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Fitting the Human Resources Sustainability Evaluation Model in Tejarat Bank Using Structural Equation Modeling

ABSTRACT

This study addresses the fitting of a human resources sustainability evaluation model in Tejarat Bank using structural equation modeling. The research is applied in terms of purpose and descriptive-analytical in nature. Data collection was conducted through a field method (questionnaire). The statistical population consisted of Tejarat Bank employees in the southwest branches of Tehran. Given the total number of employees (815), the Cochran sampling method was applied, resulting in a sample size of 261 participants. According to the results of the model estimation, the outcome variable includes seven components: improvement of psychological status, enhancement of employee performance, quality improvement of services, organizational dynamism and agility, organizational vitality, organizational citizenship behaviors, and development of social capital. The contextual conditions variable includes six components: workplace environment, organizational culture, organizational climate, managerial characteristics, job conditions, and rules and regulations. The intervening conditions variable includes four components: executive and legal barriers, informational and motivational barriers, social conditions, and political and economic conditions. The multicollinearity test was conducted using the Variance Inflation Factor (VIF) index, and the results indicated that none of the model variables had a VIF greater than 5. Therefore, no problematic multicollinearity was observed among the variables. This finding is of significant importance since excessive multicollinearity can distort regression results. The results regarding the validity and reliability of the model variables were also examined. Cronbach's alpha (to assess reliability) and Average Variance Extracted (AVE) (to assess convergent validity) were used. All Cronbach's alpha values were above 0.7, and the AVE values were greater than 0.5, indicating the desirable reliability and validity of the model. Furthermore, by examining composite reliability (CR) and comparing it with AVE, the model was shown to possess sufficient credibility. To evaluate discriminant validity, the Fornell–Larcker criterion and the Heterotrait–Monotrait ratio (HTMT) were applied. In the Fornell–Larcker method, all values on the main diagonal of the correlation matrix were greater than the other correlation coefficients, confirming appropriate discriminant validity. Likewise, in the HTMT method, the obtained values were below 0.9, confirming discriminant validity of the model. For assessing the fit of the structural model, the coefficient of determination (R^2) was used. The R^2 value demonstrated the desirable fit of the model. The results showed that 31 percent of the variance in the dependent variables was explained by the independent and mediating variables. This proportion appears to be suitable for the proposed model.

Keywords: Human resources sustainability, banking network, executive and legal barriers, workplace environment, organizational culture

Introduction

The banking system is one of the most crucial sectors of modern economies, playing a dual role as a profitable industry and as a facilitator of capital flows and services essential for the operation of other sectors. In such a highly competitive and

volatile environment, sustainability has emerged as a guiding principle for ensuring both organizational resilience and long-term effectiveness. Within this broader context, sustainable human resource management (SHRM) has gained increasing recognition as a strategic driver of performance, organizational legitimacy, and competitiveness. By aligning human capital policies with environmental, social, and economic objectives, SHRM provides a holistic framework that integrates organizational effectiveness with broader societal goals [1].

In recent years, scholarly attention has focused on mapping the conceptual evolution of SHRM and clarifying its theoretical underpinnings. Systematic reviews of the literature demonstrate that SHRM is strongly associated with employee attitudes such as engagement, well-being, and commitment, thereby reinforcing the notion that sustainable practices extend beyond environmental considerations into the realm of human capital development and organizational culture [1]. The growing body of research emphasizes that sustainability in HR is not merely an auxiliary concern but rather a strategic necessity for institutions facing increasing stakeholder pressures and social expectations [2].

Banks, in particular, have become key sites for the operationalization of SHRM, as they are under constant scrutiny to balance profitability with responsibility. Sustainable banking practices increasingly rely on developing and retaining a skilled, motivated, and resilient workforce capable of adapting to continuous market and regulatory changes [3]. The ability of human resource systems to reinforce resilience is especially critical in the financial sector, where employees must navigate rapid digital transformation, fluctuating customer expectations, and complex compliance requirements [4]. By linking human resource strategies with sustainability goals, banks can improve operational effectiveness, reduce turnover, and foster social trust, ultimately contributing to long-term economic development [5].

The sustainability agenda has been further advanced by the recognition of green HRM practices, which aim to integrate environmental considerations into human resource systems. Research shows that green HRM, when combined with a supportive psychological climate, positively influences pro-environmental behaviors and organizational performance [6]. These practices include green recruitment, eco-training, and environmentally conscious appraisal systems, which collectively encourage employees to internalize sustainability as a core value. In the context of banks, where environmental performance is increasingly tied to reputational capital and compliance with international sustainability standards, such practices offer dual benefits for both organizations and the environment [7].

At the same time, the literature highlights the multidimensional challenges of implementing SHRM, particularly in emerging economies and transitional industries. Cultural, structural, and institutional barriers often limit the adoption of sustainable practices, making it necessary to adapt global frameworks to local realities [8]. Universities and public institutions, for example, face similar difficulties, where aligning human capital strategies with sustainability principles requires overcoming resource constraints and entrenched management traditions [9]. Parallel findings from industrial corporations demonstrate that empowering employees structurally and amplifying their voice in organizational decision-making can enhance the effectiveness of SHRM initiatives [10].

The COVID-19 pandemic provided a significant stress test for sustainability-oriented human resource practices. Scholars observed that organizations which had already integrated SHRM principles were better able to navigate employee welfare concerns, manage remote work, and maintain operational continuity during the crisis [11]. This crisis underscored the importance of SHRM as a resilience-building mechanism and drew attention to the mediating role of responsible leadership and knowledge management in sustaining organizational performance under conditions of extreme uncertainty [12].

An equally important dimension of SHRM concerns its role in fostering organizational legitimacy and stakeholder trust. Social capital, as highlighted in recent research, plays a critical mediating role in strengthening employee loyalty and retention when embedded in sustainable HR frameworks [13]. The cultivation of social capital not only contributes to internal cohesion but also enhances external legitimacy, thereby positioning organizations as credible and responsible actors in their industries. This is especially relevant in the banking sector, where legitimacy is central to maintaining customer confidence and regulatory compliance [14].

Conceptual advances in the field also emphasize the integrative nature of SHRM. Theories now frame SHRM as a convergence of ecological, social, and organizational perspectives, calling for frameworks that embed inclusivity, ethical responsibility, and ecological mindfulness into HR systems [15]. Such integrative models suggest that SHRM should not only address immediate organizational goals but also consider broader societal imperatives, thereby positioning human resource policies as vehicles of sustainable development [16].

Empirical findings further reinforce the strategic value of SHRM. In knowledge-intensive sectors such as information technology-enabled services (ITES), sustainable HR practices have been shown to significantly influence organizational culture, creating a foundation for adaptability, innovation, and long-term competitiveness [17]. Similar conclusions are found in studies on employee resilience, where SHRM practices that balance challenge and support help to foster a more resilient workforce capable of thriving in dynamic conditions [18]. These results align with broader observations that SHRM practices, when strategically embedded, can operate as “twin weapons” for securing both sustainability and competitive advantage [16].

The darker side of HRM, however, reminds scholars and practitioners alike that sustainability must also address negative dynamics within organizations. Studies of abusive supervisory relationships highlight how detrimental practices can erode employee trust, psychological safety, and resilience [19]. Such findings emphasize the importance of embedding sustainability into leadership styles and organizational cultures, ensuring that SHRM frameworks are not only about compliance and performance but also about protecting human dignity and promoting well-being.

Context-specific research within the Middle East has shown how SHRM can enhance the economic sustainability of banks. For instance, in Jordanian banks, effective HR strategies have been identified as critical to sustaining long-term financial performance and strengthening competitiveness under challenging economic conditions [5]. Complementary findings suggest that when intellectual capital dimensions such as employee knowledge and relational capital are integrated into HR systems, they have a positive and measurable impact on both operational and financial performance [20].

In the Iranian context, studies have highlighted both the opportunities and constraints of implementing SHRM in banking and higher education. Research in Iranian universities, for instance, demonstrated that sustainable HR practices could be adapted to address employability skills, align with social expectations, and enhance institutional resilience [9, 21]. In the banking sector, parallel research validated models of SHRM that integrate resilience, organizational culture, and employee well-being into comprehensive frameworks for human resource sustainability [4, 8]. Such findings are consistent with broader efforts to institutionalize sustainability as both a strategic and cultural imperative across Iranian organizations [4, 9].

In addition to institutional and sectoral studies, macro-level reviews have examined how SHRM intersects with environmental accounting and corporate disclosure. These perspectives underscore the role of HR in ensuring transparency and accountability, linking human capital policies with sustainability reporting practices [14]. By positioning HR as both a

driver and custodian of sustainability agendas, organizations can integrate sustainability metrics into everyday management processes, reinforcing alignment between strategic goals and external accountability requirements.

Altogether, the literature reflects a dynamic and multidimensional understanding of SHRM, encompassing resilience, legitimacy, environmental responsibility, and human development. From conceptual mapping [2] to practical validation in banking [7], IT [17], and education [21], SHRM has been shown to shape organizational outcomes in meaningful ways. As organizations worldwide grapple with uncertainty, complexity, and stakeholder demands, the adoption of sustainable HR practices emerges not only as a matter of competitive necessity but also as an ethical and societal responsibility.

Against this backdrop, the present study investigates the fitting of a human resources sustainability assessment model in Tejarat Bank

Methods and Materials

This study was designed as an applied research project with a descriptive–analytical orientation. The focus was on evaluating the human resources sustainability model within Tejarat Bank using the structural equation modeling approach. The statistical population consisted of employees of Tejarat Bank across its southwest branches in Tehran. According to organizational records, the total number of employees in this region was 815 individuals. To determine the required sample size, Cochran's formula was applied, which yielded a sample of 261 participants. The demographic structure of the sample included both male and female employees, with women representing approximately two-thirds of the respondents. Participants covered a wide range of age categories, educational backgrounds from associate to doctoral degrees, and varied levels of professional experience, ensuring representation of different layers of the workforce.

The data collection process was conducted through fieldwork using a structured questionnaire. The instrument was designed to capture employees' perceptions of causal conditions, contextual conditions, intervening conditions, strategies, and outcomes associated with human resources sustainability. Each construct included several components, such as workplace environment, organizational culture, managerial characteristics, psychological well-being, service quality, and social capital. The questionnaire items were developed based on prior studies in sustainable human resource management and adapted to the banking context to ensure contextual relevance. Reliability and validity assessments of the tool were carried out using Cronbach's alpha for internal consistency, composite reliability (CR), and average variance extracted (AVE) for convergent validity, as well as Fornell–Larcker and HTMT criteria for discriminant validity. All indices met or exceeded the recommended thresholds, confirming that the measurement tool was both reliable and valid for the purposes of this research.

Data analysis was carried out in several stages. Initially, descriptive statistics such as mean, standard deviation, skewness, and kurtosis were used to summarize the key characteristics of the data. The Kolmogorov–Smirnov test was performed to verify the normality of the data distribution, and the results confirmed that the variables followed a normal distribution. Multicollinearity was assessed through the Variance Inflation Factor (VIF), with all values falling below the critical threshold, indicating no collinearity issues among the predictors. For hypothesis testing and model evaluation, partial least squares structural equation modeling (PLS-SEM) was employed due to its suitability for smaller sample sizes, fewer assumptions about normality, and its focus on maximizing explained variance. The PLS technique allowed for the simultaneous assessment of the measurement (outer) model and the structural (inner) model. Reliability and validity tests confirmed the robustness of

the measurement model, while the structural model was evaluated through the coefficient of determination (R^2), which indicated that approximately 31% of the variance in the dependent variables could be explained by the model.

Findings and Results

Out of the sample, 175 individuals, accounting for 67% of respondents, were women, and 86 individuals, accounting for 33%, were men. The demographic distribution of respondents by age indicated that 18 respondents were under 30 years old. Eighty-four respondents were between 31 and 40 years old, accounting for 32.2% of the sample size. One hundred thirty-seven respondents were between 41 and 50 years old, and 22 respondents were older than 51 years. In terms of educational attainment, 5 individuals held an associate degree, 150 held a bachelor's degree, 95 held a master's degree, and finally, 11 held a doctoral degree. Regarding work experience, 66 individuals had less than 10 years of experience, 42 had between 11 and 15 years of experience (16.1%), 67 had between 16 and 20 years of experience, and 86 had more than 21 years of experience, accounting for 33% of the sample size.

To describe the main variables of the research, indicators such as mean, standard deviation, and other statistics were used. These indicators are presented in the table.

Table 1.

Descriptive Statistics of Research Variables

Main Factor	Mean	Standard Deviation	Variance	Skewness	Kurtosis
Causal Conditions	3.86	0.744	0.553	0.961	1.933
Contextual Conditions	3.84	0.791	0.626	-0.651	0.296
Intervening Conditions	3.77	0.871	0.759	-0.649	0.138
Strategy	3.76	0.844	0.712	-0.549	0.301
Outcome	3.66	0.879	0.772	-0.467	0.161

To examine the status of the research variables, descriptive statistics including mean, standard deviation, variance, skewness, and kurtosis were employed.

Subsequently, the normality of the variables was tested. The results of the normality test are presented in Table 2.

Table 2.

Normality Test of Data

Main Factor	Kolmogorov–Smirnov Statistic	Significance Level
Causal Conditions	0.326	0.066
Contextual Conditions	0.353	0.064
Intervening Conditions	0.330	0.059
Strategy	0.308	0.091
Outcome	0.276	0.083

Based on the results of the Kolmogorov–Smirnov test, in all cases the significance value was greater than the error level (0.05). Therefore, there is no reason to reject the null hypothesis, and the data distribution is normal.

Before evaluating structural relationships, collinearity must be examined to ensure that regression results are unbiased. In statistics, the Variance Inflation Factor (VIF) assesses the severity of multicollinearity in ordinary least squares regression analysis. The severity of multicollinearity can be analyzed by examining the magnitude of the VIF value. Specifically, this index indicates the extent to which the variance of estimated coefficients is increased due to collinearity. If the VIF value exceeds 5, the level of inflation is considered critical, while the ideal VIF value is 3 or lower.

Table 3.

Multicollinearity Test (VIF)

Variable	VIF
Causal Conditions	1.299
Contextual Conditions	3.667
Intervening Conditions	4.805
Strategy	1.819
Outcome	2.224

According to the results of Table 3, the VIF values of the research components are all less than 3. Therefore, the research components do not exhibit multicollinearity.

In the present study, structural equation modeling (SEM) methods, specifically the partial least squares (PLS) approach, were applied to test the measurement model and research hypotheses. The PLS software is less dependent on sample size, does not require data normality, and focuses on maximizing variance. Unlike LISREL and AMOS software, this new method is more suitable for practical applications. In general, relationships between variables in the partial least squares technique are categorized into two groups:

1. **Outer Model**: The outer model is equivalent to the measurement model (confirmatory factor analysis) in structural equation modeling and represents the relationships between latent variables and observed variables.
2. **Inner Model**: The inner model is equivalent to the structural model (path analysis) in structural equation modeling and examines the relationships between latent variables.

Figure 1.

Overall Factor Loadings of the Research Model

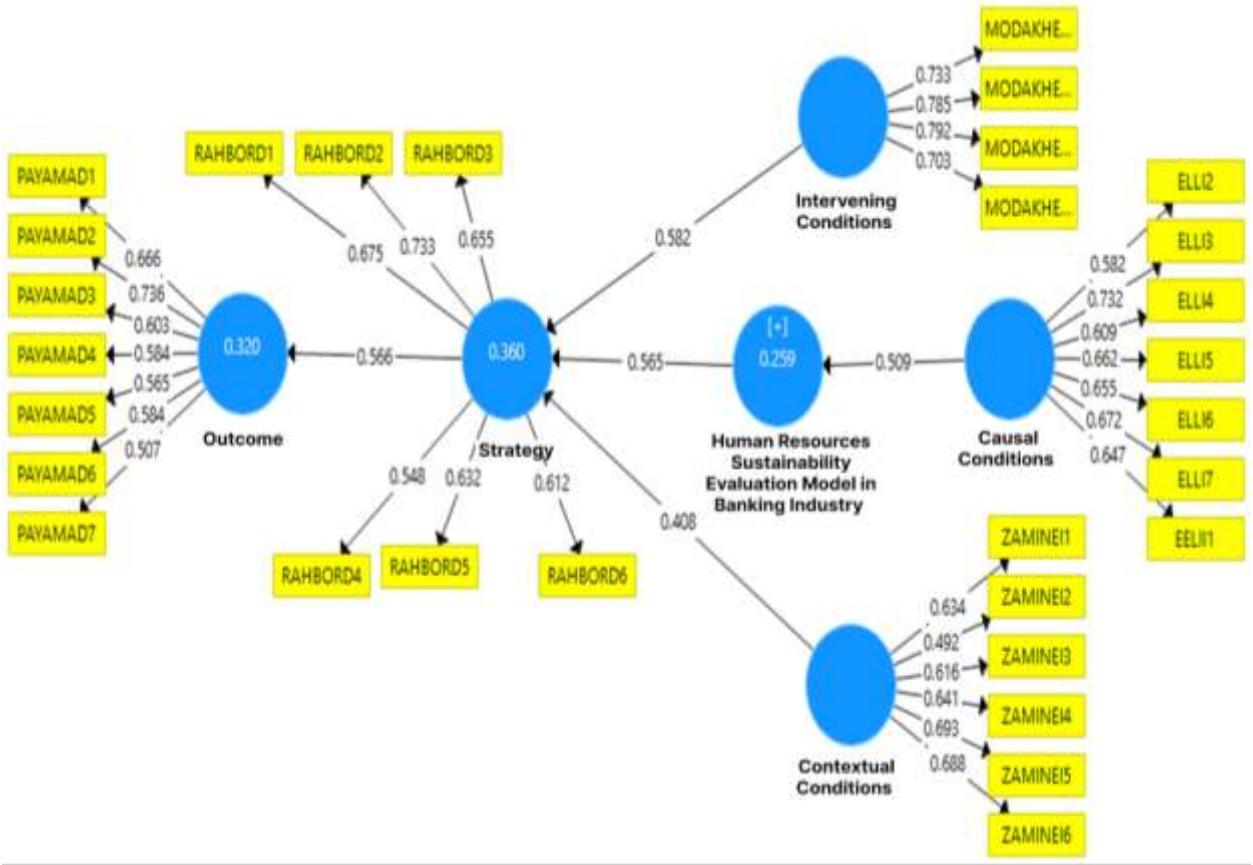
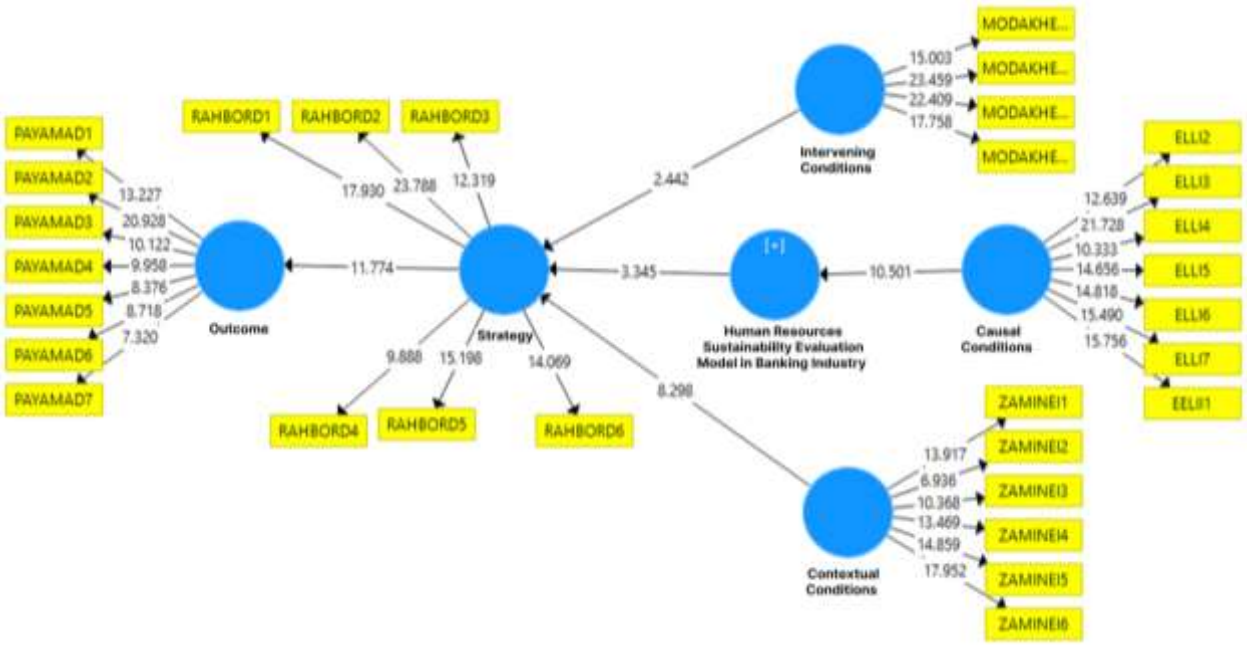


Figure 2.

Bootstrapping t-Statistics of the Research Model



To evaluate and examine the validity and reliability of the constructs in partial least squares structural equation modeling, the factor loadings, Cronbach's alpha, composite reliability (CR), convergent validity (AVE), and discriminant validity are calculated and presented. The following relationships must hold:

CR > 0.7

CR > AVE

AVE > 0.5

Table 4.

Convergent Validity and Reliability of Research Variables

Variable	Cronbach's Alpha	AVE	CR
Causal Conditions	0.794	0.628	0.793
Contextual Conditions	0.773	0.670	0.812
Intervening Conditions	0.835	0.611	0.845
Strategy	0.710	0.536	0.833
Outcome	0.773	0.588	0.846

According to the results of the above table, the Cronbach's alpha values for all variables are greater than 0.7, confirming the reliability of all variables. The average variance extracted (AVE) is consistently greater than 0.5, thus confirming convergent validity. Composite reliability (CR) values are greater than both AVE and 0.7, indicating that each construct in the model possesses suitable validity and reliability.

Discriminant validity is one of the criteria for assessing the fit of measurement models, covering two aspects:

a) Comparing the correlation between the indicators of a construct with that construct against the correlation of those indicators with other constructs.

b) Comparing the correlation between a construct and its indicators against the correlation between that construct and other constructs.

This method compares the relationship of a construct with its indicators versus its relationship with other constructs. Acceptable discriminant validity indicates that a construct interacts more strongly with its own indicators than with other constructs. Discriminant validity is at an acceptable level when the AVE for each construct is greater than the shared variance between that construct and other constructs (the square of the correlation coefficients between constructs). This assessment is conducted through a matrix in which the diagonal cells contain the square roots of the AVE values for each construct. A model has acceptable discriminant validity if the numbers on the main diagonal are greater than the corresponding values below them.

The main feature of this matrix is that the main diagonal equals one. Then, the values on the main diagonal are replaced with the square root of the variance explained by AVE, and finally the following table is provided.

Table 5.

Fornell–Larcker Criterion

	C1	C2	C3	C4	C5
Causal Conditions	0.824				
Contextual Conditions	0.380	0.834			
Intervening Conditions	0.720	0.467	0.875		
Strategy	0.759	0.345	0.815	0.860	
Outcome	0.580	0.745	0.750	0.509	0.814

As shown in Table 5, the values on the main diagonal of the matrix are greater than all the corresponding values in their columns, indicating that the model has acceptable discriminant validity. Recent research by Henseler et al. (2015) shows that the Fornell–Larcker criterion does not perform well when the factor loadings of constructs differ only slightly. Therefore, Henseler et al. proposed the HTMT criterion as an alternative. If all the values in the HTMT method are less than 0.9, the model is considered to have acceptable discriminant validity.

Table 6.

HTMT Method Results for Assessing Discriminant Validity

	C1	C2	C3	C4	C5
Causal Conditions					
Contextual Conditions	0.528				
Intervening Conditions	0.592	0.619			
Strategy	0.615	0.510	0.839		
Outcome	0.591	0.555	0.502	0.553	

According to Table 6, since all obtained values are less than 0.9, discriminant validity based on the HTMT method is confirmed.

After ensuring the adequacy of measurement models through reliability, convergent validity, and discriminant validity tests, the results of the structural model can be presented. In the structural model, unlike the measurement models, observed variables and indicators are not considered; only latent variables and the relationships among them are examined. To assess model fit, the coefficient of determination (R^2) is used.

This criterion links the measurement model and the structural model in SEM and indicates the proportion of variance in each dependent variable explained by the independent variables. It is crucial to note that R^2 is calculated only for endogenous (dependent) constructs in the model, while for exogenous constructs the value is zero. The higher the R^2 value for endogenous constructs, the better the model fit. Chin (1998) defined the values 0.19, 0.33, and 0.67 as weak, moderate, and strong,

respectively. Furthermore, Henseler (2009) and Hair et al. (2011) proposed the threshold values 0.25, 0.50, and 0.75 as weak, moderate, and strong for assessing structural model fit using R^2.

$$R^2 = (0.259 + 0.360 + 0.320) / 3 = 0.313$$

Based on the results, the R^2 values for the endogenous constructs of the research model are desirable. The coefficient of determination indicates that 31% of the variance in the dependent variables of the model is explained by the collective influence of the independent and dependent variables, which is strongly acceptable.

Discussion and Conclusion

The findings of this study provide empirical validation for the structural equation modeling approach in assessing sustainable human resource management (SHRM) in Tejarat Bank. The results demonstrated that causal, contextual, and intervening conditions significantly influenced the strategies adopted for sustaining human resources, and that these strategies in turn led to desirable outcomes such as improved psychological well-being, enhanced employee performance, service quality improvement, organizational agility, vitality, organizational citizenship behavior, and the development of social capital. The model accounted for 31 percent of the variance in dependent variables, which is a considerable explanatory power in organizational studies. This suggests that SHRM in banking can meaningfully shape employee-related and organizational-level outcomes. These findings align with the growing consensus in the literature that HR systems, when strategically aligned with sustainability principles, can generate both direct and indirect benefits across the workforce and the broader institution [2, 22].

The results specifically highlight the importance of contextual conditions such as organizational culture, climate, and workplace environment in shaping sustainability outcomes. This is consistent with the findings of previous studies emphasizing the role of organizational climate and culture in advancing pro-environmental and sustainability-oriented behaviors [6, 21]. For instance, research has shown that a supportive green climate positively influences pro-environmental behaviors among employees, thereby enhancing the integration of sustainability into daily practices [6]. Similarly, the present study underscores how workplace culture and managerial characteristics function as contextual enablers, reinforcing the notion that SHRM is deeply embedded in cultural and structural realities [8].

Causal conditions, such as leadership approaches and management orientations, were also found to play a significant role in the effectiveness of SHRM practices. This finding echoes earlier studies suggesting that HRM systems must be tailored to leadership strategies that emphasize responsibility and legitimacy [23]. In this sense, the present results align with insights from the banking industry in Brazil, where SHRM initiatives were found to extend beyond financial performance to encompass reputational and ethical dimensions [7]. Moreover, these findings resonate with evidence from Jordanian banks, where HR strategies were identified as central to enhancing the economic sustainability of financial institutions [5]. By linking leadership, organizational legitimacy, and responsible HR practices, this study demonstrates how causal drivers support the operationalization of sustainability in HR frameworks.

The outcomes observed in this study, particularly improvements in employee performance, organizational agility, and citizenship behaviors, confirm the central role of SHRM in organizational performance enhancement. Previous research has repeatedly emphasized that sustainable HR practices strengthen employees' psychological well-being, engagement, and loyalty, thereby contributing to performance gains [1, 12]. For instance, studies show that sustainable HRM practices

positively influence knowledge management and work engagement, which in turn mediate organizational performance [12]. The current findings, therefore, reinforce these results by illustrating how sustainability-oriented HR frameworks in banking drive not only operational outcomes but also broader behavioral and psychological improvements among employees.

One of the notable contributions of this study is the confirmation of the role of intervening conditions—such as legal, social, and political factors—in shaping SHRM outcomes. This aligns with the argument that SHRM must be understood within the larger institutional and regulatory environment [14]. For instance, external regulatory constraints and societal expectations can either hinder or facilitate the adoption of sustainable HRM practices, as shown in earlier research on environmental accounting disclosure and sustainability reporting [14]. Similarly, cultural and institutional variables in different contexts determine the extent to which SHRM can be embedded effectively [9]. The findings from Tejarat Bank confirm this complexity by illustrating that HR sustainability cannot be divorced from the legal and socio-political environment in which the organization operates.

The use of variance-based SEM in this study also allowed for the rigorous testing of measurement validity, including convergent and discriminant validity. The findings demonstrated that the constructs of the model were both valid and reliable, which aligns with methodological standards in SHRM research [22]. By employing partial least squares techniques, the study ensured robustness in results, especially in a context where sample size limitations and non-normal data distributions often pose challenges. This methodological rigor strengthens the credibility of the findings and supports their alignment with other studies that have employed advanced modeling approaches to validate SHRM frameworks [9, 10].

The implications of the findings are substantial for the banking industry, which is increasingly under pressure to adopt sustainable practices. The evidence that SHRM strategies contribute to agility and dynamism highlights the sector's ability to respond effectively to external shocks and technological transformations. This resonates with earlier research on organizational resilience in banking, where sustainability-oriented models were validated as critical frameworks for maintaining operational stability in volatile environments [4]. Likewise, the link between SHRM and social capital development aligns with evidence that sustainable HR practices enhance employee loyalty and retention, mediated by trust and social cohesion [13]. By fostering internal and external legitimacy, banks can secure both workforce stability and customer confidence, strengthening their role as responsible economic actors.

Another important dimension of the results concerns the human-centric outcomes of SHRM. The study demonstrated that SHRM practices positively influence employees' psychological well-being and vitality. This supports findings from prior studies where sustainable HR frameworks were shown to enhance employee resilience and mindfulness, which are increasingly viewed as critical resources in the modern workplace [18]. Moreover, research in knowledge-intensive sectors has emphasized how sustainable HR practices shape organizational culture and support long-term adaptability [17]. These parallels suggest that the positive psychological and behavioral outcomes identified in Tejarat Bank are part of a broader pattern in which SHRM provides the foundation for employee-centered sustainable development.

In addition, the results contribute to the ongoing debate on the role of intellectual capital in banking performance. The findings that SHRM strategies influence employee outcomes resonate with studies showing how intellectual capital dimensions—including employee knowledge and engagement—positively impact banks' operational and financial performance [20]. Similarly, the evidence from Tejarat Bank suggests that HR strategies aimed at sustainability can serve as vehicles for leveraging intellectual capital, thereby strengthening competitiveness and readiness for change [24]. These

insights reinforce the argument that human resources should be conceptualized as central drivers of value creation in the financial sector.

The outcomes observed in this study are also consistent with broader global trends in SHRM. For example, recent conceptual frameworks propose integrating ecological and inclusive perspectives into SHRM models, emphasizing that HR systems must consider environmental and social dimensions alongside organizational performance [15]. The findings from Tejarat Bank, particularly regarding the development of social capital and pro-environmental orientations, align with this integrative perspective. Similarly, the strategic framing of SHRM as a "twin weapon" for achieving both competitiveness and sustainability underscores the broader strategic implications of the results [16].

By situating these findings in the context of previous research, this study contributes to consolidating the evidence base on SHRM in banking. It confirms that sustainable HR practices, when embedded within a supportive organizational culture and adapted to contextual realities, produce positive outcomes at both employee and organizational levels. Moreover, it extends the literature by validating a comprehensive model that incorporates causal, contextual, and intervening conditions, offering a nuanced understanding of how SHRM operates in practice. This aligns with the evolving scientific mapping of SHRM, which emphasizes the need for integrative and context-sensitive models to capture its full impact [2].

Despite its contributions, this study is not without limitations. First, the research was limited to Tejarat Bank branches in southwest Tehran, which constrains the generalizability of the findings. The contextual specificity of the banking environment in Iran may limit the applicability of the results to other industries or countries with different institutional and cultural settings. Second, the study relied on self-reported data collected through questionnaires, which may be subject to social desirability bias and common method variance. Although rigorous validity checks were conducted, these biases cannot be entirely ruled out. Third, the cross-sectional design of the study prevents the establishment of causal relationships, limiting the ability to capture long-term dynamics of SHRM practices and outcomes. Finally, the model accounted for 31 percent of the variance, indicating that other relevant factors influencing SHRM outcomes may not have been included.

Future research should address these limitations by adopting longitudinal designs that capture the temporal dynamics of SHRM practices and their long-term effects on organizational and employee outcomes. Expanding the scope of analysis to include other banks and industries, both within and outside Iran, would enhance the generalizability of findings and allow for cross-cultural comparisons. Moreover, incorporating qualitative methods such as interviews and case studies could provide deeper insights into the mechanisms through which SHRM practices influence organizational culture and performance. Future studies should also explore additional variables, such as digital transformation, innovation capacity, and environmental performance, to create a more comprehensive understanding of the multifaceted impacts of SHRM.

For practitioners, the findings of this study underscore the importance of embedding SHRM practices into organizational strategies to strengthen both employee well-being and organizational performance. Banks should invest in cultivating supportive organizational cultures that reinforce sustainability values and empower employees. Attention must also be given to aligning HR strategies with broader legal, social, and political contexts to ensure effective implementation. By prioritizing sustainability in HR systems, banking institutions can enhance resilience, foster innovation, and build long-term legitimacy in the eyes of stakeholders. Ultimately, the integration of SHRM into strategic decision-making should be viewed not only as a pathway to competitiveness but also as a commitment to sustainable economic and social development.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Written consent was obtained from all participants in the study.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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