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THEORETICAL MODEL OF HUMAN RESOURCE DIVERSITY MANAGEMENT (HRDM) IN CONSTRUCTION INDUSTRY PROJECTS: A GROUNDED THEORY APPROACH

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ABSTRACT

The purpose of this study is to develop a comprehensive theoretical model that explains the dimensions, factors, and processes influencing human resource management in Iraq's construction industry. The research seeks to understand the challenges arising from workforce diversity, cross-cultural interactions, and organizational complexities in multinational construction projects. This study adopts a Grounded Theory approach integrated with a Hypothesis-Driven Framework. Data were collected through in-depth interviews with managers, engineers, and industry professionals, and analyzed using thematic analysis and constant comparison techniques. Based on the findings, six theoretical propositions and a comprehensive conceptual model were developed to explain the relationships among key variables. The results indicate that effective human resource management in Iraq's construction projects depends on fostering an inclusive and flexible work culture, developing human capital, and empowering employees. Determining factors include labor market competition, productivity pressures, organizational and individual diversity, technological advancements, and skill development. Furthermore, cultural convergence, organizational cohesion, and empowering leadership – supported by effective policymaking, industry-level strategies, and organizational guidelines – play a crucial role in enhancing workforce performance. This research represents one of the first studies to develop a theoretical model for human resource management within the specific context of Iraq's construction industry using a grounded theory approach. The proposed model enriches the theoretical foundation of construction management and human resource research by identifying the causal and processual relationships among managerial and environmental variables. It also provides practical guidance for improving efficiency and competitiveness in construction projects operating within multicultural and dynamic environments.

KEYWORDS: HRDM, Human Resource Diversity, Construction Industry, IRAQ, Grounded Theory.

1. INTRODUCTION

Human resource management (HRM) plays a vital role in the construction industry, particularly in contexts facing labor shortages and low productivity (Hazeen Fathima & Umarani, 2022; Kokkaew & Koompai, 2012). This issue becomes even more pronounced in developing countries such as Iraq, where human resource challenges stem from unstable governance, weak institutional support, and limited investment in training (Al-aloosy et al., 2024; Mohammed & Jasim, 2018). In such circumstances, coordination among diverse teams is essential for project success.

Human resource diversity in Iraq's construction industry has increased significantly (Abdulsattar, 2017; Raewf & Mahmood, 2021). This diversity arises from displacements due to conflict, the return of migrants and refugees, and the involvement of international companies and foreign workers in donor-funded projects (Laura Vanderweyen et al., 2024; Owusu-Boadi et al., 2024). However, this diversity also presents challenges. Communication can become difficult, particularly due to language differences or the use of unfamiliar technical terminology. Individuals from diverse cultural backgrounds may hold different perspectives regarding authority, punctuality, work habits, and decision-making processes (Phua et al., 2010; Popescu et al., 2014). As a result, construction teams differ in terms of gender, ethnicity, language, and cultural background (Lacerenza et al., 2025).

Although such diversity can enhance creativity, innovation, and organizational performance (Khan et al., 2021; Tajeddini et al., 2023), it also introduces challenges, including communication barriers, cultural misunderstandings, and varying attitudes toward work norms and decision-making processes (Phua et al., 2010; Popescu et al., 2014). Poor management of this diversity can lead to conflicts, reduced morale, and weakened project outcomes, such as delays, errors, and stakeholder dissatisfaction (Bezrukova et al., 2016; Kokkaew & Koompai, 2012).

To harness the benefits of diversity effectively, construction companies must implement efficient and inclusive strategies for HRDM. Project managers play a key role in guiding diverse teams and improving their performance through effective communication, mutual respect, and strong team dynamics (Eyiah et al., 2025; Osaghae & Olatunji, 2024). Effective HRDM goes beyond compliance with equality policies and requires an inclusive approach that promotes fairness, mutual respect, and active participation among team members (Georgiadou et

al., 2025; Moshabaki et al., 2013).

However, Iraq's construction industry suffers from the lack of a theoretical framework tailored to its complex socio-political context, which limits the applicability of general HRDM models (Aje et al., 2014). Therefore, adopting a strategic, context-based approach is essential for the successful management of diversity in Iraq's construction projects.

This study addresses the critical need to develop a theoretical model tailored to the Iraqi context for HRDM in the construction industry. Using a descriptive-exploratory approach, the study aims to examine the mechanisms, perceptions, and practices of HRDM across Iraq's construction industry. Field data were collected through purposive and snowball sampling, encompassing the perspectives of project managers, engineers, and human resource personnel. The theoretical modeling will employ grounded theory methodology to develop a framework based on empirical realities.

Ultimately, this study seeks to establish a grounded theoretical model that reflects the complexities of HRDM in Iraq's construction industry and provides practical recommendations for organizations aiming to leverage diversity as a competitive advantage. The findings are expected not only to contribute to theoretical knowledge but also to offer practical value by providing a foundation for policy development, empowerment, and strategic HRM in Iraq's post-conflict reconstruction context. By offering a contextually appropriate framework for HRDM, this research advances organizational performance, fosters inclusive work environments, and supports sustainable development in Iraq's construction industry.

2. THEORETICAL FOUNDATIONS

HRDM is grounded in several influential theoretical frameworks that collectively provide insights into how organizations understand, organize, and leverage human resource diversity. One of the prominent theories in this domain is Social Identity Theory, introduced by Tajfel and Turner (2004). This theory posits that individuals categorize themselves and others into social groups based on characteristics such as ethnicity, gender, or nationality. These categorizations can significantly influence interpersonal dynamics within organizations, and if diversity is not managed effectively, they may lead to in-group favoritism and discrimination against out-groups (Tajfel & Turner, 2004).

In contrast, the Resource-Based View (RBV) in

strategic management considers diversity as a source of sustainable competitive advantage (Barney, 1991). This theory argues that when diverse human capital is managed effectively, organizational capabilities in innovation, adaptability, and decision-making are enhanced. According to the RBV, diverse teams provide varied perspectives and knowledge, thereby fostering creativity and problem-solving (Barney, 1991; Rowe & Wright, 2001).

The Cox Interactive Model of Cultural Diversity (1994) further advances the understanding of HRDM by integrating organizational structure and culture with diversity-related performance outcomes. This model suggests that organizational outcomes are mediated by two key variables: structural integration (the representation of minority groups at different hierarchical levels) and informal integration (the extent of their social acceptance and participation). Cox emphasizes that organizations must actively adjust their structures and cultural norms to promote inclusion and equity (Cox, 1994).

Strategic Human Resource Management (SHRM) theories also contribute to HRDM by emphasizing the alignment of diversity objectives with the overall organizational strategy. Lengnick-Hall and Lengnick-Hall (2002) argue that diversity should not be treated as a peripheral HR activity but rather as a central component of strategic planning, capable of influencing long-term success through improved human capital utilization, innovation, and stakeholder engagement.

Another important theoretical framework is Inclusive Leadership Theory, which highlights the critical role of leadership in shaping an inclusive organizational climate. According to Woods *et al.* (2024), inclusive leaders foster acceptance of diversity and reduce biases within teams by creating psychological safety, openness, and fair treatment. This theory emphasizes that leadership behaviors are pivotal for leveraging the benefits of diversity.

Additionally, the Contingency Theory of Diversity Management (DM), proposed by Ely and Thomas (2001), asserts that the effectiveness of diversity initiatives depends on contextual factors such as industry type, organizational culture, and national environment. This approach rejects a "one-size-fits-all" perspective and instead emphasizes adaptive strategies tailored to the specific context of each organization.

Empirical studies support these theoretical perspectives. Alshaabani *et al.* (2021) and Guillaume *et al.* (2017) found that HRDM strategies grounded in these frameworks are positively associated with employee engagement, innovation, and human

capital retention. These outcomes are realized when diversity is institutionalized within the organizational vision, supported by inclusive practices, and championed by organizational leadership.

2.1. Research Background

The PMBOK Guide defines construction project management as the application of knowledge, skills, tools, and techniques to meet project requirements (PMI, 2016). A critical aspect of this process is HRDM, as construction projects often involve individuals from diverse cultural and professional backgrounds. Effective management of human resource diversity enhances collaboration and innovation, whereas neglecting it can lead to conflicts and reduced efficiency.

Cox (1994) defines DM as "the planning and implementation of organizational systems and practices to manage individuals in a way that maximizes the potential benefits of diversity while minimizing its disadvantages." This perspective emphasizes two core aspects: leveraging the advantages of diversity while simultaneously addressing potential challenges such as discrimination or communication barriers. Barak (2022) provides a more comprehensive definition, describing DM as "a voluntary intra-organizational program that, through the formulation of deliberate policies and initiatives, seeks to enhance the engagement of employees from diverse backgrounds within formal and informal organizational structures." Barak's approach integrates structural and cultural dimensions, demonstrating that successful DM requires organizational commitment beyond legal obligations. Similarly, Seliverstova (2021) defines DM as a systematic and strategic process that focuses on recognizing, respecting, and effectively utilizing individual differences among employees in personal, cultural, gender, and professional dimensions. It aims to promote fairness, equality, and the reduction of workplace discrimination while fostering a positive organizational climate, enhancing job satisfaction, and improving the overall performance of the organization.

As a subset of HRM, DM aims to create an inclusive work environment through initiatives such as diversity training, anti-discrimination policies, and promotion of heterogeneous teams (Mazur, 2014). Diversity encompasses personal, organizational, internal, and external characteristics (Gardenswartz & Rowe, 1993). While it is widely recognized as a positive factor for innovation and

performance, some empirical studies report mixed results, indicating that success depends on management quality, cultural context, and situational sensitivity.

Davis et al. (2016) found a gap between general diversity commitments and actual practices in Australian organizations, noting that symbolic actions without genuine integration have limited impact. Similarly, Shen et al. (2010) argue that DM improves behavior only when supported by an inclusive culture.

Yadav and Lenka (2020) and D'Netto et al. (2014) advocate for context-specific approaches, particularly in non-Western or industrial settings such as the construction industry, where standard models may be inefficient. Despite growing global attention, Iraq's construction industry lacks structured diversity strategies, resulting in communication issues and coordination weaknesses (Hadi, 2020; Maqsoom et al., 2023). Although some studies highlight the potential of diversity, practical implementation remains limited (Al-Bayati, 2019; Khalaf, 2024).

Al-Bayati et al. (2018) suggest leveraging successful experiences from the United States to address Iraq-specific challenges. Furthermore, research by Yadav and Lenka (2020) and Shen et al. (2014) emphasizes the need for multi-level and sector-specific studies to examine the effects of diversity on performance and knowledge sharing. D'Netto et al. (2014) also note a lack of empirical evidence regarding interactions between demographic variables and organizational systems. Collectively, these findings highlight the need for localized frameworks that align DM strategies with cultural and sectoral realities.

Several researchers have underscored the necessity of comprehensive studies in this area. Yadav and Lenka (2020), through a systematic literature review, noted that while general theories on DM exist, there is a lack of in-depth, industry-specific frameworks that account for the unique operational and cultural characteristics of sectors such as construction. They called for future research agendas to investigate practical strategies and the performance implications of diversity at organizational and project levels. Similarly, Shen et al. (2014) conducted a multi-level analysis examining how DM affects knowledge sharing among employees, emphasizing that diversity initiatives are ineffective unless implemented across all organizational levels—from senior leadership to site supervisors. This is particularly critical in construction, where on-site team dynamics

significantly impact productivity and safety. D'Netto et al. (2014) further highlighted the limited understanding of how diversity mechanisms function within organizations, pointing to a lack of empirical clarity on how factors such as cultural background, age, and gender interact with organizational systems to shape outcomes such as engagement, innovation, and team cohesion. This ambiguity, according to the authors, hinders evidence-based implementation of diversity strategies, especially in culturally complex industries like construction.

In Iraq's construction industry, these gaps are even more pronounced (D'Netto et al., 2014). As Khalaf (2024) notes, human resource practices have traditionally focused on technical performance, and diversity has been only marginally integrated as a strategic component. Moreover, Al-Bayati (2019) and Al-Bayati et al. (2018) emphasize the importance of culturally sensitive diversity training and inclusive practices, which are largely absent from existing HR frameworks in the Iraqi context. These convergent arguments underscore the urgent need for local and empirical studies that can inform the development of robust DM models tailored to the realities of the construction industry. Such research should consider not only the demographic composition of human resources but also broader socio-economic, political, and cultural factors influencing organizational behavior and employee interactions in construction projects. Addressing these research gaps enables practitioners and scholars to develop actionable insights for enhancing capacity, reducing conflicts, and improving overall project performance.

Given the scarcity of theoretical and field-based perspectives on the phenomenon of "HRDM in the construction industry," this study seeks to conceptualize and better understand the phenomenon by addressing the research question: What does a theoretical model of HRDM in construction projects in Iraq look like? The following sections outline the research methodology and present the key findings of the study.

3. RESEARCH METHODOLOGY

The approach of this study is hypothesis-driven reasoning, and its methodology is qualitative. To ensure a systematic and structured approach to sampling and the collection of qualitative data, a grounded theory strategy was employed. Grounded theory is a structured qualitative method aimed at developing theory inductively from data by explicating processes and interactions within a specific context. According to Yin (2003), having a

clear research protocol and a systematic approach enhances the reliability and validity of findings. The protocol serves as a guide for coherent and accurate data collection. In this study, a pre-designed execution plan was employed to ensure that the research procedures were conducted systematically. Key factors in ensuring the quality of this study included the researcher's expertise, the use of diverse data collection methods, theoretical sampling, data analysis by an external researcher, and validation of findings by participants.

Creswell (2012) identifies three approaches to grounded theory: Strauss and Corbin's systematic approach, Glaser's emergent approach, and Charmaz's constructivist model. This study adopts the systematic approach due to its methodological rigor and integration of relevant literature, which facilitates the formulation of testable propositions and a verifiable model. According to this design, Strauss and Corbin outline three coding stages for analyzing qualitative data: open coding, axial coding, and selective coding (Strauss & Corbin, 1998). This interactive process results in the construction of a logical paradigm for theory development.

The study followed structured theoretical sampling as proposed by Eisenhardt and Graebner (2007), suitable for exploratory research aimed at

Table I). Participants were contacted by phone to schedule interviews, and questions were sent via email. A research protocol was designed to standardize the timing and questions of the interviews to maintain consistency. Interviews were recorded with participants' consent and supplemented with key notes. Additionally, relevant organizational documents were incorporated into the research data to align with the principle of methodological pluralism.

For data analysis, interview transcripts were prepared from audio recordings and imported into MAXQDA version 20. MAXQDA offers advanced features for coding Persian texts, including open, axial, and selective coding. To improve data quality, analysis was conducted after each interview,

describing emerging theory. Unlike probabilistic sampling methods that rely on randomness, theoretical sampling focuses on selecting cases that provide rich insights into the relationships among concepts and contribute to the development of a theoretical framework.

To investigate Iraq's construction industry and the role of international experts, a research framework was developed based on active companies in the sector, particularly those collaborating with international partners. Theoretical sampling enabled the selection of the Karbala Airport construction project and the participating companies for qualitative analysis, due to the project's significance and the involvement of international specialists. Participants were chosen based on their expertise in HRDM, and theoretical sampling identified individuals with specialized knowledge.

Theoretical sampling continues until theoretical saturation is achieved, meaning that further data collection no longer yields new insights or concepts (Strauss & Corbin, 1998). In this study, 20 interviews were conducted with experts and engineers from three companies involved in the Karbala Airport project over two months to achieve theoretical saturation (

allowing adjustments to questions for subsequent participants. After collecting all data, the researcher reviewed analyses to ensure that claims were well-supported by evidence and possessed internal validity and reliability. Insufficiently supported claims were addressed in follow-up interviews to enhance credibility and internal validity, rather than to identify new themes. The research team confirmed that theoretical saturation was reached, indicating no need for additional sampling or interviews.

To ensure internal validity, three participants and an independent researcher reviewed the coding scheme, which resulted in the validation of variables and adjustments in the categorization of themes and model relationships. Detailed analysis and findings are presented in the following section.

Table I: Demographic Description of Interview Participants.

No	Position of the interviewee	Experience (years)	Education level	Nationality	Group
1	Project Consulting Manager	35	Master's degree	Iraqi	Consultant
2	Construction Manager	10	Master's degree	Türkiye	
3	Planning Engineer	7	Bachelor degree	Pakistan	
4	Consulting Engineer	30	Bachelor degree	Portugal	
5	Project Management Office	3	Bachelor degree	Iraqi	
6	Supervising Engineer	10	Master's degree	Iraqi	
7	Consulting Engineer	10	Master's degree	Iraqi	
8	Project Management Office	2	Bachelor degree	Iraqi	
9	Project Management Office	12	Bachelor degree	Iraqi	

10	Project Contractor Manager	20	Master's degree	Iraqi	Contractor
11	Assistant Engineer	1	Bachelor degree	Iraqi	
12	Project Management Office	5	Bachelor degree	Iraqi	
13	Project Implementation Engineer	4	Master's degree	Iraqi	
14	Project Implementation Engineer	15	Master's degree	Iraqi	
15	Project Implementation Engineer	6	Bachelor degree	Iraqi	
16	Project Implementation Engineer	4	Master's degree	Iraqi	
17	Project Implementation Engineer	5	Bachelor degree	Iraqi	Employer
18	Project Employer Manager	10	Master's degree	Iraqi	
19	Project Management Office	7	Bachelor degree	Iraqi	
20	Project Management Office	2	Bachelor degree	Iraqi	

4. RESEARCH FINDINGS

4.1. Data Analysis

4.1.1. Phase One: Open Coding

Grounded theory requires a systematic approach to identify and develop concepts based on their properties and dimensions, which is typically achieved through open coding. After analyzing the raw data, the researcher identifies themes and concepts related to the phenomenon under study. Events or interactions that share similarities are grouped into domains for categorization at higher Table II.

levels. These domains may be further divided into sub-domains to allow for a deeper examination of the data. The number and type of sub-domains depend on the theoretical detail and may evolve during the theory development process.

This systematic approach helps reduce bias and ensures that the emerging theory is grounded in empirical data rather than preconceived frameworks. Through open coding and content analysis of the interviews, numerous concepts and variables were identified and organized into themes and sub-themes, as presented in

Table II: Sample of Open Coding for Qualitative Data (Author).

Main Category	Subcategories	Open Codes (Partial Categorization)	Core Category
Competition in the labor market and the need for higher productivity	Operational challenges	Communication and language challenges	Communication problems and their impact on decision-making
			Delays and weak mutual understanding due to linguistic and cultural differences
			Differences in team approaches and work perspectives
			Cultural and communicative misunderstandings and their solutions
			Misunderstandings and communication problems arising from diversity
			Cultural differences and the resulting tensions
		Cultural challenges	The impact of Iraqi local culture on social interactions
			Differences in problem-solving approaches between Iraqi and foreign colleagues
			Managers' neglect of cultural differences
			Experiences with Iraqi teams and the absence of cultural disparities
			Cultural biases and barriers to collaboration
			Planning challenges caused by differences in holidays and religious considerations
	Collaboration and coordination challenges	Leadership and management challenges	Observance of religious principles in daily schedules
			Disruption of daily operations
			Misunderstandings resulting from diversity
			Misunderstandings in work methods
			Collaboration with multicultural and multinational teams
		Collaboration and coordination challenges	Integrating local knowledge with foreign expertise to improve work processes
			Employment of foreign engineers and workers
			The need for international expertise and collaboration
			Bridge construction project involving cooperation between local and foreign teams
			Preference of Iraqi employees to work with culturally similar colleagues
			Utilization of international experience in Iraq's construction industry projects
Psychological and emotional challenges	Psychological and emotional challenges	Worker diversity and the complexity of interactions	
		Neglect of local engineers and disruption of project progress	
		Injustice and discrimination in projects	
		Resistance to international experts	

4.1.2. Phase Two: Axial Coding

Axial coding represents the second step in grounded theory, in which the researcher uses a paradigm model to link categories with their

corresponding subcategories and to identify relationships based on field data. The paradigm model includes causal conditions (factors that form the basis of the core phenomenon), the core phenomenon (the central idea around which the

process revolves), context (specific conditions influencing strategies), strategies (actions and interactions in response to the phenomenon), intervening conditions (general structural factors affecting other conditions), and consequences

(theoretical outcomes resulting from actions). These elements are classified and interconnected to provide a comprehensive understanding of the phenomenon (Figure 1).

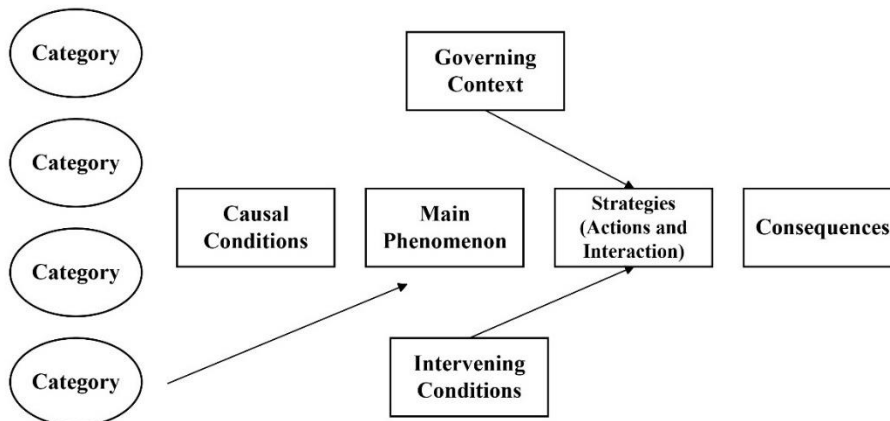


Figure 1: Paradigm Model For Axial And Selective Coding (Strauss & Corbin, 1998).

The results of the axial coding phase in this study Table III based on the paradigm model. In this phase, relationships between categories and subcategories were identified not only from field data but also inferred from previous theories,

are reported in literature, or the researcher’s hypotheses. Only relationships supported by sufficient empirical evidence were included in the analysis, while unsupported relationships were excluded.

Table III: Axial Coding of Qualitative Data (Author).

Main Category	Subcategories	Open Codes (Detailed Categorization)
Causal Conditions Challenges of the Iraqi Construction Industry in HRM	Competition in the labor market and the need for higher productivity	Operational challenges
		Globalization and its impact on the construction industry
	Impacts of Workforce and Organizational Diversity	Legal requirements and governmental regulations
		Construction industry-specific recruitment practices
	Technological Advancements and Human Resource Development	Economic and political stability
		Technological progress and digitalization
Intervening Conditions Adaptive and Convergent Mechanisms	Leadership and cultural sensitivity	Educational and knowledge gaps
		Leadership and human resource management
	Learning, Communication, and Knowledge-Sharing Systems	Cultural intelligence and competence in conflict management
		Learning, Communication, and Knowledge-Sharing Systems
	Institutional and Structural Adaptation	Internal and external relations and communications
		Organizational interaction
Governing Context Institutional and Environmental Infrastructure of HRDM	Cultural and Social Context	Organizational policies and regulations
		Economic and competitive conditions
	Organizational and Leadership Context	Cultural conditions and adaptability
		Social integration and participation
	Industrial and Economic Context	Organizational culture
		Leadership in HRDM
Core phenomenon HRDM in the Iraqi Construction Industry	HRDM	Capacity building
		Resource efficiency
		Economic challenges
		Industry- and technology-specific factors
Strategies Strategies for Managing Human Resource Diversity in the Iraqi Construction Industry	Adaptive Strategies in the Construction Industry	Creating an inclusive and flexible culture
		Human resource development and employee empowerment
	Integrative Strategies in the Construction Industry	Formulation and implementation of comprehensive diversity policies
		Inclusive communication and operational efficiency
	Transformational Strategies in the	Leadership, culture, and organizational cohesion
		Talent development, recruitment, and motivation
		Innovation, creativity, and technological advancement

	Construction Industry	Continuous improvement and feedback
Consequences Consequences of HRDM in the Iraqi Construction Industry	Process-Related Outcomes	Work culture and environment
		Organizational relationships
		Employee attitudes
		Career opportunities
		Job stability and accountability
	Performance Outcomes	Performance at various levels
		Innovation
		Continuous improvement
		Organizational cohesion
		Organizational culture
		Organizational success
		Trust-building

4.1.3. Phase Three: Selective Coding

Selective coding is the mechanism for integrating all categories around a Core phenomenon, creating a more cohesive model. The central category can be chosen from previously identified categories or specifically developed to reflect or extend the emerging theory. Once the central category is developed and validated, other categories are linked as causal conditions, governing context, intervening conditions, strategies and consequences. Essentially, the researcher develops a causal model, as illustrated

in Figure 2 (Strauss & Corbin, 1998).

In this phase, the researcher holds a preliminary theoretical framework in mind, effectively narrating the research story and findings throughout the selective coding process. The systematic model of coding can be complemented with propositional statements derived from selective coding, revealing the internal relationships among categories (Corbin, 2017). Because grounded theory generates conceptual relationships, each proposition can serve as a testable hypothesis in future studies.

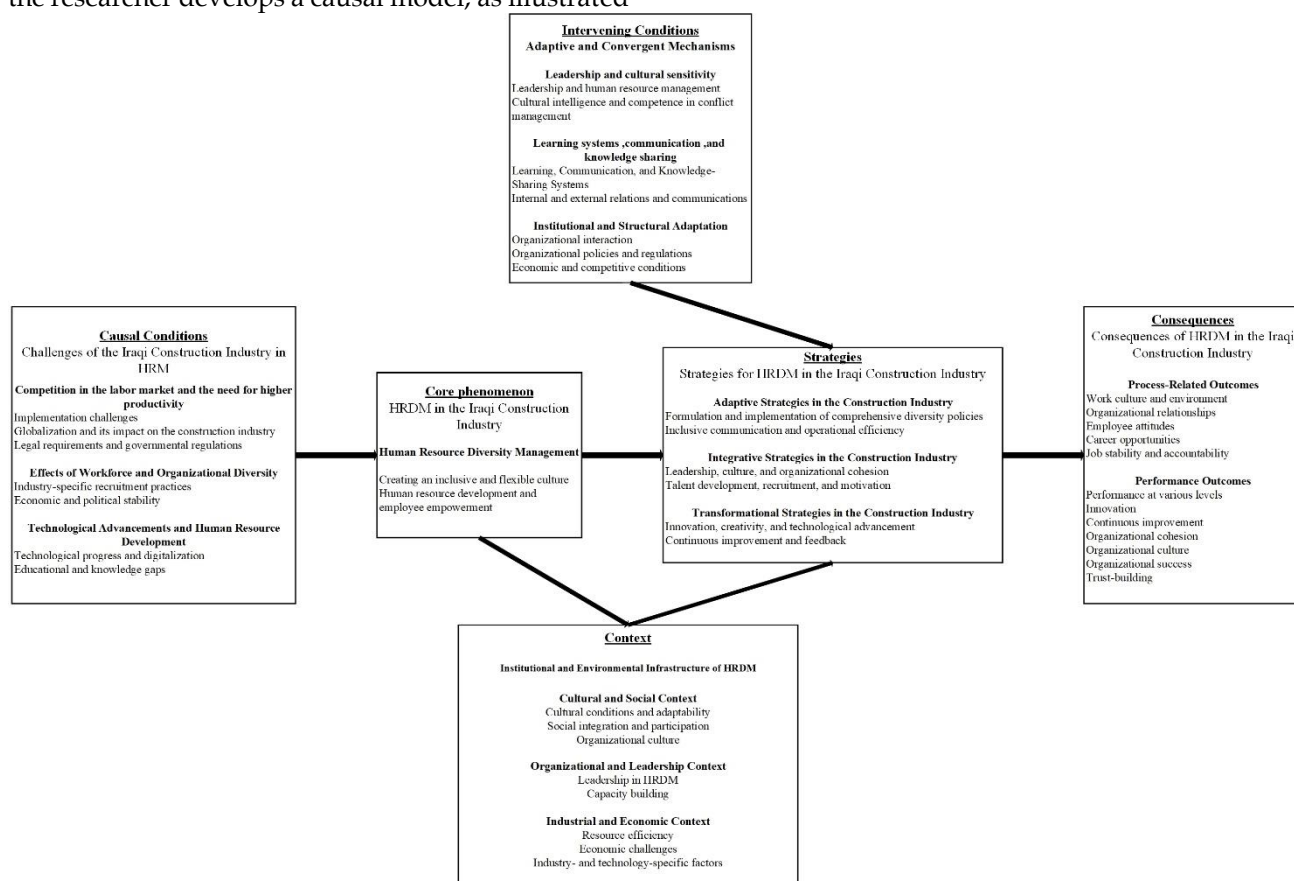


Figure 2: Theoretical Model of HRDM In the Iraqi Construction Industry (Author).

Through revisiting the data in relation to the proposed categories and their logic with the central phenomenon, the final categories of the theory –

HRDM in the Iraqi Construction Industry – were developed into six propositions and a conceptual model (Figure 3).

Proposition 1: Factors such as “Competition in the labor market and the need for higher productivity,” “Impacts of Workforce and Organizational Diversity,” and “Technological Advancements and Human Resource Development” constitute the primary prerequisites for HRDM in the construction industry.

Proposition 2: “Leadership and cultural sensitivity” “Learning, Communication, and Knowledge-Sharing Systems” and “Institutional and Structural Adaptation” act as intervening factors influencing the strategies for HRDM in the Iraqi construction industry.

Proposition 3: “Cultural and Social Context” “Organizational and Leadership Context” and “Industrial and Economic Context” provide the context and conditions for implementing HRDM strategies in the Iraqi construction industry.

Proposition 4: “Creating an inclusive and flexible culture” and “human resource development and employee empowerment” lead to the effective use of HRDM strategies, including industry-level policies, organizational strategies, and integration and cohesion strategies.

Proposition 5: Various strategies and actions can reduce negative effects, enhance positive effects, or improve the current state of the Iraqi construction industry. These strategies include three groups: “Adaptive Strategies in the Construction Industry,” “Integrative Strategies in the Construction Industry,” and “Transformational Strategies in the Construction Industry.”

Proposition 6: Implementing HRDM strategies in the Iraqi construction industry results in process and performance outcomes, which can influence the future of construction projects in Iraq.

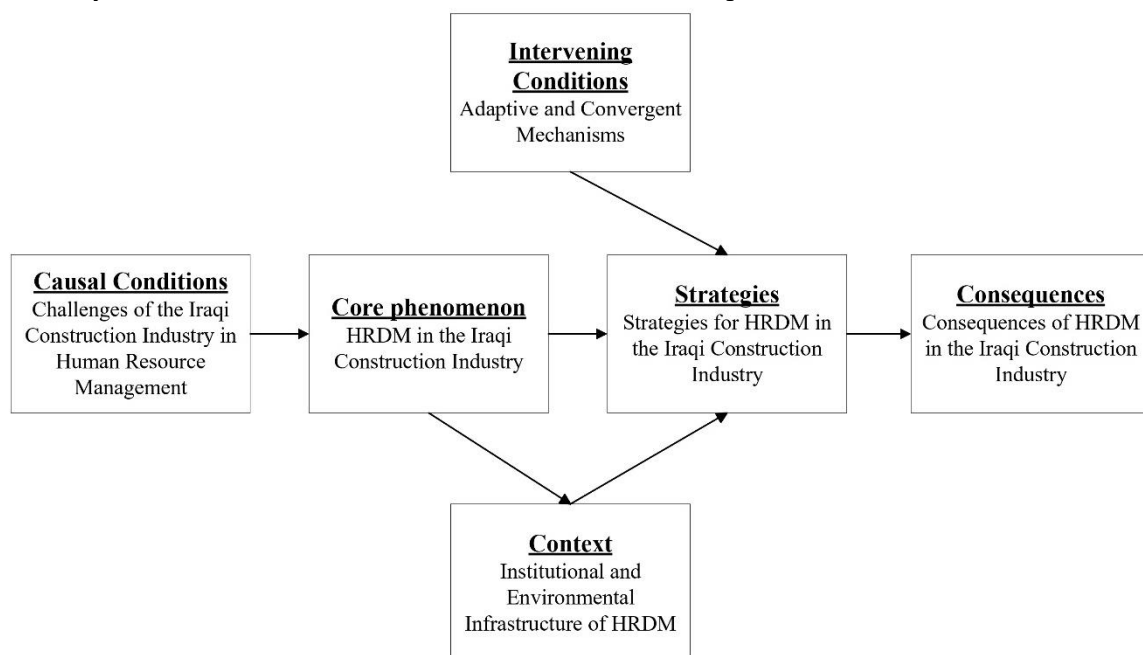


Figure 3: Research Theoretical Model (Author).

5. DISCUSSION

The findings of this study, grounded in the Grounded Theory methodology, present a comprehensive model of HRDM within construction projects in Iraq. The model consists of six main categories—causal conditions, intervening factors, contextual conditions, core category, strategies, and outcomes—which collectively explain the processes of formation, implementation, and consequences of HRDM in the construction industry.

According to the results, diversity acceptance, the

creation of a positive work environment, and the development of an inclusive organizational culture play a decisive role in enhancing project performance, organizational cohesion, and innovation in project-based organizations. The proposed model was compared with the classical frameworks of Cox (1994), Ely and Thomas (2001), and Roberson (2019) to situate it within a broader theoretical context and assess its conceptual alignment and contributions.

The causal conditions revealed that the

fundamental challenges of the Iraqi construction industry in managing human resources stem from a combination of factors such as intense labor market competition, globalization, legal and regulatory requirements, and technological advancements. The structure of Iraq's labor market—particularly after prolonged periods of political and economic instability—is characterized by a shortage of skilled labor, emigration of technical professionals, and a mismatch between academic training and industry needs (Abdulsattar, 2017; Hadi, 2020). Within this context, HRDM emerges not merely as an ethical or social imperative, but as a strategic necessity for organizational survival and competitiveness.

Consistent with Cox (1994) perspective, which emphasizes structural and cultural integration as a cornerstone for the success of diverse organizations, this study also found that in Iraq's construction sector, the absence of coherent cultural integration mechanisms leads to increased workplace conflicts between local and foreign employees, weakened team collaboration, and declining project productivity. This result aligns with the findings of Owusu-Boadi et al. (2024), who identified similar challenges in managing multicultural teams within construction environments.

However, contradictory evidence also emerged. Some studies (Al-Taie et al., 2022) have shown that in large-scale government-supported projects, employing a diverse workforce has actually enhanced innovation and mutual learning, as employees from varied backgrounds bring new technical and managerial experiences to the organization. This suggests the presence of a form of "indigenous innovation" within Iraq's causal conditions, which—unlike classical models—views diversity not as a source of conflict but as a driver of creativity and technological adaptation.

In particular, recent advancements in the digitalization of construction processes—such as the adoption of BIM and intelligent project management systems—have compelled Iraqi firms to integrate local and international professionals within shared virtual environments. This represents a clear example of adaptive innovation in Iraq's causal context, reflecting a gradual transition from traditional workforce management toward knowledge-based and technology-driven management (Khalaf, 2024). This finding is also consistent with Owusu-Boadi et al. (2024), who noted the complexity of managing multinational teams in construction projects.

The findings revealed that three key mechanisms—inclusive leadership, organizational

learning, and institutional adaptation—serve as crucial intervening factors linking the causal conditions with HRDM strategies in Iraq's construction projects. Inclusive leadership, when grounded in cultural sensitivity, empathy, and an understanding of individual differences, fosters mutual trust and strengthens team cohesion among a diverse workforce (Shore et al., 2018; Woods et al., 2024). The results indicate that project managers in Iraq—particularly those operating in multinational projects supported by the government or international organizations—are gradually shifting away from traditional authoritarian leadership styles toward more participatory and learning-oriented approaches.

This transformation aligns with the perspective of Ely and Thomas (2001), who conceptualized diversity as a "learning opportunity." According to the findings, many organizations active in Iraq employ group learning mechanisms, feedback sessions, and informal communication networks to facilitate knowledge exchange among employees from different backgrounds. These processes have contributed to experience sharing, enhanced creativity, and mutual understanding between local and foreign workers—representing a form of innovation within Iraq's convergent mechanisms.

However, contradictory evidence also exists. In some projects, rigid organizational policies, bureaucratic hierarchies, and the absence of formal collective learning structures have reduced participation and deepened cultural divides (Aje et al., 2014; Davis et al., 2016). Under such conditions, managers often prioritize cultural control over collaborative learning, thereby undermining the positive effects of diversity. This finding is consistent with Guillaume et al. (2017), who demonstrated that the lack of organizational support for diverse groups can lead to adverse impacts on performance.

At the same time, notable innovation has been observed in Iraqi projects, particularly in the emergence of "cross-cultural learning in a local context." In this approach, local and international employees engage in joint workshops to mutually exchange managerial and technical skills. This can be described as a form of "glocal convergence"—a hybrid process through which local-global collaboration transforms the potential challenges of cultural diversity into opportunities for learning and innovation.

The findings of the study revealed that cultural, social, organizational, and industrial contexts in Iraq play a decisive role in determining the success or failure of HRDM policies.

From a cultural perspective, Iraqi society remains largely influenced by traditional, collectivist, and hierarchical values that emphasize authority, age, and gender (Raewf & Mahmood, 2021). Within such a context, the acceptance of gender, ethnic, and linguistic diversity may encounter implicit resistance from employees or managers. However, the results indicate that organizations that have institutionalized values such as dialogue, participation, and transparency within their work culture have successfully utilized diversity as a source of creativity and innovation (Barak, 2022; Honerud *et al.*, 2025).

At the organizational level, challenges associated with traditional management structures and the absence of inclusive human resource development systems continue to hinder the full realization of diversity benefits (Khalaf, 2024). In many Iraqi construction firms, centralized decision-making and vertical communication patterns diminish motivation and the sense of belonging among employees from different groups. Conversely, some organizations that have adopted transformational leadership approaches and internal capacity-building programs have managed to convert cultural differences into learning opportunities (Mazur, 2014; Tajeddini *et al.*, 2023). Such organizations promote an inclusive organizational culture through the establishment of skill development units, cross-cultural workshops, and transparent reward systems.

From an industrial standpoint, Iraq's construction sector faces significant challenges, including technological limitations, shortages of skilled labor, and pressures to improve resource efficiency. These findings align with Lengnick-Hall and Lengnick-Hall (2002), who argued that in a knowledge-based economy, human resources should emphasize learning capability, flexibility, and innovation rather than relying on traditional structures. Nonetheless, some contradictory evidence suggests that in large-scale projects, overreliance on imported technologies and foreign expertise has weakened local learning and led to organizational dependency.

Despite these challenges, evidence points to the emergence of contextual innovation in Iraq. Some leading firms have successfully developed hybrid management models that combine local and modern management approaches, leveraging indigenous cultural strengths—such as collectivism and cooperation—to enhance cohesion and reduce cultural conflict. This localized innovation at the contextual level reflects a unique model of cultural and industrial adaptation within Iraq's construction

industry.

The core category of the present model, "HRDM in the Iraqi Construction Industry," serves as the integrative element connecting the causal, contextual, and strategic components. It represents an evolutionary process through which organizations have progressed from a reactive stance toward differences to a learning-oriented and adaptive approach to diversity. This core category is built upon two primary pillars: the creation of an inclusive and flexible organizational culture, and the development and empowerment of human resources.

The findings indicate that construction firms operating in Iraq—particularly those engaged in multinational projects—strive to enhance team productivity by fostering an environment grounded in mutual respect, reciprocal learning, and appreciation of differences. This progression closely mirrors the "learning from diversity" stage in the Dass and Parker (1999) model, wherein organizations gradually recognize diversity not as a threat, but as a source of innovation, adaptability, and competitiveness.

Nevertheless, some contradictory evidence emerged. Certain project managers still adhere to control-oriented management and standardization practices, which may weaken employee participation and creativity (Davis *et al.*, 2016; Owusu-Boadi *et al.*, 2024). Such approaches are particularly prevalent in projects where time pressure or regulatory constraints lead to an excessive focus on quantitative outputs, while human and relational aspects are overlooked.

At the same time, drawing on Roberson (2019) concept of "perceived inclusion," the results demonstrate that employees' sense of belonging, mutual respect, and perceived fairness have a direct and positive effect on team performance and overall project success. These findings are consistent with the works of Shen *et al.* (2014) and Alshaabani *et al.* (2021), who identified organizational trust and job security as mediating mechanisms between diversity and organizational performance.

A distinctive form of indigenous innovation in Iraq's construction industry can be observed in the emergence of hybrid models that blend traditional Iraqi values of solidarity and cooperation with modern approaches to organizational learning and intercultural communication. Within this framework, organizations endeavor to integrate local cultural values—such as loyalty, mutual respect, and teamwork—with contemporary policies of inclusion and empowerment. This hybrid innovation has

elevated diversity from a symbolic level to a functional dimension, enabling it to play an active role in enhancing quality, safety, and creativity within construction projects.

The strategic analysis of the model identified three main pathways for achieving effective HRDM in Iraq's construction industry: adaptive strategies, integrative strategies, and transformational strategies. These three levels represent a gradual organizational progression from a reactive stance toward diversity to the strategic utilization of differences as a means to enhance performance and innovation.

At the adaptive level, organizations focus on developing formal diversity policies, cross-cultural training, and regular feedback systems—aligning with the framework proposed by Ely and Thomas (2001), where diversity is viewed as a source of learning and group development. Field findings revealed that in Iraqi construction projects, managers who adopted transparent communication policies, structured training programs, and consistent feedback meetings succeeded in fostering greater trust and coordination among multinational teams (Al-aloosy et al., 2024; Phua et al., 2010).

At the integrative level, strategies center on cultural balance, talent development, and employee motivation. This stage aligns with the concept of double-loop learning in organizational theory (Argyris, 1977), where the organization not only modifies behaviors but also reexamines its underlying beliefs and managerial structures.

At the transformational level, organizations have turned to innovation, creativity, and digital technologies as driving forces for change (Mujtaba et al., 2023). The use of technology for online training, performance management, and virtual cultural interaction has helped to bridge linguistic and cultural gaps, promoting the formation of efficient virtual teams. This pathway aligns with Cox (1994) and Barney (1991) views that diversity serves as a source of sustainable competitive advantage.

However, some contradictory evidence emerged. Certain projects that overemphasized technology and documentation tended to neglect the human dimension and face-to-face interaction, leading to diminished sense of belonging and empathy among employees (Owusu-Boadi et al., 2024).

A form of indigenous innovation can be observed in the fusion of traditional values of cooperation and loyalty with the smart use of digital tools, illustrating that Iraqi organizations are developing “digitally enabled HRDM with cultural identity.” This hybrid model simultaneously enhances interaction, respect,

and productivity across diverse work environments.

The outcomes of the HRDM model in Iraq's construction industry can be analyzed at two levels: processual and performance outcomes.

At the processual level, results indicate that diversity becomes an effective organizational asset only when the organization fosters a positive work culture, an inclusive climate, and an open attitude toward differences. As emphasized by Nishii (2013), an “inclusion climate” promotes emotional commitment and strengthens employees' sense of belonging. In Iraq's construction projects, ensuring equal employment opportunities and fair reward systems has enhanced employee loyalty, satisfaction, and motivation (Hazeen Fathima & Umarani, 2022). Furthermore, the improvement of communication skills and encouragement of intercultural dialogue have reduced misunderstandings and fostered constructive working relationships.

At the performance level, the findings show that effective HRDM leads to enhanced organizational innovation, productivity, job safety, and project success. These outcomes align with Tajeddini et al. (2023) and Eyiah et al. (2025), who argue that diversity becomes impactful when it is institutionalized through training and strategic policies. In large multinational projects in Iraq, teams led by culturally competent managers demonstrated superior collective decision-making and conflict resolution capabilities (Al-Bayati et al., 2018). Likewise, a collaborative culture and open communication systems facilitated international talent attraction and reduced turnover rates (Popescu et al., 2014).

Nonetheless, some contradictory findings were also observed. Projects that implemented surface-level diversity policies without reinforcing the underlying cultural infrastructure experienced an increase in internal conflicts, distrust between local and foreign workers, and declines in performance. This is consistent with Guillaume et al. (2017) and Jayne and Dipboye (2004), who noted that when HRDM remains administrative or symbolic, rather than transformational, it may yield negative effects.

A key innovation of this study lies in identifying a dual-effect model of diversity within the Iraqi context: on one hand, well-managed diversity can foster social capital, mutual trust, and team learning; on the other hand, poorly supported diversity can generate challenges, distrust, and performance instability.

Notably, projects that adopted interactive feedback mechanisms and digital communication platforms achieved greater cross-cultural synergy

and strengthened a sense of organizational interdependence—a clear example of localized digital innovation in HRDM within Iraq’s construction industry.

In sum, diversity in Iraq’s construction projects functions not merely as a cultural challenge, but as a strategic opportunity for organizational transformation and sustainable performance improvement, provided it is supported by learning-oriented policies, organizational justice, and inclusive leadership.

The proposed model of this study, when compared with classical diversity management frameworks (Cox, 1994; Ely & Thomas, 2001; Roberson, 2019), represents a hybrid integration of cultural, institutional, and technological dimensions that better align with the realities of Iraq’s construction industry. In Cox (1994) model, the multicultural organization is presented as the final stage of organizational maturity in HRDM. However, the findings of the present research indicate that Iraq’s construction industry remains in a transitional stage, where processes of adaptation, structural integration, and organizational learning systems are still in development. Unlike Cox’s model, which emphasizes the acceptance of differences, the primary necessity in the Iraqi context lies in building institutional capacity and structural stability to support diversity.

When compared with Ely and Thomas (2001) learning-and-effectiveness paradigm, both perspectives share the notion of “diversity as a learning opportunity.” Yet, the current study reveals that in developing countries, this potential can only be realized when institutional barriers such as bureaucracy, weak educational policies, and inequality in access to human resources are addressed (Aje et al., 2014; Khalaf, 2024). Contradictory evidence also showed that in some projects, excessive focus on ethnic and national differences, rather than on mutual learning, led to reinforced cultural divisions and diminished team cohesion—an aspect rarely examined in classical models.

Regarding Roberson (2019) framework, the greatest overlap was observed, as both emphasize employees’ perceived inclusion and fairness. Similarly, in Iraq’s construction projects, feelings of belonging, mutual respect, and interpersonal trust were directly associated with work commitment and project success (Alshaabani et al., 2021). However, the key distinction of the present study lies in the addition of the technological dimension to the inclusion process. The use of digital systems for

multilingual training, cross-cultural communication management, and team performance evaluation represents an innovation not addressed in classical HRDM models.

Thus, the main contribution of the proposed model is its integration of cultural, learning-oriented, and perceptual approaches with the added dimension of digital transformation and institutional contextualization specific to developing countries. In this way, organizational inclusion is conceptualized not only as an individual perception but also as a function of technological infrastructure and institutional support mechanisms.

Overall, the findings of this study indicate that HRDM in Iraq’s construction industry is a multilevel, dynamic, and context-dependent process. This process is shaped by the interaction among institutional structures, cultural characteristics, leadership styles, and organizational strategies.

From a theoretical perspective, the proposed model aligns with the existing literature on HRDM but extends it by incorporating context-specific cultural, social, and economic dimensions unique to Iraq’s construction sector. It provides a more grounded and realistic understanding of how HRDM evolves in environments characterized by institutional fragility, multicultural labor forces, and rapid technological transformation.

From a practical perspective, the results suggest several actionable recommendations for project managers and policymakers:

1. Implement inclusive human resource policies in a structural and systematic manner rather than as symbolic or rhetorical commitments.
2. Institutionalize cross-cultural training and communication skills across all organizational levels to strengthen understanding and collaboration.
3. Promote participative and learning-oriented leadership styles to foster cohesion and collective problem-solving within diverse teams.
4. Leverage digital technologies to enhance communication, training, and multicultural performance management systems.

Ultimately, this study demonstrates that embracing diversity and cultivating a positive and inclusive work environment are not merely ethical imperatives but strategic determinants of project success in Iraq’s construction industry. The capacity of organizations to learn from diversity constitutes a crucial source of sustainable competitive advantage and contributes to national sustainable development (Barney, 1991; PMI, 2016).

6. CONCLUSION

HRM is one of the fundamental elements of the construction industry, recognized as a key source for creating and sustaining a competitive advantage. In recent decades, the concept of HRDM has received growing attention as an effective approach to enhancing organizational performance, improving innovation, and increasing competitiveness across various industries, including construction. In developing countries such as Iraq, despite the growing collaboration between international companies and local organizations in construction projects, challenges such as cultural differences, weak inter-organizational communication, and the absence of effective integration strategies have hindered the full utilization of human resource diversity potential.

Most previous studies on HRM in the construction industry have focused on areas such as leadership styles, diversity training, and organizational culture. However, the alignment of diversity initiatives with broader organizational objectives has received limited attention. Moreover, few studies have examined the combined effects of integration, cohesion, and diversity strategies in recruitment, hiring, and promotion processes. Evidence suggests that in multicultural projects, the lack of inclusive policies and effective leadership is one of the main causes of decreased productivity and increased conflicts. Therefore, more comprehensive research is required to understand the role of HRDM in the success of construction industry.

Using the grounded theory method, the present study conceptualized HRDM within the Iraqi construction industry and developed a conceptual model that reflects the multidimensional aspects of this concept. This model can be further tested and validated in future empirical studies using structural equation modeling (SEM). In the next phase, a questionnaire will be designed based on the qualitative findings of this research, with each item corresponding to the dimensions and themes

extracted from the data, ensuring both content validity and methodological consistency. Such a mixed-methods approach enhances generalizability and enables the analysis of causal relationships among variables on a larger scale.

The findings of this study indicate that an inclusive organizational culture, human resource development, and employee empowerment constitute the main pillars of successful HRDM. These factors significantly influence the acceptance and effectiveness of diversity strategies in Iraq's construction industry, particularly under conditions of market competition, technological change, and the need for high productivity. Furthermore, cultural convergence and organizational cohesion, leadership capacity development, and economic and industrial sustainability are identified as key facilitating conditions for the effective implementation of HRDM.

Understanding and managing these conditions are particularly crucial for organizations operating in developing countries, as they can leverage diversity as a strategic resource to foster innovation and enhance performance. Indeed, inclusive leadership and a trust-based work environment foster creativity, collaboration, and organizational learning.

From a foresight perspective, it is recommended that future studies focus on analyzing the dynamic relationships among HRDM variables using tools such as system dynamics modeling, in order to simulate and explore complex interactions in real construction projects. Additionally, examining HRDM strategies at both the organizational and individual levels and evaluating their impact on construction industry performance indicators may open new avenues for advancing theory and practice in this field.

Ultimately, the findings of this research suggest that effective HRDM in Iraq's construction industry is not only a means to improve organizational efficiency but also a key driver for enhancing social cohesion, promoting sustainable development, and strengthening global competitiveness.

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