

The Mediating Role of Talent Management in the Relationship between E-Human Resource Management (E-HRM) Practices and Organizational Sustainability

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ABSTRACT: This study investigates the mediating role of Talent Management in the relationship between E-Human Resource Management (E-HRM) practices and Organizational Sustainability within the context of Abu Dhabi University. Grounded in theories including transaction cost theory, corporate social responsibility theory, and self-determination theory. The research examines how E-HR practices namely e-recruitment, e-training, e-compensation management, and e-evaluation of employee performance affect talent management-related outcomes and sustainable organizational performance. Using Partial Least Squares Structural Equation Modeling (PLS-SEM) on data collected from 133 faculty and staff, the study confirms that all E-HRM dimensions significantly influence Talent Management (β range = 0.24–0.36, $p < 0.01$). Talent Management also exerts a strong direct effect on Organizational Sustainability ($\beta = 0.57$, $p < 0.001$) and significantly mediates the relationship between E-HRM and sustainability (indirect effect $\beta = 0.21$, $p < 0.01$). The structural model explains 51% of the variance in Talent Management and 46% in Organizational Sustainability ($R^2 = 0.51$ and 0.46 , respectively). These findings underscore the strategic importance of E-HRM systems in fostering talent development and advancing institutional sustainability. Practical implications suggest that higher education institutions should invest in digital HR infrastructure to enhance long-term organizational resilience and performance.

Keywords: E-HRM, talent management, organizational sustainability.

I. INTRODUCTION

Organizational sustainability is widely recognized as a key driver of administrative development, primarily through its role in developing employees' skills, fostering teamwork, and encouraging innovation and performance improvement [1]. According to [2] that truly sustainable organizations generate a meaningful positive impact not only economically but also socially and environmentally. While financial performance is necessary for operational viability, the core objective of sustainability extends to strengthening broader social and ecological system [3]. Other scholars confirm that sustainability guides managerial decision-making [4], enhances organizational reputation [5], supports innovation and risk management [6], and helps organizations respond more effectively to environmental changes.

Pointed to the positive role of organizational sustainability in improving organizational reputation [7]. It is argued that organizational sustainability can serve as a source of competitive advantage for learning and innovation by enabling firms to control valuable and scarce resources. As [6] highlights, organizations that adopt sustainability programs are better positioned to adapt to environmental changes through the development of new technological innovations. Author argues that organizational sustainability contributes to organizational risk management by enhancing functional connectivity between the various entities of the organization and reduces the likelihood of the organization's cessation and death.

Top management in sustainable organizations aims to provide a desirable work environment for the emerging generation of employees; by working to develop a smart work environment that will enhance the well-being of workers in the workplace. Here, organizational learning plays a strong role in developing and implementing a smart work environment to achieve employee sustainability [8], as managers in sustainable organizations invest in the process of creating high value for workers [9]. According to [10] emphasized the necessity on the adoption of E-HRM within organizations; due to its significant role in achieving and enhancing institutional excellence. The use of E-HRM enhances the organization's performance; by reducing costs, increasing the operational efficiency of HRM practices [11], enabling executives and employees to perform human resource activities with higher quality, and supporting the work strategy within the organization [12].

Although there are many studies that have addressed E-HRM practices and there are many studies that have addressed organizational sustainability, to the best of researchers' knowledge, the two topics have rarely been studied together. Aligned with the worldwide efforts to address climate change, and in light of rapid progress in smart technologies including artificial intelligence, robotics, algorithmic systems, and digital transformation, organizational leaders face growing pressure to manage talent more effectively. Ensuring that skilled employees are supported, motivated, and retained has become essential in order to reduce the risks associated with workforce turnover. By managing these talents, organizations may not only be capable of retaining them, but also promote environmental sustainability [13, 14]. Talent recruitment and investment deficits have now become a serious threat to any organization; making today's organizations fight wars among themselves to attract and retain talent as they are of great importance in modern management [15]. Study [16] confirmed that organizations' keenness to have employees and talents, develop their talents, and retain them is an important factor in supporting their environmental sustainability. Study [17] emphasized that there is a distinctive opportunity to transform project management practices by positioning them as a driver of talent development. Implementing such changes can generate long-term benefits, not only by enhancing the quality of organizational human capital but also by strengthening overall sustainability.

Building upon these considerations, the present study seeks to fill the research gap stemming from the limited integration of three key variables e-HRM practices, talent management, and organizational sustainability—within a unified framework. To this end, it presents a conceptual model that examines the mediating role of talent management in the relationship between e-HRM practices and organizational sustainability. The study aims to make a twofold contribution to the field of strategic human resource management. First, it offers theoretical justification for the mediating effect of talent management in connecting e-HRM practices with organizational sustainability, suggesting that talent management fosters sustainable outcomes through the optimal utilization of employees' diverse knowledge, skills, and competencies. Second, it provides empirical validation of this mediating effect, demonstrating how talent management shapes the association between e-HRM practices and sustainability across the economic, social, and environmental dimensions.

Previous studies have assessed talent management using different sets of dimensions. Some have measured it across nine dimensions: attraction, selection, development, retention, succession, organizational climate, organizational culture, assessment, and knowledge management [18]. Others have considered six dimensions, including talent resource planning, talent acquisition, talent development, talent utilization, talent retention, and talent performance management [19]. In another study, talent management was evaluated using only three dimensions talent recruitment, talent performance management, and motivation [15]. Similarly, [20] measured talent management with three dimensions: talent performance management, talent training, and talent leadership development. The findings add to the existing literature by offering, on the one hand, theoretical evidence that talent management positively influences all three dimensions of organizational sustainability economic, social, and environmental. On the other hand, they provide empirical support showing that e-HRM practices not only exert direct effects on certain sustainability outcomes but also generate indirect effects through the mediating role of talent management. To strengthen the study, the theoretical foundations of e-HRM practices, organizational sustainability, and talent management are examined to establish a robust conceptual framework.

The proposed model, which outlines the relationships among e-HRM practices, organizational sustainability, and talent management, provides the basis for formulating the study's hypotheses. The validity of the model and its associated hypotheses was evaluated through structural equation modeling (SEM), with results aligning with findings from earlier studies that reached comparable conclusions. The study further highlights its limitations, discusses both practical and theoretical implications, and offers recommendations for future research directions.

II. LITERATURE REVIEW

1. THEORY AND HYPOTHESIS DEVELOPMENT

According to "transaction cost theory", Cost reduction serves as the primary driver for the adoption of e-HRM practices [21]. According to the "organizations with meaning theory", the deployment of E-HRM practices conflict with the traditional ways in which employees are accustomed to working, and this conflict causes a "shock" that leads to a period of time in which employees seek to understand the meaning behind this change. The theory assumes that employees engage with the new technology and attempt to make sense of it, with this understanding leading to the development of positive or negative expectations towards E-HRM practices [22]. According to the "challenge and hindrance model", stressors hinder conflict with performance goals. Due to the lack of opportunities for growth and development, such environments may hinder employee engagement and long-term organizational commitment; for example, ambiguous equipment and frequent interruptions can impede employees' ability to perform their tasks effectively, contributing to diminished productivity and decreased job satisfaction [23]. On the other hand, stressors that create challenges contribute to providing opportunities for performance development because they foster a sense of achievement, personal growth, and professional development, for example, by reducing workloads and facilitating the timely completion of tasks [24].

According to corporate social responsibility theory, individuals often define themselves through their association with social groups. The central premise of this theory suggests that people are predisposed to favor members of their own group over those outside it, and that the successes or shortcomings of the group are experienced by its members as personal accomplishments or failures [25]. The theory also claims that individuals seek to distinguish themselves from other colleagues by having a positive social identity when they see their organization practicing socially responsible actions. Literature highlights this theory as a valuable framework for anticipating constructive employee behaviors [26, 27]. For example, the process by which perceived corporate social responsibility is connected to employees' sustainability-oriented behaviors [28]. On other hand, [29] in their study, used situation process theory [30] and the co-construction of identity through positioning processes, used as analytical frameworks to examine how managers, HR professionals, and older employees engage in reflective memory practices, and how different forms of positioning influence the evaluation of age and talent in the workplace. Study [31] Drawing on self-determination theory—which highlights the social and contextual factors that can either promote or constrain human well-being and growth—it is argued that talent development is most effective in environments that foster autonomy, nurture relatedness, and reinforce a sense of competence.

2. E-HRM PRACTICES

When viewed as a tool for carrying out HR administrative tasks, the implementation of e-HRM can reduce the number of HR staff required, as routine labor is replaced by information technology [32]. Prior studies suggest that e-HRM supports the strategic role of the HR function [33] and contributes to lowering organizational costs, enhancing task efficiency, and delivering HR-related services with greater flexibility and speed [34]. Moreover, it has been shown to increase employee satisfaction, encourage participation in shaping HR activities, and enable employees to articulate their vision for the organization's future.

E-HRM practices can be understood as leveraging information technology to apply advanced human resource management practices with the aim of enhancing organizational effectiveness [32]. It can also be defined as a set of hardware and software configurations and E-network resources, which are used to accomplish human resource management activities by coordinating and monitoring data capture at the individual and group levels and creating information and communications within and across organizational boundaries [12] with the aim of providing characteristics and features that contribute to achieving the intended organizational results by combining human resource management activities and information technology tools [12]. Through E-HRM, the HR function assumes a more prominent strategic position [35, 36] and improves the strategic effectiveness of the HR function [36]. E-HRM also serves as an effective mechanism for facilitating interaction among employees within their units and across the organization, thereby enhancing learning, productivity, and overall work performance. In addition, the "electronation" of jobs contributes to simplifying processes and improving the flow of information, leading to a positive impact on employee performance [37]. E-HRM practices are commonly reflected in areas such as e-recruitment, e-training, e-compensation management, and the electronic evaluation of employee performance [34, 38–40]. The main dimensions of E-HRM practices can be outlined as follows:

1. E-recruitment: meaning using the Internet to attract new employees [40], E-selection of the best and most suitable applicants for jobs based on fair, objective foundations [41], E-communication with those who have

been selected, conducting personal interviews with them electronically, and informing them of the results of the interviews electronically [42].

2. E-training: refers to the electronic delivery of knowledge, skills, and positive work attitudes to employees, with the aim of addressing current performance gaps and enhancing future performance [38].
3. E-compensation management: is defined as the utilization of technology in designing and implementing salary, wage systems, and other employee benefits [39].
4. E-evaluation of employee performance: is defined as the utilization of information and communication technology (ICT) to assess employee performance by measuring outcomes, preparing performance reports, and providing feedback to employees, with the objective of enhancing their knowledge, skills, and overall performance [43].

Drawing on the preceding discussion, authors conclude that e-HRM practices are closely linked to pressing organizational challenges and strategic priorities. The use of e-HRM replaces general work with information technology [32], supports the strategic direction of the HR function [33-36], reduces organizational costs, completes activities more effectively, provides HR-related services with greater flexibility and speed, increases employee satisfaction, enables employees to articulate their vision for the organization's future [34], leverages information technology to implement finest HR management practices to achieve organizational effectiveness [32], provides features and benefits that contribute to achieving intended organizational outcomes [12], and helps employees interact more easily with each other within across their units and organizations, resulting in greater learning outcomes, higher productivity, and improved work performance, streamlines processes, and improves information flow, which positively impacts employee performance [37].

3. TALENT MANAGEMENT

Talent management is of great importance to all organizational levels. At the senior management level, talent management is the main resource in creating creativity and excellence for the organization by focusing on leadership positions and centers, preparing a second row of leaders, and exploring the potential energies to fill positions when circumstances change. At the middle management level, talent management is the main source for using modern and interesting methods of work, and through it the level of talent readiness and the level of creativity and innovation among employees are measured and determined, which helps in preparing sound planning for career paths and increasing productivity. At the executive management level, talent management is an important source for reducing costs and achieving a competitive advantage [44]. The growing perception of a shortage of skilled and versatile employees has created considerable challenges and disruptions for multinational corporations across diverse industries [45]. In recent years, the concept of "talent management" has gained remarkable prominence, emerging as one of the most rapidly expanding fields in management research [46]. Study [47] have emphasized that talent management is gaining growing importance among both researchers and practitioners.

Regarding the importance of talent management in higher education, the ability to attract and retain the best talent is a key issue for university human resource management, in a highly competitive global environment. Universities have a responsibility for the mental health and well-being of doctoral students, as they constitute the future talent pool of academia [31]. Universities should begin investing in the development of all individuals' talents, including doctoral students, by broadening their focus beyond mere performance and productivity to encompass holistic growth and potential, fostering a culture of talent and continuous learning that encourages creativity, open communication, and effective knowledge management, while being grounded in fundamental values such as respect and integrity [48]. A differentiated approach is required one that acknowledges the unique value and individuality of doctoral students while offering personalized talent development opportunities for all. Implementing a comprehensive and tailored talent policy allows institutions to address the specific needs and strengths of each doctoral student, thereby enhancing their overall well-being. Such a fundamental transformation in talent management is immediately needed to respond effectively to the escalating mental health challenges faced by doctoral students [31].

Study in [49] indicates that talent management means building and developing the capabilities and talents of employees to achieve excellence and superiority in competition through the careful selection of new employees, training and developing them, maintaining current employees, and attracting highly experienced and talented employees to work in the organization. Author of study [50] believe that talent management means the mechanisms and plans used by the organization to identify talented individuals, attract them, manage their performance, develop their skills, and retain them in order to achieve organizational efficiency and effectiveness. [51] believe that talent management includes the challenges of attracting, developing, and retaining a high-performance workforce required to achieve organizational goals. According to [52], talent management can be understood as a structured

process that includes identifying critical positions necessary for maintaining an organization's competitive advantage, developing a pool of high-potential candidates for these roles, and creating a dedicated HR framework to ensure the continued commitment of qualified employees. The ultimate aim is to strategically match the right individuals with the appropriate roles at the right time, in alignment with organizational objectives. Talent management can be conceptualized across the following four dimensions:

1. **Attracting and employing talents:** This means the set of policies and procedures that the organization uses to search for individuals with distinguished talents, attract them, and choose the best of them in a way that serves to achieve its goals [50].
2. **Training and developing talents:** This means all programs necessary to provide talented employees with the necessary experiences and skills to achieve the organization's current and future goals [53]. The employee must realize that having talent is not enough, as this talent must be honed and developed in order to achieve the organization's goals and then obtain more benefits [54].
3. **Performance management and motivation of talents:** Where standards are set to measure the act of employees in the organization is based on achieving the highest possible level of productivity, supporting the competencies and behaviors displayed by the talented, and providing the appropriate environment to encourage and motivate the talented [15].
4. **Talent Retention:** High turnover of talented individuals is one of the most important factors that reduce the quality of products and the quality of customer service, which negatively affects the level of performance and competitiveness of the organization [55]. To retain talented employees, organizational management must implement strategic decisions and actions that align with their goals while fostering employee loyalty and a strong sense of belonging [56]. Talent retention refers to all activities and processes that prevent talented employees from leaving the organization by investing in human resources on an ongoing basis [57]. Employees who view their working conditions as favorable from the beginning are more inclined to remain with the organization, especially when they are offered elastic work arrangements, career advancement opportunities, and competitive compensation packages. Equally important for talent retention is the degree of respect and trust demonstrated by employers. When employees feel valued and respected, their commitment to the organization increases. Such respect and trust can be expressed through consistent communication, constructive feedback, recognition of achievements, and responsiveness to employees' legitimate expectations [52].

Based on the above, authors conclude that talent management is closely linked to pressing organizational challenges and strategic priorities. Talent management is the primary resource for creating creativity and excellence for the organization by focusing on leadership positions, preparing a second line of leaders, and exploring the potential to fill positions when circumstances change. It is also the primary source for using modern and exciting work methods, through which the level of talent readiness and the level of creativity and innovation among employees are measured and determined. This helps in preparing sound career path planning and increasing productivity, in addition to being an important resource for reducing costs and achieving a competitive advantage [44]. Talent management is an effective tool for attracting and retaining the best talent in higher education institutions in a highly competitive global environment [47], creating a culture of talent and learning that supports creativity, open communication, and effective knowledge management [48], effectively addressing the growing mental health crisis among doctoral students [31], achieving organizational efficiency and effectiveness [50], and ensuring the placement of suitable talent in the right locations at the right period to meet strategic goals [52].

4. ORGANIZATIONAL SUSTAINABILITY

Given its increasing importance, organizations are increasingly keen to integrate the values and principles of sustainability into their governance rules, business models, and strategy [58]. The importance of organizational sustainability is evident in enabling the organization to continuously renew itself, which maintains the organization's vitality and gives it the ability to adapt to the challenges and crises it faces in the long term [59]. Study [60] believes that organizational sustainability can achieve many advantages for the organization, including reducing financial and legal risks, increasing the ability to attract, employ, and retain the best employees, increasing profitability, improving customer satisfaction, and improving the organization's reputation.

In the field of education, organizational sustainability represents an important tool for improving business [61], and with new generations (such as the third millennial generation), sustainability has become a way to meet the needs encouraged by the active role of educational institutions [62], a means of legitimizing behaviors and an effective way to differentiate between alternatives that do not conform to the modern era, due to the late realization of its importance and the conviction that it is not just a fashion [58]. The inclusion of sustainability as one of the

disciplines in school curricula in educational institutions would enhance awareness of the necessity for changes in development patterns to achieve sustainable development [63]. Linguistically, the term sustainability refers to continuity, permanence, and survival for a longer period [64]. The concept of organizational sustainability is consistent with the principles of sustainable development and is defined as implementing sustainability within organizational contexts [65, 66]. There is a consensus that the management and assessment of economic [67], social, and environmental resources constitute sustainability practices and are often referred to as corporate social responsibility practices [68].

There are different views on the concept of business sustainability in the literature and management practices, this has resulted in the lack of a universally accepted definition of the concept, as business sustainability is inherently complex and multifaceted, often encompassing elements that may appear contradictory [69, 70]. On the other hand, business sustainability is anchored in a variety of sustainability models [71]. Organizational sustainability can be defined as the process of transforming business strategies and activities to fulfill the demands of organizations and stakeholders, while simultaneously preserving, supporting, and enhancing the human and natural resources required for the future [72]. It is typically assessed across three dimensions: economic, social, and environmental [73]. Study [73] defined organizational sustainability as an approach focused on creating long-term stakeholder value by adopting business strategies that emphasize ethical, social, environmental, cultural, and economic aspects of conducting business. Similarly, [74] described organizational sustainability as a set of organizational practices that ensure the continuity of operations while maintaining efficiency and effectiveness across the economic, social, and environmental dimensions. According to [6], organizational sustainability represents an organizational resource encompassing dimensions such as standardization, profitability, corporate governance, altruism (covering both social and environmental aspects), institutional legitimacy, and accountability. It is considered an ongoing and continuous process, rather than a one-time initiative or improvement program.

After reviewing the relevant literature, [3] emphasized that the concept of business sustainability is associated with organizational goals aligned to sustainable development objectives [70], the processes and activities that constitute sustainability practices [8], the defining characteristics of a sustainable organization [75], and the outcomes specifically, the contribution of organizations to sustainable development [76]. It can be stated that organizational sustainability is commonly represented through three fundamental dimensions:

1. The economic dimension: It is related to financial decisions, production decisions, resource exploitation and allocation decisions, and market-related decisions [77]. In higher education institutions, the economic dimension is related to providing the energy and basic resources necessary to practice educational, research, and community processes, with financial management that achieves the targeted income [78].
2. The social dimension: It is related to providing sufficient and accurate information to customers [79] and systems, processes, structures, and relationships that ensure healthy and livable communities for current and future generations [80]. In higher education institutions, the social dimension can be related to the institution's impact on the local community, customer satisfaction in general, achieving job security for employees, improving their health care, and adhering to its social responsibilities [81].
3. The environmental dimension: It is related to inputs of recyclable raw materials and outputs of environmentally friendly goods and services [79]. In higher education institutions, in addition to the above, the environmental dimension is related to building awareness and belief of employees and students in environmental issues [15].

According to [82], organizational sustainability encompasses nine dimensions: technology, management, relationships, revenues, costs, valued goods and services, disaster planning, law and policy, and metrics/evaluation. Based on the above, authors conclude that organizational sustainability is closely linked to urgent organizational challenges and strategic priorities; It contributes to integrating the values and principles of sustainability into its governance rules, business models, and strategies [58], enabling the organization to continuously renew itself, which maintains its vitality and gives it the ability to adapt to the challenges and crises it faces in the long term [59], reducing financial and legal risks, increasing the ability to attract, hire, and retain the best employees, increasing profitability, improving customer satisfaction, and improving the organization's reputation [60], improving business performance in the field of education [61], meeting the needs encouraged by the active role of educational institutions [62], a means of legitimizing behaviors, and an effective way to distinguish between alternatives that are not compatible with the modern era [58], improving knowledge of the need for changes in development patterns to achieve sustainable development [63], promoting the principles of sustainable development [65, 66, 70, 71, 76], this includes enhancing the organization's fulfillment of its social responsibilities [68], creating long-term value for stakeholders by adopting business strategies that emphasize ethical, social, environmental, cultural, and economic dimensions [73], and promoting standardization, cost-effectiveness, and corporate governance. It also encompasses altruism (covering social and environmental aspects), institutional legality, and accountability [6].

5. E-HRM PRACTICES AND TALENT MANAGEMENT

Human capital has received significant attention among strategic human resource management (SHRM) practitioners as a means of guiding organizations toward achieving sustainable competitive advantage. Most organizations now acknowledge that employee skills and capabilities represent a critical source of competitive advantage. Consequently, there is a pressing need to focus on human resource management practices that maximize the potential of these assets, particularly those embodied in talented employees [83]; which highlights the urgent need to implement E-HRM practices. High-performance work practices, including E-HRM practices, seek to discover employees and their skills and abilities (KSAs), and employees benefit more from these skills and abilities to achieve higher productivity and make better decisions, both of which help improve organizational performance [83].

The application of E-HRM reduces the time required to complete HR management tasks, and therefore, HR professionals allocate time to engage in strategic functions such as planning and talent management in order to ensure the organization's competitive alignment [21]. The application of E-HRM also contributes to eliminating repetitive tasks in HR management; employees are free from all routine tasks; which contributes to their feeling of motivation through good jobs that require a diversity of their skills and talents [11]. Work [37] emphasized the need for high levels of employee performance before moving towards E-HRM practices, which highlights the importance of having talented employees as one of the conditions for the success of the application of E-HRM practices. According to [84] found a statistically significant effect of E-HRM dimensions specifically e-recruitment, e-training, and e-performance evaluation on the implementation of talent management practices, including talent attraction, development, and retention, within the Jordanian recruitment companies studied.

6. E-RECRUITMENT AND TALENT MANAGEMENT

Traditional recruitment is transformed into E-recruitment; when the Internet is used to attract new employees [85], and the best and most suitable applicants for jobs are selected electronically based on fair and objective grounds [41], and those selected are communicated with and interviewed electronically, and the results of the interviews are notified electronically [42]. Given the growing necessity to focus on human resource practices that optimize the utilization of talented employees [83], it was necessary to pay attention to the E-recruitment (attraction, selection, and appointment) of talented workers. Accordingly, the researchers propose that a significant relationship exists between e-recruitment and talent management, leading to the formulation of the following hypothesis:

H1. E-recruitment has a significant positive relationship with talent management.

7. E-TRAINING AND TALENT MANAGEMENT

The application of E-HRM reduces the time required to complete HR management tasks, and therefore, HR professionals dedicate time to engaging in strategic activities, with talent management being among the most critical [37]. Compared to traditional training, E-training is expected to reduce the time required to implement the training programs included in the training plan, and therefore, HR professionals find more time to manage talent [86–88]. Therefore, the researchers posit that a significant relationship exists between e-training and talent management, and accordingly propose the following hypothesis:

H2. E-training has a significant positive relationship with talent management.

8. E-COMPENSATION MANAGEMENT AND TALENT MANAGEMENT

The application of E-HRM contributes to liberating employees from all routine tasks, which contributes to their feeling of motivation through good jobs that require the diversity of their skills and talents [11, 37]. Therefore, it is expected that the application of E-compensation management will be a reason for developing the skills and talents of employees [89]. Accordingly, the researchers contend that a significant relationship exists between e-compensation management and talent management, leading to the following hypothesis:

H3. E-compensation management has a significant positive relationship with talent management.

9. E-EMPLOYEE PERFORMANCE EVALUATION AND TALENT MANAGEMENT

The success of implementing E-HRM practices is linked to the need for high levels of employee performance, which highlights the importance of having talented employees as one of the conditions for the success of implementing E-HRM practices [37, 90, 91]. Therefore, it is expected that the availability of talented employees will be a reason for the success of implementing E-employee performance evaluation. Hence, the researchers assume

that there is a significant relationship between E-employee performance evaluation and talent management, and they put forward the following hypothesis:

H4. E-employee performance evaluation has a significant positive relationship with talent management.

10. TALENT MANAGEMENT AND ORGANIZATIONAL SUSTAINABILITY

Developing the project management process by promoting employee talent management can have positive future impacts on the quality of companies' talents, which supports their organizational sustainability [17]. Effectively developing and retaining talents helps organizations enhance environmental sustainability [16]. Therefore, it is expected that an organization's possession of talented employees will support its organizational sustainability [54]. Therefore, the researchers propose that talent management exerts a significant influence on organizational sustainability, and advance the following hypothesis:

H5. Talent management has a significant positive influence on organizational sustainability.

11. THE MEDIATING ROLE OF TALENT MANAGEMENT

Although many studies have pointed to the relationship between E-HRM practices and HR sustainability as an essential part of organizational sustainability [8], strategic HRM research is based on the assumption that instead of the independent variable having a direct effect on the dependent variable, the independent variable may have an indirect effect on the dependent variable through its effect on certain organizational characteristics that in turn affect the dependent variable [92].

This logic is aligned with mediation theory, which explains that a mediator variable transmits the effect of an exogenous construct onto an endogenous one, thus offering a more comprehensive explanation of causal relationships [93, 94]. In this context, Talent Management is theorized to mediate the link between E-HRM practices and Organizational Sustainability, serving as the underlying mechanism through which E-HRM initiatives lead to long-term sustainable outcomes. Further supporting this, [37] emphasized the need for high levels of employee performance before starting to implement E-HRM practices, indicating the importance of having talented employees as one of the conditions for the successful implementation of E-HRM practices. Similarly, [16] noted that effective talent development and retention contributes to enhancing the environmental sustainability of organizations. Hence, the researchers assume the existence of an intermediary role for talent management in the relationship between E-HRM practices and organizational sustainability and put forward the following hypothesis:

H6. Talent management mediates the relationship between E-HRM practices (e-recruitment, e-training, e-compensation, and e-performance evaluation) and organizational sustainability.

12. MODEL OF STUDY

Based on literature and hypothesis, the authors propose a study model as shown in Figure 1.

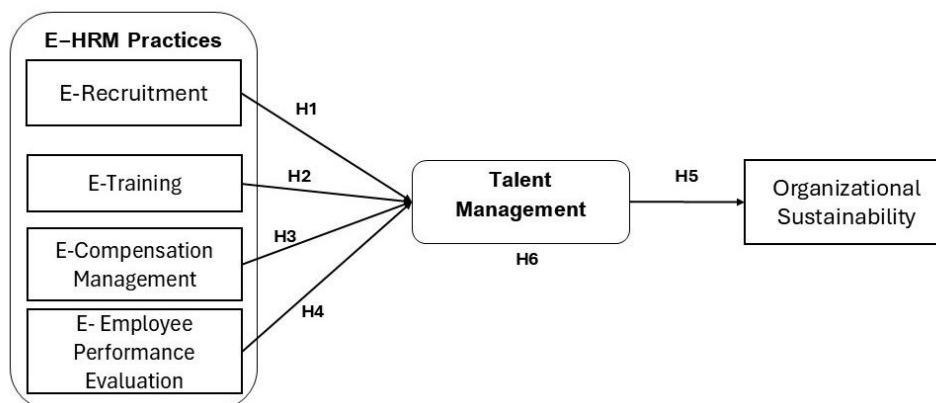


FIGURE 1. Study model.

III. MATERIAL AND METHOD

This investigation utilized a quantitative, cross-sectional research design, using a structured self-administered questionnaire distributed electronically. This design was considered appropriate for assessing relationships between constructs at a single point in time. However, as a cross-sectional approach, it does not allow for causal inferences, and the findings are limited to associations identified at one point. Participants were recruited through a non-probability convenience sampling method, chosen for its accessibility and feasibility in reaching faculty and staff members at Abu Dhabi University. While this method ensured practicality, it may introduce selection bias and limit the generalizability of results. Data were collected between March 11 and May 1, 2025, yielding 133 valid responses. Ethical approval for the study was granted by Abu Dhabi University's Institutional Review Board (IRB Ref: APMC- 000003).

To examine the proposed research model, the study utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS version 4.1.0.0. This method was suitable for analyzing complex models involving multiple constructs and mediating relationships. The analysis included both measurement and structural models. Prior to hypothesis testing, the measurement model was evaluated for indicator reliability, internal consistency, convergent validity, and discriminant validity. Variance Inflation Factor (VIF) values were checked in SmartPLS to address multicollinearity and common method bias (CMB). All inner VIF values were below the threshold of 3.3, indicating that neither multicollinearity nor CMB posed an issue. Although PLS-SEM is robust to non-normality, univariate normality was assessed using skewness, kurtosis, and the Cramér-von Mises test. Skewness values ranged from -1.389 to 0.789, and kurtosis values from 0.052 to 5.152, both within acceptable limits. Some non-normality was observed for E-Employee Performance Evaluation and Talent Management; however, due to the non-parametric nature of PLS-SEM, this was not problematic. The significance of the Cramér-von Mises test ($p < 0.05$ for all variables) provided further confirmation of non-normality in the data.

PLS-SEM is particularly advantageous when the research objective involves prediction and theory development, especially in cases of mediation analysis, which was central to this study [97]. Compared to regression-based methods, PLS-SEM also accounts for measurement error, thereby improving the accuracy and reliability of estimates [98]. This approach has been widely used in recent HRM and organizational studies [99, 100]. To verify the adequacy of the sample size for hypothesis testing using PLS-SEM, a power analysis was conducted with G*Power [101]. Assuming a medium effect size ($f^2 = 0.15$), $\alpha = 0.05$, and statistical power of 0.80, with four predictors in the most complex regression equation, the minimum required sample size was 85. The final sample included 133 valid responses, which exceeded this threshold and ensured sufficient power for hypothesis testing.

Furthermore, based on institutional data, the total population of full-time and visiting faculty and staff across all Abu Dhabi University campuses is 566. However, only a subset of this population is involved in HRM, sustainability, or digital transformation domains. Thus, the sample of 133 provides a reasonable basis for inference in a non-probability sampling context, particularly in organizational and exploratory studies. Literature supports that a response rate above 20–30% is typical and acceptable for online surveys in academic settings [102,103]. Additionally, the “10-times rule” [104] which requires at least 10 times the number of indicators of the most complex construct or 10 times the number of structural paths pointing to it was met. The Talent Management construct had 6 indicators and 4 predictors, requiring a minimum sample size of 60. This further supports the model's robustness. Finally, recommendations by [105] also confirmed the sample adequacy for PLS-SEM estimation

1. STUDYING INSTRUMENTS

E-HRM Practices: The construct was operationalized into four dimensions: e-recruitment, e-training, e-compensation management, and e-employee performance evaluation. Each dimension was measured using five items, totaling 20 items. Respondents indicated their level of agreement on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Talent Management: Talent Management was assessed using 6 items, capturing dimensions: talent attraction, development, retention, motivation, equity, and well-being. And responses were collected on a five-point Likert scale. **Organizational Sustainability:** This construct was measured using 5 items focused on economic, social, and environmental aspects of sustainability using the same five-point Likert scale to maintain consistency.

IV. DATA ANALYSIS AND RESULTS

1. DEMOGRAPHIC PROFILE

Table 1 presents the study sample of 133 participants from Abu Dhabi University, comprising both faculty and staff. The gender distribution included 57.9% males and 42.1% females. In terms of roles, 46.6% were faculty members, while 53.4% were staff. Regarding years of experience, the largest group had 11–15 years of experience (32.3%), followed by those with 6–10 years (25.6%) and 3–5 years (18%). Participants were recruited across various campuses of the university, ensuring representation from both academic and administrative divisions.

Table 1. Demographic data.

Demographics	Category	Frequency	Percentage (%)
Gender	Male	77	57.9
	Female	56	42.1
Role	Faculty	62	46.6
	Staff	71	53.4
Experience	Less than 2 years	10	7.5
	3–5 years	24	18.0
	6–10 years	34	25.6
	11–15 years	43	32.3
	16–20 years	20	15.0
	Over 20 years	2	1.5

2. MEASUREMENT MODEL ASSESSMENT

2.1 Outer Loadings and Collinearity (VIF)

Table 2 shows that all constructs demonstrated satisfactory outer loadings above the recommended threshold of 0.70 [106], indicating that the indicators reliably represent their latent variables. For example, item EC1 of E-Compensation Management had a loading of 0.828, while TM2 of Talent Management had a loading of 0.838. Although ET2 and ET5 exhibited loadings slightly below 0.70, they were retained based on theoretical significance and the construct's satisfactory convergent validity. Having confirmed acceptable indicator reliability and the absence of multicollinearity, the next step involved assessing convergent and discriminant validity of the constructs.

Table 2. Outer loadings and collinearity analysis.

Construct	Indicator	Outer Loadings	VIF
E-Compensation Management	EC1	0.828	2.562
	EC2	0.833	2.585
	EC3	0.786	2.026
	EC4	0.843	2.161
	EC5	0.812	1.921
Employee Performance Eval.	EE1	0.809	1.947
	EE2	0.795	1.859
	EE3	0.853	2.327
	EE4	0.844	2.283
	EE5	0.814	2.116
E-Recruitment	ER1	0.732	1.550
	ER2	0.849	1.971
	ER3	0.700	1.596
	ER4	0.807	1.785
	ER5	0.765	1.665
E-Training	ET1	0.831	1.975
	ET2	0.581	1.581
	ET3	0.861	1.957

Organizational Sustainability	ET4	0.838	2.041
	ET5	0.671	1.648
	OS1	0.851	2.148
	OS2	0.799	1.951
	OS3	0.821	2.145
	OS4	0.809	1.963
Talent Management	OS5	0.831	2.159
	TM1	0.727	1.581
	TM2	0.838	2.361
	TM3	0.750	1.822
	TM4	0.797	2.031
	TM5	0.785	1.845
	TM6	0.781	1.866

VIF assesses the presence of multicollinearity among indicators. Values below 3 are generally considered acceptable, while values below 5 are tolerable in some contexts [106]. Table 2 shows that all VIF values are well below the critical value of 3, indicating no multicollinearity problems among indicators.

2.2 Internal Consistency and Convergent Validity

Internal consistency reliability assesses the extent to which items within a construct consistently measure the same underlying concept. As presented in Table 3, the Cronbach's Alpha values for all six constructs ranged from 0.830 to 0.881, exceeding the recommended threshold of 0.70 [98], thereby indicating excellent reliability. Similarly, composite reliability (rho_a) values ranged from 0.859 to 0.894, also above the 0.70 benchmark. These results confirm that the measurement items are reliable and consistently capture their respective constructs.

Table 3. Internal consistency and convergent validity analysis.

Construct	Cronbach's Alpha	Composite reliability (rho _a)	AVE
E-Compensation Management	0.881	0.882	0.674
Employee Performance Evaluation	0.881	0.894	0.678
E-Recruitment	0.833	0.859	0.597
E-Training	0.830	0.878	0.584
Organizational Sustainability	0.881	0.890	0.677
Talent Management	0.871	0.874	0.609

Convergent validity evaluates the extent to which indicators of a specific construct converge or share a high proportion of variance. It is assessed using the Average Variance Extracted (AVE), where values above 0.50 are considered acceptable [107, 108]. Table 3 demonstrates that all constructs have AVE values above the threshold of 0.50, ranging from 0.584 for E-Training to 0.678 for Employee Performance Evaluation. The findings show that each construct accounts for more than 50% of the variance in its indicators, thus satisfying the criterion for convergent validity.

2.3 Discriminant Validity (HTMT)

According to Henseler, Ringle, and Sarstedt [109], HTMT values below 0.9 indicate sufficient discriminant validity. Table 4 shows that all HTMT values in this model are well below the 0.85 threshold, confirming strong discriminant validity between the latent constructs. The highest HTMT value is 0.621 between Talent Management and Employee Performance Evaluation, which remains within acceptable bounds. Other relationships, such as between E-Training and E-Compensation Management (0.133) and E-Recruitment and E-Training (0.147), show particularly low HTMT values, indicating high discriminant separation between constructs. Constructs such as Organizational Sustainability also show low HTMT values relative to all E-HRM practices and Talent Management (e.g., 0.180 with E-Compensation, 0.255 with E-Recruitment), further confirming distinctiveness.

Table 4. Discriminant validity (HTMT) analysis.

Constructs	EE	EC	ER	ET
E-Employee Evaluation	—			
E-Compensation Management	0.289	—		
E-Recruitment	0.227	0.316	—	
E-Training	0.235	0.133	0.147	—
Organizational Sustainability	0.160	0.180	0.255	0.243
Talent Management	0.621	0.498	0.577	0.376

The HTMT analysis confirms that all constructs in the measurement model are empirically distinct and meet the criteria for discriminant validity. This ensures that the indicators used for different constructs are not overly correlated and measure conceptually separate aspects of the theoretical model.

3. STRUCTURAL MODEL ASSESSMENT

3.1 Collinearity and Effect Size

VIF values were computed to detect potential multicollinearity issues among predictor constructs in the structural model. According to [98], VIF values below 3 are considered acceptable, and those below 5 are tolerable in certain contexts. Table 5 shows that all VIF values are well below 3, indicating that collinearity is not a concern in the structural model. This confirms that each predictor variable contributes unique explanatory power to its respective endogenous construct.

Table 5. Collinearity and effect size analysis.

Pathway	VIF	f ²	Effect Size
EE → Talent Management	1.144	0.264	Medium
EC → Talent Management	1.153	0.102	Small
ER → Talent Management	1.107	0.273	Medium
ET → Talent Management	1.056	0.121	Small
Talent Management → Org. Sustainability	1.000	0.123	Small

The f² statistic reflects the effect of a predictor variable on an endogenous construct. Guidelines for interpreting f² values (0.02 = small, 0.15 = medium, 0.35 = large) [110].

These results suggest that:

- E-Recruitment and E-Employee Performance Evaluation have medium effects on Talent Management, making them strong drivers in the model.
- E-Compensation and E-Training have smaller but still meaningful effects.
- Talent Management exerts a small but significant effect on Organizational Sustainability.

3.2 Coefficient of Determination (R²), Predictive Relevance (Q²), and RMSE

R² indicates the proportion of variance in the endogenous construct explained by its predictors.

Table 6. R² and Q² analysis.

Construct	R ²	Adjusted R ²	Q ²	RMSE
Talent Management	0.568	0.555	0.527	0.716
Organizational Sustainability	0.110	0.103	0.056	1.001

Table 6 shows that Talent Management (R² = 0.568) means this reflects a substantial level of explained variance [98], indicating that E-HRM practices (e-recruitment, e-training, e-compensation, and e-evaluation of employee performance) explain over 56.8% of the variance in Talent Management. And Organizational Sustainability (R² = 0.110) means this indicates a modest explained variance, suggesting that while Talent Management influences sustainability, other factors may also play a significant role. Q² values were calculated using the blindfolding technique to assess the model's predictive power for each endogenous variable. Values greater than 0 indicate predictive relevance [98].

Table 6 shows that Talent Management ($Q^2 = 0.527$) means it indicates strong predictive accuracy. And Organizational Sustainability ($Q^2 = 0.056$) means it indicates acceptable but weak predictive relevance. RMSE provides a measure of prediction error, where Talent Management shows a relatively lower RMSE, suggesting better prediction accuracy compared to Organizational Sustainability, which has higher unexplained variance and error. The model explains a significant portion of variance in Talent Management, with strong predictive relevance and low error. It explains a smaller proportion of Organizational Sustainability, with acceptable predictive relevance and higher prediction error highlighting the need to consider additional variables in future research.

3.3 Model Fit Summary

Model fit was assessed using several PLS-SEM fit criteria. As presented in Table 7, the SRMR values for both the saturated model (0.072) and the estimated model (0.073) were below the recommended cutoff of 0.08, indicating a good overall model fit [111].

Table 7. Model fit summary.

Fit Index	Saturated Model	Estimated Model
SRMR - (Standardized Root Mean Square Residual)	0.072	0.073
d_ULS - (Squared Euclidean Distance)	2.539	2.656
d_G - (Geodesic Distance)	0.821	0.824
NFI - (Normed Fit Index)	0.753	0.753

The discrepancy values d_ULS (2.656) and d_G (0.824) for the estimated model fell within the 95% bootstrapped confidence intervals of the saturated model, indicating no significant deviation and acceptable exact fit [111]. Finally, the NFI was 0.753, which, although below the ideal 0.90, is considered acceptable in exploratory PLS-SEM contexts [112].

4. HYPOTHESIS TESTING

4.1 Direct Effects Analysis

Based on the developed hypotheses, Table 8 presents the path coefficients and their significance levels.

Table 8. Path coefficients analysis.

Hypothesis	Path Relationship	β (O)	t-value	Significance	Result
H1	E-Recruitment → Talent Management	0.361	5.873	$p < 0.001$	Supported
H2	E-Training → Talent Management	0.235	4.468	$p < 0.001$	Supported
H3	E-Compensation → Talent Management	0.225	3.648	$p < 0.001$	Supported
H4	E-Evaluation → Talent Management	0.361	4.914	$p < 0.001$	Supported
H5	Talent Management → Organizational Sustainability	0.332	3.014	$p = 0.003$	Supported

All direct relationships are statistically significant ($t > 1.96$, $p < 0.05$), confirming that E-HRM practices significantly predict Talent Management. Additionally, Talent Management has a direct and significant impact on Organizational Sustainability as shown in Figure 2, Structural Model.

4.2 Additional Direct Effects (Not Hypothesized, Total Path)

Table 9 shows that these additional pathways suggest that E-HRM practices also contribute directly to Organizational Sustainability, albeit with weaker effects than through Talent Management.

Table 9. Total path.

Path Relationship	β (O)	t-value	Significance
E-Evaluation → Organizational Sustainability	0.120	2.898	$p < 0.01$

E-Compensation → Organizational Sustainability	0.075	2.121	p < 0.05
E-Recruitment → Organizational Sustainability	0.120	2.700	p < 0.01
E-Training → Organizational Sustainability	0.078	2.265	p < 0.05

4.3 Mediation Analysis (Indirect Effects via Talent Management)

Table 10 shows that all indirect effects are statistically significant, indicating partial mediation by Talent Management. This validates Hypothesis H6, which proposed that Talent Management plays a mediating role between E-HRM practices and Organizational Sustainability. Bootstrapped confidence intervals did not include zero, confirming the robustness of these effects [96]. Partial mediation was confirmed, as both direct and indirect effects were significant.

Table 10. Mediation analysis.

Indirect Pathway	β (O)	t-value	Significance	Mediation Result
E-Recruitment → TM → Organizational Sustainability	0.120	2.700	p < 0.01	Supported-Partial
E-Training → TM → Organizational Sustainability	0.078	2.265	p < 0.05	Supported-Partial
E-Evaluation → TM → Organizational Sustainability	0.120	2.898	p < 0.01	Supported-Partial
E-Compensation → TM → Organizational Sustainability	0.075	2.121	p < 0.05	Supported-Partial

The path analysis provides strong empirical support for the structural relationships hypothesized in the study. E-HRM practices not only influence Talent Management significantly, but also through that mediation enhance Organizational Sustainability.

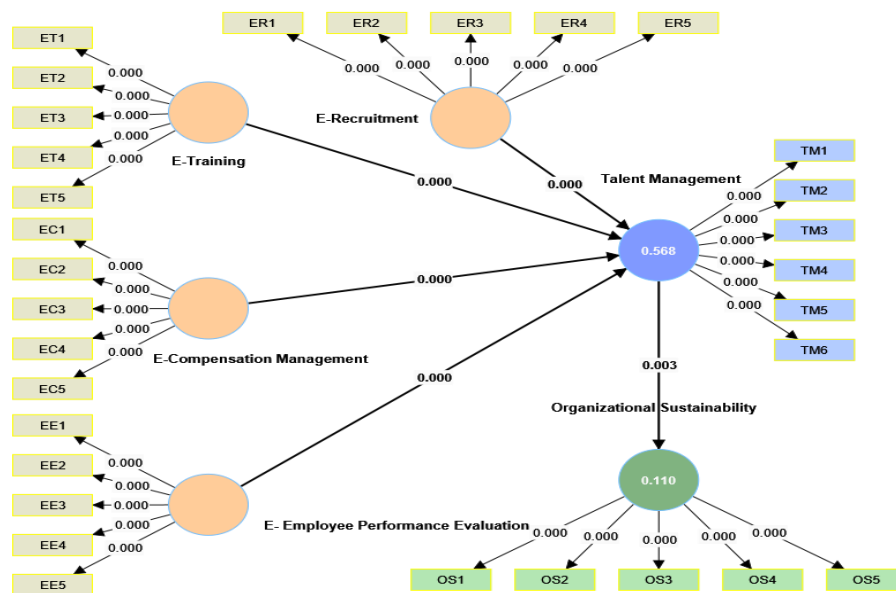


Figure 2. Structural model.

V. DISCUSSION

Regarding testing the first two hypotheses (H1) and the fourth (H4), the study results demonstrated a moderate effect of both e-recruitment and e-performance evaluation on talent management, making them two key factors in the model. The researchers believe this moderate effect may be due to the fact that both e-recruitment, selection, hiring, and performance evaluation lack the human touch or sensitivity needed to recruit talented employees and evaluate their performance fairly. Regarding testing the second and third hypotheses (H2) and the third (H3), the

study results revealed that both e-training and e-compensation management had a smaller, but still significant, effect on talent management compared to e-recruitment and e-performance evaluation. The researchers believe this smaller effect may be justified with regard to e-training, as face-to-face training may be more effective on talented employees than e-training. However, the limited impact of electronic compensation management on talent management is unjustified from the researchers' point of view.

Regarding testing the fifth hypothesis (H5), the study results demonstrated a small, but significant, effect of talent management on organizational sustainability. The researchers believe that there is a statistically significant impact of talent management (talent recruitment, talent training, talent compensation management, talent performance evaluation, and talent retention) on the sustainability of talented employees in the context of Abu Dhabi University, and consequently, the sustainability of the university. Regarding testing the sixth hypothesis (H6), the study results revealed that e-HRM practices not only significantly impact talent management but also—through the mediation of talent management enhance organizational sustainability. The researchers believe that effective e-HRM practices (e-recruitment, e-training, e-compensation management, and e-employee performance evaluation) support organizational sustainability through their influential contribution to attracting, selecting, and hiring talented employees, followed by their training, compensation, performance evaluation, and covert retention.

The findings of this study reinforce the theoretical foundations drawn from transaction cost theory, the challenge and hindrance model, and theories of corporate social responsibility. Specifically, the strong relationships observed between E-HRM practices (e-recruitment, e-training, e-compensation management, and E-Employee Performance Evaluation) and Talent Management affirm that digital HR strategies streamline administrative functions, promote efficiency, and enable strategic talent oversight, as emphasized by [21, 32].

These results support the findings of [84] regarding the existence of a statistically significant effect of the use of E-HRM, with its dimensions (e-recruitment, e-training, and e-employee performance evaluation), on the implementation of talent management, with its dimensions (talent attraction, talent development, and talent retention) in the Jordanian recruitment companies under study. The same findings are consistent with the findings of [42], regarding the existence of a statistically significant effect of E-HRM (e-recruitment, e-compensation management, and e-employee performance management) on employee performance (accuracy at work, creativity, and teamwork) at Royal Jordanian Airlines.

These findings are consistent with those of [113], who reported a statistically significant effect of electronic human resource management on employee performance at the Ministry of Environment, Water, and Agriculture branch in Najran, along with a notable role of e-HRM in strengthening training initiatives to enhance performance in the same branch. Likewise, the results align with [114], who found that the adoption of electronic human resource management at the University of Duhok and its affiliated colleges improved their ability to achieve higher levels of digital transformation. In line with self-determination theory, the results highlight the importance of autonomy and competency in talent development. Employees interpret digital transformations as opportunities or threats [22], and the mediating role of Talent Management suggests that fostering clarity and engagement with digital tools can facilitate organizational alignment and sustainability. This interpretation aligns with [24] view that E-HRM, when seen as a challenge, can enhance motivation and performance.

Further, the positive path from Talent Management to Organizational Sustainability reflects earlier findings by [16, 17], who argue that investing in employee development directly contributes to long-term sustainability. The role of employee engagement and meaningful work is underscored by CSR theory, where alignment between employee identity and organizational values enhances commitment [115].

These findings align with a broad body of literature affirming the positive influence of talent management on organizational outcomes across diverse sectors and regions. Previous studies have established a statistically significant link between talent management practices such as selection, development, and retention and critical organizational outcomes, including performance, innovation, and competitive advantage. For instance, studies in banking sectors in Pakistan [9], Nigeria [116], and Kenya [117] confirmed the positive impact of talent strategies on institutional effectiveness and market positioning. Similar conclusions were drawn by [118] in the telecommunications industry in Jordan, and by [119] in Kuwaiti commercial banks, where talent management significantly contributed to innovation outcomes.

Furthermore, research in diverse organizational contexts from dairy production in Iraq [120] to higher education in Kuala Lumpur [121] reaffirmed the strong linkage between talent practices and performance indicators such as motivation, retention, and institutional success. [122] emphasized this relationship within Algerian telecom, while [123] highlighted the role of institutionalized talent management in enhancing teacher performance in Saudi schools. Similarly, studies in the UAE [124] and Egypt [125] confirmed the mediating role of creativity and the direct

link to employee productivity and performance in education and other sectors. However, contradictory evidence emerged in the UAE real estate sector [126], where no significant effects were found.

1. PRACTICAL IMPLICATIONS

Institutions, especially higher education institutions, should prioritize the digitalization of their HRM functions to strengthen their talent pipelines. E-recruitment can help in systematically attraction, selection and appointment of high-potential employees, while e-training, e-compensation and e-evaluation of employee performance support their continuous development and retention.

HRM managers in institutions, especially in higher education institutions, must also cultivate an environment where technology is introduced not just for automation but as an enabler of empowerment and meaningful engagement. Structured talent development programs, supported by digital tools, can be pivotal in creating a sustainable workforce culture. Furthermore, aligning these HRM strategies with CSR initiatives may amplify employee buy-in and help institutions attract socially conscious and committed professionals. Moreover, the results demonstrated that e-recruitment had the strongest impact on talent management ($\beta = 0.361$), suggesting that digital hiring solutions are not just efficient but critically strategic for talent pipelines. E-training and e-compensation also showed moderate but significant effects, reinforcing the need for integrated digital talent development programs.

The path from talent management to sustainability ($\beta = 0.332$) highlights that investing in structured talent initiatives not only supports HR goals but also contributes meaningfully to broader organizational outcomes such as innovation, employee retention, and social impact. Institutions can use this evidence to justify digital HR investments not merely as operational upgrades, but as drivers of institutional sustainability.

2. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study had several limitations that should be acknowledged. First, the assessment of E-HRM practices, talent management, and organizational sustainability was conducted at the same point in time using a cross-sectional design. While this approach is suitable for examining associations, it limits the ability to infer causality between variables. Future research would benefit from longitudinal studies to explore the dynamic nature of these relationships over time. Second, all data were collected from a single institutional setting Abu Dhabi University which restricts the generalizability of the findings to similar academic environments. Organizational factors such as institutional culture, digital maturity, and leadership structures may vary across institutions and influence the effectiveness of E-HRM practices. Future studies are encouraged to replicate the model across different universities and service sectors, such as healthcare, hospitality, and tourism, to enhance external validity. Third, the study relied on self-reported data collected from a single group of respondents (faculty and staff), which introduces the risk of common method bias and single-source bias. Although steps were taken to assess and mitigate these risks statistically, future research should consider collecting data from multiple sources, including managerial-level staff, and applying mixed-methods approaches such as interviews and focus groups to enrich interpretation. Fourth, the study was limited to a developing country context (United Arab Emirates), which may have influenced how digital HRM systems are perceived and implemented. To improve the transferability of findings, future research could conduct comparative studies between developed and developing countries or explore how national culture moderates the E-HRM–talent–sustainability relationship.

Fifth, while the study focused on the mediating role of talent management, it did not account for possible moderating factors such as organizational size, leadership style, or technological readiness. Future research should test the proposed model under various contextual and environmental conditions to uncover potential boundary conditions that affect these relationships. Finally, the study used a purely quantitative design based on structured survey responses, which although suitable for hypothesis testing—limits the depth of insight into how participants perceive and experience digital HR systems in practice. Future studies may benefit from integrating qualitative techniques to explore user perspectives, organizational readiness, and contextual constraints in greater depth. In light of these limitations, future research should:

- Conduct longitudinal studies to capture causality and long-term impacts.
- Use multi-source and mixed-method approaches to reduce bias and deepen insights.
- Replicate the model across different institutions, sectors, and national contexts.
- Investigate moderating variables that may influence the strength or direction of effects.
- Expand research into public institutions, non-academic environments, and clientelist versus meritocratic cultures for richer comparative insights.

Despite these limitations, this study contributes a valuable foundation for advancing the understanding of how e-HRM practices and talent management interact to support organizational sustainability in the context of digital transformation.

3. RECOMMENDATIONS

Based on the study's findings, the researchers recommend allocating sufficient funding to update and maintain the technology used in E-HRM in organizations, particularly higher education institutions. They also recommend establishing a talent unit or department that focuses on talent and leverages E-HRM practices to attract talent in general and those with leadership experience in particular. They also recommend promoting talented employees to leadership positions, given their positive impact on achieving a competitive advantage. Effective talent retention programs should also be developed, as losing them represents a significant loss to the organization. The researchers also recommend organizing educational and training programs that aim to educate employees about the meaning, importance, and benefits of organizational sustainability in all its economic, social, and environmental dimensions and encourage them to adhere to this principle in all their tasks and behaviors.

VI. CONCLUSION

This study empirically confirms that E-HRM practices including e-recruitment, e-training, e-compensation management, and e-evaluation of employee performance significantly enhance Talent Management within the context of higher education. In turn, Talent Management exerts a meaningful positive influence on Organizational Sustainability. The mediating role of Talent Management was found to be partially supported across all pathways, indicating that while Talent Management acts as a key mechanism through which E-HRM practices shape sustainability outcomes, E-HRM practices also retain a direct effect on Organizational Sustainability.

These findings offer important theoretical and practical implications. The results substantiate prior theoretical models, including the Transaction Cost Theory and Self-Determination Theory, by demonstrating how E-HRM practices can reduce inefficiencies, foster employee development, and support long-term institutional goals. Furthermore, the study advances E-HRM literature by highlighting the strategic role of Talent Management as a bridge between technological adoption and sustainability performance. By elucidating these pathways, the research contributes to a deeper understanding of how digital transformation in HR can serve as a catalyst for organizational resilience and sustainability.

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Author Contributions

Conceptualization, A.E.M. and A.M.A.; methodology, A.E.M. and K.M.A.; software, K.M.A.; validation, A.E.M., K.M.A., and A.E.M.; formal analysis, K.M.A.; investigation, A.E.M., E.A. and A.M.A.; resources, A.E.M. and K.M.A.; data curation, K.M.A.; writing—original draft preparation, A.E.M. and K.M.A.; writing—review and editing, A.M.A. and E.A.; visualization, K.M.A.; supervision, A.E.M., A.M.A. and E.A.; project administration, K.M.A. All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data is available from the authors upon request.

Ethical Approval

This study received ethical approval from the Institutional Review Board (IRB) of Abu Dhabi University under approval file number APMC– 000003. The research adheres to ethical principles for human subject re-search, ensuring participant confidentiality and compliance with ethical standards.

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