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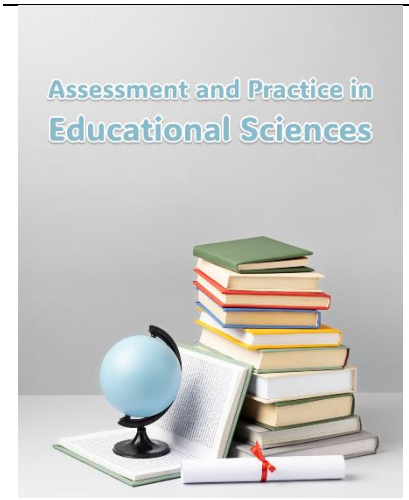

Explaining and Designing a Model for Human Capability Development in the Banking System (Case Study: Bank Melli Branches Abroad)

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ABSTRACT

The purpose of this study is to explain and design a model for human capability development in the banking system, focusing on the case study of Bank Melli branches abroad. The study is exploratory and interpretive in nature and employs a mixed-methods approach. The term “mixed” refers to the combination of both quantitative and qualitative research methods. Due to the nature of mixed-methods research, the statistical population was divided into two phases: participants in the qualitative phase and the statistical population and sample drawn from it in the quantitative phase. In the first phase, the sampling method was based on the snowball technique. Consequently, the sample size was determined by reaching theoretical saturation. In the second phase, the population consisted of experts, managers, and employees of Bank Melli branches abroad. The sample size in this phase was calculated using Cochran’s formula and selected through convenience sampling. To collect data, both library research and survey methods were employed. The current study was conducted in two sections—qualitative and quantitative. In the qualitative section, thematic analysis based on the King and Horrocks approach was used. In the quantitative section, to analyze the data and conduct inferential analysis, factor analysis and structural equation modeling (SEM) were utilized, with the aid of SmartPLS software. Based on the analyses, the study concluded that several factors play a significant and meaningful role in the overall model of human capability development in the banking system. These factors fall into the following general categories: general communication skills, general executive skills, professional knowledge, individual professional skills, and organizational capability.

Keywords: model design, human capability development, banking system

Introduction

Human capability development refers to the strategic enhancement of employees' competencies, skills, knowledge, and organizational readiness to adapt to changing market and technological conditions. This conceptualization is rooted in the broader human capital theory, which posits that investment in workforce development yields long-term economic and social returns (1). Particularly in the service-based sectors such as banking, where intangible assets dominate, the caliber of human capabilities often determines the institution's resilience and adaptability (2).

The emergence of Society 5.0 and Industry 4.0 has intensified the need for human capital to evolve in parallel with technological sophistication. As Abdurachman (2023) emphasizes, building human resource capabilities is fundamental in preparing institutions to function effectively in a data-driven and AI-integrated world (3). In the banking sector, this involves the cultivation of both technical and non-technical skills such as digital literacy, cultural intelligence, ethical reasoning, and cross-border collaboration—capabilities that are essential for international operations.

Existing literature has highlighted a variety of methods for human capability development, including continuous professional education, digital learning environments, mentoring programs, and competency-based frameworks (4). However, the unique organizational structures, compliance demands, and customer expectations in international banking necessitate a tailored model that reflects contextual complexities. As noted by Tien et al. (2021), conventional HRM approaches often fall short in addressing the hybrid skill sets required in transnational environments (5).

The international banking system is also facing a critical juncture due to global disruptions such as the COVID-19 pandemic and the acceleration of digital transformation. These shifts have exposed vulnerabilities in workforce readiness and leadership succession in financial institutions (6). As a response, organizations are moving toward strategic workforce planning that incorporates long-term capability development. Djamaluddin et al. (2022) propose a capability-based HR model in the hospitality sector, which can be adapted to banking, emphasizing functional agility and employee empowerment as key development pillars (7).

In terms of empirical evidence, Jalali and Tajik (2024) demonstrated that employee development methods significantly influence both human and social capital in financial institutions, particularly when knowledge management is used as a mediating mechanism (8). Similarly, Peiro et al. (2023) argue that sustainable human capital leadership contributes not only to employee well-being but also to the broader organizational vision of decent work and sustainable careers (9).

One of the key gaps in the literature relates to the lack of integrated models that connect individual development with organizational transformation in overseas banking branches. Mostafa Zadeh et al. (2023) developed an interpretive structural model for entrepreneurship development in higher education, which demonstrates the utility of hierarchical and systemic approaches in managing complexity (10). Applying such methodological frameworks to human capability development can offer actionable pathways for strategic transformation in banking.

Furthermore, the importance of leadership and governance structures in facilitating capability development cannot be overstated. As Hekak and Koliwand (2021) observed, synergistic leadership styles, especially among women leaders, positively impact the maturity level of employee capabilities, ultimately contributing to sustainable organizational development (11). Similarly, Rahmad et al. (2021) assert that the effectiveness of human capital initiatives is moderated by organizational design and leadership commitment (12).

In the case of Bank Melli's overseas operations, specific challenges such as cultural diversity, regulatory heterogeneity, talent retention, and market volatility further necessitate a localized yet globally aligned approach to human capability development. The work of Rafati Alashti and Sid Naghi (2022) on high-reliability organizations underscores the necessity of context-sensitive human resource models that integrate risk management, employee autonomy, and performance accountability (13).

Another critical perspective comes from Kuznetsova et al. (2023), who focus on preserving human capital in the context of the creative economy. Their findings underscore the role of motivation systems, career paths, and adaptive work environments in retaining skilled talent (14). This aligns with the broader discourse on sustainable human capital strategies which emphasize long-term employability over short-term productivity metrics (15).

Additionally, as pointed out by Dai et al. (2024), capability development should not be seen in isolation from broader policy objectives such as environmental sustainability and energy equity. Human capital policies that align with the Sustainable Development Goals (SDGs) provide a framework for inclusive and future-oriented talent strategies (16). This is particularly relevant for state-owned financial institutions like Bank Melli that operate under both commercial and developmental mandates.

From an implementation standpoint, studies by Setiawan et al. (2023) advocate for generationally responsive strategies that cater to the learning styles, values, and aspirations of millennial and Gen Z professionals (17). This requires not only technological upgrades in HR practices but also a cultural shift toward participatory and values-driven organizational life.

Finally, insights from the Iranian context by Kazemi and Alidoosti (2023), Fathollahie et al. (2022), and Salehi (2023) collectively reinforce the need for public and semi-public institutions to treat capability development as a strategic investment rather than a cost center (18-20). Their findings support a shift toward policy tools such as academic thesis integration, competency audits, and cross-functional development programs as viable mechanisms to foster systemic change.

In sum, the development of a comprehensive and empirically grounded model for human capability development in Bank Melli's overseas branches must draw upon multidisciplinary insights that intersect human resource theory,

Methods and Materials

This study is conducted with the aim of explaining and designing a model for human capability development in the banking system. Therefore, in terms of philosophical foundation, the present research is empirical, and in terms of research strategy, it is categorized as experiential. The main goal of the study is exploration and understanding. The background of this research is field-based. Moreover, this study follows a mixed-methods design, meaning it integrates both quantitative and qualitative approaches. The research approach is inductive.

Due to the mixed-methods nature of the study, the statistical population was divided into two phases: participants in the qualitative phase, and the population and sample selected for the quantitative phase. In the first phase, the snowball sampling technique was applied, and the sample size was determined based on reaching the point of theoretical saturation. In the second phase, the population included experts, managers, and employees of Bank Melli branches abroad. The sample size for this phase was calculated using Cochran's formula and selected via convenience sampling.

For data collection, both library research and survey methods were utilized. The questionnaire items were designed based on each of the study's indicators using a Likert scale. The content validity of the questionnaire was confirmed by experts and specialists, and its reliability was verified using Cronbach's alpha coefficient.

This study is conducted in two parts: qualitative and quantitative. In the qualitative part, thematic analysis based on the King and Horrocks approach was employed. In the quantitative part, to analyze the data and conduct inferential analysis, factor analysis and structural equation modeling (SEM) were used, and SmartPLS software was applied.

Findings and Results

In the descriptive coding phase, basic themes were extracted. In the interpretive coding phase, organizing themes were developed. In the final integration phase, overarching themes were identified. Specifically, after completing descriptive coding, interpretive coding was carried out. Interpretive coding in thematic analysis refers to the extraction of forming themes that

move beyond the initial descriptive codes and provide deeper structure and categorization. In this phase, an effort was made to go beyond description.

A total of 41 codes were extracted and grouped into five major categories. The core organizing themes of the study include: organizational capability, general communication skills, general executive skills, professional knowledge, and individual professional skills. Subsequently, these organizing themes were linked to overarching themes, which possess a higher level of abstraction. These overarching themes were extracted in two main dimensions: organizational and individual.

Initially, exploratory factor analysis (EFA) was conducted. The results showed that five factors had eigenvalues greater than 1 and were retained in the analysis. In other words, the questionnaire indicators were influenced by five underlying factors. These five factors were able to explain more than 79% of the variance in the variables.

Table 1: Number of Factors and Total Extracted Variance

Factor	Initial Eigenvalues	% Variance	Cumulative %	Rotated Eigenvalues	% Variance (Rotated)	Cumulative % (Rotated)
1	35.244	40.981	40.981	11.509	13.383	13.383
2	4.388	5.102	46.083	9.451	10.990	24.373
3	3.383	3.934	50.017	8.740	10.163	34.535
4	2.286	2.658	52.675	6.939	8.069	42.604
5	2.078	2.416	55.091	6.192	7.200	49.805

The results of the above table indicate the percentage of variance explained by each factor. According to the table output, five factors with eigenvalues greater than one were extracted. Therefore, the 41 indicators can be conceptually reduced to five factors.

Following the completion of exploratory factor analysis (EFA) and determination of how each factor aligns with its corresponding conceptual category, confirmatory factor analysis (CFA) was conducted to present the final model. In CFA, the researcher's key assumption is that each factor is associated with a specific subset of indicators. The minimum requirement for CFA is that the researcher should predefine the number of factors in the model. Moreover, the researcher typically incorporates their expectations about which factors will be loaded by which variables. For instance, the researcher tries to determine whether the observed variables designed to represent a latent construct truly belong together.

In the table below, the model validity conditions are presented, all of which are met for the proposed model in the present study. Then, the final model is presented in both standardized and significance forms.

Table 2. Cronbach's Alpha and Composite Reliability

Variable	Sub-Variable	Cronbach's Alpha	Reliability Coefficient	Composite Reliability
Human Capability Development in the Banking System	General Communication Skills	0.934	0.937	0.942
	General Executive Skills	0.907	0.917	0.925
	Professional Knowledge	0.935	0.938	0.944
	Individual Professional Skills	0.855	0.867	0.889
	Organizational Capability	0.869	0.884	0.903
Human Capability Development in the Banking System	-	0.872	0.877	0.898

The results of examining Cronbach's alpha and composite reliability coefficients in the table indicate that the values for all latent variables exceed 0.7. Therefore, the reliability of the measurement instruments is confirmed based on both indicators.

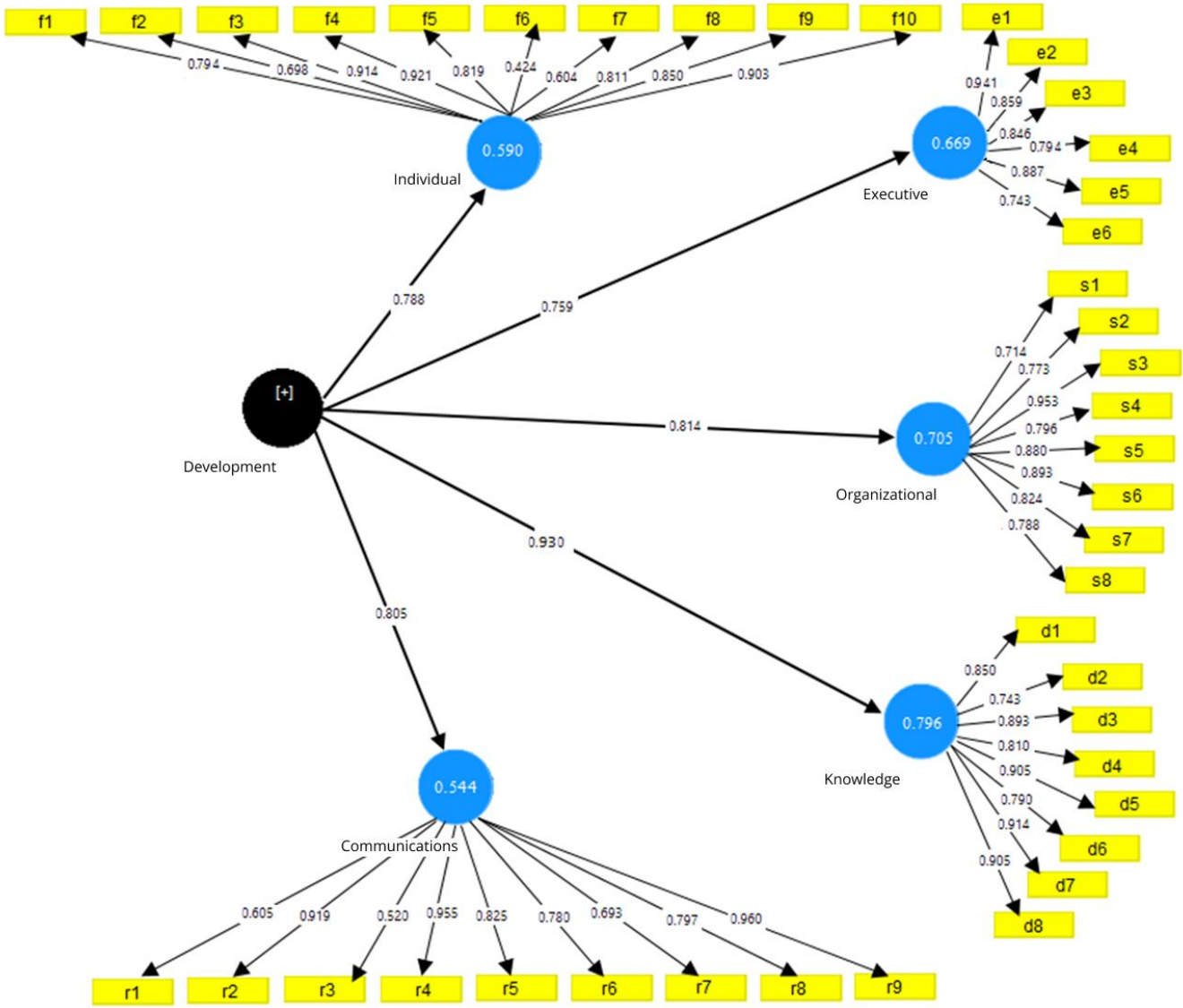

Figure 1. Model of Factor Loadings for Human Capability Development in the Banking System

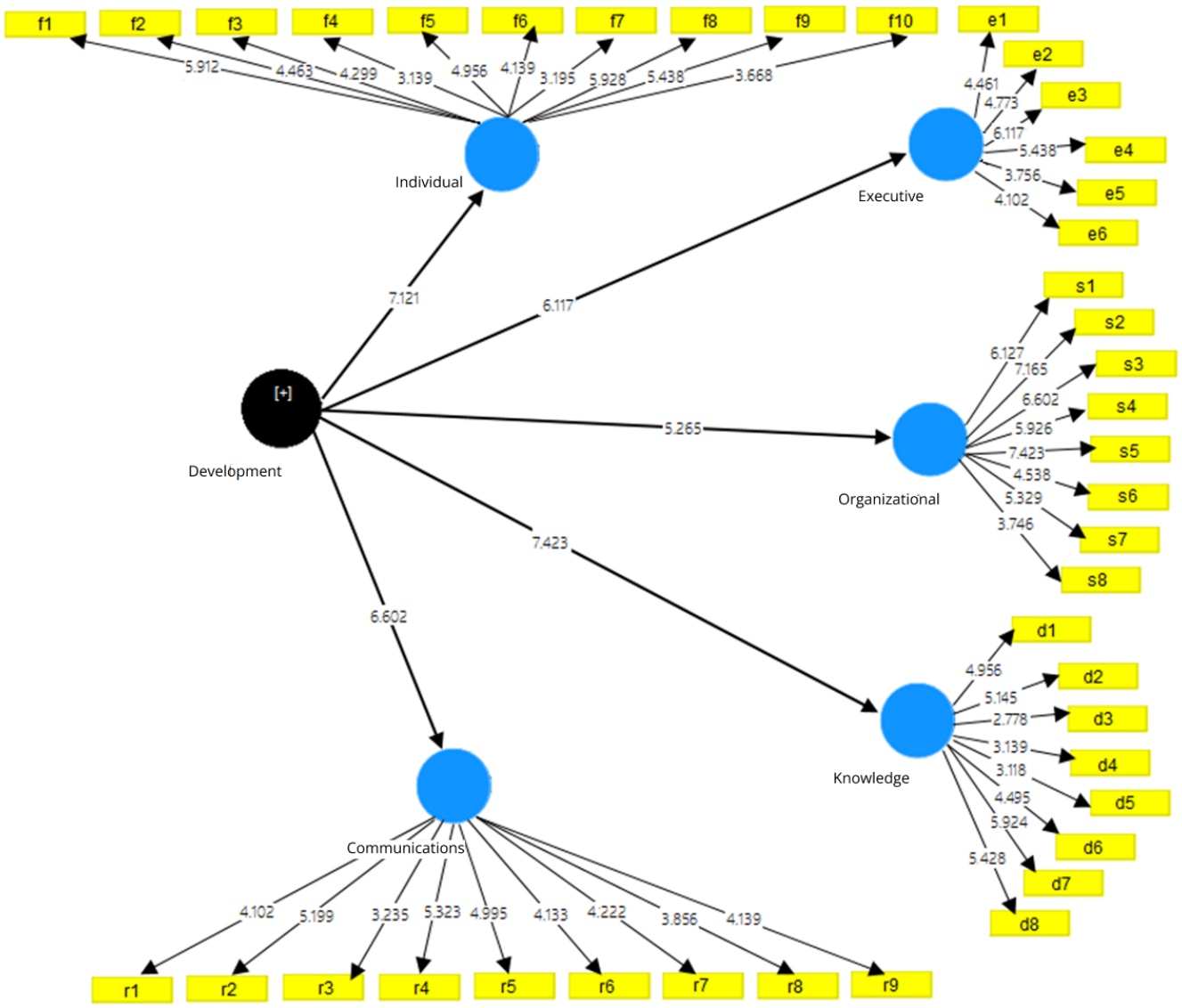

Figure 2. Significance Model of Factor Loadings for Human Capability Development in the Banking System

The results indicate that the factor loadings for all items are greater than 0.4, demonstrating that the measurement model is homogeneous. These factor loadings are within acceptable ranges, as the results of the significance test of the *t*-statistics in the above figure show that the *t*-values for all items confirm that the relationship between the items and their respective latent variables is statistically significant at the 95% confidence level.

Discussion and Conclusion

The present study aimed to design and validate a comprehensive model for human capability development in the banking system, with a particular focus on Bank Melli's international branches. Based on a mixed-methods design that incorporated thematic analysis and structural equation modeling (SEM), the study identified five primary constructs: general communication skills, general executive skills, professional knowledge, individual professional skills, and organizational capability. The reliability and validity of the constructs were confirmed through Cronbach's alpha, composite reliability, and confirmatory factor analysis. All factor loadings exceeded 0.4, and t-values indicated statistically significant relationships between the

indicators and latent variables. The findings suggest that the proposed model provides a coherent and empirically grounded framework for developing human capabilities in international banking contexts.

The results revealed that general communication skills significantly contribute to human capability development in the banking system. In the context of cross-border banking operations, effective communication—particularly intercultural and multilingual competencies—is essential for engaging diverse clients and navigating complex regulatory environments. This finding aligns with research emphasizing the role of communication in enhancing employee adaptability and performance in global service industries (6, 9). Effective communicators in banking environments are better positioned to foster client trust, mitigate misunderstandings, and uphold service quality standards in multicultural settings (1).

General executive skills were also identified as a critical component of the human capability development model. These include decision-making, time management, and administrative coordination—competencies that ensure smooth banking operations across diverse regulatory and operational landscapes. The importance of such skills is supported by prior studies that associate executive functioning with organizational effectiveness, especially in dynamic service environments like banking and hospitality (7, 12). Executive competencies also enable personnel to respond swiftly to market fluctuations and organizational challenges, which are increasingly common in international branches due to geopolitical and economic volatility (17).

The third construct—professional knowledge—was shown to have a strong and significant impact on the overarching construct of human capability development. In the banking sector, professional knowledge encompasses technical expertise, regulatory awareness, risk management, and digital proficiency. Given the rapid digitization of financial services and the integration of artificial intelligence in banking, continual knowledge renewal is imperative (2, 16). The significance of this factor resonates with findings from Kuznetsova et al. (2023), who assert that knowledge-centric roles are essential to sustaining competitive advantage in creative and knowledge-intensive sectors (14).

Individual professional skills, such as critical thinking, ethical reasoning, and self-management, also emerged as a core domain. These capabilities enable employees to operate autonomously, exercise discretion, and contribute meaningfully to strategic decision-making. Prior research confirms the relevance of these competencies in building an agile and empowered workforce (11, 15). These skills not only enhance employee productivity but also reduce dependence on supervisory oversight, allowing for decentralized and efficient operations—a key asset for geographically dispersed banking systems (10).

Finally, the inclusion of organizational capability as a determinant of human capability development highlights the systemic dimension of talent management. This factor includes institutional support mechanisms, leadership style, performance culture, and innovation readiness. Research by Rafati Alashti and Sid Naghi (2022) supports this finding by emphasizing the role of high-reliability organizational structures in sustaining human resource development (13). Likewise, Fathollahie et al. (2022) highlight the role of municipal leadership in shaping human capabilities, which parallels the managerial influence in the banking sector (19). Organizational capability provides the enabling environment within which individual competencies can flourish.

In addition to these structural findings, the study also demonstrated that the integrated model explains a significant proportion of the variance in the human capability construct. The five identified factors together accounted for more than 79% of the variance, underscoring the model's robustness and explanatory power. This aligns with findings by Jalali and Tajik (2024), who showed that employee development strategies—particularly those embedded within a strategic knowledge management framework—can significantly predict both human and social capital outcomes in financial institutions (8). Moreover, as indicated by Nata et al. (2023), balanced scorecard implementations that emphasize learning and growth are instrumental in capability enhancement within service sectors such as hospitality and banking (21).

The multidimensionality of the model is also consistent with broader trends in strategic HRM. For instance, Salehi (2023) emphasizes that non-market effects of human capital—such as social capital development, civic responsibility, and cultural competence—are increasingly valued in institutional performance evaluations (20). Similarly, the strategic perspective offered by Nazneen (2024) supports the study's holistic approach, indicating that sustainable competitive advantage is no longer driven solely by capital investment but by the strategic development of human capabilities (1).

Furthermore, this study's methodological contribution lies in its integration of thematic analysis with structural equation modeling, providing both theoretical depth and empirical rigor. This approach allows for the generation of a data-driven yet context-sensitive model, bridging the gap between abstract theoretical constructs and operational realities. This aligns with the methodological orientation of Falletta and Combs (2020), who advocate for evidence-based and ethical HR analytics frameworks in capability development (4).

Despite its strengths, this study is not without limitations. First, the focus on a single banking institution—Bank Melli—limits the generalizability of the findings to other banks or financial sectors with different structural, cultural, or governance characteristics. Second, the study primarily utilized self-reported data, which may be subject to social desirability bias or subjective interpretations of capabilities. Third, while the study employed a mixed-methods approach, the qualitative phase was limited to a specific segment of stakeholders, potentially overlooking perspectives from other key groups such as external regulators, customers, or interbank collaborators.

Future research could expand the sample to include multiple banking institutions, both domestic and international, to test the model's cross-sectoral applicability. Longitudinal studies are also encouraged to assess the dynamic nature of capability development over time, particularly in response to technological change and global disruptions. Additionally, future investigations could incorporate behavioral and performance-based metrics alongside self-report data to triangulate findings and enhance the objectivity of the capability assessment. Exploring mediating variables such as employee engagement, job satisfaction, or organizational justice could also provide deeper insights into the mechanisms underlying capability development.

For practitioners, this study offers a validated framework that can inform the design of competency-based training programs, performance evaluation systems, and succession planning strategies. HR departments in international banks should align their development initiatives with the five identified capability domains to ensure workforce adaptability and performance sustainability. Moreover, policy-makers and institutional leaders should invest in systems that promote organizational capability—such as leadership development, digital infrastructure, and decentralized decision-making—to create environments where individual competencies can thrive. Finally, banks should adopt a continuous learning culture, using the proposed model as a roadmap for long-term human capital investment.

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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

All ethical principles were adheried in conducting and writing this article.

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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References

1. Nazneen A. The Dynamics of Human Capital Development, Employee Commitment, and Sustainable Competitive Advantage: A Strategic Perspective. International Journal of Religion. 2024;5(8):391-405. doi: 10.61707/ta9sbd71.
2. Thite M. Digital human resource development: where are we? Where should we go and how do we go there? Human Resource Development International. 2022;25(1):87-103. doi: 10.1080/13678868.2020.1842982.
3. Abdurachman D. BUILDING SOLDIERS'HUMAN RESOURCE CAPABILITIES IN FACING SOCIETY 5.0. Jurnal Info Sains: Informatika dan Sains. 2023;13(02):560-5.
4. Falletta SV, Combs WL. The HR analytics cycle: a seven-step process for building evidence-based and ethical HR analytics capabilities. Journal of Work-Applied Management. 2020;13(1):51-68. doi: 10.1108/JWAM-03-2020-0020.
5. Tien NH, Jose RJS, Ullah SE, Sadiq M. Development of human resource management activities in Vietnamese private companies. Turkish Journal of Computer and Mathematics Education (TURCOMAT). 2021;12(14):4391-401.
6. Faeni DP, Puspitaningtyas Faeni R, Alden Riyadh H, Yuliansyah Y. The COVID-19 pandemic impact on the global tourism industry SMEs: a human capital development perspective. Review of International Business and Strategy. 2023;33(2):317-27. doi: 10.1108/RIBS-08-2021-0116.
7. Djamaluddin S, Elmi F, Sutawidjaya AH. New Model of Human Resource Capabilities Development in Hospitality Industry. Quality-Access to Success. 2022;23(189). doi: 10.47750/QAS/23.189.14.
8. Jalali M, Tajik A, editors. The impact of employee development methods on human capital and social capital with the mediating role of knowledge management in Bank Shahr. Eighth International Conference on Innovative Ideas in Management, Economics, Accounting, and Banking; 2024: Tehran.
9. Peiro JM, Svicher A, Di Fabio A. Innovative behaviors and eudaimonic well-being: The contribution of human capital sustainability leadership to sustainable career, decent work, decent lives, and healthy lives. Australian Journal of Career Development. 2023;32(3):215-24. doi: 10.1177/10384162231202224.
10. Mostafa Zadeh F, Haghighat Monfared J, Keramati MA. Presenting an Interpretive Structural Framework for Entrepreneurship Development in Higher Education with Social and Economic Consequences (Case study: University Central Tehran Branch). Political Sociology of Iran. 2023;5(11):244-63. doi: 10.30510/psi.2022.331232.3153.
11. Hekak M, Koliwand H. The synergistic leadership style of women and its effect on the sustainable development of human capital: Analyzing the mediating role of employee capability maturity level. Quarterly Journal of Women in Development and Politics. 2021;19(2).
12. Rahmad R, Sabri S, Nasfi N. The Influence of Organizational Structure, Leadership and Human Resource Capability on Service Effectiveness. International Journal of Social and Management Studies. 2021;2(3):123-31.
13. Rafati Alashti K, Sid Naghi MA. Presenting a model and conceptual framework for human resource development based on human resource actions in high-reliability organizations. Human Resource Management Research. 2022;14(3).

14. Kuznetsova N, Tkachuk V, Svitlana O, Lyubov O. Development and Preservation of Human Capital under the Conditions of the Creative Economy. Financial Engineering. 2023;2(2):80-7. doi: 10.37394/232032.2023.1.7.

15. Piwowar-Sulej K. Human resources development as an element of sustainable HRM-with the focus on production engineers. Journal of Cleaner Production. 2021;278:124008. doi: 10.1016/j.jclepro.2020.124008.

16. Dai J, Ahmed Z, Alvarado R, Ahmad M. Assessing the nexus between human capital, green energy, and load capacity factor: policymaking for achieving sustainable development goals. Gondwana Research. 2024;129:452-64. doi: 10.1016/j.gr.2023.04.009.

17. Setiawan T, Rahayu A, Hurriyati R, Wibowo LA, Yulianto E. Millennial Human Capital Development Strategy Model in Improving Business Performance. Journal of Namibian Studies History Politics Culture. 2023;34. doi: 10.59670/jns.v34i.1130.

18. Kazemi S, Alidoosti F. Investing in the development of research capabilities of human resources: Examining the effectiveness of theses as a policy implementation tool. Research in Organizational Resource Management. 2023;13(2).

19. Fathollahie M, Talaghani GR, Amiri M, Niri S. Developing a model for enhancing the human capabilities of local government managers (case study: Tehran Municipality). Human Resource Management Research. 2022;14(3).

20. Salehi M. Comparison of non-market effects of human capital in Iran and other regions of the world. Qurterly Journal of Research and Planing in Higher Education. 2023;29(2):1-26.

21. Nata JH, Soebagio CL, Bascha UF, Reindrawati DY, Armita AD, editors. INCREASING EMPLOYEE CAPABILITIES in the Hotel Industry: Case Study of Blanced Scorecard Implementation from a Learning and Growth Perspective2023.