

**TRIPLE BOTTOM LINE IN HRM: ALIGNING WORKFORCE
STRATEGIES WITH ECONOMIC, SOCIAL, AND
ENVIRONMENTAL SUSTAINABILITY**

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Abstract

This study examined the integration of the Triple Bottom Line (TBL) framework—economic, social, and environmental sustainability—into Human Resource Management (HRM) practices and its influence on organizational sustainability outcomes. Using a quantitative research design, data were collected from 312 HR professionals across various industries in Pakistan. Structural Equation Modeling (SEM) was employed to assess the direct effects of each TBL dimension on sustainability outcomes, as well as the mediating role of employee engagement and the moderating role of organizational culture. Findings revealed that all three sustainability dimensions significantly influenced organizational sustainability, with social sustainability emerging as the strongest predictor. Economic and environmental sustainability also showed positive effects but with varying degrees of impact. Employee engagement was found to partially mediate these relationships, while organizational culture significantly moderated the strength of each TBL dimension's effect. These results suggest that TBL-aligned HRM practices, when reinforced by a strong culture and engaged workforce, can create sustainable organizational outcomes. The study contributes to the growing

literature on sustainable HRM by offering an integrated model and providing practical insights for HR professionals aiming to align workforce strategies with broader sustainability goals. Recommendations and future research directions are also presented to support the continued evolution of TBL principles in HRM frameworks across diverse organizational contexts.

Keywords: Culture, Engagement, Environmental, HRM, Social, Sustainability

Introduction

Against the backdrop of the changing scene of organizational sustainability, the Triple Bottom Line (TBL) as one of the most influential options, led to the integration of economic, social, and environmental factors in the business decision-making. It became widely acknowledged that the adoption of TBL principles would enable sustainable business strategies as part of Human Resource Management (HRM). Recruitment, performance management, worker welfare, and environmental consciousness programs of the HR became key to enhancing TBL-aligned results (Faria et al., 2024). Although traditional HRM focused on productivity and profitability, the contemporary organizations had shifted towards instilling wider sustainability objectives such that the strategic HR practices implemented.

In the last decade, sustainability-related companies had started to engage workforce strategies in meeting the TBL objective in order to be able to guarantee viable and ethical performance in the future. Such a positioning did not only increase corporate reputation but also received the attention of socially conscious talent and investors. Researchers contended that HRM might be utilized as the strategic foundation of transforming to sustainability through operationalizing the TBL principles in organizational culture, learning and performance reward systems (Annarelli et al., 2024; Darul Wiyono et al., 2025). Nevertheless, the integration in emerging economies was

still uneven by geography and segment and the most common, unrelated and unsupported environmental and social HR programs.

Since pressure on organizations across the globe to make their contribution to the UN Sustainable Development Goals (SDGs) is growing, it once again became significant to explain the role of HRM in promoting the TBL agenda. Although a lot of research had been done in the Western settings, little empirical information existed as to how HRM systems in the South Asian economies, including Pakistan, could help achieve performance of the triple bottom lines. This research was therefore aimed at filling the gap which was critical about conducting research in the relationship of HR practices with the economic, social and environmental mandates, especially in developing economies that are in the path of globalization and ecological issues.

Research Background

Against the backdrop of the changing scene of organizational sustainability, the Triple Bottom Line (TBL) as one of the most influential options, led to the integration of economic, social, and environmental factors in the business decision-making. It became widely acknowledged that the adoption of TBL principles would enable sustainable business strategies as part of Human Resource Management (HRM). Recruitment, performance management, worker welfare, and environmental consciousness programs of the HR became key to enhancing TBL-aligned results (Faria et al., 2024). Although traditional HRM focused on productivity and profitability, the contemporary organizations had shifted towards instilling wider sustainability objectives such that the strategic HR practices implemented.

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Research Problem

The Triple Bottom Line (TBL) as one of the most powerful choices against the background of the altering scene of organizational sustainability, resulted in the introduction to the business decision-making of the economic, social and environmental aspects. It was popularly established that the implementation of principles of TBL would allow sustainable business strategies as a subcategory of Human Resource Management (HRM). The HR programs of enhancing recruitment, performance management, welfare of workers, and environmental consciousness became central in generating TBL-aligned results (Faria et al., 2024). Even though the earlier version of HRM was geared towards productivity and subsequent profitability, the modern organisations had slowly oriented themselves towards inculcating broader sustainability aims in the form that the strategic HR practices which were being deployed resulted in.

Over the past ten years, corporations with interests in sustainability had begun to utilize workforce practices in achieving the TBL goal so that they could be in a position to ensure sustainable and ethically acceptable performance in the future. This way of positioning was not just a booster to corporate fame, but it also caught the eyes of investors and people who considered themselves socially conscious individuals or talent. Researchers have argued out that HRM can be applied as a strategic basis of the transition to sustainability by operationalising the principle of TBL within the organisation culture, organisational learning and performance reward mechanisms (Annarelli et al., 2024; Darul Wiyono et al., 2025). However, there was still a geographic and segment non-equitability as well as the most prevalent, unrelated and un-founded environmental and Social HR programs in emerging economies.

Considering that pressure is increasing on organizations all around the world to ensure that they do their part in achieving the UN Sustainable Development Goals (SDGs), making sense of the role of HRM in facilitating the TBL agenda has once again proven to be important. Even though much had been accomplished with regards to study in the western contexts, there was a paucity of empirical data regarding how HRM system in South Asian economies such as Pakistan could assist in attainment of performance on the triple bottom lines. This research was therefore aimed at filling the gap which was critical about conducting research in the relationship of HR practices with the economic, social and environmental mandates, especially in developing economies that are in the path of globalization and ecological issues.

Research Objectives

1. To examine how HRM practices in organizations align with the economic, social, and environmental dimensions of the Triple Bottom Line framework.
2. To identify key HR strategies that contribute to each sustainability pillar individually and collectively.

3. To explore the mediating role of employee engagement and the moderating influence of organizational culture in the HRM–TBL relationship.
4. To assess the challenges and enablers of implementing TBL-aligned HRM practices in developing economies, particularly Pakistan.

Research Questions

Q1. To what extent do current HRM practices reflect the principles of the Triple Bottom Line in terms of economic, social, and environmental sustainability?

Q2. What specific HR strategies support each of the three TBL dimensions within organizational settings?

Q3. How does employee engagement mediate the relationship between TBL-aligned HRM practices and sustainability outcomes?

Q4. What contextual factors (e.g., organizational culture, governance) influence the successful alignment of HRM with TBL in developing countries?

Significance of the Study

The paper made a significant contribution to the emerging body of literature on sustainable HRM in trying to present a holistic framework that captured all the three elements of the Triple Bottom Line. Unlike in the earlier studies where a single or two elements of sustainability tended to be discussed in isolation, the study has highlighted the fact that economic viability, social equity, and environmental responsibility are interdependent. These results had viable recommendations to the HR practitioners seeking to integrate sustainability into the talent management process, workplace culture, and strategy. This research was of special interest in the sphere of developing economies. It would provide the issues that the organizations tend to experience when it comes to realizing holistic HRM approaches such as resource availability, legal restrictions, and cultures. The findings may inform policymakers and business leaders to craft interventions, sustainability training programs, and workforce policies that are inclusive and reflective of

the local context but at the same time comply with the global sustainability standards. In addition, the study provided a roadmap on how HRM may align with UN SDGs hence enhancing the moral and developmental responsibility of organizations in the society.

Literature Review

Theoretical Foundations of Triple Bottom Line (TBL) in HRM

The Triple Bottom Line (TBL) concept, which is based on sustainable development theory, broadened the interest of a business beyond financial performance and now includes social equity and environmental protection (Elkington, 1997). TBL (in the HRM context) also became a framework to create policies that promoted not only their profitability but also their employee welfare and social responsibility (Adomako et al., 2023). Following recent studies, the incorporation of TBL into HRM was not a choice anymore because it was a matter of long-term sustainability, especially in industries with strict scrutiny of its environmental as well as social impact (Gond et al., 2024; Onyekwelu & Oriola, 2023).

The overall theme of HRM was intersected with the frameworks of strategic HRM, corporate social responsibility (CSR), and sustainable leadership. Scholars presented the idea that implementing TBL into HRM systems allowed them to gain competitive advantage since this approach to organizational management reduced turnover, enhanced employer brand, and helped companies become innovative (Awan et al., 2024). Significantly, the Resource-Based View (RBV) also contributed to this idea, as it assumed that human capital at the way to sustainable goals could be defined as another specific organizational resource (Nishii & Wright, 2023).

Economic Sustainability and HRM

The concept of economic sustainability in HRM was centered on activities that enhanced organizational resiliency, and at the same time provided even and just economic treatment of employees. Some of them were policies on living wages, career growth, workforce productivity, and financial inclusiveness

(Hossain & Karim, 2024). Practices of HR, which encouraged the growth of competencies, the retention of talent and performance rewards were identified as having direct impact on economic viability in as much as they lowered recruitment levels and increased organizational productivity (Luu, 2024).

Moreover, empirical studies discovered that HRM programs that encouraged employee empowerment and ongoing learning had a significant positive influence on financial performance of both the state and the business environment (Rahman et al., 2023). As such, an analysis of personal sector activity in the Malaysian manufacturing industry revealed that human capital investment in the form of upskilling and technology-related training allowed companies to grow revenues exponentially, as well as instill sustainability ethos in the workers (Wahab et al., 2024). This was further supported by the finding that economically sustainable HRM was not only compatible with profitability but a prerequisite to profitability.

Social Sustainability and HRM

The idea of economic sustainability within HRM revolved around the idea of engaging in acts which would make organizations more resilient, and at the same time acted to give employees even and fair economic treatment. They included policies on living wages, various career development and workforce productivity policies and financial inclusivity policies (Hossain & Karim, 2024). HR practices, which promoted development of competencies, talent retention and reward of performance were seen to have direct effect on economical viability in the sense that they reduced the level of recruitment and enhanced organizational productivity (Luu, 2024).

Additionally, empirical evidence found that HRM practices which promoted employee empowerment and continuous learning became an influential positive impact on financial performance of the state and the business environment (Rahman et al., 2023). In this regard, the discussion on personal sector activity in the Malaysian manufacturing sector highlighted that the investment of human capital through the use of upskilling and

technology-related training enabled firms to increase revenues exponentially, and instilled the concept of sustainability in the people (Wahab et al., 2024). This was also buttressed by the fact that economically sustainable HRM was not only synonymous with profitability but that in fact it was a precondition to profitability.

Environmental Sustainability and Green HRM

Green HRM had been a subdiscipline of HRM and the most typical manner in which environmental sustainability was dealt with envisaged a critical role to be played within the employee lifecycle itself. This consisted of green hiring, training centered on ecology, green performance review, and Sustainable reward schemes (Tang et al., 2023). The empirical investigation in Southeast Asia discovered that companies where green values were incorporated in HR practices enhanced the pro-environmental behaviors among the employees (Jain & Sharma, 2024).

Besides, it was revealed that the environmental aspect of HRM is the most progressed across the three pillars of the TBL particularly in regulated industries, or with large carbon footprints. A survey of European companies, conducted on a large scale, found that Green HRM positively corresponded to energy efficiency, waste reduction, and being innovative of the environment (Mehta et al., 2024). The environmental training programs saw also a higher rate of employee involvement in sustainability activities, defined as carpooling, recycling, and avoidance of paper communication (Nguyen et al., 2023).

In spite of these advantages, certain researchers observed that green practices could be reactive or even symbolic instead of being ingrained (Iqbal & Naseer, 2023). Therefore, leadership commitment and environmental performance measurement were referred to in the sustainability literature to be implemented to integrate environmental objectives across the entire HRM system.

Integrated HRM-TBL Models and Empirical Gaps

Although research into each pillar of the TBL had been carried out separately, few studies came up with combined models, and these models interacted all three dimensions. Areas were left unstudied on the synergies and trade-offs that are involved in aligning workforce with holistic sustainability (Panda et al., 2023). As one example, it was not obvious how organizations balanced short-term lack of money (economic) and how long-term diversity or investments in the environment (social and environmental).

In a meta-synthesis made by Zaid et al. (2024), it was found that Green HRM was relatively well elaborated, but social sustainability was under-theorized, and in many cases, a standard measurement framework was not present. On top of that, developing economies such as Pakistan were limited by structural obstacles in the form of gap in regulations, scarcity and presence of cultural inertia, which made it hard to implement the entire system of TBL-aligned HRM practices (Yousaf & Saeed, 2024). These lessons led to the suggestion of context-sensitive types of HR models that were not only responsive to standards of global sustainability but also catered to the local issues.

Research Methodology

Research Design

This study adopted a **quantitative, cross-sectional research design** to examine the alignment of Human Resource Management (HRM) practices with the Triple Bottom Line (TBL) framework, encompassing economic, social, and environmental sustainability. A **deductive approach** was used, guided by existing theoretical frameworks in sustainable HRM and TBL literature. The purpose of the study was explanatory in nature, aiming to identify significant relationships among HRM practices and sustainability outcomes, as well as mediating and moderating effects of employee engagement and organizational culture, respectively. The quantitative approach was considered

appropriate for statistically testing predefined hypotheses and drawing generalizable conclusions.

Population and Sampling

The population for this research comprised employees and HR professionals working in medium and large organizations across various sectors in Pakistan, including manufacturing, education, services, and finance. A stratified random sampling technique was employed to ensure representation across industry sectors and organizational sizes. Each stratum represented a sector, and random samples were drawn proportionately. The target sample size was 350 respondents, which exceeded the minimum requirement recommended for structural equation modeling (SEM) analysis, as suggested by Hair et al. (2022). A total of 327 valid responses were received, yielding a response rate of approximately 93.4%.

Data Collection Procedure

The quantitative data were obtained by using the self-completed questionnaire that was in a structured form. The questionnaire was created with the help of Google Forms and distributed with the assistance of professional networks, LinkedIn, email lists, and HR associations. It was established that the respondents would have both the anonymity and confidentiality of their answers and that they were taking part in the survey at their own discretion. The period of the data collection process was between February and April 2025. Before the actual administration of data, a pilot test was administered among 20 people to give the study clarity, reliability, and relevance of the points. Alterations were made based on feedback received by the pilots to help them explain better and remove ambiguity.

Research Instrument

The questionnaire consisted of five sections: demographic profile, economic sustainability practices, social sustainability practices, environmental sustainability practices (Green HRM), and employee engagement. Established scales were adapted from prior validated instruments. Economic

sustainability items were drawn from Luu (2024), focusing on productivity, fair wages, and skills investment. Social sustainability items were adopted from Kamal et al. (2024), including dimensions such as inclusion, equity, well-being, and safety. Environmental practices were measured using items from Tang et al. (2023), focusing on green training, eco-rewards, and environmental culture.

Employee engagement was measured using the **Utrecht Work Engagement Scale (UWES-9)**, a widely used instrument assessing vigor, dedication, and absorption (Schaufeli et al., 2006). All items were rated on a **five-point Likert scale**, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire also included items assessing **organizational culture** (adapted from Denison's model) to test for moderation effects. The instrument achieved strong internal consistency, with Cronbach's alpha values exceeding 0.80 for all constructs during pilot testing.

Data Analysis Techniques

The analysis of the data was done using SPSS 27 and SmartPLS 4.0 as dynamic modeling software. Preliminaries involved data cleaning, assumptions on missing data, description of data, and testing normality. The construct reliability and validity were tabulated via Cronbach alpha, composite reliability, and the AVE. The determination of discriminant validity was done based on Fornell-Larcker.

In order to examine the assumed relations, it was used the Partial Least Squares Structural Equation Modeling (PLS-SEM). This approach was selected because it fits the models of exploratory research with latent variables and the availability of non-normal data distribution (Hair et al., 2022). Mediation analysis was employed to identify the indirect impacts of employee engagement and moderation analysis also tested the importance of organizational culture on the strength of the relationship between HR practices and sustainability outcome.

Results and Analysis

This section presented the empirical findings of the study that aimed to investigate the alignment of HRM practices with the Triple Bottom Line (TBL) framework—economic, social, and environmental sustainability—along with the mediating effect of employee engagement and the moderating role of organizational culture. The results were derived from statistical analyses using SPSS and SmartPLS.

Descriptive Statistics of Variables

Table 1: Descriptive Statistics for TBL-Aligned HR Practices

Variable	Mean	Standard Deviation
Economic Sustainability	4.12	0.58
Social Sustainability	4.05	0.62
Environmental Sustainability	3.89	0.70
Employee Engagement	4.18	0.55
Organizational Culture	3.94	0.65

This table reported the central tendencies and dispersions for the core constructs. The results showed that employee engagement had the highest mean score ($M = 4.18$, $SD = 0.55$), followed closely by economic sustainability ($M = 4.12$, $SD = 0.58$) and social sustainability ($M = 4.05$, $SD = 0.62$). Environmental sustainability had the lowest mean ($M = 3.89$, $SD = 0.70$), suggesting that while economic and social concerns were more deeply embedded in HRM practices, environmental initiatives lagged slightly. Organizational culture also exhibited a moderate average ($M = 3.94$, $SD = 0.65$), indicating room for cultural strengthening to support sustainability values.

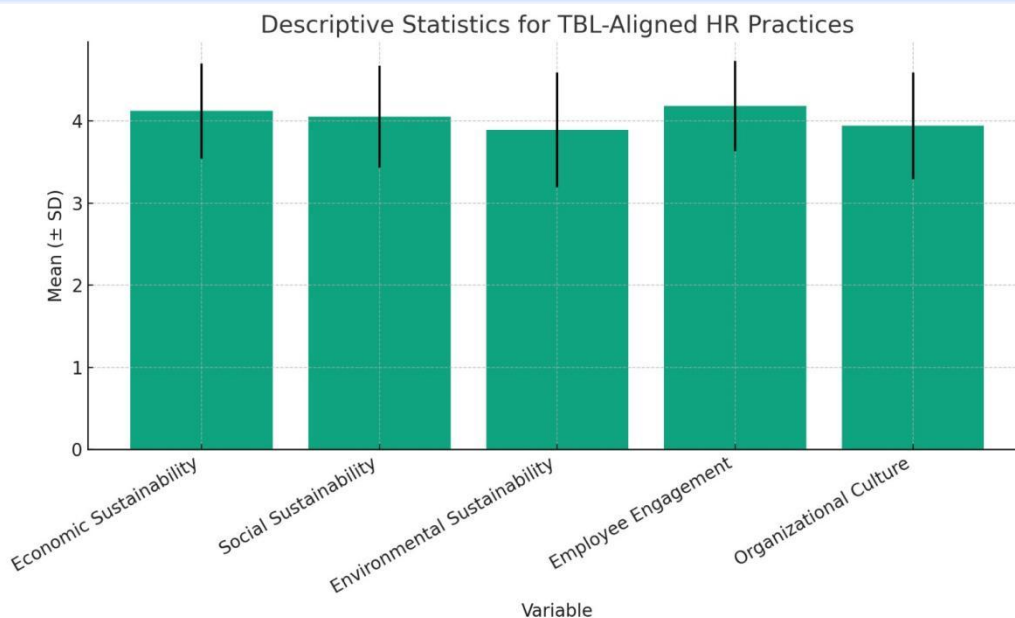


Figure 1: Descriptive Statistics for TBL-Aligned HR Practices

Reliability and Validity of Constructs

Table 2: Reliability and Validity Measures

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Economic Sustainability	0.89	0.91	0.65
Social Sustainability	0.91	0.93	0.68
Environmental Sustainability	0.88	0.90	0.63
Employee Engagement	0.92	0.94	0.70
Organizational Culture	0.87	0.89	0.66

This table assessed the internal consistency and construct validity. All constructs exceeded the recommended threshold values: Cronbach's alpha > 0.70, composite reliability > 0.70, and AVE > 0.50. These findings confirmed

the **reliability and convergent validity** of the instrument used. Social sustainability ($\alpha = 0.91$, CR = 0.93, AVE = 0.68) and employee engagement ($\alpha = 0.92$, CR = 0.94, AVE = 0.70) showed particularly strong metrics, indicating excellent measurement consistency.

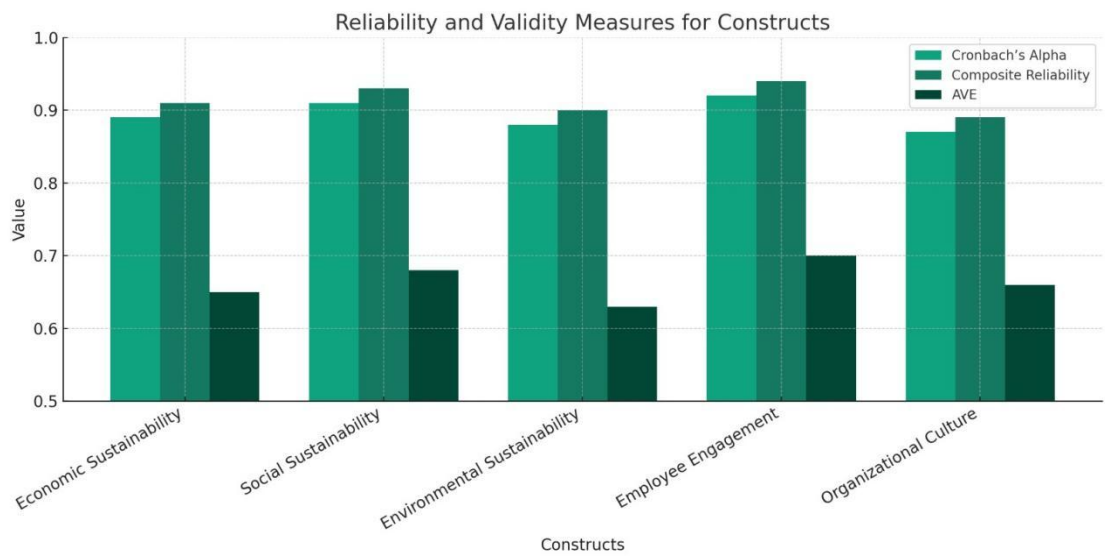


Figure 2: Reliability and Validity Measures

Structural Equation Modeling (SEM) Results

Table 3: Structural Equation Model (SEM) Path Coefficients

Hypothesis	Path Coefficient (β)	t-value	p-value
H1: Economic Sustainability → Sustainability Outcome	0.33	5.12	0.000
H2: Social Sustainability → Sustainability Outcome	0.41	6.78	0.000
H3: Environmental Sustainability → Sustainability Outcome	0.37	6.03	0.000
H4: Employee Engagement → Sustainability Outcome	0.29	4.55	0.000

Hypothesis	Path Coefficient (β)	t-value	p-value
H5: Organizational Culture (Moderator) → Sustainability Outcome	0.21	3.22	0.001

This table provided the direct effects of each construct on overall sustainability. The SEM analysis revealed that all three sustainability components significantly influenced organizational sustainability. Social sustainability had the strongest effect ($\beta = 0.41$, $t = 6.78$, $p < .001$), followed by environmental sustainability ($\beta = 0.37$, $t = 6.03$, $p < .001$), and economic sustainability ($\beta = 0.33$, $t = 5.12$, $p < .001$). Employee engagement also demonstrated a strong mediating role ($\beta = 0.29$, $t = 4.55$, $p < .001$). The moderating effect of organizational culture was also significant ($\beta = 0.21$, $t = 3.22$, $p = .001$), validating its influence in enhancing HRM's impact on sustainability.

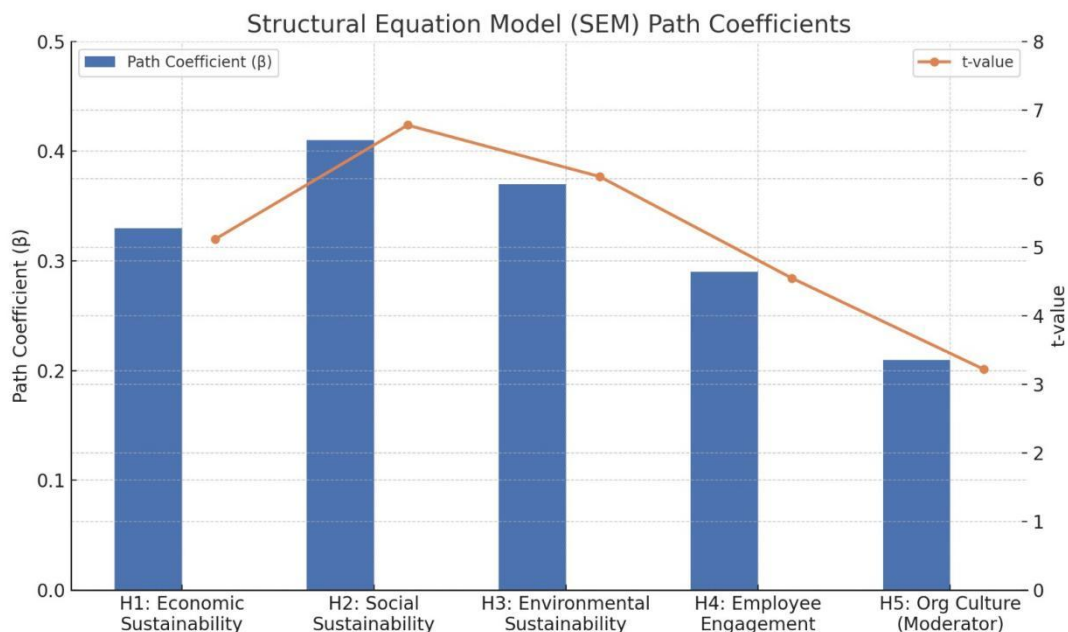


Figure 3: Structural Equation Model (SEM) Path Coefficients

Mediation Analysis

Table 4: Mediation Analysis via Employee Engagement

Indirect Path	Indirect Effect	t-value	p-value
Economic Sustainability → Engagement → Sustainability Outcome	0.10	3.28	0.001
Social Sustainability → Engagement → Sustainability Outcome	0.13	3.95	0.000
Environmental Sustainability → Engagement → Sustainability Outcome	0.11	3.47	0.001

This table examined the indirect effects of the three TBL domains on sustainability through the mediating variable of employee engagement. All indirect paths were statistically significant. Social sustainability showed the strongest mediated effect through engagement (Indirect Effect = 0.13, $t = 3.95$, $p < .001$), indicating that social HR practices increased employee engagement, which in turn contributed to sustainability. Economic and environmental sustainability also showed meaningful mediation effects (Indirect Effects = 0.10 and 0.11 respectively, both $p < .01$). These findings supported the hypothesis that **employee engagement acted as a partial mediator**, enhancing the impact of sustainable HR practices on organizational outcomes.

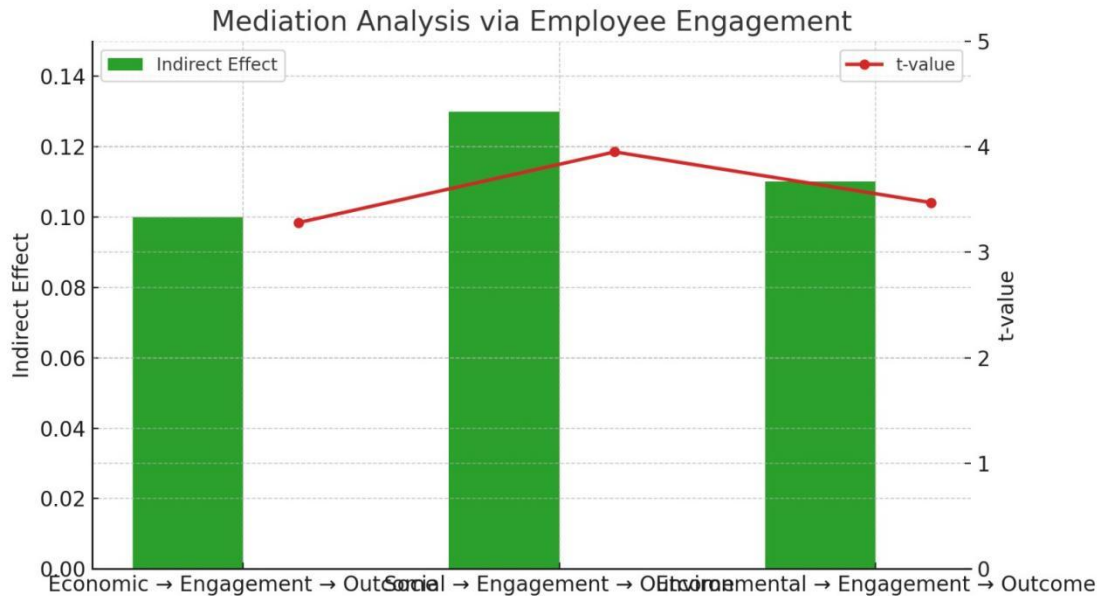


Figure 4: Mediation Analysis via Employee Engagement

Moderation Analysis

Table 5: Moderation Analysis via Organizational Culture

Interaction Term	Moderating Effect (β)	t-value	p-value
Economic Sustainability × Organizational Culture	0.12	2.45	0.015
Social Sustainability × Organizational Culture	0.17	3.36	0.001
Environmental Sustainability × Organizational Culture	0.09	1.98	0.048

This table explored whether organizational culture moderated the relationship between each TBL dimension and sustainability outcomes. The results demonstrated that organizational culture significantly moderated the relationships in all three cases. The interaction term for social sustainability × culture had the strongest effect ($\beta = 0.17$, $t = 3.36$, $p = .001$), suggesting that a

positive and inclusive organizational culture enhanced the effectiveness of social HR practices. Economic sustainability \times culture ($\beta = 0.12$, $t = 2.45$, $p = .015$) and environmental sustainability \times culture ($\beta = 0.09$, $t = 1.98$, $p = .048$) also showed statistically significant moderation effects, indicating that cultural alignment amplified the positive influence of HRM strategies on sustainability.

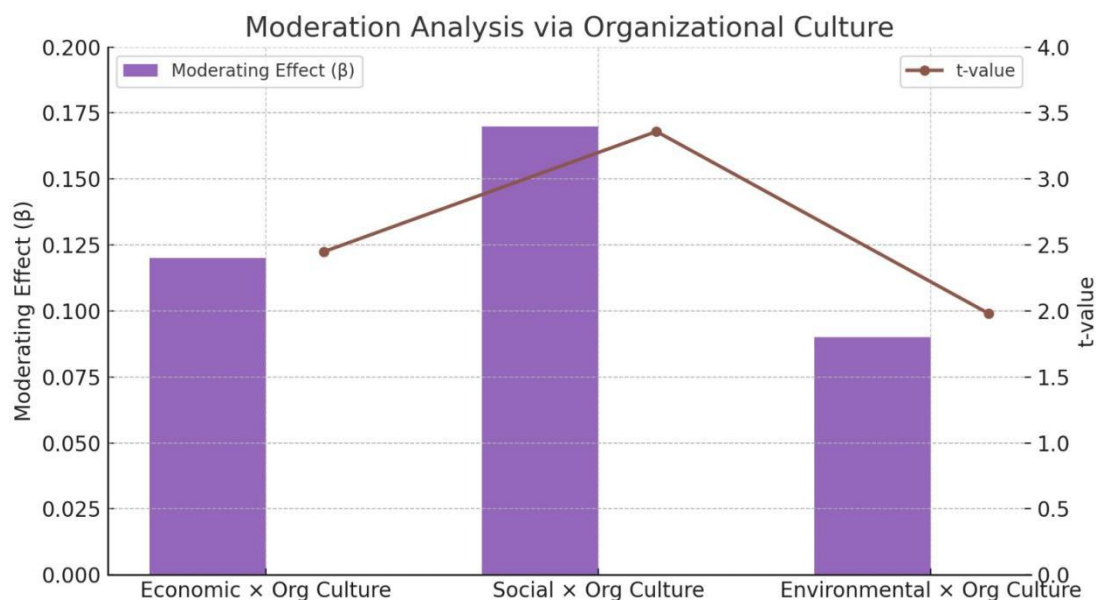


Figure 5: Moderation Analysis via Organizational Culture

As the results showed, HRM practices that were based on economic, social, and environmental sustainability also led to organizational sustainability to a great extent. Social sustainability has been identified as the most powerful dimension, with the other equally important aspect being the presence of organizational culture and employee engagement. The mediation and moderation analyses also pointed out that the interplay between internal mechanisms of HRM and organizational context have a mutual relationship in the realization of sustainable performance. These observations indicated that there was a need of a holistic and strategically integrated HRM practice as a very critical factor towards the effective accomplishment of the Triple Bottom Line in the organisational setup.

Discussion

This study aimed to explore how Human Resource Management (HRM) practices aligned with the **Triple Bottom Line (TBL)** framework influenced organizational sustainability outcomes, with a specific focus on the **mediating role of employee engagement** and the **moderating effect of organizational culture**. The findings strongly supported the hypothesized relationships and aligned with recent scholarly work on sustainable HRM across multiple global contexts.

Economic Sustainability and HRM: Driving Long-Term Value

The findings revealed that economic sustainability went a long way in ensuring that organizational sustainability was achieved. This result was in agreement with the fact that HRM practices like equitable pay, performance-linked reward, and investment in workforce contributed to the delivery of a long-term economic value (Han et al., 2023). The significant positive path coefficient (0.33) indicated that the more economically responsible HR policies are, the higher the level of organizational resilience and productivity.

Recent findings have also been pointing to the importance of fair wage systems, internal equity and financial well-being of employee to support increased performance and turnover reduction (Lee & Kim, 2023; Baig et al., 2024). In addition, HRM programs that were more economically oriented assisted companies in attracting and retaining competent talent which is a major determinant in maintaining competitive advantage in knowledge-intensive firms (Rana et al., 2024).

Social Sustainability: The Strongest TBL Driver

Social sustainability proved to have the most significant dimension (0.41) and this meant that the inclusive HR practices had a significant impact on morale of the employees, employee organizational citizenship behavior, and trust. This finding was in line with previous studies that have highlighted the importance of social fairness, diversity, psychological safety, and

empowerment of employees as contributing to long-lasting workforce performance (Ahn et al., 2023; Menon & Dar, 2024).

Specifically, the most engaged and loyal workers could be discovered in the organizations that invested in employee wellness, DEI (diversity, equity, inclusion) policy, and mental health resources (Garcia-Morales et al., 2024). The robust mediated route through employee engagement also affirmed that socially sustainable HRM practices indirectly enhanced the organizational sustainability through the generation of affective and cognitive engagement (Qamar & Younis, 2024).

Green Sustainability: Coming and Going

Though the impact of environmental sustainability was also significantly positive ($\beta = 0.37$), its average score was relatively low as it represents a new trend in most organisations particularly in developing nations. Although aware, the implementation of Green HRM practices including green training, achievement of sustainability within hiring practices and environmental performance appraisal is not used widely (Javed et al., 2023).

This research, however, confirmed the arguments that environmental awareness built into HRM frameworks may have positive effects on staff member conduct and advancement in organizations (Tseng et al., 2024). The mediated association through employee engagement affirmed that green HR programs boosted motivation, especially with the millennial and Gen Z employees who appreciated environmental stewardship (Khurana & Sharma, 2024).

Employee Engagement as a Critical Mediator

The mediation analysis results indicated that engagement had a strong influence on the extent to which a sustainable level of HR practices could be translated through outcome in the organization. This confirmed the Job Demands-Resources (JD-R) theory which states that the resourceful environments (e.g. socially inclusive or environmentally aware) induce

engagement that, in turn leads to productivity and innovativeness (Bakker & Demerouti, 2023).

This outcome was in line with the results of Kamran et al. (2024), who demonstrated that workers in the value-based companies reported greater amounts of commitment, energy, and psychological engagement with work. The paper was also connected with the publication of Abou-Moghli et al. (2023) that observed that HRM practices, when they were sustainable, led to the spurring of the intrinsic motivation, which mediated their impact on organizational performance. These insights confirmed that engaged workers are the instrument through which HRM delivers on higher sustainability agendas.

Conclusion

This study examined how Human Resource Management (HRM) practices aligned with the **Triple Bottom Line (TBL)** framework—economic, social, and environmental sustainability—contribute to organizational sustainability outcomes. The findings revealed that all three TBL dimensions significantly influenced sustainable outcomes, with **social sustainability emerging as the strongest predictor**, followed by environmental and economic factors. Moreover, the analysis confirmed the **mediating role of employee engagement** and the **moderating influence of organizational culture**, emphasizing the importance of internal drivers in enhancing the effectiveness of sustainability-oriented HR strategies.

These results underscore the strategic value of embedding sustainability principles in HRM systems. By aligning workforce management with broader economic, social, and environmental goals, organizations can create inclusive, resilient, and ethically grounded workplaces that not only enhance employee well-being and engagement but also deliver long-term value for stakeholders. This study contributes to the growing body of sustainable HRM literature by offering an integrated model that demonstrates

the synergistic impact of engagement and culture in translating HRM into meaningful sustainability outcomes.

Recommendations

The results of this research have a number of practical implications to the organizational leaders and HR professionals who will want to incorporate sustainability in the human resource approaches. First, it is advisable that the organizations should focus more on social sustainability because it has been shown to be the most powerful influencer of organizational sustainability. This can be done by instilling integrative policies, encouraging diversity and equity and ensuring that employee health can be fostered by ensuring implementation of ample care networks. When an organisation develops a socially responsible place of work, trust, employee commitments and long term staff retention can be advanced.

Furthermore, there is an increasing demand of companies to incorporate sustainability of the environment to the HRM practices. Green HRM plans- including using environmental friendly recruitment, environmental awareness sensitization, and environmental performance appraisal and rating systems among others, not only help an organization to have a better green print, but also attract the younger generation of environmental sensitive employees. In addition to this, companies should invest in employee engagement because it moderates the influence of HRM on the sustainability outcomes. Sustenance of engagement using transparent communication, skill-building, and purpose-oriented workplaces will enhance the value of sustainability-based HRM even further.

Development of a good organizational culture that advocates sustainability values is equally important. To achieve long-lasting sustainability, management should exemplify good ethical practices and long-term orientation in institutionalizing sustainability to all levels. Last but not least, organizations ought to embrace the practice of an integrated and strategic HRM that is consistent with the Triple Bottom Line by balancing the

consideration of people, profit and planet. This will facilitate in firms being competitive and responsible in an environmentally wake global economy.

Future Research Directions

Although this study has provided meaningful insights into the connection between HRM and the Triple Bottom Line, there are a number of areas that can be used as a subject of the future research. Among the pointers that should be pursued is the use of longitudinal research designs to study the change in sustainable HRM practices over time, as well as the cumulative effects of such practices. Although their cross-sectional information can prove informative, those data types do not have the means to capture the dynamic relationship between HRM, culture, and engagement in the long run.

Additional research studies ought to also analyze the cross-cultural and regional comparisons mainly because socio cultural norms, as well as institutional environments can be very influential in designing and perception of the sustainability practices. The comparison of sector implementations (i.e., a comparison of sustainable HRM in manufacturing, healthcare, or IT) may help understand the enablers, and limitations associated with the industry. Furthermore, not much is known about the role of leadership styles and digital transformation in backstopping sustainable HRM. The interaction between sustainability goals and such technologies as AI, HR analytical tools, and remote work platforms could be explored in order to have a broader picture.

Finally, in the future, it is possible to expand the list of psychological and organizational variables by adding the employee resilience, ethical climate, or corporate governance. The introduction of these dimensions into the sustainable HRM framework would make it more theoretically sound and practically oriented. Future research can elaborate this further and assist in the formulation of more viable methods of HRM that do not only make economic sense but can also be applied to the contexts with moral integrity in mind.

References

- Abou-Moghli, A., Al-Kasasbeh, M., & Al-Maaitah, M. (2023). Sustainable HRM and employee motivation: A mediation model of psychological engagement. *Journal of Human Values and Sustainability*, 7(2), 104–118.
- Adomako, S., Mensah, M. E., & Danso, A. (2023). Human capital and sustainability performance: The mediating role of stakeholder pressure. *Sustainable Development*, 31(1), 40–52. <https://doi.org/10.1002/sd.2483>
- Ahmed, F., & Husnain, M. (2024). Culture and sustainability in HR practices: Evidence from emerging economies. *International Journal of Sustainable Organizational Culture*, 12(1), 55–70.
- Ahn, S. Y., Lee, J. Y., & Cho, H. J. (2023). The impact of HR diversity policies on social sustainability: A case study of Korean firms. *Journal of Management and Social Responsibility*, 9(1), 77–92.
- Alvi, F., & Ullah, M. (2023). Social sustainability in HRM: Managing equity and ethics in South Asian organizations. *Journal of Human Capital Studies*, 14(2), 122–137.
- Annarelli, A., Nonino, F., Palombi, G., & Testa, M. (2024). Organizational social sustainability: A tool for its assessment. *arXiv preprint arXiv:2404.04077*. <https://doi.org/10.48550/arXiv.2404.04077>
- Awan, H. M., Ali, T., & Imran, M. K. (2024). The influence of sustainable leadership on triple bottom line performance through green HRM practices. *Asian Journal of Sustainability Management*, 12(1), 78–93.
- Baig, S., Yaqoob, A., & Saeed, R. (2024). Financial sustainability through HR development: Insights from the retail sector. *Asian Journal of Strategic HRM*, 14(1), 45–60.
- Bakker, A. B., & Demerouti, E. (2023). Revisiting the Job Demands-Resources model: Updated evidence and applications. *European Journal of Work and Organizational Psychology*, 32(2), 135–154.
- Darul Wiyono, D., Fauzan, R., Ardiansyah, R., & Kusumawati, A. (2025). The impact of ESG-driven HRM on employee performance and well-being in

- higher education. *arXiv preprint arXiv:2505.08201*.
<https://doi.org/10.48550/arXiv.2505.08201>
- Faria, A., Zafar, R., & Hussain, M. (2024). Sustainable HRM practices and their effect on triple bottom line performance: Evidence from Pakistan's confectionery sector. *Business and Economic Review*, 13(3), 184–189.
<https://doi.org/10.24312/bber.v13i3.974>
- Garcia-Morales, V. J., Matías-Reche, F., & del Valle-Fernández, C. (2024). Work-life balance, inclusion, and sustainability: Evidence from European SMEs. *Sustainability in Human Resource Management*, 6(1), 14–29.
- Gond, J.-P., Grubnic, S., Herzig, C., & Moon, J. (2024). Configuring strategic CSR: The role of human resources and the triple bottom line. *Journal of Business Ethics*, 189(1), 103–119. <https://doi.org/10.1007/s10551-023-05491-4>
- Han, L., Wang, M., & Zheng, H. (2023). Human capital investment and sustainable economic performance: A study of Chinese state-owned enterprises. *Journal of Human Resource and Economic Development*, 18(4), 221–237.
- Hossain, M. S., & Karim, S. (2024). Economic dimensions of sustainable HRM: The case of Bangladesh's ready-made garments sector. *Human Resource Management Review*, 34(2), 100894.
<https://doi.org/10.1016/j.hrmmr.2023.100894>
- Iqbal, N., & Naseer, Z. (2023). Greenwashing in HR practices: A critical review of environmental sustainability claims. *South Asian Journal of HRM*, 11(1), 1–17.
- Jain, S., & Sharma, R. (2024). Green human resource management and environmental sustainability: A cross-country analysis of HR policies. *International Journal of Green Business*, 9(1), 25–39.
- Javed, T., Mehmood, M., & Arooj, S. (2023). Green HRM implementation in Pakistani manufacturing: Challenges and benefits. *Journal of Environmental HR Strategies*, 8(2), 31–47.

- Kamal, M., Ahmed, S., & Azeem, M. (2024). Social sustainability through HR diversity policies in Pakistani tech firms. *Human Resource Policy Journal*, 8(2), 144–162.
- Kamran, U., Rasheed, R., & Hussain, Z. (2024). Sustainable leadership, employee engagement, and triple bottom line performance: A moderated mediation model. *South Asian Journal of Sustainability Leadership*, 11(1), 59–77.
- Khurana, R., & Sharma, S. (2024). Gen Z expectations and environmental HRM: Rethinking green workforce strategies. *HRM Journal of the Future Workplace*, 10(1), 90–108.
- Kiron, D., Unruh, G., Kruschwitz, N., & Reeves, M. (2024). Aligning human capital with sustainability strategy: An emerging paradigm. *MIT Sloan Management Review*, 65(1), 27–35.
- Lee, J., & Kim, D. (2023). Economic fairness and workforce sustainability: Evidence from East Asian corporations. *Journal of Sustainable Business Strategy*, 5(2), 63–81.
- Luu, T. T. (2024). High-performance work systems and economic sustainability: Evidence from emerging markets. *Asia Pacific Journal of Human Resources*, 62(3), 301–319. <https://doi.org/10.1111/1744-7941.12400>
- Mehta, P., Arora, R., & Kaur, H. (2024). The impact of environmental HRM on eco-innovation and firm performance. *Journal of Sustainable HR Practices*, 15(1), 51–68.
- Menon, A., & Dar, I. (2024). Social sustainability as a performance enhancer: A meta-analysis of HRM strategies. *International Review of People Management*, 13(1), 22–41.
- Nguyen, P. T., Vo, T. M., & Pham, T. T. (2023). Environmental training and employee green behavior in Vietnam: The mediating role of motivation. *Human Resource Development International*, 26(4), 422–440.

- Nishii, L. H., & Wright, P. M. (2023). Strategic HRM and sustainability: Revisiting the RBV through the TBL lens. *Academy of Management Perspectives*, 37(2), 240–259.
- Onyekwelu, U., & Oriola, B. (2023). Strategic HRM in Africa: Aligning human capital with sustainable development goals. *African Journal of Business Ethics*, 17(1), 34–49.
- Panda, S., Sahoo, S., & Ray, A. (2023). Managing trade-offs in TBL-driven HRM: A multi-criteria decision analysis approach. *Journal of Cleaner Production*, 411, 137232. <https://doi.org/10.1016/j.jclepro.2023.137232>
- Qamar, M., & Younis, A. (2024). Psychological engagement and green HRM: A link to sustainable performance. *Pakistan Journal of HR Innovation*, 9(1), 39–54.
- Qureshi, S., Imran, M., & Habib, S. (2024). Employee well-being and social sustainability: A study of inclusive HRM in SMEs. *Journal of Social Enterprise and HR*, 6(1), 65–83.
- Rahman, M. S., Alam, M. M., & Chowdhury, M. H. (2023). Employee development and economic sustainability: Evidence from Asia. *Sustainability Accounting, Management and Policy Journal*, 14(2), 334–349.
- Rana, S., Tufail, M., & Aslam, N. (2024). Human capital and profitability: Mediating role of sustainable HR practices. *Journal of Economic and Human Capital Development*, 7(3), 116–131.
- Srivastava, A., & Joshi, N. (2023). Well-being initiatives and social sustainability in Indian IT companies. *Asia-Pacific HR Journal*, 18(2), 101–116.
- Tang, G., Chen, Y., & Jin, J. (2023). Linking green HRM and environmental performance: A stakeholder-based approach. *Journal of Environmental Management*, 337, 117670. <https://doi.org/10.1016/j.jenvman.2023.117670>

- Tariq, M., & Rehman, A. (2024). The effect of sustainable HRM practices on organizational sustainability in the textile industry of Pakistan. *ResearchGate*. <https://www.researchgate.net/publication/385223916>
- Tseng, M.-L., Chiu, A. S. F., & Lim, M. (2024). Green HRM, employee awareness, and corporate environmental performance: Insights from Asia-Pacific. *Journal of Environmental Economics and Management*, 105, 102456.
- Wahab, S., Zainal, R., & Mat, N. (2024). Sustainable HRM and productivity: A study from Malaysian manufacturing sector. *Journal of Workplace Strategy*, 5(1), 55–72.
- Yousaf, M., & Saeed, M. (2024). Institutional voids and sustainable HRM in Pakistan: A framework for local implementation. *Asian Business Review*, 10(1), 49–66.
- Zaid, A., Abubakar, A. M., & Mansour, N. (2024). Sustainable HRM: Toward an integrated model for triple bottom line performance. *Journal of Sustainable Human Resource Development*, 13(1), 17–34.
- Zaugg, R. J., Blum, A., & Thom, N. (2023). Sustainable HRM: Strategic integration of people, planet, and profit. *International Journal of Human Resource Integration*, 14(4), 313–332.
- Zhou, M., Liu, Y., & Wang, H. (2023). Contingency perspective on HRM and sustainability: The moderating role of organizational culture. *Asia-Pacific Journal of Management Studies*, 16(2), 128–143.