, these behaviors foster positive organizational culture and higher levels of organizational commitment and fairness among employees.

Job satisfaction remains one of the most important factors in determining employee productivity, organizational commitment and institutional performance. Transparency and fairness in performance evaluation systems increases employee's attitude towards the organization. Organizational Justice Theory suggests that people's behaviour and psychological reactions to organizations are strongly affected by the perception of fairness in organizational procedures (Greenberg, 1987). Likewise, according to Social Exchange Theory, when an organization is supportive and treats employees fairly, the employees will return the favor by committing to the organization, having positive work attitudes, and feeling more satisfied with their jobs (Blau, 1964). ESG-driven HR-centric practices could thus be a key tool in improving the overall satisfaction of employees in the higher education sector by applying digital performance assessment. Hence, ESG-driven HR-centric practices may be a critical mechanism by which digital performance assessment could improve the overall satisfaction among the employees in the higher education sector.

Research Gap and Study Objectives

From a strategic management perspective, digital capabilities and sustainable human resource practices represent valuable organizational resources that contribute to long-term institutional competitiveness. The Resource Based View states that, organizations gain sustainable competitive advantage from effectively exploiting unique internal resources and capabilities (Barney, 1991). While there has been previous work that explored digital transformation, ESG implementation and employee outcomes individually, there is limited empirical evidence considering how ESG-oriented human resource practices would mediate the relationship between digital performance appraisal and job satisfaction, especially in higher education. This constraint underscores the importance of an integrated approach that integrates technology development with sustainable HRM practices.

Based on this, the present study investigates the impact of Digital PA on JSA in the context of ESG-oriented HRM among the employees of HEIs. Specifically, the study attempts to analyze the direct effect of Digital performance appraisal on ESG-oriented human resource practices and job satisfaction, examine the impact of ESG-oriented human resource practices on employees' job satisfaction, and determine the mediating role of ESG-oriented human resource practices between Digital performance appraisal and job satisfaction. The conceptual framework is tested empirically using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method which is widely used for examining complex structural relationships and mediation models (Hair et al., 2019).

Literature Review and Hypotheses Development

Digital Performance Appraisal and ESG-Oriented Human Resource Practices

Digital performance appraisal has emerged as a key feature of modern HRM practices, leveraging technology-driven platforms to improve transparency, ongoing feedback, and data-informed decision-making. Digital performance appraisal, unlike traditional appraisal methods, facilitates timely communication, objective evaluation, and performance monitoring, thus boosting employee confidence in organizational procedures. According to Davis (1989), the TAM can be explained by a two-part hypothesis: that employees will be more willing to use digital systems if they believe that the systems are useful, and more willing to use digital systems if they believe that the systems are easy to use. Moreover, with the industry's shift toward digitalization, companies are

increasingly incorporating sustainability aspects into HR processes to build organizational resilience and value for stakeholders. The studies recently conducted have shown that the digital transformation has a significant impact on the improvement of the governance mechanisms and in the creation of transparency within the organization, as well as in the sustainable decision making process, which all contribute to the ESG implementation (Farinha & de Fátima Pina, 2025; Xiu et al., 2025). Also, digital leadership and AI-based human resource management promote the adoption of ESG with regard to responsible workforce management and governance enhancement (Sklavos et al., 2024).

Digital technologies also enable organizations to have accurate employee information that can help to manage talent fairly, plan for sustainable staffing and employ socially responsible HR practices. Other studies indicate that digital HRM has the added advantage of boosting human capital development for the purpose of achieving environmental sustainability goals (Saini et al., 2025). Similarly, the HRM digitization integration with green business practices substantially aids in enhancing the ESG performance, fostering responsible employee actions, and advancing organizational sustainability (Honglei et al., 2026). The results of this study suggest that digital performance appraisal is likely to facilitate the successful implementation of human resource practices that are oriented towards ESG in HEIs.

H1: Digital Performance Appraisal has a significant positive influence on ESG-Oriented Human Resource Practices in higher educational institutions.

Digital Performance Appraisal and Job Satisfaction

Organizational performance management systems affect employees' job satisfaction when they perceive the system as fair and transparent and feel that they are successful. Digital performance appraisals enable employees to get immediate feedback, objective performance assessment, ongoing performance guidance and boost trust in performance appraisal results, eliminating ambiguity. According to Organizational Justice Theory, positive attitudes on the job are fostered when procedures on the job are perceived as fair and transparent by employees (Greenberg, 1987). In a similar vein, Social Exchange Theory suggests that an employee returns to the organization when they feel supported and treated fairly by showing greater commitment and satisfaction with their job (Blau, 1964).

High-performance human resource systems focus on the fact that good performance management can enhance employee motivation, organization commitment and productivity (Appelbaum et al., 2000). Moreover, strategic HR practices play an important role in retaining employees, organizational performance and the effectiveness of the workforce in establishing supportive work environments (Huselid, 1995). Digital appraisal in higher education institutions helps to minimize administrative bias, foster professional growth and engagement. Students of the academic staff are likely to report greater satisfaction with their work from digital evaluation systems perceived as objective and developmental.

H2: Digital Performance Appraisal has a significant positive influence on Job Satisfaction in higher educational institutions.

ESG-Oriented Human Resource Practices and Job Satisfaction

Environmental, Social, Governance (ESG)-driven HR practices are a strategic strategy that incorporates sustainability considerations into HR management in the areas of ethical governance, employee well-being, diversity and inclusion, fairness and social responsibility. These practices create a positive organizational culture that positively impacts psychological well-being and organizational commitment among employees. Stakeholder Theory states that sustainable value is created by organizations that attune to the expectations of various stakeholders, especially the employees by practicing and performing responsibly in the organization (Freeman, 1984). Similarly, the Resource Based View model regards sustainable HR practices as valuable resources for an organization that lead to competitive advantage in the long term (Barney, 1991).

The recent empirical evidence shows that ESG orientations of workforce practices leads to higher efficiency, agility and sustainable organisational performance. ESG implementation results in improved employee attitudes and behavior in the workplace, leading to healthier work environments (Tejasmayee et al., 2025). Additionally, organizational strategies, based on ESG, contributes to the

sustainability of the workforce and employee retention by aligning HR practices with sustainability (Yadav & Yadav, 2025). ESG practices can also drive organisational agility, empowering institutions to respond to evolving stakeholder expectations and also boosting the employee experience (Mariani et al., 2025). Furthermore, systematic evidence indicates that Green Human Resource Management is an important factor for the realization of the ESG goals by management actions taken for the human resources (Huma et al., n.d.). Hence, workers in the institutions which are actively working on ESG oriented HRM policies are more likely to be satisfied with their jobs.

H3: ESG-Oriented Human Resource Practices have a significant positive influence on Job Satisfaction in higher educational institutions.

Mediating Role of ESG-Oriented Human Resource Practices

Digital technologies are increasingly playing a significant role in the integration of sustainable human resource management for employee outcomes and the effectiveness of organizations. While digital performance appraisals can promote transparency and improve assessment accuracy, their success heavily relies on the way in which organisations leverage technological functions into employee-focused HR practices. By combining digital systems with responsible governance, employee well-being, and sustainable organizational values, ESG-oriented HR practices offer this strategic solution. Organizations that are able to integrate digital transformation and ESG strategies successfully report higher organizational performance, better governance, and better employee results (Dong et al., 2025; Cheng et al., 2024).

In addition, responsible human resources practices can lead to organizations becoming more effective, sustainable and having lower turnover when they adopt the ESG approach (Lopez-Sanchez et al., 2025). Organizational sustainability capacities arising from ESG efforts also contribute to productivity and productivity measurement systems that work for the benefit of both the workers and institutions (Carneiro et al., 2026; Zaroni et al., 2025). Digital performance appraisal will reinforce the HR practices that are geared towards ESG, which will enable workers to feel that their organizations support, treat them fairly, and are sustainable, thus boosting their job satisfaction. Thus, it is expected that a positive effect of digital performance evaluation will be transferred to employee satisfaction as a result of implementing human resource practices that are oriented towards ESG.

H4: ESG-Oriented Human Resource Practices significantly mediate the relationship between Digital Performance Appraisal and Job Satisfaction in higher educational institutions.

The hypotheses put forward provide a conceptual framework that integrates digital performance appraisal, ESG-work based HR practices and job satisfaction. The framework has been based on the Technology Acceptance Model, Social Exchange Theory, Stakeholder Theory and the Resource Based View to give a holistic understanding of the effects of digital technologies and sustainable human resource practices on employee satisfaction in higher educational institutions. Partial Least Squares Structural Equation Modeling (PLS-SEM) is used to test the hypothesized relationships, which is suitable for testing mediator relationship between dependent and independent variables and predicting relationships (Hair et al., 2019; Sarstedt et al., 2014).

Research Methodology

The present study was quantitative, descriptive and explanatory in nature to investigate how Digital Performance Appraisal influenced Job Satisfaction indirectly via ESG-Oriented Human Resource Practices in higher educational institutions. The model was tested using a cross-sectional survey design, with a predictive analytical approach, and the hypothesized relationships between the latent constructs were tested using a predictive approach (Hair et al., 2019).

The target population consisted of staff of higher education institutes, both teaching and non-teaching. Data were obtained from respondents from various academic and administrative departments using a convenience sampling method. The responses were screened for completeness and consistency and 660 were shortened for final analysis. As per the literature, the sample size was found satisfactory for carrying out PLS-SEM and testing the relationships between the variables in the study (Hair et al., 2019).

Data Collection Procedure and Measurement of Constructs: Primary data were collected by using structured questionnaire in both online & offline mode after obtaining respondents consent. The questionnaire included data collection items on Digital Performance Appraisal, ESG-Oriented Human Resource Practices and Job Satisfaction as well as demographic data. Each measurement item was drawn from the literature and rated on a 5-point Likert scale from "Strongly Disagree" (1) to "Strongly Agree" (5), which has been performed to guarantee the content validity and the consistency of the measurements.

The collected data was then analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) to assess the measurement model and structural model. The reliability of indicators, internal consistency reliability, convergent validity, and discriminant validity were first evaluated and then tested using the bootstrapping methods. Considering the suitability of examining complex predictive models, mediation effects and latent variable relationships in management research, PLS-SEM was chosen (Sarstedt et al., 2014; Hair et al., 2019).

Results

Table 1: Demographic Profile of Respondents (N = 660)

Demographic Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	352	53.30
	Female	308	46.70
	Total	660	100.00
Age (Years)	Below 30	146	22.10
	31–40	228	34.50
	41–50	177	26.80
	Above 50	109	16.50
	Total	660	100.00
Marital Status	Married	438	66.40
	Unmarried	222	33.60
	Total	660	100.00
Educational Qualification	Postgraduate	94	14.20
	M.Phil.	118	17.90
	Ph.D.	386	58.50
	Post-Doctorate	62	9.40
	Total	660	100.00
Designation	Assistant Professor	318	48.20
	Associate Professor	142	21.50
	Professor	78	11.80
	Administrative Staff	82	12.40
	Others	40	6.10
	Total	660	100.00
Teaching Experience	Below 5 Years	129	19.50
	6–10 Years	192	29.10
	11–15 Years	151	22.90
	Above 15 Years	188	28.50
	Total	660	100.00
Type of Institution	Private	425	64.40

	Government	235	35.60
	Total	660	100.00
Experience with Digital Performance Appraisal	Less than 2 Years	143	21.70
	2–5 Years	274	41.50
	More than 5 Years	243	36.80
	Total	660	1.00

Source: Primary Data

The demographic profile of the 660 respondents that were included in the study are displayed in Table 1. The results show a fairly gender-balanced distribution between male and female respondents with males constituting 53.3% of the total and females 46.7%. The majority of the respondents belonged to the age group 31-40 years (34.5%) followed by 41-50 years (26.8%), suggesting that the sample was primarily experienced academic professionals. The majority of the respondents were married (66.4%) and 58.5% had a Ph.D., which indicates that the workforce in higher educational institutions are highly qualified. Designation-wise, Assistant Professors (48.2%) accounted for the highest number of respondents followed by Associate Professors (21.5%) and respondents had diverse teaching experience, and highest number of respondents had 6-10 years of experience (29.1%). Additionally, the majority of the participants worked in private higher education institutions (64.4%), and 41.5% of them had 2 to 5 years of experience with digital assessment systems, which showed they had some experience with digital HR practices. Due to the diversity in demographic characteristics, the sample is representative and useful for the examination of relationships between Digital Performance Appraisal, ESG-Oriented Human Resource Practices and Job Satisfaction using the PLS-SEM analysis (Hair et al., 2019).

Table 2: Reliability and Validity Measures

Construct	Items	Cronbach's Alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Digital Performance Appraisal (DPA)	5.0	0.902	0.927	0.718
ESG-Oriented Human Resource Practices (ESGHRP)	6.0	0.918	0.935	0.705
Job Satisfaction (JS)	5.0	0.891	0.920	0.698

Source: Primary Data

The reliability and validity of measurement models for Digital Performance Appraisal, ESG-Oriented Human Resource Practices, Job Satisfaction are presented in Table 2. The findings reveal that the reliability of all constructs is good and is obtained from the Cronbach's alpha result which is in the range of 0.891-0.918 with the recommended threshold of 0.70 or above. Likewise, the value of Composite Reliability (CR) ranged from .920 to .935, indicating high construct reliability. In addition, the Average Variance Extracted (AVE) values range from 0.698 to 0.718, which is higher than the recommended value of 0.50, signifying that the measurement items explain the variance of the constructs well, and thus demonstrating convergent validity. In general, the results in Table 2 confirm that the measurement model has good reliability and convergent validity, which can be further assessed in the structural model and tested the hypothesis using PLS-SEM (Hair et al., 2019).

Table 3. Model Fit Summary (PLS-SEM Path Analysis)

Model Fit Index	Obtained Value	Recommended Threshold	Model Fit Assessment
Standardized Root Mean Square Residual (SRMR)	0.058	< 0.080	Good Fit
Normed Fit Index (NFI)	0.921	> 0.900	Good Fit
RMS Theta	0.103	< 0.120	Good Fit
d_ULS	0.912	Lower than HI95 Bootstrap Value	Acceptable

d_G	0.674	Lower than HI95 Bootstrap Value	Acceptable
Chi-Square (χ^2)	874.361	Lower values indicate better fit	Acceptable
Exact Model Fit (SRMR Saturated Model)	0.055	< 0.080	Good Fit

Source: Primary Data

Table 3 shows the model fit summary for the proposed PLS-Sem model. The results show that the structural model has a satisfactory overall model fit. The model fit is good, with the Standardized Root Mean Square Residual (SRMR) value of 0.058 being less than the recommended value of 0.08. Like this, the Normed Fit Index (NFI) of 0.921 is higher than the recommended value of 0.90, which shows a good fit between the proposed model and the observed data. The quality of reflective measurement model is confirmed by RMS with the value of 0.103, which is lower than the acceptable value of 0.120. In addition, the difference d_ULS (0.912) and d_G (0.674) are smaller than the HI95 bootstrap difference such that the model specification is considered acceptable. The value of Chi-square (χ^2) is 874.361, and the Saturated Model value of SRMR is 0.055, which further demonstrates the appropriateness of the proposed model. In general, the measurement and structural models show good fit and are suitable for examining the hypothesized relationships through PLS-SEM (Hair et al., 2019; Sarstedt et al., 2014).

Table 4. Structural Model Results

Hy pot hesi s	Structural Path	Origin al Sample (β)	Sampl e Mean (M)	Standard Deviation (STDEV)	t- Va lu e	p- Va lu e	Dec isio n
H1	Digital Performance Appraisal →ESG-Oriented Human Resource Practices	0.682	0.679	0.051	13.373	0.000	Sup por ted
H2	Digital Performance Appraisal →Job Satisfaction	0.291	0.287	0.079	3.684	0.000	Sup por ted
H3	ESG-Oriented Human Resource Practices →Job Satisfaction	0.498	0.501	0.073	6.822	0.000	Sup por ted
H4	Digital Performance Appraisal →ESG-Oriented Human Resource Practices → Job Satisfaction (Indirect Effect)	0.340	0.337	0.056	6.071	0.000	Sup por ted

Source: Primary Data

Table 4 shows the result of the structural model analysis and hypothesis testing by PLS-SEM. The results show that Digital Performance Appraisal has a statistically significant positive effect on ESG-Oriented Human Resource Practices (HRP) ($\beta = 0.682$, $t = 13.373$, $p < 0.001$), which provides support for H1. Similarly, Digital Performance Appraisal has a significant positive effect on Job Satisfaction ($\beta = 0.291$, $t = 3.684$, $p < 0.001$) which supports the H2. The results also reveal that ESG-Oriented Human Resource Practices positively and significantly affect Job Satisfaction ($\beta = 0.498$, $t = 6.822$, $p < 0.001$) which supports H3. Further, the indirect effect of Digital Performance Appraisal on Job Satisfaction via ESG-oriented Human Resource Practices is statistically significant ($\beta = 0.340$, $t = 6.071$, $p < 0.001$), validating the mediating role of ESG-oriented Human Resource Practices and hence supporting H4. In general, the structural model shows that the relationships proposed in the model are positive and statistically significant, meaning that the positive effect of the implementation of ESG in human resource management to improve employee job satisfaction in higher education institutions can be transmitted. The results agree with the proposed conceptual model and highlight the predictive power of the PLS-SEM model (Hair et al., 2019; Sarstedt et al., 2014).

Discussion

The results of the present research prove that the use of Digital Performance Appraisal in Higher Educational Institutions significantly increases the ESG-Oriented Human Resource Practices and directly affects employees' Job Satisfaction. The findings indicate that TMPs foster transparency, timely feedback, and objective assessment, enhancing employee trust in organizational processes. Digital Performance Appraisal and HR practices aligned with Environment, Social and Governance principles have positive relationship, suggesting that digital technologies can enhance governance, accountability, and responsible workforce management, supporting the implementation of sustainable and employee-focused HR policies. The results align with prior research, which found that digital transformation positively contributes to the implementation of ESG and to organization sustainability via HR practices (Sklavos et al., 2024; Farinha & de Fátima Pina, 2025). Similarly, the positive relationship between digital performance appraisal and job satisfaction is consistent with the Technology Acceptance Model which states that employees would be more positive about the digital systems if they believe that they are useful and efficient (Davis, 1989). The results also support the strategic HRM approach, which found that good HRM systems are related to better employee motivation, organizational commitment and productivity (Huselid, 1995).

The study also validates that ESG-Oriented Human Resource Practices indeed have a significant effect on Job Satisfaction and act as the mediator between Digital Performance Appraisal and Job Satisfaction. This discovery suggests that the use of digital appraisal tools significantly improves employee satisfaction when backed by HR practices that focus on fairness, employee well-being, ethical governance, and social responsibility. The mediating effect confirms the assumptions of the Social Exchange Theory in which employees generally respond to responsible organizational practices by showing positive attitudes and increased job satisfaction (Blau, 1964). Moreover, the results support the Stakeholder Theory and the Resource Based View, showing how ESG-integrated HR practices are valuable resources of the organization, which improve the performance of both employees and the organization as a whole and help to ensure its sustainability (Freeman, 1984; Barney, 1991). The findings also align with recent studies that reveal that ESG initiatives positively impact employee performance, organizational agility, sustainability of workforce, and long-term organizational performance (Yadav & Yadav, 2025; Tejasmayee et al., 2025; Mariani et al., 2025). In this context, digital performance evaluation combined with policies and practices supporting ESG human resource management in higher education institutions can be a promising way to foster a sustainable and supportive workplace, ultimately contributing to employee satisfaction and organizational efficiency.

Theoretical Implications

The present study provides some theoretical contributions. First, it combines Digital Performance Appraisal, ESG-Oriented Human Resource Practices, and Job Satisfaction into a single research framework in the context of higher education institutions. Second, it adds a theoretical perspective on the mechanisms that can link the three variables. Finally, the present study brings together the three theories under study in a unified framework that will enable researchers to analyze the relationships between them. The results contribute to the development of the Technology Acceptance Model by showing that digital performance appraisals not only directly improve employees' job satisfaction but also aid in the incorporation of ESG-focused HR practices (Davis, 1989). Additionally, the high level of mediation by ESG-related HR practices supports Social Exchange Theory, which suggests that employees respond to fair, open, and sustainable HR practices by increasing their job satisfaction (Blau, 1964). The study also supports the Stakeholder Theory and Resource Based View, in that the ESG related HR practices are important strategic resources, where digital capabilities are converted into positive outcomes for the employees and sustainable performances for the organization (Freeman 1984; Barney 1991).

Practical Implications

The results yield relevant managerial implications for higher education administrators and policy makers aiming to improve employee satisfaction in the context of digital transformation and sustainable HRM. Institutional leaders must build transparent, technology-enabled systems of

performance. Institutional leaders need to invest in the creation of transparent and technology-enabled systems of performance that offer continuous feedback, objective assessments and opportunities for employee development. At the same time, these digital efforts need to be linked with the implementation of ESG-based human resource management, a strategy that fosters ethical leadership, staff health and welfare, diversity and inclusion, and social responsibility, in order to improve the impact of said initiatives. By better connecting digital HR processes with ESG principles, the workforce engagement, institutional trust and organizational sustainability are enhanced, as well as employee productivity and long-term institutional competitiveness. The recommendations align with recent research highlighting the benefits of combining digital transformation and ESG strategies to enhance organizational performance, employee productivity, and sustainable workforce development (Tejasmayee et al., 2025; Farinha & de Fátima Pina, 2025; Sklavos et al., 2024).

Conclusion

This study investigated the moderating role of Digital Performance Appraisal on the relationship between ESG-Oriented Human Resource Practices and Job Satisfaction of the employees in higher education institutions. The results confirmed that digital performance appraisal is a significant determinant in improving ESG-oriented HR practices, and directly positively impacts employees' job satisfaction. Moreover, the study revealed that ESG related HR practices were a significant mediator, suggesting that ESG and employee related HR practices further bolster the positive effect of DPA on workplace outcomes. Overall, the study underscores the significance of aligning digital performance management with ESG principles to build open, honest, and nurturing work cultures that help to boost employee engagement and organizations' success. In summary, the suggested framework offers a holistic view of the potential of digital transformation and sustainable HR approaches for higher education institutions to maximize work productivity and secure sustainable success.

Limitations and Future Research Directions

There are some limitations of the present study that should be taken into account in interpreting the findings. Second, the study used a cross-sectional research design that precludes conclusions about causal relationships between Digital Performance Appraisal, ESG-Oriented Human Resource Practices, and Job Satisfaction. Second, the sample of employees was gathered from higher education institutions and the results were not generalizable to other areas like healthcare, manufacturing, or information technology. Further, the study was self-reported and could have included common method bias and subjects' perceptions. PLS-SEM is an appropriate method to investigate complex predictive relationships, but future research can be conducted using longitudinal research designs and multiple data sources to generate an improved level of evidence for the proposed relationships (Hair et al., 2019).

The proposed model could be extended in future research by incorporating other mediator and moderator variables such as employee engagement, organizational commitment, psychological empowerment, organizational trust, digital competence, among others, to achieve a more comprehensive understanding of employees' behavior in a digital workplace. The model could be further validated and extended to new external settings through comparative studies between public and private higher educational institutions or between different countries. Future studies could also explore the impact of AI, digital leadership and advanced ESG efforts on boosting sustainable HRM and performance. These additions would enrich the emerging digital transformation, HR practices for ESG considerations, and sustainable HR management literature, and would yield more general findings on organizational effectiveness (Dong et al., 2025; Yong et al., 2025; Sklavos et al., 2024).

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