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AI-Augmented HRM Practices as Mediators of Sustainable Performance in the IT Industry: The Role of Digital Culture, Organizational Strategy, and Digital Leadership

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ABSTRACT

The increased pace of Artificial Intelligence (AI) has reinvented human resource management (HRM) and made a difference in the approach organizations to gain, grow and sustain talents. This research study explores the relationship between Digital Culture (DC), Organizational Strategy (OS), and Digital Leadership (DL) on Sustainable Organizational Performance (SOP), with AI-Augmented HRM (AIHRM) as a moderating variable. Following a quantitative research approach, data were collected from employees of selected IT companies in Nepal using a questionnaire with predefined items. Furthermore, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to evaluate both measurement and structural models for reliability, validity, and model fit. The findings reveal that DC, OS, and DL have significant and positive effect on AIHRM, collectively explaining 62.8% variance ($R^2 = 0.628$). Similarly, these predictors, along with AIHRM, account for 56.3% variance in SOP ($R^2 = 0.563$). Among all the predictors, OS has the strongest effect on SOP ($\beta = 0.332$, $p < 0.001$), which is followed by DC ($\beta = 0.314$, $p < 0.001$) and DL ($\beta = 0.234$, $p < 0.001$). AIHRM positively, though small, directly influences SOP ($\beta = 0.122$, $p < 0.001$) and is a good partial mediator between organizational variables and sustainability performances.

INTRODUCTION

In recent years, the increased adoption of AI-Augmented HRM practices has been central to driving Sustainable Organizational Performance (SOP) globally. The adoption of AI technologies in Human Resource Management (HRM) operations is central to enhancing organizational efficiency, staff motivation, and overall sustainability. With the growth of Nepal's IT sector at a rapid rate, the adoption of AI-augmented HRM practices becomes central to driving operational excellence as well as long-term sustainability. The effective implementation of these practices relies on the appropriate balancing of Organizational Strategy (OS), Digital Culture (DC), and Digital Leadership (DL), where each plays the crucial role of facilitating digital transformation and sustainable performance (Mollah *et al.*, 2024).

Nepal's IT industry has experienced spectacular growth over the past decade, ranking itself among the nation's economic drivers. Software development, web services, mobile applications, and IT outsourcing are the primary areas of business in the industry. With continuously rising numbers of startups and IT companies, Nepal is fast becoming recognized as a cost-efficient outsourcing destination, particularly for software development and business process outsourcing (BPO). According to the Nepal Software and IT Service Industry Association (NESIA), IT contributes significantly to Nepal's GDP, underpinned by expanding internet infrastructure and technologically aware manpower. While there are such developments, Nepal's IT sector suffers due to challenges such as limited access to venture capital, lack of skills in

cutting-edge technologies, and ill-developed infrastructure that is not yet able to support large-scale digital transformation. Even while Nepal's IT sector is still finding its footing compared to regional giants like India, it is rapidly emerging as a thriving gateway for South Asian IT services, attracting foreign clients looking for low-cost, high-quality technology solutions. The need to implement AI technologies, particularly in Human Resource Management (HRM), is crucial to Nepalese IT organizations to compete internationally and automate their HR procedures for greater organizational sustainability.

Digital Culture (DC) refers to building a culture in which technology adoption, particularly AI applications, is infused into organizational practices. It ensures that employees are not just comfortable with AI technologies but are also motivated to apply them in their business processes. It fosters innovation, learning, and flexibility, which are essential in the current rapidly changing, competitive context of the IT sector in Nepal. As the country's IT landscape transforms, cultivating a Digital Culture is a strategic imperative to drive effective AI adoption and equip workers with the skills to thrive in a digital-capable environment.

Organizational Strategy (OS) plays a significant role in ensuring that AI-driven HRM practices align with the strategic goals of the organization. In the context of IT companies in Nepal, this means making sure that deployment of AI in HRM practices such as recruitment, performance management, employee training, and employee engagement promotes both operational efficiency and sustainability considerations.

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AI technologies, if well directed at the goals of the organization, can possibly maximize operations, improve decision-making, and ultimately improve the performance of the organization, doing its share towards long-term sustainability (Al-Ayed, 2025).

Digital Leadership (DL) acts as a mediator of the relationship between Digital Culture and Organizational Strategy through guiding the digital transformation process. In the IT sector in Nepal, Digital Leadership is central to effectively incorporating AI technologies in HRM practices. IT sector leaders have the responsibility to set a clear vision, foster a culture of innovation, and utilize AI tools effectively to attain the strategic goals of the organization. Digital Leadership ensures that integration of AI is not only a technological change but one that also involves the strategic and cultural dimensions of the firm (Shahzad *et al.*, 2023).

The adoption of AI-augmented HRM practices is essential for IT organizations in Nepal in order to optimize their HR functions, such as AI-driven recruitment, AI-driven training programs, and AI-driven performance management. The practices empower organizations to take data-driven decisions that drive employee performance, increase engagement, and align with sustainability objectives. With the utilization of AI within HRM, IT companies in Nepal are capable of enhancing operational efficiency, reducing decision-making prejudice, and building a more agile and creative labor force which are SOP drivers.

Despite the rapid growth of Nepal's IT industry, empirical research on how Digital Culture, Organizational Strategy, and Digital Leadership affect AI-based HRM practices adoption is nonexistent in the context of Sustainable Organizational Performance. Although the majority of the research has focused on developed economies or specific industries, there is a research gap on how these constructs affect one another in the context of Nepal's IT industry setting. It faces special challenges for the sector such as resource constraints, infrastructural deficits, and human resources that are yet to be well prepared for embracing AI. Therefore, it is necessary to examine how AI-driven HRM practices, supported by strong Digital Culture, strategic Organizational Strategy, and effective Digital Leadership, can help address these challenges and facilitate sustainable growth in Nepal's IT sector.

The objective of the research is to examine the effect of AI-enhanced HRM practices on Sustainable Organizational Performance in the IT industry of Nepal, with a particular focus on the mediating roles of Digital Culture, Organizational Strategy, and Digital Leadership. The findings of the study will be very much applicable for Nepalese IT firms, and it will equip them with a model to align their human resource policies with digital and sustainability goals. The present research will not only contribute to the growing literature on AI-HRM but will also provide tangible suggestions for Nepalese IT companies that are interested in implementing AI-based HRM practices with a long-term perspective of sustaining themselves.

LITERATURE REVIEW

Theoretical Review

Resource-Based View (RBV) Theory

The resource-based view (RBV) theory focuses on using internal capabilities and resources to obtain competitive advantage and sustainable performance. RBV posits those firms that have valuable, rare, inimitable, and non-substitutable (VRIN) resources will have superior performance than other firms. AI-based HRM views AI tools as valuable resources as they provide utility improvements to HR processes in a way that ensures sustainable performance. For instance, the information and technology industry has a high degree of digitalization, therefore AI-based HRM solutions such as AI recruitment software or performance management software help organizations automate talent acquisition, employee training and employee performance monitoring. In such a way, organizations use these AI-driven resources to increase the efficiency of their HR process with the benefits of automation, improved decision making, and data driven insights that are linked to the organization's strategic vision. By leveraging these AI technologies into their HR practices, organizations can develop dynamic capabilities that represent unique competencies that produce a competitive advantage and continue to innovate in a responsive way towards an ongoing market demand (Mollah *et al.*, 2024).

Hence, RBV places AI-driven HRM practices not only as working machinery but as drivers of enduring competitive advantage. These AI practices build internal competencies that facilitate long-term organizational success in the competitive IT sector, especially when combined with the global goals of sustainability and digitalization (Shahzad *et al.*, 2023).

Dynamic Capabilities View (DCV) Theory

Dynamic Capabilities Perspective (DCP) denotes an organization's capacity to adapt, reconfigure, and restructure their resources towards competitive actions in the face of new contexts. DCP applies to the explanation of the impact of AI-based HRM of the long-term success of organizations. In practice, digital leadership plays a role to enable organizations to reconfigure their HR practices and apply new AI technologies in responding to changing workforce and business needs (Mollah *et al.*, 2024).

When framing this discussion in Nepali IT companies, AI technology, such as recruitment chatbots or auto training system, can reshape HR functions to improve organizational agility. By making continuous adjustments of HRM practices to the new technological innovations, such firms can remain competitive in the fast-changing IT industry. DCV illustrates how digital leadership makes it possible to introduce AI tools into HRM activities so that organizations can become capable of responding to technological shocks and sustainable in the long run (Wamba *et al.*, 2024).

Technology Acceptance Model (TAM) Theory

The Technology Acceptance Model (TAM) provides a model of user acceptance and adoption of new

technology on the basis of perceived ease of use and perceived usefulness. In AI-based HRM, TAM is able to explain how employee views of AI-facilitated tools determine their adoption and use in HR processes. If workers find AI tools useful in enhancing the efficiency of their work and are user-friendly, they will be likely to use such technologies, which will enhance organizational performance (Mollah *et al.*, 2024).

According to TAM, when employees perceive AI-based HRM systems as easy to use and beneficial in their work processes, they are more likely to adopt them, which, in turn, leads to organizational performance and sustainability advantages. The digital culture of an organization, one that is created as a result of digital leadership, has the primary mandate of enabling employees to perceive these technologies positively and use them to enhance their performance and that of the company (Alwali *et al.*, 2025).

Empirical Review

Parida *et al.* (2025) explained that AI's strength in analyzing data on a large scale, personalizing customers, predicting analytics, and translating languages is able to support decision-making (for example, data-driven decisions), improve the customer experience, and encourage collaboration across borders (for example, increasing diversity). As organizations adopt AI, they may reduce costs, navigate systemic policies in more efficient ways, and ultimately improve performance, contributing to a more progressive and competitive organizational culture. Employees may feel anxiety towards the displacement of their employment due to AI and resist AI opportunities. The study mentioned reskilling and upskilling workforces and the need to support their learning - in data analysis, machine learning, and continuous learning where possible to advance successful AI adoption.

Alwali *et al.* (2025) found that the capability of both AI-HRM and EI to enhance LE and EP. Thus, it shows that LE acts as a mediator of the relationships between AI-HRM and EP, and EI and EP. This study further points out that investment in AI infrastructure, created through strategic alignment with leadership development, particularly in the integration of EI and technology fluency, will eventually realize the highest levels of employee engagement, psychological safety, and sustainable human and economic benefits. Positioned within the ability-motivation-opportunity framework, this study provides a new perspective on how leadership effectiveness mediates the interplay of digital and emotional capabilities toward improving performance in complex and technologically present environments.

Sposato and Dittmar (2025) discussed the responsibility and capacity of organizations pursuing AI-enhanced coaching to facilitate effective integration strategies, develop ethical governance models, and reimagine coaching roles. In emphasizing that AI-supported coaching should not replace human insight but rather extend its reach with augmented intelligence and data-

informed reflection, the authors point out the following. This framework also underlines continuous learning and adaptability as core components of building resilient coaching ecosystems.

Oliveira *et al.* (2025) argued that digital transformation has triggered considerable changes in organizational models, extending accounting to strategically influence value and sustainable decisions. The study was carried out by examining various published works during 2020-2025 and found four vital themes in digital transformation, namely, accounting information quality, digital auditing, sustainability under ESG, and transparency/governance. The study reveals that digitalization brings about positive dimensions to enhance trust, integrate sustainability, and improve governance, but incorporates challenges in terms of costs, regulatory gaps, and cultural resistance. Though digital transformation bolsters the strategic contribution of accounting, it depends on institutional arrangements, regulatory standardization, and professional training.

Mahade *et al.* (2025) showed that AI-driven insights can significantly enhance sustainable HRM performance, and that HRM practices optimization and decision-making enhancement were mediating factors. While organizational culture, AI adoption readiness and ethical considerations directly influenced HRM sustainability (the results showed no moderating role to the relationship between AI-driven insights on HRM performance), both organizational culture and AI adoption also guided the sustainable HRM direction.

Jaboob *et al.* (2025) provided an important look at the role that AI plays in enhancing productivity and sustainability within the SME sector both in Oman and the wider Arabian world. The findings demonstrate the importance of digital leadership for leveraging AI-driven insights toward strategic agility. The capacity for capacity-building programs that enhance the digital competencies of leaders and decision-support literacy is an additional strand recommended in this study.

Al-Ayed (2025) identified AI that can transform human resources management, which will improve decision-making, people's capabilities and will positively impact long-term organizational success. The study identified that organizations need to develop employee technological competence, use strategic human resource management and be aware of the benefits it would provide before organizations could fully leverage on AI and drive innovation through people to indirect sustainable growth for organizations. The study has given evidence of the need to build technological readiness for employees and align HRM strategies in order to manage the organization's competitive advantage on their behalf during the digital revolution.

Anjani (2025) discussed how AI-enabled human resource (HR) tools might provide customized or individualized practices, enhance employee engagement, and encourage employee behavior aligned with organizations' green goals. Overall, the findings suggest that AI-enabled experiences are positively correlated with employee

engagement. In other words, AI might make HRM processes more efficient and improve organizational culture around sustainability. At the same time, this research also discussed ethical complexities such as

data privacy and security, algorithmic bias, and human resistance to technology.

Conceptual Framework

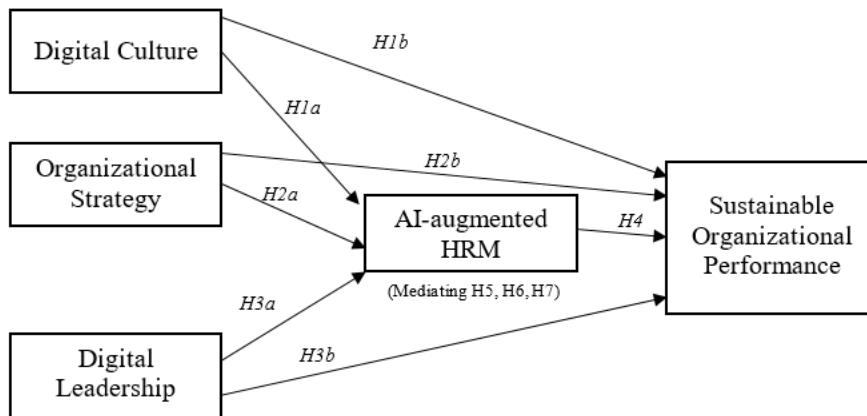


Figure 1: Conceptual Framework
Source: Adapted from Mollah et al. (2024)

MATERIALS AND METHODS

This research adopts a quantitative, empirical, and explanatory methodology to explore the relationships between Digital Culture (DC), Organizational Strategy (OS), Digital Leadership (DL), AI-Augmented Human Resource Management (AIHRM), and Sustainable Organizational Performance (SOP) in the IT industry of Nepal. The study is grounded in positivism, assuming that social reality can be objectively observed and measured. The research is deductive, with hypotheses drawn from established theories like the Resource-Based View (RBV) and Dynamic Capabilities View (DCV). The conceptual model identifies DC, OS, and DL as antecedents, AIHRM as a mediator, and SOP as the outcome variable, and each construct is defined both conceptually and operationally. The methodology progresses through several stages, starting with the development of a conceptual framework based on literature, followed by the design of a structured questionnaire using established scales. Data is collected

from employees of IT organizations in Nepal through online and face-to-face surveys. SPSS and AMOS/ Smart PLS software are used to analyze the data, with descriptive statistics summarizing demographic patterns and Structural Equation Modeling (SEM) techniques testing the hypothesized relationships. The study ensures reliability and validity by using Cronbach's alpha, composite reliability, and average variance extracted, while also adhering to ethical standards through informed consent and data confidentiality.

RESULTS AND DISCUSSION

Correlation Analysis

This section examines the strength and direction of relationships among the key study variables: Digital Culture (DC), Organizational Strategy (OS), Digital Leadership (DL), AI-augmented HRM (AIHRM), and Sustainable Organizational Performance (SOP). Pearson correlation coefficients are employed to determine the extent to which changes in one variable are associated with changes in another. Table 1 reveals strong, statistically significant positive

Table 1: Correlations Test between DC, OS, DL, AIHRM with SOP

Construct		DC	OS	DL	AIHRM	DL
DC	Pearson Correlation	1				
	Sig. (2-tailed)	0.001				
	N	412				
OS	Pearson Correlation	.718**	1			
	Sig. (2-tailed)	0.001				
	N	412	412			
DL	Pearson Correlation	.672**	.654**	1		
	Sig. (2-tailed)	0.001	0.001			
	N	412	412	412		
AIHRM	Pearson Correlation	.725**	.719**	.627**	1	
	Sig. (2-tailed)	0.001	0.001	0.001		

	N	412	412	412	412	
SOP	Pearson Correlation	.742**	.700**	.650**	.701**	1
	Sig. (2-tailed)	0.001	0.001	0.001	0.001	
	N	412	412	412	412	412

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

correlations between the key variables of AI-augmented HRM (AIHRM), Digital Culture (DC), Organizational Strategy (OS), Sustainable Organizational Performance (SOP), and Digital Leadership (DL), with all p-values less than 0.01. AIHRM correlates positively with DC, OS, SOP, and DL, suggesting that organizations integrating AI into HRM practices also foster supportive digital cultures, strategic alignment, and effective leadership that contribute to sustainability. DC, OS, and DL are also strongly interrelated, highlighting that a digital-friendly environment, well-formulated strategies, and leadership in digital transformation collectively drive sustainable outcomes. These findings emphasize the need for organizations to view these factors as interconnected elements within a broader digital transformation strategy to achieve improved organizational performance and resilience.

PLS-SEM Model Analysis

The study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to evaluate the proposed research framework, as this method is well suited for testing complex models with multiple constructs and mediating relationships. The analysis proceeded in two stages: assessment of the measurement model and evaluation of the structural model. The reliability and validity of the constructs were examined through indicator loadings, composite reliability, Cronbach’s alpha, Average Variance Extracted (AVE), and discriminant validity tests using the HTMT ratio and Fornell-Larcker criterion. Model fit indices were also reviewed to ensure the adequacy of the measurement model. This systematic approach ensured the robustness of the findings and provided empirical evidence to support the theoretical model.

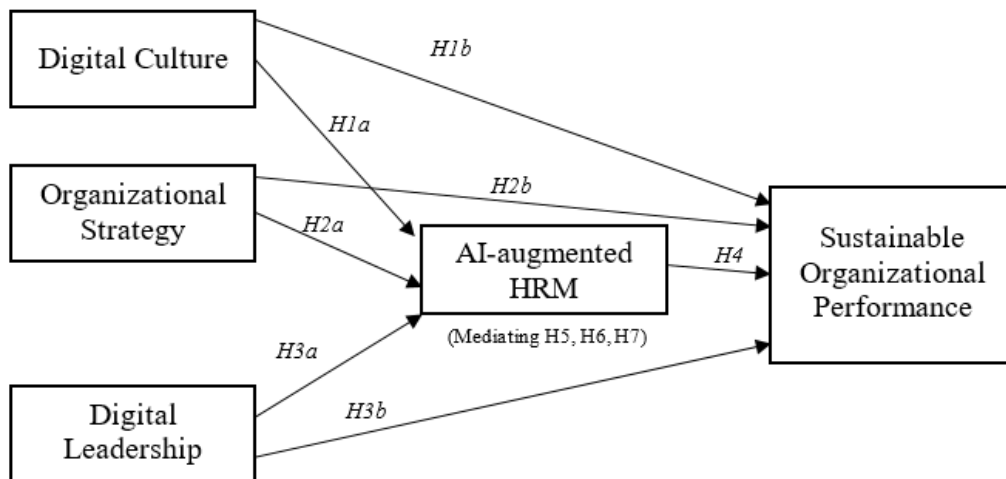


Figure 2: Measurement Model

Figure 2 demonstrates the reliability and validity of the constructs Digital Culture (DC), Organizational Strategy (OS), Digital Leadership (DL), AI-Augmented HRM (AIHRM), and Sustainable Organizational Performance

(SOP). The observed indicators for each construct had loadings greater than 0.70, confirming convergent validity, with particularly high loadings for AIHRM (0.884) and SOP (0.895), indicating excellent reliability. The results show that DC, OS, and DL explain 62.8% of

the variance in AIHRM, and together with AIHRM, they account for 56.3% of the variance in SOP, highlighting their explanatory and predictive power. The direct effects reveal that OS and DC are the primary predictors of SOP, followed by DL, while AIHRM acts as a smaller

but significant mediator. Overall, the model provides strong evidence that digital culture, organizational strategy, and digital leadership are key contributors to AI-driven HRM practices, which in turn enhance sustainable organizational performance.

Table 2: Construct reliability and validity

Items	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
AIHRM	0.954	0.955	0.963	0.814
DC	0.879	0.880	0.906	0.579
DL	0.887	0.887	0.910	0.558
OS	0.868	0.869	0.899	0.559
SOP	0.962	0.962	0.969	0.839

Table 2 presents the construct reliability and validity results for all latent variables in the study. The lowest Cronbach's alphas were 0.868 (OS) and the highest 0.962 (SOP) with all alpha values above the minimum threshold of 0.70 suggesting strong internal consistency. For composite reliability, both rho_a and rho_c were above the minimum thresholds of 0.85 for all the constructs ensuring reliability across the model. The AVE scores for all constructs ranged from a minimum of 0.558 (DL) to a maximum of 0.839 (SOP), thereby all AVE values

exceeded the threshold of 0.50 fulfilling requirements for convergent validity. Moreover, both AIHRM and SOP had exceptionally strong reliability scores ($\alpha > 0.95$; $CR > 0.96$) and AVE values above a minimum of 0.80 showing that AIHRM and SOP constructs were very robust. In sum, these results support that all of the constructs in the model were measured adequately regarding reliability and validity and form a firm foundation to move into the analysis of the structural model.

Table 3 reports the Heterotrait-Monotrait Ratio

Table 3: Discriminant validity - Heterotrait-monotrait ratio (HTMT)

Items	AIHRM	DC	DL	OS	SOP
AIHRM					
DC	0.791				
DL	0.755	0.837			
OS	0.789	0.822	0.793		
SOP	0.663	0.748	0.724	0.722	

(HTMT) values to assess discriminant validity among the constructs. All HTMT values are well below the conservative threshold of 0.85, indicating that the constructs are empirically distinct from each other. This confirms that all the constructs measure conceptually

different dimensions without multicollinearity issues. Hence, the discriminant validity requirement is satisfied, reinforcing the robustness of the measurement model and allowing for the structural model evaluation in the subsequent analysis.

Table 4: Discriminant validity - Fornell-Larcker criterion

Items	AIHRM	DC	DL	OS	SOP
AIHRM	0.902				
DC	0.725	0.761			
DL	0.696	0.739	0.747		
OS	0.720	0.718	0.697	0.748	
SOP	0.636	0.688	0.669	0.659	0.916

Table 4 provides results that correspond with the Fornell-Larcker criterion of discriminant validity. The square root of the Average Variance Extracted (AVE) is presented on the diagonal and is greater than the correlation of the construct with the other constructs presented in the rows and columns. This indicates that the construct explains

more variance with its indicators than it does with the other constructs, thus passing the Fornell-Larcker criterion. The combination with the HTMT shown in Table 4 demonstrates that all of the constructs can be distinguished conceptually with strong discriminant validity.

Table 5: Model Fit

	Saturated model	Estimated model
SRMR	0.035	0.035
d_ULS	0.720	0.720
d_G	0.327	0.327
Chi-square	754.670	754.670
NFI	0.930	0.930

Table 5 provides the fit statistics for the model. The SRMR now indicates good model fit, being slightly below the threshold criterion of ≤ 0.08 . The Normed Fit Index (NFI) also indicates an acceptable fit, despite its

being just above the recommended cut-off of 0.90. This indicates that the model represent the data well, providing further evidence for both its reliability and validity.

Table 6 reports the R-square (R^2) values for the constructs.

Table 6: R-Square

Items	R-square	R-square adjusted
AIHRM	0.628	0.626
SOP	0.563	0.558

The R^2 value for AI-Augmented HRM is 0.628, indicating that Digital Culture, Organizational Strategy, and Digital Leadership collectively explain 62.8% of the variance in AIHRM. Similarly, the R^2 value for Sustainable Organizational Performance (SOP) is 0.563, meaning that AIHRM together with the three organizational factors explains 56.3% of the variance in SOP. These results suggest that the model has strong predictive relevance, providing confidence for interpreting the path relationships in the structural model.

Path Analysis and Mediation (Bootstrapping)

The structural model was assessed using path analysis with bootstrapping to test the significance of direct and mediating effects. The results show that Digital Culture, Organizational Strategy, and Digital Leadership significantly influence both AI-Augmented HRM and Sustainable Organizational Performance, while AIHRM also contributes directly and mediates these relationships.

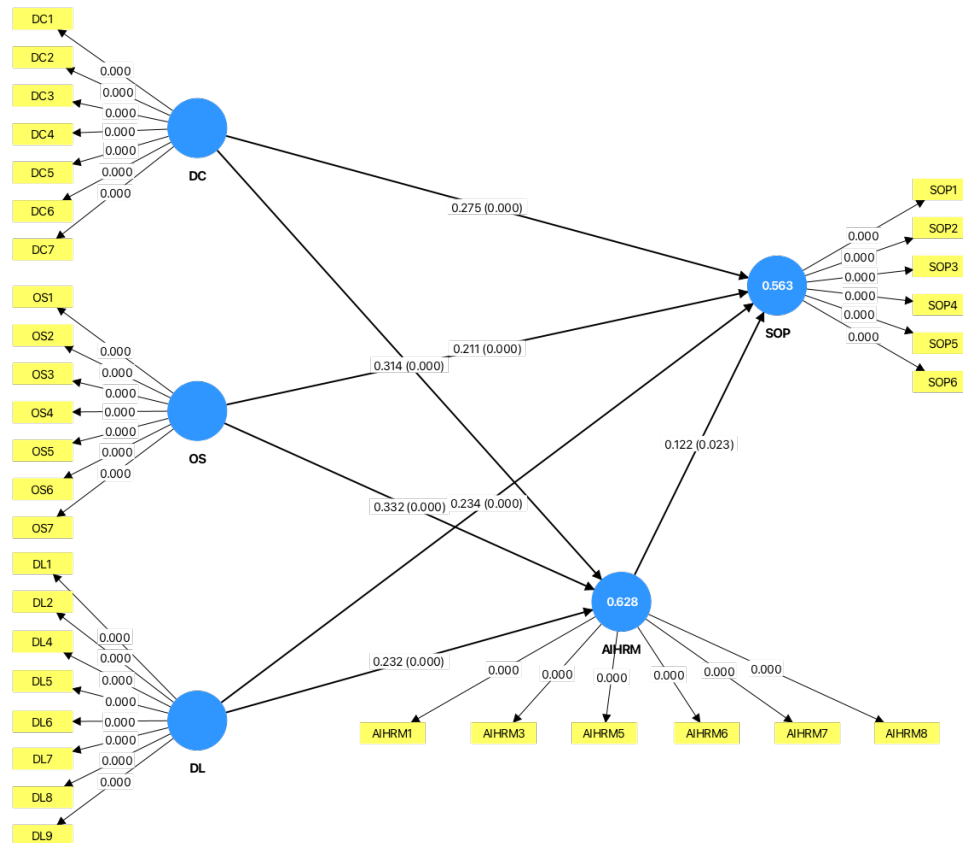


Figure 3: Structure/Path Model

Figure 3 presents the structural model with path coefficients and significance values (p-values). The model indicates all of the predictors (DC, OS and DL) had positive significant effects on AI-Augmented HRM (AIHRM) which respective path coefficients were 0.275 ($p < 0.001$), 0.211 ($p < 0.001$), and 0.232 ($p < 0.001$). In total, the predictor variables accounted for 62.8% of variance in AIHRM ($R^2 = 0.628$). Similarly, DC (0.314, $p < 0.001$), OS (0.332, $p < 0.001$) and DL

(0.234, $p < 0.001$) positively predicted SOP significantly while the predictor variable AIHRM had a less notable but significant direct effect (0.122, $p < 0.001$). In total, the three predictors described 56.3% of the variance in SOP ($R^2 = 0.563$). From the findings, we can infer that AIHRM is significantly affected by the three organizational factors, and AIHRM is a key mediating variable that translated the impact of DC, OS, and DL on SOP.

Table 7: Summary of Path Analysis

Hypothesis	Pathways	Path Coefficient	p-Value	Decision
H1a	DC → AIHRM	0.314	0.000	S
H1b	DC → SOP	0.275	0.000	S
H2a	OS → AIHRM	0.332	0.000	S
H2b	OS → SOP	0.211	0.000	S
H3a	DL → AIHRM	0.298	0.000	S
H3b	DL → SOP	0.248	0.000	S
H4	AIHRM → SOP	0.123	0.023	S
H5	DC → AIHRM → SOP	0.039	0.040	S
H6	OS → AIHRM → SOP	0.041	0.028	S
H7	DL → AIHRM → SOP	0.028	0.019	S

Note(s): * $p < 0.05$, ** $p < 0.001$; S = supported; NS = not-supported

Table 7 summarizes the results of the path analysis with respect to the proposed hypotheses. All direct relationships were confirmed for the hypothesis (H1a–H4). Digital Culture, Organizational Strategy and Digital Leadership had direct, significant impacts on both HRM augmented with AI, as well as sustainable organizational performance. Each of the independent variables, DC, OS and DL, has positive impacts on AIHRM (H1a, H2a, and H3a) and SOP (H1b, H2b, and H3b). AIHRM had significant, but smaller, direct effects on SOP providing support for H4. The mediation analysis supports the additional hypotheses of H5–H7, as AIHRM significantly, and perhaps partially, mediates both the relationship between DC, OS and DL and SOP, respectively. Overall, the results validate all the hypothesized relationships, highlighting that organizational factors directly drive sustainable performance while AIHRM strengthens this relationship through its mediating role.

CONCLUSION

This study was designed to investigate the influence of Digital Culture, Organizational Strategy, and Digital Leadership on Sustainable Organizational Performance, with AI-Augmented HRM as a mediating factor in the IT industry. Based on seven hypotheses, the research tested the direct and indirect effects of these organizational dimensions to understand how AI-driven HR practices add to sustainability. The results confirm that DC, OS, and DL significantly enhance AIHRM, collectively accounting for 62.8% of its variance, $R^2 = 0.628$. This shows that a digitally oriented culture, strategically aligned operations, and committed digital leadership

form a strong foundation for AI integration in HRM practices. Similarly, DC, OS, and DL all have a direct and positive impact on SOP, with OS being the strongest driver, $\beta = 0.332$, $p < 0.001$. This illustrates the crucial role of strategy in driving long-term sustainable benefits supported by digital culture and leadership. AIHRM itself has a positive but relatively modest direct effect on SOP, $\beta = 0.122$, $p < 0.001$. More interestingly, mediation analysis indicates that AIHRM plays a significant partial mediating role, further transporting the influence of DC, OS, and DL to SOP, all $p < 0.001$. This suggests that IT organizations achieve better sustainable performance not simply through direct influences of culture, strategy, and leadership but also through reinforcing those influences via AI-enabled HRM practices.

The overall model shows very strong explanatory power, as 56.3% of the variation in SOP is explained by this model, R^2 being equal to 0.563. These findings confirm that the suggested framework is reliable and corroborate the benefits of implementing AI-based HRM into organizational processes. In brief, this study identifies Organizational Strategy as the strongest enabler of sustainable performance, complemented by the supportive roles of Digital Culture and Digital Leadership. AIHRM emerges as an important mechanism in strengthening and harnessing these organizational dimensions for sustainability outcomes. Put together, the findings underline the need for IT companies to develop digital orientation, to strategically align with sustainability objectives, and to enhance leadership commitment with a view to maximizing the potential offered by AI-driven HRM for sustainable organizational performance.

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