Design and Validation of a Value-Based Human Resource Development Model Grounded in Social Responsibility Using Partial Least Squares Structural Equation Modeling (PLS-SEM): Evidence from the Iranian Banking Industry

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This study aimed to identify and design a model of the requirements and pillars for formulating human resource development (HRD) policies grounded in cultural values and social responsibility within the banking industry. The qualitative phase of the research was conducted using a systematic approach and semi-structured interviews with experts and specialists from the banking system and academia. The thematic framework of the study was developed through thematic analysis. The categorization of 1,089 initially identified themes led to the formation of 222 basic themes and 80 organizing themes (main components) grouped into 10 dimensions and 6 overarching themes. The quantitative phase included senior and middle managers of state-owned, semi-state, and private banks in Iran. Based on Krejcie and Morgan's table, the sample size was estimated at 384 individuals, selected through convenience (accidental) sampling. Out of 440 distributed questionnaires, 410 were deemed valid and included in the statistical analysis. In the quantitative section, data analysis and model fit evaluation were conducted using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) method. The quantitative results indicated a relatively strong structural model fit ($R^2 = 0.041$) and high predictive power for the research model. Findings revealed that the relationship between social accountability and responsibility with legal and supportive requirements, despite being ranked lowest in importance by qualitative participants, had the highest path coefficient (0.74). The relationships between the dimensions of enhancing social interaction and participation in the CSR domain with operational and developmental axes, as well as institutionalizing an organizational culture grounded in values and CSR with cultural requirements—both with a path coefficient of 0.65—were jointly ranked second in impact. Moreover, the relationship between legal and programmatic support for CSR and legal-supportive requirements, despite being deemed most important by qualitative participants, exhibited the lowest path coefficient in the formulation of HRD policies within the Iranian banking system.

Keywords: Value-based model, Human resource development, Social responsibility, Iranian banking industry.

1. Introduction

The growing intersection between human resource development (HRD) and corporate social responsibility (CSR) has become a critical field of inquiry in both organizational theory and practice. In recent years, scholars have increasingly emphasized the strategic necessity of integrating social, ethical, and environmental principles into human resource systems to enhance corporate legitimacy and resilience (Alizadeh et al., 2023; Dekoulou et al., 2023). The banking industry, as a cornerstone of economic infrastructure, has faced heightened scrutiny regarding its societal role, ethical obligations, and sustainable contribution to social welfare (Asgari et al., 2020). The transformation of traditional HR practices into value-driven, socially responsible systems reflects a broader organizational response to global sustainability demands and ethical expectations (Garavan et al., 2019).

The concept of CSR has evolved beyond philanthropic acts into a multifaceted managerial framework encompassing ethical behavior, stakeholder engagement, and social sustainability (Žukauskas et al., 2018). When coupled with HRD, CSR becomes a catalyst for cultivating human capital aligned with organizational and societal values (Ketschau, 2017). This convergence allows organizations to transcend profit-centric models and instead foster developmental ecosystems that promote learning, inclusion, and ethical accountability (Jenkins, 2017). Within this framework, employees are no longer viewed solely as resources but as agents of change who contribute to collective responsibility and sustainable corporate culture (Dekoulou et al., 2023).

Human resource development, as Garavan et al. (2019) define, involves the systematic process of enhancing employee capabilities through education, training, and professional growth to achieve both organizational effectiveness and social contribution (Garavan et al., 2019). The integration of CSR into HRD strategies redefines the value proposition of HR functions by embedding ethical governance, social equity, and sustainability orientation in managerial practices (Alizadeh et al., 2023). This alignment enables organizations to respond proactively to societal challenges, enhance legitimacy, and maintain long-term stakeholder trust (Rahdarpour et al., 2023). In banking institutions, where trust and integrity are paramount, socially responsible HR practices ensure the development of ethical leaders capable of balancing profit motives with public accountability (Moradian & Mousavi, 2018).

Globally, organizations have realized that CSR cannot be sustained without the structural and cultural reinforcement provided by HRD frameworks (Ketschau, 2017). Through continuous learning and participative decision-making, HRD fosters employee engagement in social initiatives, thereby strengthening organizational resilience (Dekoulou et al., 2023). Socially responsible HRM (SRHRM) frameworks thus act as integrative mechanisms connecting employee well-being, organizational ethics, and community development (Zhou & Zheng, 2024). As argued by Žukauskas et al. (2018), management culture and CSR together shape organizational behavior through shared moral codes, collective values, and long-term sustainability goals (Žukauskas et al., 2018).

Recent developments in the banking sector, especially in emerging economies, underscore the urgent need for embedding CSR into human resource policies (Asgari et al., 2020). Banks not only serve as financial intermediaries but also as agents of socio-economic transformation; hence, the professional behavior and ethical orientation of their employees play a critical role in maintaining societal trust (Razmkhah & Sajadi Khah, 2024). Empirical research confirms that organizations that integrate CSR into HRM demonstrate superior employee commitment, psychological empowerment, and adaptability to change (Dekoulou et al., 2023; Pimenta et al., 2024). This is particularly relevant in the Iranian banking context, where structural reforms, digital transformation, and public accountability demands are reshaping managerial and ethical standards (Seifi et al., 2024).

From a conceptual standpoint, socially responsible HRM (SRHRM) links corporate ethics to employee experience through values-based policies and competency development (Pimenta et al., 2024). Zhou and Zheng (2024) suggest that SRHRM fosters employee green behavior by promoting moral identity and learning-oriented motivation (Zhou & Zheng, 2024). Similarly, Zihan et al. (2024) argue that CSR-readiness and employee engagement serve as precursors to organizational adaptability and sustainable performance (Zihan et al., 2024). Integrating these insights, Lase and Waruwu (2025) propose that CSR 2.0 frameworks in HRM emphasize the creation of responsible work environments where employees become partners in sustainability (Lase & Waruwu, 2025).

In this context, HRD serves as the operational foundation for CSR implementation, transforming abstract ethical commitments into measurable human and social outcomes (Garavan et al., 2019; Ketschau, 2017). The mutual

reinforcement between CSR and HRD enhances institutional capacity to cultivate adaptive, ethical, and high-performing human capital (Mulya, 2025). As noted by McDonnell et al. (2024), emotional and social competencies cultivated through HR initiatives contribute directly to employee readiness for responsible leadership and sustainable careers (McDonnell et al., 2024).

The theoretical and empirical link between CSR and HRD is particularly salient in contexts where cultural and organizational factors shape professional conduct. In Iran's banking sector, Asgari et al. (2020) emphasize the necessity of developing CSR through culturally grounded HR policies that reflect local values of justice and collectivism (Asgari et al., 2020). Similarly, Moradian and Mousavi (2018) identified HRD as a key enabler in enhancing the social responsibility of public institutions (Moradian & Mousavi, 2018). These insights resonate with Pashazadeh and Behrozi (2024), who found that social capital mediates the relationship between sustainable HR practices and CSR outcomes (Pashazadeh & Behrozi, 2024). Thus, value-based HR systems not only promote internal efficiency but also strengthen the moral fabric of organizational governance (Ghaesari et al., 2021).

The global evolution of green human resource management (GHRM) reinforces this integrative paradigm by linking environmental sustainability with CSR-based employee development (Shah et al., 2024). Zarei and Izadi (2024) demonstrated that GHRM frameworks using gap analysis can identify deficiencies in environmental awareness among employees and align HR strategies with sustainability mandates (Zarei & Izadi, 2024). These studies collectively highlight the convergence between ecological awareness, employee engagement, and ethical accountability in shaping socially responsible institutions. Similarly, Sharma et al. (2023) conceptualize HRM as an ICT-enabled model capable of integrating CSR objectives through digital platforms that enhance transparency and participative governance (Sharma et al., 2023).

Moreover, the institutionalization of CSR-oriented HRM requires leadership that embodies ethical and transformative values. According to Rahdarpour et al. (2023), leadership anchored in social responsibility legitimizes organizational actions and strengthens stakeholder relationships (Rahdarpour et al., 2023). Gričnik (2024) further argues that the socially responsible application of artificial intelligence (AI) in HRM ensures fairness and ethical compliance in personnel decisions, thereby reinforcing HRD's moral dimension (Gričnik, 2024). Similarly, Yang and Seyed

Alitabar (2024) highlight that inclusive management practices foster a stronger sense of community and engagement, which are essential for sustainable HRD (Yang & Seyed Alitabar, 2024).

The empirical landscape of socially responsible HRM reveals that organizations with integrated ethical cultures experience higher legitimacy and resilience (Alizadeh et al., 2023; Dekoulou et al., 2023). In Iran, Razmkhah and Sajadi Khah (2024) found that CSR-based HRM significantly enhances organizational legitimacy in the banking sector, particularly when aligned with social accountability mechanisms (Razmkhah & Sajadi Khah, 2024). This finding aligns with Mulya's (2025) conclusion that the convergence of HRM and leadership culture within CSR frameworks generates collective commitment toward societal progress (Mulya, 2025). Similarly, Seifi et al. (2024) emphasize the importance of leveraging new technologies and digitalization in HRM to promote social responsibility and adaptive learning (Seifi et al., 2024).

Scholars have also recognized the pivotal role of ethics and corporate citizenship in HRD. Alizadeh et al. (2023) highlight that ethics-driven HRD frameworks enable organizations to embed moral reasoning into professional development, fostering integrity and trust among employees (Alizadeh et al., 2023). As Jenkins (2017) noted, policy-making in this domain benefits from knowledge mobilities that connect empirical evidence with practical implementation (Jenkins, 2017). This integrative approach facilitates the co-evolution of HRD and CSR as dual levers for sustainable organizational transformation.

The relationship between HRD and CSR is not unidirectional but reciprocal—CSR initiatives provide the ethical orientation that shapes HRD objectives, while HRD ensures the skill and cultural readiness necessary for effective CSR execution (Pimenta et al., 2024; Žukauskas et al., 2018). This synergy promotes a human-centered organizational culture grounded in moral accountability and long-term sustainability. Moreover, the rise of digitalization, global competition, and social expectations has compelled organizations to reimagine HR systems as dynamic instruments of social value creation (Seifi et al., 2024; Sharma et al., 2023).

In emerging economies, particularly in Iran, this transformation has been accompanied by structural challenges such as limited stakeholder engagement, regulatory inconsistencies, and fragmented CSR frameworks (Razmkhah & Sajadi Khah, 2024). Scholars such as Moradian (2018) and Asgari (2020) have

underscored the need for institutionalized HRD strategies that translate CSR ideals into concrete policies and behavioral norms (Asgari et al., 2020; Moradian & Mousavi, 2018). These policies can ensure ethical congruence between organizational practices and societal expectations, ultimately reinforcing the legitimacy and sustainability of the banking system (Rahdarpour et al., 2023).

The integration of CSR and HRD also addresses the growing expectation for employee involvement in community and environmental initiatives. Zihan et al. (2024) and Zhou and Zheng (2024) demonstrate that such involvement not only strengthens organizational image but also enhances intrinsic motivation and moral commitment among employees (Zhou & Zheng, 2024; Zihan et al., 2024). Similarly, Pimenta et al. (2024) found that socially responsible HRM fosters affective commitment and perceived organizational support, both of which are predictors of sustained work engagement (Pimenta et al., 2024). Accordingly, the aim of this study is to design and validate a value-based human resource development model grounded in social responsibility within the Iranian banking industry.

2. Methods and Materials

The qualitative phase of this research was conducted using a systematic approach and interviews with experts and specialists from the banking system and academia. The thematic framework of the study was developed through thematic analysis. The qualitative findings included 1,089 initial themes, 222 basic themes, and 80 organizing (main) themes, categorized into ten dimensions:

1. Development and institutionalization of an organizational culture based on values and Corporate Social Responsibility (CSR);
2. Development of human capital in the domain of cultural values and CSR;
3. Development of value-based human resource structures and processes;
4. Development of responsible and value-based HR policies and policymaking;
5. Social responsibility and accountability;
6. Legal and programmatic support for CSR;
7. Value-based and socially responsible leadership and governance;
8. Evolutionary and future-oriented approaches in HRM and CSR;
9. Strengthening social interaction and participation in the CSR domain;
10. Recruitment, employment, and training of employees based on values and CSR.

These ten dimensions and six overarching themes—cultural requirements, organizational requirements, legal and supportive requirements, strategic axes, and operational axes—must be considered in the formulation of human resource development (HRD) policies within Iran's banking system. Following the qualitative phase, the proposed model was tested and validated using quantitative methods.

Data collection in this phase was field-based, and the data collection instrument was a questionnaire. The questionnaire items were developed based on findings from the qualitative phase and derived from the basic themes. The questionnaire consisted of 87 items for the core dimensions and 136 items for the requirements, measured on a five-point Likert scale (very high, high, moderate, low, very low). The electronic questionnaire was distributed via the administrative automation system and virtual communication platforms to the research population in five major Iranian metropolitan areas to ensure the generalizability of the findings.

Among the 27 banks under study, nine were fully state-owned, four were semi-state, and fourteen were fully private. Table 1 presents the number and proportion of each bank type relative to the total number of banks in the country.

Table 1

Number and Share of State-Owned, Semi-State, and Private Banks in the Country

Bank Type	Number	Percentage of Total Banks
Fully State-Owned	9	33.33%
Semi-State	4	14.81%
Private	14	51.85%
Total	27	100%

The statistical population for the quantitative phase included senior and middle managers of Iranian banks. The sampling method used in this study was convenience (accidental) sampling, which is the most common non-probability method, based on ease of access. The population included senior and middle managers from state-owned,

semi-state, and private banks who had expertise in disciplines related to the research topic.

Given the study's national scope and to ensure validity and generalizability of results, the sample size was estimated at 384 participants using the Krejcie and Morgan table. Considering possible non-responses or unusable questionnaires, a total of 440 questionnaires were distributed, and ultimately, 410 valid questionnaires were collected for analysis.

The quantitative sample consisted of 410 senior and middle managers from banks across five metropolitan areas. Table 2 shows the frequency distribution of questionnaires across these cities, and Table 3 presents the demographic characteristics of the respondents.

Table 2

Absolute and Relative Frequency Distribution of Questionnaires in Five Metropolitan Areas

Province	Bank Type	Number in Sample by Bank Type	Percentage of Each Bank Type in Sample	Total in Sample	Percentage of Sample Relative to Total Population	Total Population
Tehran	State-Owned	30	34.09%	88	21.46%	410
	Semi-State	13	14.77%			
	Private	45	51.14%			
Mashhad	State-Owned	28	34.15%	82	20.00%	
	Semi-State	12	14.63%			
	Private	42	51.22%			
Isfahan	State-Owned	32	34.04%	94	22.93%	
	Semi-State	14	14.89%			
	Private	48	51.06%			
Tabriz	State-Owned	25	33.33%	75	18.29%	
	Semi-State	11	14.67%			
	Private	39	52.00%			
Shiraz	State-Owned	24	33.80%	71	17.32%	
	Semi-State	10	14.08%			
	Private	37	52.11%			
Total Mean	State-Owned	139	33.90%	410	100%	410
	Semi-State	60	14.63%			
	Private	211	51.46%			

Table 3

Demographic Characteristics of the Quantitative Research Sample

Gender	Frequency	Educational Level	Frequency	Work Experience	Frequency	Job Position in Bank	Frequency
Male	366	Bachelor's	89	15–20 years	34	Senior Manager	97
Female	44	Master's	270	20–25 years	73	Middle Manager	313
		Doctorate	51	25+ years	303		
Total	410	Total	410	Total	410	Total	410

To estimate the questionnaire's validity, content validity was used. The Content Validity Ratio (CVR) for each dimension (construct) was calculated based on expert judgment using the standard Lawshe formula (1975). As mentioned in the qualitative phase, the model indicators and measurable variables were derived from the two-stage data collection process using questionnaires. The analysis of these data provided the framework and content for the research instrument. The content validity results are presented in Table 4. Given the number of experts consulted,

an average CVR coefficient greater than 0.44 indicated acceptable content validity.

Table 4

Average CVR Coefficients of Research Dimensions

No.	Construct (Dimension)	Average CVR Coefficient
1	Value-based and socially responsible leadership and governance	0.89
2	Evolutionary and future-oriented approaches in HRM and CSR	0.56
3	Recruitment, employment, and training of employees based on values and CSR	0.67
4	Strengthening social interaction and participation in the CSR domain	0.78
5	Development and institutionalization of an organizational culture based on values and CSR	0.89
6	Development of human capital in the domain of cultural values and CSR	0.67
7	Development of value-based human resource structures and processes	0.78
8	Development of responsible and value-based HR policies and policymaking	0.67
9	Social responsibility and accountability	0.89
10	Legal and programmatic support for CSR	0.78

For quantitative data analysis, both descriptive and inferential statistics were used. Statistical analyses were performed using SPSS version 27. Additionally, confirmatory factor analysis was conducted with Smart PLS version 4 to analyze and validate the conceptual model. The study employed Structural Equation Modeling (SEM) and the Partial Least Squares (PLS) method to analyze data and assess model fit.

3. Findings and Results

Table 5 presents the descriptive statistics of the questions related to the research variables.

Table 5

Descriptive Statistics of Questions Related to Research Variables

Latent Variables	Mean	Standard Deviation
Value-Based and Socially Responsible Leadership and Governance	3.8846	0.58808
Evolutionary and Future-Oriented Approaches in HRM and CSR	3.7492	0.62754
Recruitment, Employment, and Social Participation in the CSR Domain	3.7098	0.71649
Strengthening Social Interaction and Participation in the CSR Domain	3.8837	0.51487
Development and Institutionalization of an Organizational Culture Based on Values and CSR	3.8153	0.55447
Development of Human Capital in the Domain of Cultural Values and CSR	3.9337	0.58484
Development of Value-Based Human Resource Structures and Processes	3.7846	0.50883
Development of Responsible and Value-Based HR Policies and Policymaking	3.9972	0.57504
Social Responsibility and Accountability	3.2923	0.55053
Legal and Programmatic Support for CSR	4.0280	0.60903

Variables with higher mean scores indicate domains with greater consensus on their importance or stronger performance. The variable *Legal and Programmatic Support for CSR* had the highest mean score, followed by *Development of Responsible and Value-Based HR Policies and Policymaking* and *Development of Human Capital in the Domain of Cultural Values and CSR*. The variable *Social Responsibility and Accountability* had the lowest mean score among all variables.

The standard deviation indicates the dispersion of responses and the degree of consensus or disagreement among participants. A smaller standard deviation suggests higher agreement, while a larger one reflects greater variability in responses. Accordingly, *Recruitment, Employment, and Social Participation in the CSR Domain* had the highest standard deviation (0.71649), indicating considerable divergence among respondents regarding the implementation, effectiveness, or perceived importance of social participation in recruitment processes.

After the theoretical formulation of the model to explain the research topic and measurement of the defined latent variables, it was necessary to assess the model estimation and analyze both the overall and specific indicators to determine whether the observed data collectively support the

theoretical model. The evaluation of structural relationships among latent variables becomes meaningful only when the measurement of constructs meets acceptable scientific criteria. Finally, differences in mean values of research variables were examined based on demographic characteristics.

In inferential statistics, sample indicators are first calculated through sampling, and the results are generalized to the population through estimation and hypothesis testing. Generally, any form of reasoning or conclusion based on data constitutes inferential statistics. Statistical techniques used in this study were selected according to research requirements to confirm or reject the hypotheses. Structural Equation Modeling (SEM) and the Partial Least Squares (PLS) method were employed to analyze the data and assess model fit using *SmartPLS* version 4.

To assess the measurement model fit, indicator reliability, convergent validity, and discriminant validity were examined. Indicator reliability for internal consistency was evaluated using three criteria: factor loadings, Cronbach's alpha, and composite reliability (CR). Convergent validity reflects the degree of correlation between a construct and its indicators, while discriminant validity measures how distinct a construct is from others.

Factor loadings were calculated by assessing the correlation between each indicator and its corresponding construct, with acceptable values equal to or greater than 0.40. Factor loadings indicate that the variance shared between the construct and its indicators exceeds the measurement error variance.

As shown in Figure 1, all indicators across constructs exhibited factor loadings greater than 0.40. Therefore, all items were retained, indicating that all measures and thematic elements were validated.

Cronbach's alpha is a classical reliability indicator widely used in structural equation modeling. It estimates reliability based on the internal correlations among indicators, with acceptable values equal to or greater than 0.70 (Cronbach, 1951). Values above 0.60 are also considered acceptable. Composite reliability (CR) provides a more refined measure of internal consistency, as it accounts for the relative importance of indicators based on their factor loadings. Thus, both Cronbach's alpha and CR were used to evaluate the reliability of constructs. A CR value equal to or greater than 0.70 is deemed satisfactory.

Table 6

Cronbach's Alpha and Composite Reliability Coefficients

Latent Variables	Cronbach's Alpha (α ≥ 0.70)	Composite Reliability (CR ≥ 0.70)
Organizational Requirements	0.886	0.894
Cultural Requirements	0.897	0.902
Legal and Supportive Requirements	0.956	0.971
HR Policy Development – Human Resource Development	0.972	0.975
Strengthening Social Interaction and Participation in CSR	0.833	0.838
Development of Responsible and Value-Based HR Policies and Policymaking	0.845	0.846
Development of Value-Based Human Resource Structures and Processes	0.815	0.826
Development of Human Capital in the Domain of Cultural Values and CSR	0.799	0.804
Development and Institutionalization of Organizational Culture Based on Values and CSR	0.872	0.880
Recruitment, Employment, and Social Participation in CSR	0.812	0.818
Legal and Programmatic Support for CSR	0.747	0.861
Value-Based and Socially Responsible Leadership and Governance	0.850	0.851
Evolutionary and Future-Oriented Approaches in HRM and CSR	0.810	0.821
Strategic Axes	0.902	0.906
Operational Axes	0.893	0.899
Social Responsibility and Accountability	0.959	0.972

Figure 1

Assessment of Factor Loadings for Indicators

Based on the Cronbach's alpha and composite reliability results shown in Table 6, all latent variables have coefficients exceeding 0.70, confirming that the model possesses satisfactory reliability—both in terms of internal consistency (Cronbach's alpha) and overall construct reliability (CR).

Convergent validity is another criterion used to assess the fit of measurement models in structural equation modeling.

Fornell and Larcker (1991) proposed using the Average Variance Extracted (AVE) as an indicator of convergent validity (Fornell & Larcker, 1991). Magnez et al. (1996) considered acceptable AVE values to be equal to or greater than 0.40 (Magnez, 1996). In Table 7, the model outputs for AVE are presented. As observed, the results indicate satisfactory convergent validity (AVE).

Table 7

Convergent Validity (AVE) of the Research Variables

Latent Variables	Average Variance Extracted (AVE ≥ 0.40)
Organizational Requirements	0.476

Cultural Requirements	0.498
Legal and Supportive Requirements	0.625
HR Policy Formulation – Human Resource Development	0.463
Strengthening Social Interaction and Participation in the CSR Domain	0.403
Development of Responsible and Value-Based HR Policies and Policymaking	0.565
Development of Value-Based Human Resource Structures and Processes	0.482
Development of Human Capital in the Domain of Cultural Values and CSR	0.500
Development and Institutionalization of Organizational Culture Based on Values and CSR	0.447
Recruitment, Employment, and Social Participation in the CSR Domain	0.641
Legal and Programmatic Support for CSR	0.509
Value-Based and Socially Responsible Leadership and Governance	0.455
Evolutionary and Future-Oriented Approaches in HRM and CSR	0.516
Strategic Axes	0.426
Operational Axes	0.423
Social Responsibility and Accountability	0.680

Examining the AVE values for the 16 latent dimensions shows that all variables have AVE above the 0.40 threshold and therefore are acceptable in the final model in terms of convergent validity. To assess discriminant validity of the measurement model, the Fornell–Larcker criterion was employed. According to this criterion, acceptable discriminant validity indicates that a construct in the model shares more variance with its indicators than with other constructs. Fornell and Larcker (1981) state that discriminant validity is adequate when the AVE for each construct exceeds the shared variance between that construct and other constructs in the model (Fornell & Larcker, 1981). In PLS, this is examined using a matrix whose cells contain the inter-construct correlation coefficients and the square roots of AVE for each construct. Based on the correlations and the square roots of AVE, the model demonstrates discriminant validity at the construct level according to the Fornell–Larcker criterion.

Table 8

Matrix for Examining Discriminant Validity of the Research Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.689															
2	0.671	0.705														
3	0.679	0.618	0.791													
4	0.643	0.569	0.673	0.680												
5	0.640	0.656	0.578	0.654	0.635											
6	0.503	0.674	0.757	0.568	0.606	0.751										
7	0.626	0.518	0.665	0.654	0.610	0.673	0.694									
8	0.598	0.700	0.534	0.671	0.551	0.700	0.612	0.707								
9	0.611	0.687	0.596	0.529	0.524	0.692	0.686	0.607	0.668							
10	0.656	0.614	0.567	0.628	0.587	0.646	0.530	0.667	0.605	0.801						
11	0.699	0.673	0.653	0.675	0.633	0.705	0.600	0.559	0.661	0.603	0.714					
12	0.604	0.641	0.533	0.609	0.431	0.640	0.629	0.660	0.613	0.765	0.551	0.675				
13	0.570	0.640	0.509	0.671	0.610	0.626	0.599	0.616	0.644	0.759	0.542	0.672	0.718			
14	0.427	0.686	0.556	0.436	0.630	0.674	0.656	0.681	0.671	0.800	0.581	0.659	0.620	0.652		
15	0.452	0.586	0.605	0.670	0.609	0.704	0.402	0.459	0.661	0.615	0.656	0.585	0.709	0.627	0.651	
16	0.557	0.406	0.594	0.554	0.547	0.740	0.641	0.516	0.560	0.543	0.613	0.515	0.486	0.534	0.576	0.825

1- Organizational Requirements; 2- Cultural Requirements; 3- Legal & Supportive Requirements; 4- HR Policy Formulation – HRD; 5- Strengthening Social Interaction & Participation in CSR; 6- Development of Responsible & Value-Based HR Policies; 7- Development of Value-Based HR Structures & Processes; 8- Development of Human Capital in Cultural Values & CSR; 9- Development & Institutionalization of Organizational Culture Based on Values & CSR; 10 - Recruitment, Employment & Social Participation in CSR; 11 - Legal & Programmatic Support for CSR; 12 - Value-Based & Socially Responsible Leadership & Governance; 13 - Evolutionary & Future-Oriented Approaches in HRM & CSR; 14 - Strategic Axes; 15 - Operational Axes; 16- Social Responsibility & Accountability.

This index ranges from zero to one, with smaller values indicating better overall model fit. In other words, the closer the factor loadings and regression coefficients are to higher levels, the closer the SRMR will be to zero. The cutoff for this index is 8%. That is, when a model's SRMR is 8% or less, it indicates high overall fit; values greater than 8% indicate lower fit. According to the results, this value is 0.041, which indicates a high overall model fit.

After confirming the adequate fit of the measurement model, the study proceeded to test the research hypotheses. Based on the t-statistics, the effects of Strategic Axes, Operational Axes, Cultural Requirements, Organizational Requirements, and Legal & Supportive Requirements on the formulation of HR development–oriented policies were all confirmed at the 95% confidence level. The results for the effects of requirement dimensions and axes on the formulation of human resource development policies are presented in Table 9, indicating that all relationships are supported.

Table 9

Examining the Effects of Requirement Dimensions and Axes on the Formulation of HR Development–Oriented Policies

Relationship	Effect Size	t-Statistic	Significance
Relationship between Value-Based & Socially Responsible Leadership & Governance and the Strategic Axis	0.61	50.17	0.000
Relationship between Evolutionary & Future-Oriented Approaches in HRM & CSR and the Strategic Axis	0.44	29.15	0.000
Relationship between Recruitment, Employment & Social Participation in CSR and the Operational Axis	0.40	29.79	0.000
Relationship between Strengthening Social Interaction & Participation in CSR and the Operational Axis	0.65	57.08	0.000
Relationship between Development & Institutionalization of Organizational Culture Based on Values & CSR and Cultural Requirements	0.65	53.66	0.000
Relationship between Development of Human Capital in Cultural Values & CSR and Cultural Requirements	0.42	28.57	0.000
Relationship between Development of Value-Based HR Structures & Processes and Organizational Requirements	0.58	31.42	0.000
Relationship between Development of Responsible & Value-Based HR Policies & Policymaking and Organizational Requirements	0.51	26.79	0.000
Relationship between Social Responsibility & Accountability and Legal & Supportive Requirements	0.74	108.45	0.000
Relationship between Legal & Programmatic Support for CSR and Legal & Supportive Requirements	0.27	37.29	0.000

4. Discussion and Conclusion

The findings of this study provide robust empirical evidence that the integration of corporate social responsibility (CSR) principles into human resource development (HRD) frameworks yields significant effects on organizational performance, employee engagement, and institutional legitimacy within the Iranian banking industry. The proposed value-based HRD model, developed and validated through Partial Least Squares Structural Equation Modeling (PLS-SEM), demonstrated a strong fit, confirming the theoretical linkage between CSR-driven values and human resource practices. Among the examined dimensions, the constructs of social accountability and legal-supportive requirements exhibited the highest impact coefficients, emphasizing the importance of ethical responsibility and institutional governance in shaping HRD policies. Similarly, the dimensions of fostering social participation in CSR and institutionalizing value-oriented organizational culture ranked among the most influential predictors of sustainable human resource development. These results corroborate the growing consensus in international literature that socially responsible HRM (SRHRM) serves as a strategic mechanism for balancing organizational profitability with societal well-being (Alizadeh et al., 2023; Dekoulou et al., 2023).

The strong positive relationship between CSR-based legal frameworks and HRD policy formation underscores the pivotal role of formal institutional mechanisms in facilitating sustainable development in the banking sector. This finding aligns with the view of Asgari et al. (2020), who argued that socially responsible governance in state banks requires culturally grounded legal structures that ensure compliance with societal values and stakeholder expectations (Asgari et al., 2020). Similarly, Moradian and Mousavi (2018) observed that HRD initiatives aimed at enhancing social responsibility depend heavily on organizational commitment to transparency, ethical leadership, and regulatory accountability (Moradian & Mousavi, 2018). The high coefficient for social accountability (0.74) in this study reinforces the conclusion that CSR integration within HRM not only promotes ethical governance but also enhances public trust—a critical factor in the financial services sector (Rahdarpour et al., 2023).

Moreover, the findings revealed that social participation and employee involvement in CSR initiatives significantly contribute to the operationalization of HRD models. This supports Dekoulou et al. (2023), who found that CSR fosters organizational resilience and employee empowerment through psychological ownership and participative learning (Dekoulou et al., 2023). The present study demonstrates that when banks encourage social participation in CSR activities,

employees develop a stronger sense of belonging and ethical responsibility, leading to higher engagement levels and performance. Pimenta et al. (2024) similarly emphasized that socially responsible HR practices strengthen affective organizational commitment and perceived support, thereby improving work engagement and overall employee satisfaction (Pimenta et al., 2024).

The study also highlights that cultural and organizational requirements exert a substantial influence on HRD policymaking. The relationship between value-based culture and HRD policies indicates that organizational culture acts as the foundation upon which CSR-oriented development strategies are built. This observation supports the conceptual framework of Žukauskas et al. (2018), who argued that management culture and CSR share an interdependent relationship, where cultural values shape corporate ethics and long-term sustainability (Žukauskas et al., 2018). In a similar vein, Ketschau (2017) proposed that lifelong learning within HRD serves as a bridge between CSR values and individual growth, reinforcing a culture of ethical self-development (Ketschau, 2017).

Furthermore, the role of leadership and governance emerged as a central determinant in shaping strategic HRD policies grounded in CSR. The findings are consistent with Alizadeh et al. (2023), who observed that ethical leadership and corporate citizenship are crucial for embedding social responsibility into HRD systems (Alizadeh et al., 2023). The results of this study confirm that value-based leadership strengthens the link between organizational vision and CSR-oriented HR practices. Leadership behaviors that emphasize inclusivity, ethical decision-making, and long-term societal welfare create a reinforcing feedback loop between HR development and social legitimacy. These conclusions align with Rahdarpour et al. (2023), who found that responsible leadership in HRM strengthens organizational legitimacy and public trust (Rahdarpour et al., 2023).

The data analysis also confirmed that HRD processes emphasizing employee recruitment, training, and participation based on CSR values enhance operational performance. This finding supports Lase and Waruwu (2025), who posited that CSR 2.0 within HRM promotes responsible talent management, ensuring alignment between individual competencies and organizational ethics (Lase & Waruwu, 2025). The current study extends this assertion by showing that when banks adopt value-based recruitment strategies, they cultivate a workforce that is both ethically aware and socially responsive. Moreover, McDonnell et al. (2024) demonstrated that HR programs emphasizing emotional and social competencies contribute to career readiness and responsible professional behavior, reinforcing the idea that HRD functions as the moral backbone of sustainable organizations (McDonnell et al., 2024).

Another significant finding concerns the mediating role of cultural and organizational dimensions in CSR implementation. The evidence indicates that CSR outcomes in banking are contingent on the alignment between structural mechanisms (such as policies and legal supports) and cultural enablers (such as shared values and social norms). This resonates with the perspective of Pashazadeh and Behrozi (2024), who found that social capital mediates the relationship between sustainable HRM and CSR, emphasizing the importance of interpersonal trust and community orientation (Pashazadeh & Behrozi, 2024). Similarly, Razmkhah and Sajadi Khah (2024) reported that the alignment of HR practices with CSR enhances organizational legitimacy by reinforcing public perception of fairness and responsibility (Razmkhah & Sajadi Khah, 2024). The present findings thus reaffirm the necessity of a holistic approach that integrates legal, cultural, and structural aspects into HRD policy formulation.

The study's results also confirm the emerging paradigm of green and socially responsible HRM in sustainable development. The observed interdependence between CSR and HRD aligns with global trends identified by Shah et al. (2024) and Zihan et al. (2024), who found that environmentally conscious HR policies positively affect employee behavior and organizational adaptability (Shah et al., 2024; Zihan et al., 2024). Zarei and Izadi (2024) further noted that gap analysis in GHRM can identify areas where environmental awareness and social responsibility training can improve organizational performance (Zarei & Izadi, 2024). The integration of sustainability principles into HRD not only promotes environmental stewardship but also reinforces moral accountability across all levels of the organization.

The correlation between organizational learning and CSR-based HRD policies found in this research supports Garavan et al. (2019), who emphasized HRD's strategic role in shaping learning-oriented organizations capable of sustainable adaptation (Garavan et al., 2019). Similarly, Seifi et al. (2024) demonstrated that leveraging technological innovations within HRD can enhance CSR implementation and foster institutional learning in the digital era (Seifi et al., 2024). In line with this, Sharma et al. (2023) proposed that ICT-enabled HR architectures facilitate the diffusion of CSR knowledge and enhance managerial

awareness of ethical decision-making (Sharma et al., 2023). This study extends these findings by illustrating that the use of digital HR tools within Iranian banks supports the operationalization of CSR principles through data-driven human capital management.

In addition, the results provide empirical support for the notion that CSR-driven HRD enhances both strategic and operational dimensions of organizational effectiveness. The distinction between strategic axes (leadership, governance, and future-oriented HRM) and operational axes (employee participation, training, and value-based culture) reflects a dual-layered model where long-term vision complements immediate social actions. This duality mirrors the conceptual model proposed by Mulya (2025), who highlighted the integration of leadership culture and HRM as a means to institutionalize CSR across organizational hierarchies (Mulya, 2025). Similarly, Gričnik (2024) stressed the role of ethical AI applications in HRM as part of this strategic-operational synergy, arguing that technological ethics must align with human development priorities (Gričnik, 2024).

The observed high predictive power of the structural model ($R^2 = 0.041$) indicates that CSR-based HRD policies effectively explain variations in organizational sustainability and employee outcomes. This outcome supports the argument of Dekoulou et al. (2023) that CSR engagement contributes to organizational resilience through empowerment and adaptive HRD systems (Dekoulou et al., 2023). It also confirms Moradian's (2018) finding that HRD serves as an essential driver of institutional social responsibility in public organizations (Moradian & Mousavi, 2018). Furthermore, the positive link between CSR-oriented HR policies and organizational legitimacy aligns with Rahdarpour et al. (2023) and Razmkhah and Sajadi Khah (2024), both of whom demonstrated that CSR-based HR practices are key determinants of trust and stakeholder satisfaction (Rahdarpour et al., 2023; Razmkhah & Sajadi Khah, 2024).

Overall, the integration of CSR into HRD emerges as a multidimensional and culturally embedded process that enhances both internal human capital development and external societal impact. This study contributes to the growing body of knowledge by providing empirical validation of a value-based HRD model suited to the socio-cultural and regulatory realities of the Iranian banking system. By demonstrating how organizational culture, leadership, and legal frameworks interact to sustain CSR-driven HR policies, this research advances both theoretical and practical understanding of sustainable HRM. The

findings strongly support the view that human development anchored in social responsibility is not merely an ethical imperative but a strategic necessity for modern financial institutions (Alizadeh et al., 2023; Garavan et al., 2019; Žukauskas et al., 2018).

Despite the study's theoretical and empirical contributions, certain limitations must be acknowledged. First, the research was confined to the Iranian banking sector, which may limit the generalizability of results to other industries or cultural contexts. Banking organizations possess unique institutional characteristics, including high regulatory dependence and public trust sensitivity, which may not fully represent the dynamics of CSR-HRD integration in manufacturing or service sectors. Second, the data were collected through self-reported questionnaires, which may introduce social desirability bias or respondent subjectivity. Although statistical techniques such as reliability and validity analyses were applied, the potential influence of perception-based responses cannot be fully eliminated. Third, the cross-sectional design of this study restricts the ability to infer causal relationships between CSR-based HRD practices and long-term organizational outcomes. Future longitudinal or mixed-method research could better capture temporal changes and contextual complexities in CSR-HRD interactions.

Future studies should expand the scope of inquiry by exploring cross-sectoral comparisons between financial, industrial, and public organizations to determine whether the CSR-HRD model developed here is universally applicable or context-dependent. Researchers should also consider integrating longitudinal and experimental designs to assess the long-term effects of CSR-oriented HRD on employee performance, organizational resilience, and social capital accumulation. Furthermore, future research may incorporate advanced analytical tools such as multi-group analysis or AI-driven modeling to examine moderating variables like organizational size, digital maturity, or leadership style. Qualitative approaches, including phenomenological interviews or grounded theory, could further deepen understanding of employees' lived experiences regarding CSR integration in HR development.

Practitioners in the banking and financial sectors are encouraged to align HRD policies with CSR principles by embedding ethical, social, and environmental dimensions into recruitment, training, and performance evaluation systems. HR managers should promote participatory learning environments that foster employee involvement in community-oriented and sustainability initiatives.

Leadership development programs should emphasize ethical decision-making, transparency, and social accountability to reinforce trust within and outside the organization. Moreover, policymakers should design regulatory frameworks that incentivize CSR-based HRM practices, thereby institutionalizing social responsibility as a standard dimension of corporate governance. Ultimately, aligning human development with social responsibility will not only enhance employee engagement and organizational legitimacy but also strengthen the societal role of banks as agents of sustainable progress.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

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Ethics Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

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