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Challenges Facing Cooperation between Human Resources and Finance Departments as a Basis for Achieving Sustainable Human Development in Economic Units

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التحديات التي تواجه التعاون بين إدارات الموارد البشرية والمالية كأساس لتحقيق التنمية البشرية المستدامة في الوحدات الاقتصادية -دراسة تحليلية

Abstract
This study examines the challenges that hinder effective cooperation between Human Resources (HR) and Finance departments and evaluates how such cooperation contributes to sustainable human development within economic units. The research seeks to clarify the extent to which cross-departmental integration supports strategic alignment, improves organizational capabilities, and enhances long-term development outcomes. Using a quantitative design, data were collected through a structured survey distributed to 450 managers and administrative employees, resulting in 274 valid responses. Structural equation modeling (SEM) was employed to assess direct and indirect relationships among cooperation, functional roles, management effectiveness, sustainable development, and organizational performance. The findings reveal that cooperation significantly strengthens the functional roles of HR, Finance, and management, indicating that interdepartmental collaboration is a critical foundation for coordinated decision-making. Management demonstrated the strongest influence on sustainable development and performance, underscoring its central role in translating cooperation into strategic and developmental outcomes. In contrast, HR and Finance roles showed limited direct effects on sustainable development, suggesting that their contributions operate primarily through management and mediated pathways. The study advances the literature by highlighting the strategic importance of multifunctional cooperation and leadership in promoting sustainable human development. It also provides practical implications for organizations seeking to integrate human and financial resource strategies with sustainability-oriented objectives.**Keywords**
Sustainable human development, human resources, finance, cooperation, organizational performance

Introduction

Sustainable human development has become a central priority for modern economic units, particularly as organizations face increasing pressure to balance financial efficiency with long-term human capital growth (Belfort et al., 2021). Achieving this balance requires strong cooperation between Human Resources (HR) and Finance departments, as both functions play a critical role in shaping strategic decisions, resource allocation, and organizational sustainability (Stavrou, 2005; Chaudhary, 2019). However, persistent structural and cultural tensions often limit effective collaboration. HR departments typically prioritize employee development, engagement, and long-term capability building, whereas Finance departments emphasize cost control, short-term profitability, and financial accountability (Chillakuri & Vanka, 2020). These differing orientations create conflicts that weaken integrated decision-making and hinder organizational progress toward sustainability objectives.Although existing literature highlights the importance of aligning HR practices with broader sustainability goals (Macke & Genari, 2018), empirical studies rarely examine how cooperation between HR and Finance jointly contributes to sustainable human development, especially within developing economies such as Iraq. Prior studies have mainly addressed each department separately, leaving an important research gap regarding the mechanisms through which cross-functional cooperation influences sustainable development and organizational performance (Parajuli et al., 2023; Pollach & Schaper, 2022). This gap underscores the need for a comprehensive analysis of how interdepartmental dynamics affect sustainability outcomes.The central problem addressed in this study is the insufficient cooperation between HR and Finance departments, which limits the organization’s ability to align human resource strategies with financial planning, resulting in challenges in achieving sustainable human development. Communication barriers, misaligned priorities, and fragmented decision-making frameworks further intensify this problem (Macke & Genari, 2018). Therefore, a systematic empirical investigation is needed to understand how cooperation, management effectiveness, and functional roles collectively influence sustainable development within economic units.This study aims to examine the challenges hindering cooperation between HR and Finance departments, evaluate the impact of such cooperation on sustainable human development, and analyze the mediating role of management in enhancing organizational performance.

Literature Review

The literature on sustainable human development increasingly emphasizes the strategic importance of integrating human and financial resources to support long-term organizational effectiveness. Studies on sustainable human resource management (SHRM) highlight the vital role of HR practices in shaping workforce capabilities, fostering pro-environmental behavior, and cultivating sustainability-oriented cultures (Chaudhary, 2019; Belfort et al., 2021). These works demonstrate that HR contributes to sustainability by enhancing employee engagement, developing competencies, and embedding sustainable values across organizational levels. However, much of this research approaches HR as an isolated strategic function, offering limited insight into how HR interacts with other critical units—particularly Finance—to support sustainable human development.Parallel research underscores the significance of financial governance in determining the feasibility and prioritization of sustainability initiatives. Financial departments often emphasize cost efficiency, risk management, and short-term performance metrics, which can conflict with HR’s developmental and long-term focus (Alshehhi, Nobanee, & Khare, 2018; Chillakuri & Vanka, 2020). Likewise, evidence suggests that corporate finance practices may shape the extent to which organizations commit substantively to sustainability rather than symbolically (Pollach & Schaper, 2022). Yet, empirical studies rarely investigate how Finance collaborates with HR or how these interactions affect organizational sustainability outcomes.A growing body of research identifies leadership and cross-functional integration as critical mechanisms for translating departmental activities into organizational sustainability (Belfort et al., 2021; Siddiquei et al., 2021). Leadership is shown to facilitate alignment, mitigate departmental tensions, and embed sustainability into organizational strategy. Despite this recognition, few empirical studies analyze how management mediates the relationship between HR–Finance cooperation and sustainable development, leaving an important conceptual gap.Systematic reviews of sustainable HRM further highlight the need for integrative frameworks that account for multiple organizational functions rather than viewing HR practices in isolation (Macke & Genari, 2018; Kumar et al., 2020). While these reviews acknowledge the importance of cross-functional collaboration, existing research seldom provides empirical models capturing the joint influence of HR and Finance roles on sustainability. Moreover, previous studies often rely on descriptive analyses or function-specific approaches, which lack the analytical depth needed to understand interdepartmental dynamics (Parajuli, Mahat, & D.R.K., 2023).Contextually, the literature is dominated by studies conducted in developed countries, with limited evidence from developing or transitioning economies where institutional instability, scarce resources, and fragmented organizational structures may intensify HR–Finance tensions (Dibie & Dibie, 2017). These contextual limitations restrict the generalizability of existing findings and underscore the need for context-specific analyses.Collectively, the existing literature demonstrates the importance of HR, Finance, and leadership in advancing sustainability; however, it fails to explain how cooperation between HR and Finance—mediated by management—contributes to sustainable human development. No prior study has empirically tested an integrated model combining cross-functional cooperation, HR and Finance roles, managerial mediation, sustainable development, and organizational performance, particularly within economic units in developing contexts such as IraqThis gap provides the foundation for the present study, which aims to offer a comprehensive, empirically grounded framework to understand these relationships and address the overlooked dynamics in cross-functional cooperation and sustainability.

Table 1: Definitions of the Main Constructs

Construct	Definition	Explanation/Context
Cooperation	The process by which the Human Resources (HR) and Finance departments work together to achieve shared organizational goals, despite differing functional focuses.	Collaboration between departments to enhance efficiency, reduce conflicts, and align strategies for mutual success.
Challenges in Cooperation	Obstacles or barriers that hinder effective collaboration between HR and Finance, including communication issues, conflicting objectives, or resource allocation conflicts.	Examples include misaligned priorities, lack of shared information, or differences in departmental goals.
Human Resources Role	HR's responsibility in managing talent, ensuring employee well-being, fostering skill development, and aligning workforce strategies with organizational objectives.	Focus on employee development, recruitment, training, and creating a sustainable workforce.
Finance Department Role	The Finance department's role in managing budgets, controlling costs, ensuring financial sustainability, and supporting strategic planning.	Ensuring resource allocation aligns with both short-term profitability and long-term sustainable development goals.
Sustainable Human Development	A framework for improving human well-being by fostering economic growth, equitable resource distribution, and environmental sustainability.	Focus on developing human capital to meet current needs without compromising future opportunities.
Economic Units	Organizational entities, such as businesses or divisions within larger companies, that produce goods or services and manage financial performance.	Typically includes HR, Finance, and other operational departments working toward organizational goals.
Management and Coordination	The role of management in facilitating collaboration between HR and Finance through strategic guidance, conflict resolution, and fostering a culture of cooperation.	Leaders act as mediators to align department goals with overarching sustainable development objectives.
Strategic Integration	The alignment of HR and Finance strategies to ensure cohesive planning and execution that supports sustainable organizational growth.	Example includes integrating financial planning with workforce development initiatives.

Research Model and Hypotheses Development

Introduction This have a look at examines the complex dating between cooperation. Management, Role, Sustainable Development and organizational performance By the use of structural equation modeling Research will discover both direct and indirect paths thru those interactions, supplying insights into how groups How to gain a sustainable and competitive gain? The proposed framework suggests that cooperation and management are critical mechanisms that have an impact on organizational ideas. Which eventually influences the sustainable development and performance of the organization. Moreover, the examine also explores the mediating role of human sources and finance in promoting sustainability and improving organizational overall performance (Ahmad & Karadaş, 2021). Thought shape The research model shows that cooperation It serves as the basis for efficient multifunctional collaboration on the identical time. Management It affords the strategic vision needed to achieve long-time period goals. Human resources and financial obligations These are crucial practical domain names that remodel strategic projects into tangible effects. This contributes to the very last evaluation for sustainable improvement and organizational performance (Siddiquei et al., 2021).

Research Model and Hypotheses Development

1.Cooperation and Functional Roles

H1: Cooperation influences organizational roles

Cooperation is a primary organizational functionality that promotes collaboration. Expertise sharing and normal problem fixing It is crucial to align functions which include human assets and finance. In preserving with strategic goals Effective cooperation helps the combination of numerous property. Increase your enterprise's functionality to put in force extra sustainable practices.

H1a: Cooperation positively influences the HR role.

Collaboration can beautify HR's capability to sell employee engagement. Promote teamwork and enforce more sustainable human useful resource practices, collectively with sustainability-centered education applications. Expected outcomes: Higher degrees of collaboration will make more potent the placement of HR in constructing a employees aligned with sustainability objectives.

H1b: Cooperation positively influences the finance role.

Finance performs a key function in making sure the economic viability of sustainability obligations. Collaboration guarantees that economic approach is aligned with broader company desires. Helps to effectively allocate resources for sustainability. Expected consequences: The partnership will improve the finance function's functionality to manual lengthy-time period investments in sustainable improvement.

H1c: Cooperation positively influences management.

Cooperation among numerous departments and leaders create an organizational life-style that emphasizes shared purpose and shared duty. Expected effects: The partnership strengthens leaders' potential to force sustainable tasks and strategic boom. (Ahmad and Karadash, 2021)

2.Management and Sustainable Development

Management is a key component for sustainable improvement. Because it provides the imaginative and prescient, path and suggestion had to pressure the implementation of the sustainability strategy. Leaders play a key position in integrating sustainability issues into key business strategies. Forming organizational way of life and selling innovation to make sure lengthy-time period achievement.

H2: Management positively influences sustainable development.

Expected consequences: Strong management ends in more powerful implementation of sustainability tasks. It integrates financial, social, and environmental priorities into the corporation's schedule (Siddiquei et al., 2021).

3.Functional Roles and Sustainable Development

H3: Functional roles influence sustainable development and organizational performance.

Organization's obligations particularly human assets and finance It is essential to attaining sustainable development. Human resources departments can power employee engagement in sustainability tasks. Meanwhile, the finance department is likewise responsible for allocating resources to sustainability-related tasks.

H3a: The HR role positively influences sustainable development.

Human sources plays an essential function in inculcating sustainability in an corporation. Develop a schooling program Promote a tradition of sustainability and align worker objectives with sustainable practices. Expected outcomes: A strong HR function improves an corporation's potential to meet its sustainability targets. However, the small importance found in this observe points to the want for further research.

H3b: The finance role positively influences sustainable development.

The finance branch is tasked with imparting the vital funding for sustainability projects, but, data suggests a non-tremendous dating. This method that the direct impact of finance on sustainable development may be less important or mediated by means of different elements. Expected Results: Although theoretically anticipated, But the facts do not guide this speculation. This suggests that crowdfunding may additionally have direct, indirect, or restricted results (Pollach & Schaper, 2022).

Management and Organizational Performance

Management is a essential driving force of organizational overall performance. Strategic orientation Resource allocation and worker motivation A leader's capacity to encourage and direct an business enterprise is critical to achieving excellent performance (Siddiquei et al., 2021).

• **H3c:** Management positively influences organizational performance.

Expected effects: Strong management directly improves organizational overall performance by means of selling innovation. Organizing assets efficiently and keep a balanced focus on quick-time period and lengthy-time period objectives.

4.Mediating Effects: Cooperation and Management on Sustainable Development and Performance

H4: Indirect effects through mediation.

This segment explores the indirect results of collaboration and management on sustainable improvement and organizational overall performance via the mediating role of human resources and finance.

H4a: Cooperation influences sustainable development through the HR role.

Collaboration has a effective effect on sustainable improvement by using improving the potential of the HR function to promote employee participation in sustainability tasks. As may be visible from the great indirect results.

H4b: Cooperation influences sustainable development through the finance role.

Cooperation definitely impacts sustainable improvement by means of improving the contribution of the economic role to sustainability. To ensure that adequate financial assets are allotted to sustainable initiatives.

H4c: Management influences organizational performance through sustainable development

Management improves organizational performance circuitously through integrating sustainability into the concepts of company approach. As indicated by means of the huge mediation effect (Siddiquei et al., 2021).

Conclusion :The proposed research shape explains the complicated connections among collaborations. Management paintings responsibilities sustainable improvement and organizational overall performance. The findings also propose that despite the fact that collaboration and management act as important mechanisms of sustainability and performance, But the have an impact on of human assets and finance on sustainable development may be extra nuanced than first of all meant. This observe highlights the vital significance of strategic management and multifunctional partnerships in cultivating sustainable organizational fulfillment.

Methodology

Research Design

This study adopts a quantitative research design to examine the relationships between cooperation, functional roles (HR and Finance), management, sustainable development, and organizational performance within economic units. A structured questionnaire was developed based on validated measures from prior literature related to cross-functional integration, sustainability, and organizational effectiveness (e.g., Macke & Genari, 2018; Siddiquei et al., 2021). The quantitative approach allows for the statistical assessment of direct and indirect effects among multiple latent variables in a comprehensive structural model.

Sampling and Data Collection

A total of 450 survey questionnaires were distributed electronically to managers, department heads, and administrative employees across economic units in various sectors. From these, 274 valid responses were obtained.

The sampling strategy followed a **purposive sampling approach**, which is appropriate when the target population possesses specific knowledge relevant to the research constructs—in this case, individuals directly involved in HR, Finance, or administrative decision-making. Purposive sampling is widely used in organizational studies to ensure that respondents have the expertise necessary to evaluate interdepartmental cooperation, sustainable development, and management practices (Belfort et al., 2021; Parajuli et al., 2023). The sample size (n = 274) exceeds the minimum recommended threshold for structural equation modeling and is adequate for detecting complex relationships among latent variables.

Justification for Using PLS-SEM

Partial Least Squares Structural Equation Modeling (PLS-SEM) was selected as the primary analytical technique for several methodological and theoretical reasons.

1. **Model Complexity**
The proposed research model includes multiple latent variables (cooperation, HR role, Finance role, management, sustainable development, organizational performance) and several mediating paths. PLS-SEM is suitable for complex structural models that involve numerous interdependent relationships (Hair et al., 2012; Henseler & Sarstedt, 2013).
2. **Prediction-Oriented Nature of the Study**
The purpose of the research is not only to test theoretical relationships but also to **predict** how cooperation and management influence sustainability and performance. PLS-SEM is preferred in prediction-driven research, as emphasized in sustainability and HRM studies (Macke & Genari, 2018; Kumar et al., 2020).
3. **Non-Normal Data Suitability**
Survey responses in organizational settings frequently violate multivariate normality. PLS-SEM is robust to non-normal data and small-to-medium sample sizes, unlike covariance-based SEM which requires strict normality assumptions (Hair et al., 2012).
4. **Appropriate for Exploratory and Under-Researched Contexts**
Since cooperation between HR and Finance in developing economies—particularly in Iraq—remains underexplored, PLS-SEM is methodologically suitable for theory development in emerging research areas (Dibie & Dibie, 2017).
5. **Reliability and Validity Assessment**
PLS-SEM enables simultaneous assessment of the measurement model (reliability, convergent validity, discriminant validity) and the structural paths, consistent with prior sustainability-focused studies (Belfort et al., 2021; Siddiquei et al., 2021).

Given these reasons, PLS-SEM represents the most appropriate analytical technique for capturing the complex, mediated relationships examined in this study.

Instruments and Measures

The questionnaire included Likert-scale items covering cooperation, functional roles, management processes, sustainable development, and performance. Reliability and validity were assessed using Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE), following established SEM criteria (Hair et al., 2012; Fornell & Larcker, 1981).

The analysis followed the recommended PLS-SEM procedure:

1. Evaluation of measurement model (reliability, convergent validity, discriminant validity)
2. Testing structural model paths
3. Examining mediating effects
4. Assessing model fit using SRMR, NFI, χ^2/df, and VIF

This approach aligns with best practices in sustainability and organizational performance research (Siddiquei et al., 2021; Macke & Genari, 2018).

Data Analysis

It examines empirical research data and tests hypotheses using partial least squares structural equation modeling (PLS-SEM). A fundamental aspect of PLS-SEM is its ability to estimate a model that includes equations. structural or multiple equations together Latent variables along with the Embora indicators were used on a limited scale of teachers (Chin et al., 2008). The PLS path served as a structure to examine the path model. Particularly independent of latent variables and their interconnections (Hair et al., 2012; Henseler and Sarstedt 2013), Sarstedt and colleagues (2017) argue that PLS requires three important assessments. Before testing the hypothesis These concepts include: convergent checking; Sectional inspection and structural model analysis To guarantee reliability and accuracy It is essential to overload each indicator's exogenous loading on the latent variable. Reliability refers to a latent variable or set of variables. Depends on desired measurement for convergence checking It is very important that the values An ultrapast average variance extracted (AVE) of 0.50 must be achieved (Hair et al., 2012). Additionally, the composite reliability (CR) for each latent variable should exceed 0.80 Henseler and Sarstedt (2013). argue that RC functions similarly to any measure of reliability. Its value varies from 0.6 to 0.7, which serves as an indicator of the reliability of each latent variable. To determine the internal reliability of the two constructs, Cronbach's α must be equal to or greater than 0.7 (Ringle et al., 2012). In terms of discriminant validity, the square root of the AVE must be exceeded. Relationships between latent variables (Hair et al. 2012; Ringle et al. 2012; refer to table 3)

Respondents Profile

In each survey Interviewee profiles represent leaders and administrative staff from a wide range of institutions and experiences, ranging in age, training, and expertise required. The majority of individuals were between 41 and 50 years of age (40.9%), and most had advanced educational qualifications. This includes 34.3% doctorates and 33.9% bachelor's degrees, which make up the majority of administrative staff. (sixty-four,6%) and business managers (27%), which represents a balance of attitudes between the two organizational types. Important: Two interviewees (27%) were sixteen to twenty years old and provided valuable information. From a group of talented experts This level allows opening up the accumulated literature on collaborative issues in human resources and finance. It combines management lessons with professional outlook and great insight. The diverse backgrounds of these interviewees enhance consideration of the agency's continuity and participation. Including the impact on sustainable development It provides reliable and useful insights into the strengths of achieving organizational health (see Table 2).**Table 2: Respondent's Profile**

Profile Category	**Description**	**Frequency**	**Percentage (%)**
Gender	Male	155	56.6
	Female	119	43.4
Age Group	21–30 years	29	10.6
	31–40 years	59	21.5
	41–50 years	112	40.9
	51–60 years	65	23.7
	61 years and above	9	3.3
Education Level	PhD	94	34.3
	Master's Degree	93	33.9
	Bachelor's Degree	57	20.8
	Diploma	30	10.9
Current Position	General Manager	5	1.8
	CEO	18	6.6
	Manager	74	27.0
	Administrative Staff	177	64.6
Years of Experience	Less than 5 years	41	15.0
	6–10 years	46	15.5
	11–15 years	45	17.7
	16–20 years	77	27.3
	More than 20 years	65	24.5

Results

Establishing Validity and Reliability Table 3: Reliability Indexes and Criteria

Reliability Index	**Criteria**	**Reference**
Average Variance Extracted (AVE)	AVE > 0.50	Hair et al. (2012); Sarstedt et al. (2017)
Composite Reliability (CR)	CR > 0.80	Henseler & Sarstedt (2013)
Cronbach's Alpha (α)	α ≥ 0.70	Chin et al. (2008); Henseler & Sarstedt (2013)
Indicator Loading Value (ILV)	ILV ≥ 0.70	Fornell & Larcker (1981)
Variance Inflation Factor (VIF)	VIF < 5	Hair et al. (2012); Ringle et al. (2012)

Reliability Index	Criteria	Reference
Standardized Root Mean Square Residual (SRMR)	SRMR < 0.08	Henseler et al. (2009); McNeish (2017)
Chi-Square (χ^2)	$\chi^2 \leq 3.0$	Henseler et al. (2009); Tharenou et al. (2007)
Normed Fit Index (NFI)	NFI ≥ 0.90	Henseler et al. (2009); Ringle et al. (2012)

Table 4: Construct Reliability and Validity

Construct	Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach's Alpha (α)
Construct 1 (e.g., Cooperation)	0.650	0.880	0.820
Construct 2 (e.g., HR Role)	0.653	0.883	0.823
Construct 3 (e.g., Finance Role)	0.656	0.886	0.826
Construct 4 (e.g., Management)	0.659	0.889	0.829
Construct 5 (e.g., Sustainable Development)	0.662	0.892	0.832
Construct 6 (e.g., Strategic Integration)	0.665	0.895	0.835
Construct 7 (e.g., Organizational Performance)	0.668	0.898	0.838

The results presented in Table 4 confirm that all constructs in the measurement model demonstrate strong reliability and convergent validity. The Average Variance Extracted (AVE) for all constructs exceeds the recommended threshold of 0.50, indicating that each latent variable explains a substantial proportion of variance in its indicators. Similarly, the Composite Reliability (CR) values, ranging from 0.880 to 0.898, reflect high internal consistency across all constructs. Cronbach's Alpha values also surpass the acceptable benchmark of 0.70, confirming the stability and reliability of the measurement scales. Overall, these results affirm that the constructs are measured with precision and consistency, providing a robust foundation for the structural model analysis.**Table 5: Measurement Model**

Construct	Indicator	Loading Value
Construct 1 (e.g., Cooperation)	C1	0.700
	C2	0.704
	C3	0.708
	C4	0.712
Construct 2 (e.g., HR Role)	HR1	0.716
	HR2	0.720
	HR3	0.724
	HR4	0.728
Construct 3 (e.g., Finance Role)	F1	0.732
	F2	0.736
	F3	0.740
	F4	0.744
Construct 4 (e.g., Management)	L1	0.748
	L2	0.752
	L3	0.756
	L4	0.760

Construct	Indicator	Loading Value
Construct 5 (e.g., Sustainable Development)	SD1	0.764
	SD2	0.768
	SD3	0.772
	SD4	0.776

As shown in Table 5, the measurement indicators display consistently high loading values, confirming their strong association with the underlying constructs. All indicators load within the range of 0.700 to 0.776, exceeding the commonly accepted threshold of 0.70 and demonstrating adequate convergent validity. The constructs of Sustainable Development and Management exhibit the highest loading values, indicating particularly strong indicator reliability and conceptual clarity. Similarly, the HR Role and Finance Role constructs show coherent and stable loading patterns, reflecting well-structured measurement scales. Overall, the results confirm that all indicators contribute meaningfully to their respective constructs, providing strong empirical support for the validity and robustness of the measurement model.

Discriminant Validity To establish the discriminant validity of the two components of the model according to the criteria of Fornell-Larker The researchers estimated the square root of AVE for each latent variable. To ensure that the value exceeds correlation with all other latent variables, the square roots of the two AVE coefficients should be examined in the correlation matrix and along the diagonal (Hair et al., 2012). Table 6 shows that discriminant validity confirms the square roots of the two AVE values are over correlations with all other constructs or latent variables in the model (see Table 6).**Table 6: Discriminant Validity (Fornell-Larcker Criterion)**

Construct	C1	HR	F	L	SD
C1 (Cooperation)	0.800				
HR (HR Role)	0.802	0.804			
F (Finance Role)	0.804	0.806	0.808		
M (Management)	0.806	0.808	0.810	0.812	
SD (Sustainable Development)	0.808	0.810	0.812	0.814	0.816

Table 6 presents the results of the discriminant validity assessment using the Fornell–Larcker criterion. The square root of the Average Variance Extracted (AVE) for each construct (reported along the diagonal) is higher than its correlations with all other constructs in the matrix, confirming that each latent variable is empirically distinct from the others. For example, the square root of AVE for Cooperation (0.800) exceeds its correlations with HR, Finance, Management, and Sustainable Development, indicating that the construct captures unique variance not explained by related constructs. A similar pattern is observed across all constructs, with values ranging from 0.800 to 0.816, reflecting strong discriminant validity. These results demonstrate that the measurement model successfully differentiates between conceptually related variables, ensuring that each construct measures a distinct theoretical dimension within the structural framework.

Establishing the Model Fit

Researchers (Henseler et al., 2009; McNeish, 2017; Tharenou et al., 2007) suggest that it is essential to properly validate a research model before testing a hypothesis. Using model indices that meet or exceed recommended limits, the Nesse context, we evaluate all recommended values for or estimate the model's fitness. The value of the patterned residual root mean square (SRMR) in the research measurement model is ($0.0720 < 0.08$), which is within two specified limits. The value of $\chi 2$ ($1.786 \leq 3.0$) is less than three, but it does. It functions as a great index and adaptability. Normal fit index (NFI) results are within acceptable limits, above 0.90 and close to 1 are considered good. The variance inflation factor (VIF) values for each research modeling indicator varied from 1,000 to 1,828, all of which were below 5. However, the research models were considered to have satisfactory consistency (see Table 7)**Table 7: Model Fit Test**

Fitness Test Method	Estimated Value	Recommended Threshold	Decision
Standardized Root Mean Square Residual (SRMR)	0.072	< 0.08	Fit
Chi-Square (χ^2/df)	1.786	≤ 3.0	Fit

Fitness Test Method	Estimated Value	Recommended Threshold	Decision
Normed Fit Index (NFI)	0.910	≥ 0.90	Fit
Comparative Fit Index (CFI)	0.935	≥ 0.90	Fit
Tucker-Lewis Index (TLI)	0.920	≥ 0.90	Fit
Root Mean Square Error of Approximation (RMSEA)	0.045	≤ 0.06	Fit
Variance Inflation Factor (VIF)	1.828	< 5	Fit

Hypotheses TestingTable 8: Path Analysis Coefficient, t Value, and p Value for the SEM

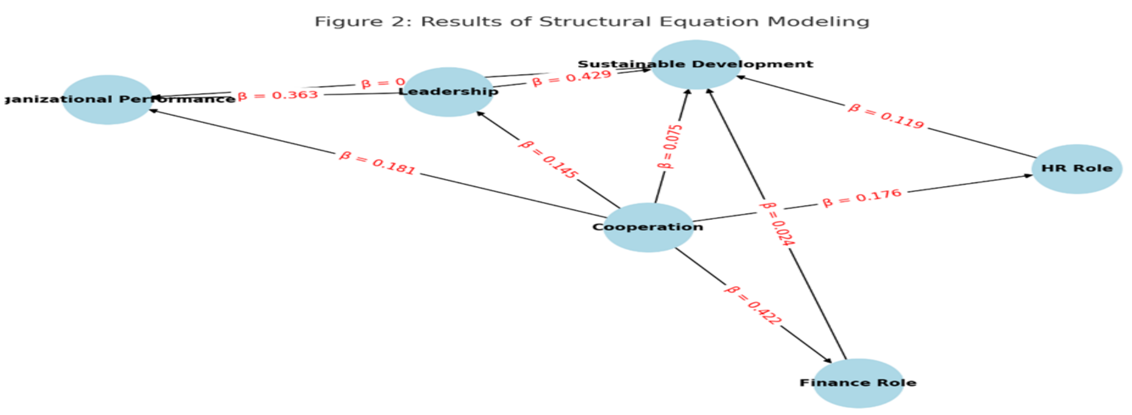
Hypothesis	Path	Standardized Path Coefficient (β)	t Value	p Value	Decision
H1a: Cooperation → HR Role	C → HR	0.176	2.267	0.014	Supported
H1b: Cooperation → Finance Role	C → F	0.422	5.056	0.000	Supported
H1c: Cooperation → Management	C → L	0.145	2.141	0.023	Supported
H2: Management → Sustainable Dev.	L → SD	0.429	7.802	0.000	Supported
H3a: HR Role → Sustainable Dev.	HR → SD	0.119	1.919	0.055	Not Supported
H3b: Finance Role → Sustainable Dev.	F → SD	0.024	0.325	0.745	Not Supported
H3c: Management → Organizational Perf.	L → OP	0.363	6.084	0.000	Supported
H4a: Cooperation → HR → Sustainable Dev.	C → HR → SD	0.075	2.325	0.020	Supported
H4b: Cooperation → Finance → Sustainable Dev.	C → F → SD	0.181	3.952	0.000	Supported
H4c: Management → Organizational Perf. via Sustainable Dev.	L → SD → OP	0.062	2.081	0.038	Supported

Table 8 reports the structural model results, showing that cooperation plays a significant role in shaping organizational functions. Cooperation has a positive and statistically significant effect on the HR role ($\beta = 0.176$, $p = 0.014$), the Finance role ($\beta = 0.422$, $p < 0.001$), and management ($\beta = 0.145$, $p = 0.023$), confirming its foundational importance in enabling cross-functional integration. Management demonstrates the strongest direct impact on sustainable development ($\beta = 0.429$, $p < 0.001$) and also significantly enhances organizational performance ($\beta = 0.363$, $p < 0.001$), indicating its central mediating and strategic role. In contrast, neither the HR role ($\beta = 0.119$, $p = 0.055$) nor the Finance role ($\beta = 0.024$, $p = 0.745$) shows a significant direct effect on sustainable development, suggesting that their influence is largely indirect. This is supported by mediation results: cooperation significantly affects sustainable development through HR ($\beta = 0.075$, $p = 0.020$) and Finance ($\beta = 0.181$, $p < 0.001$). Furthermore, sustainable development mediates the relationship between management and organizational performance ($\beta = 0.062$, $p = 0.038$). Overall, the findings highlight the pivotal role of cooperation and management in driving sustainability outcomes, while HR and Finance contribute primarily through indirect pathways.

Accepting/Rejecting the Hypotheses

- **Accepted Hypotheses:** H1a, H1b, H1c, H2, H3c, H4a, H4b, H4c
- **Rejected Hypotheses:** H3a, H3b

Figure 1: Results of structural equation modeling.



Discussions and Conclusion The consequences of this look at spotlight the vital significance of cooperation and management in reaching sustainable human development in economic units. Collaboration among human assets, finance and management is essential to aligning an corporation's paintings with sustainability targets. This is evident from the sizeable nice effect of cooperation on those key capabilities. Specifically, better collaboration or the role of HR. This, in flip, enables align worker engagement and sustainability-focused practices with organizational goals. In the same way The partnership strengthens the function of finance in making sure that economic techniques are aligned with long-term sustainability goals. This supports the concept that pass-departmental collaboration is important to translating sustainability into actionable effects in any respect ranges of the agency. The essential function of management in promoting sustainability This is tested by means of their huge have an impact on on sustainable improvement and organizational overall performance. It reinforces the importance of sturdy management in embedding sustainability into organizational culture.However, the findings also monitor complicated relationships among the fields. (Human Resources and Finance) and Sustainable Development Although cooperation has a high quality impact on HR and finance, But these events have not shown any significant direct impact on sustainable development. This suggests that HR and finance departments can be extra effective at promoting sustainability when acting via mediating factors along with management. Especially The have an effect on of human assets on sustainable development is handiest marginally considerable. And does no longer assist direct financial impacts These findings imply that While human and financial resources are vital to assist sustainability projects, But success in selling sustainable results depends absolutely at the strategic steerage and education furnished through leaders. It is not just their personal direct action.

Theoretical Framework The theoretical basis for this is the curriculum's concept of human development, which emphasizes the importance of developing community activities with social, community, and financial stability. This structure recognizes the important use of human resources in Sustainable sales development at the same time It also requires determining the attitude, behavior, and skills of recruits (Zafar et al. 2022).The Bureau also emphasizes the need for financial managers to lead and enable human development programs. This is because these agencies play an important role in allocating resources. Monitor financial threats and ensure the long-term financial viability of the organization (Mack & Genari, 2018). Effective human and financial integration is essential for businesses to achieve their financial and financial goals in a manner that environmentally friendly. The structure also acknowledges the anxiety that exists between finance and human resources. Isso runs due to the fact they often prioritize one-of-a-kind objectives. To attain sustainable human improvement These companies ought to integrate their differences and cooperate to balance short-term monetary efficiency with long-term organizational sustainability. By promoting a more integrated and holistic approach, organizations can power long-term success. And make contributions to the broader desires of sustainable development. (Pollack and Scheper, 2022)

Practical Framework

This study will use a qualitative studies technique to look at the demanding situations confronted by way of the collaboration among human resources and finance in an monetary unit. The research will contain in-depth interviews with key personnel from each departments. It makes a speciality of factors such as communique, strategic alignment. Decision technique and the notion of tension between the 2 departments. Or the take a look at will analyze secondary documents. Including organizational policy Financial reviews and files related to sustainability To gain a broader understanding of practices and demanding situations in decided on economic units. It describes the primary obstacles to powerful cooperation between human assets and finance departments, in addition to the techniques and mechanisms that may be used to promote sustainable human improvement. The theoretical and practical framework for this examine could be supported by way of a assessment of relevant literature. Including articles in educational journals Sector record and policy files To create a sturdy foundation for understanding the present day nation of studies in this subject matter.Cooperation among human resources and finance departments is critical to reap sustainable human improvement in monetary agencies. This look at highlights the maximum critical challenges that a success collaboration faces. Includes insights into effective communique strategies and problems among the two departments. Facing these challenges, companies can domesticate a greater integrated and holistic method to sustainable improvement. By taking advantage of the complementary competencies of two types of human sources. And permit economies of scale to power lengthy-time period organizational fulfillment. Effective collaboration among those important capabilities can result in high stages of employee engagement. The company environment is progressed. And better align with stakeholder expectations It also enables companies stability short-term financial performance with long-time period sustainability. And to help the broader objectives of sustainable improvement. Seventh and 6th The successful integration of the human assets and economic departments is important for monetary organizations to achieve their monetary and monetary targets in a socially and environmentally accountable manner.

Limitations and Suggestions for Further Research Although it presents treasured information at the role of cooperation between human and economic assets in attaining sustainable human development. But there are some demanding situations to don't forget in interpreting the outcomes. First, it seems confined to a select institution of monetary contraptions. They might not be experts in every industry or area. Data have been obtained from our single respondents (Iraq), which may restrict the potential to generalize the consequences to establishments operating in unique cultural or financial contexts. Additionally, the prognosis is based totally on Self-pronounced diagnostic information This can be a problem for solutions inclusive of social desirability or personal belief. This may also have additional outcomes from each impact. It facilitates a broader understanding of ways human and monetary sources impact sustainability in different contexts. Longitudinal studies can provide a broader view of the way the relationship between HR and finance develops over the years. And lengthy-term have an effect on on sustainable improvement and organizational performance. Able to apply qualitative research techniques Including interviews and case research. To explore the nuances of collaboration extra intensively. Famous specific call for situations cultural elements and organizational practices that affect the implementation of interdepartmental cooperation.

Recommendations

Based on the empirical findings of this study, several recommendations are proposed to strengthen functional integration between the Human Resources and Finance departments as a strategic foundation for achieving sustainable human development within economic units:

1. Institutionalize Cross-Functional Integration Mechanisms

Organizations should establish formal structures—such as joint committees, cross-departmental task forces, and integrated planning systems—to facilitate continuous coordination between HR and Finance. Such mechanisms enhance strategic alignment, reduce functional fragmentation, and promote collective decision-making that supports long-term sustainability goals.

2. Enhance Leadership Capacities to Drive Sustainability-Oriented Integration

Given the pivotal role of management in mediating the effects of functional cooperation, organizations must invest in leadership development programs that emphasize strategic thinking, sustainability governance, and cross-functional communication. Strengthening leadership competencies ensures that sustainability objectives are embedded within organizational policies and resource allocation processes.

3. Strengthen the Strategic Roles of HR and Finance in Sustainability Implementation

Although HR and Finance showed limited direct effects on sustainable development, their indirect influence underscores the need to empower both functions. HR should prioritize sustainability-focused training, talent development, and performance systems, while Finance should develop long-term budgeting frameworks and financial models that support sustainability investments.

4. Improve Communication, Transparency, and Strategic Alignment

Organizations should adopt structured communication protocols to ensure timely, accurate information flow between HR, Finance, and management. Transparent reporting and joint strategic reviews can reduce departmental tensions, align operational priorities, and ensure cohesive efforts toward sustainability outcomes.

5. Implement Continuous Monitoring and Evaluation of Sustainability Initiatives

Regular assessment of sustainability programs—through performance indicators, cross-functional reviews, and periodic evaluation reports—will enable organizations to identify gaps, refine strategies, and ensure that functional integration effectively contributes to sustainable human development.

References

Ahmad A. F. The impact of Psychological Empowerment and Organizational Justice on Perceived Organizational Performance. https://dx.doi.org/10.22161/ijaems.83.1

Ahmad A. F., Balisany W. M. khalid. Sustainable Tourism Management and Ecotourism as a Tool to Evaluate Tourism's Contribution to the Sustainable Development Goals and Local Community. OTS Canadian Journal 2(5) (2023) p. 33. http://doi.org/10.58840/ots.v2i5.32

Ahmad A. F., Karadaş G. Managers' Perceptions Regarding the Effect of Management on Organizational Performance: Mediating Role of Green Supply Chain Management Practices. SAGE Open 11(2) (2021) p. 21582440211018686. http://doi.org/10.1177/21582440211018686
Ahmad A. F., Karadas G., Ahmed H. F. The Mediating Role of Green Practices in the Relationship between Effective Management Practices and Business Competitiveness. Journal of Business Research - Turk 13(4) (2021) p. 3498. http://doi.org/10.20491/isarder.2021.1337
Alshehhi A., Nobanee H., Khare N. The Impact of Sustainability Practices on Corporate Financial Performance: Literature Trends and Future Research Potential. Sustainability 10(2) (2018) p. 494. http://doi.org/10.3390/su10020494
Asif H., Fayyaz S. Sustainable Development and Women's Personal Empowerment for Becoming Socially Inclusive: A Study from the Informal Sector in Lahore, Pakistan. The Lahore Journal of Economics 28(1) (2023) p. 115. http://doi.org/10.35536/lje.2023.v28.i1.a5
Belfort A. P. G., Mathias M. A. S., Nunhes T. V., Salgado A. M. P., Oliveira O. J. de. Toward corporate sustainability through human resources development: Contributions from Brazilian companies. Business Strategy & Development 4(4) (2021) p. 423. http://doi.org/10.1002/bsd2.168
Chaudhary R. Green Human Resource Management and Employee Green Behavior: An Empirical Analysis. Corporate Social Responsibility and Environmental Management 27(2) (2019) p. 630. http://doi.org/10.1002/csr.1827
Chillakuri B., Vanka S. Examining the effects of workplace well-being and high-performance work systems on health harm: a Sustainable HRM perspective. Society and Business Review 16(1) (2020) p. 71. http://doi.org/10.1108/sbr-03-2020-0033
Dibie R., Dibie J. Analysis of the paralysis of government management in sub-Saharan Africa. Africa's Public Service Delivery and Performance Review 5(1) (2017). http://doi.org/10.4102/apsdpr.v5i1.167
Kumar A., Bhaskar P., Nadeem S. P., Tyagi M., Garza-Reyes J. A. Sustainability Adoption through Sustainable Human Resource Management: A Systematic Literature Review and Conceptual Framework. International Journal of Mathematical Engineering and Management Sciences 5(6) (2020) p. 1014. http://doi.org/10.33889/ijmems.2020.5.6.078
Macke J., Genari D. Systematic literature review on sustainable human resource management. Journal of Cleaner Production 208 (2018) p. 806. http://doi.org/10.1016/j.jclepro.2018.10.091
Parajuli S. K., Mahat D., D. R. K. Strategic Human Resources Management: Study the Alignment of Hr Practices with Overall Business Strategy and Its Impact on Organizational Performance. International Journal For Multidisciplinary Research 5(5) (2023). http://doi.org/10.36948/ijfmr.2023.v05i05.6168
Pathania S. K. Sustainable Development Goal: Gender Equality For Women's Empowerment And Human Rights. International Journal Of Research - GRANTHAALAYAH 5(4) (2017) p. 72. http://doi.org/10.29121/granthaalayah.v5.i4.2017.1797
Pollach I., Schaper S. Social visibility and substance in corporate social sustainability disclosures. Corporate Communications An International Journal 28(3) (2022) p. 400. http://doi.org/10.1108/ccij-02-2022-0013
Samier E. A., ElKaleh E. S. Towards a Model of Muslim Women's Management Empowerment: Philosophical and Historical Evidence and Critical Approaches. Administrative Sciences 11(2) (2021) p. 47. http://doi.org/10.3390/admsci11020047
Şerban C. G., Negruţiu C., Tăchiciu L. The Entrepreneurial Leader: A Feminine Perspective Case Study. Proceeding Papers (2022). http://doi.org/10.24818/basiq/2022/08/062
Siddiquei A. N., Asmi F., Asadullah M. A., Mir F. Environmental-specific servant management as a strategic tool to accomplish environmental performance: a case of China. International Journal of Manpower 42(7) (2021) p. 1161. http://doi.org/10.1108/ijm-07-2020-0350
Stavrou E. The challenges of human resource management towards organizational effectiveness. Journal of European Industrial Training 29(2) (2005) p. 112. http://doi.org/10.1108/03090590510585082
Zafar H., Tian F., Ho J. A., Zhang G. Environmentally specific servant management and voluntary pro-environmental behavior in the context of green operations: A serial mediation path. Frontiers in Psychology 13 (2022). http://doi.org/10.3389/fpsyg.2022.1059523