INTERNATIONAL JOURNAL OF MANAGEMENT, KNOWLEDGE AND LEARNING
ISSN 2232-5697, Vol 15, No. 2, 2026, pp. 431–449

Miroslav Mitrović[*1], Dejan Igov[2]

[*] Corresponding Author
[1, 2] Faculty of Project and Innovation Management, Belgrade, Serbia

Dynamic Human Resource Architecture and Knowledge Integration in Innovation Projects

Keywords: Dynamic human resource architecture, Innovation projects, Knowledge integration, Project-based organising, Adaptive reconfiguration, Organisational learning .

Abstract

This article develops a dynamic human resource architecture for innovation projects and explains how organisations mobilise, integrate, protect, and reconfigure knowledge as project requirements evolve. It addresses fragmentation across human resource architecture, project-based organising, knowledge integration, employee well-being, governance, and analytics.

A retrospective-comparative conceptual design is supported by a two-stage integrative review. An evidence map of 1,528 records, deduplicated to 1,030, establishes the breadth of the field. A focused corpus of 28 central sources supports theoretical coding and proposition development. A documented 2005 study is used only as a bounded historical taxonomy.

The synthesis identifies five shifts in human resource provision. The model positions knowledge integration as the mechanism converting configured expertise into project knowledge capability and innovation project performance. Adaptive reconfiguration closes the feedback loop, while individual contribution, governance, well-being safeguards, meaningful human oversight, analytics, and retention mechanisms are proposed to condition effectiveness and sustainability. Eight testable propositions and an operationalisation roadmap are presented.

The article reconceptualises HR architecture as a recursive project-level configuration, identifies knowledge integration effectiveness as the central mechanism, and makes adaptive reconfiguration endogenous through feedback from integration and performance to subsequent architecture decisions.

https://doi.org/10.53615/2232-5697.15.431-449

1. Introduction

Innovation projects rely on an organisation's ability to mobilise, combine, and reconfigure knowledge in uncertain environments. Unlike routine projects, innovation projects often advance through experimentation, learning, and evolving interpretations of the problem. Consequently, initial allocations of personnel and competencies may become inadequate as the project progresses. In these contexts, human resource management (HRM) extends beyond staffing to encompass the design and adaptation of a temporary yet strategically significant architecture of knowledge, roles, relationships, and safeguards (Lin et al., 2019).

This issue matters for management, knowledge, and learning research because innovation outcomes depend not only on the availability of qualified individuals but also on the integration, protection, transfer, and transformation of their knowledge into project and organisational capability. Strategic HRM emphasises coherent systems of mutually reinforcing practices aligned with organisational objectives (Jackson et al., 2014). The HR architecture perspective further posits that different forms of human capital necessitate differentiated employment modes and governance arrangements based on their strategic value and uniqueness (Lepak & Snell, 1999, 2002). While these theories provide a robust organisation-level foundation, they do not fully account for the need to repeatedly adjust the architecture as project knowledge requirements, work arrangements, and availability evolve.

Project-based and innovation-oriented work makes that problem more acute. Competence requirements may shift across phases, valuable knowledge may reside in partners or temporary collaborators, and responsibility for people may be divided among HR specialists, resource or line managers, and project managers (Bredin & Söderlund, 2011; Keegan et al., 2018; Samimi & Sydow, 2021). Organisations must decide which competencies to develop internally, which to access externally, how to integrate dispersed expertise, how to prevent knowledge leakage, and how to retain learning after temporary project structures dissolve.

The retrospective element of this article begins with a documented 2005 study of human resource provision in two special-purpose public organisations (Igov, 2005). It is used only as a bounded historical taxonomy of needs assessment, sourcing, selection, induction, managerial responsibility, and personnel information. It is not treated as representative of traditional HRM, evidence of contemporary innovation practice, or proof of linear organisational evolution. The theoretical model is grounded in contemporary peer-reviewed research and remains conceptually valid without the historical comparison.

The research gap is the lack of an integrated explanation linking differentiated HR design choices to knowledge integration, project outcomes, and recurrent adaptation. Existing research explains important parts of the problem: HR architecture explains differentiated employment and governance choices; strategic HRM and the Ability-Motivation-Opportunity (AMO) framework explain coherent practice systems and individual contribution; project-based HRM explains temporariness and distributed responsibility; and knowledge-integration research explains how specialised expertise becomes collective capability. Systematic review evidence confirms that HRM and innovation research spans strategic HRM, human behaviour, learning management, and organisational success factors, but these explanations are frequently treated in parallel rather than linked through a single project-life-cycle architecture (Jotabá et al., 2022).

The central research question is: How can organisations design a dynamic human resource architecture that converts changing knowledge requirements into project knowledge capability and innovation project performance through knowledge integration and adaptive reconfiguration? The unit of analysis is the

project-level HR architecture configuration: the structured combination of competencies, roles, work arrangements, knowledge flows, governance mechanisms, motivational conditions, participation opportunities, and retention safeguards through which an innovation project obtains and uses human knowledge.

The article's primary theoretical contribution is to reconceptualise HR architecture as a recursive, project-level configuration rather than a relatively stable, organisation-level portfolio of employment modes. It explains how changes in project knowledge requirements trigger the reconfiguration of sourcing and team arrangements, and how those design choices become project knowledge capability through knowledge integration. AMO conditions provide the individual-level microfoundations of knowledge contribution, while paradox management and well-being safeguards determine whether reconfiguration remains sustainable. HR analytics is treated as cross-cutting sensing and decision support rather than as an autonomous causal component. This hierarchy connects upstream HR design choices, the central knowledge-integration mechanism, project outcomes, and feedback across the project life cycle.

2. Theoretical Foundations and Integrative Logic

2.1 HR Architecture, Strategic Alignment, and AMO Microfoundations

Strategic HRM emphasises systems of mutually reinforcing practices rather than isolated staffing decisions. Recruitment, development, performance management, rewards, retention, and knowledge-sharing mechanisms become strategically relevant when they form a coherent system aligned with organisational objectives (Boon et al., 2019; Jackson et al., 2014). This systemic view is particularly important for innovation projects because access to skilled individuals does not by itself create a capability to innovate.

The HR architecture perspective explains why different categories of human capital may require different management forms. Organisation-specific competencies may justify internal development and long-term commitment, whereas standardised or market-available competencies may be accessed through employment markets, contracts, or partnerships (Lepak & Snell, 1999, 2002). In innovation projects, however, strategic value, uniqueness, sensitivity, transferability, and required duration can change during the project. A configuration appropriate at initiation may become inadequate after experimentation changes the technical problem, regulatory context, or commercialisation pathway.

The AMO framework supplies the individual-level microfoundations of contribution. Ability concerns whether project members possess or can develop the relevant knowledge and skills. Motivation concerns their willingness to contribute, share knowledge, and persist under uncertainty. Opportunity concerns whether project structures provide participation, psychological safety, access to relevant information, and time for learning and knowledge exchange (Appelbaum et al., 2000; Bos-Nehles et al., 2023; Jiang et al., 2012). Evidence linking AMO-based practices with innovation performance reinforces their relevance to the present framework (Alkhalaf & Al-Tabbaa, 2024). AMO therefore does not constitute a separate staffing stage. It explains why a formally well-designed architecture may or may not produce actual knowledge contribution.

2.2 Project-Based Organising and Distributed HR Responsibility

Project-based organisations intensify the architecture problem because HR responsibility is distributed across project managers, resource or line managers, HR specialists, and project workers (Bredin & Söderlund, 2011; Keegan et al., 2018). Balanced co-existence organisations, in which project and non-project work coexist in the organisational core, make this interface especially important (Nesheim & Schou, 2024). The same individual may be simultaneously embedded in a functional unit, a competence pool, and one or more temporary projects.

In this article, the term resource manager denotes the line or functional role responsible for longer-term competence stewardship, capacity, development, allocation fairness, and cross-project workload sustainability. The project manager integrates approved capacity into the temporary project configuration, coordinates day-to-day work, supports the team climate, identifies emergent competence needs, and escalates overload or role-conflict risks. These responsibilities are interdependent. Project urgency can undermine long-term capability if scarce experts are repeatedly allocated without recovery and learning time, while rigid resource protection can prevent timely adaptation.

Plural work arrangements further complicate governance. Innovation projects may combine permanent employees, internal assignees, newly hired specialists, contractors, consultants, partner representatives, and other temporary collaborators (Samimi & Sydow, 2021). Such diversity expands access to knowledge but also creates differences in incentives, authority, organisational identification, availability, and obligations to share or protect knowledge. Dynamic architecture must therefore address both the source of expertise and the conditions under which expertise becomes effectively available to the project.

2.3 Knowledge Integration as the Central Mechanism

Knowledge integration is the mechanism through which HR configuration becomes project knowledge capability. Innovation projects require technical, market, regulatory, managerial, and relational knowledge to be combined, not merely colocated. This process depends on absorptive capacity (Cohen & Levinthal, 1990), cross-disciplinary coordination, psychological safety, and collective identification (Edmondson & Bransby, 2023; Van der Vegt & Bunderson, 2005). At the organisational level, knowledge management capability supports the acquisition, sharing, application, and retention of knowledge and has been linked to innovation outcomes (Chen et al., 2024).

The model distinguishes three related constructs. Knowledge integration effectiveness is the central project-level mechanism through which specialised expertise is combined and applied. Project knowledge capability is the proximal outcome: the project's ability to acquire, combine, apply, protect, and update relevant knowledge. Innovation project performance is the distal outcome and may include novelty, technical goal achievement, schedule and budget performance, stakeholder satisfaction, implementation, or commercialisation, depending on project type. This distinction prevents knowledge integration and knowledge management capability from being used interchangeably.
Open innovation and external collaboration can provide rare knowledge, but they may also increase dependence on external actors and expose organisations to knowledge leakage (Ritala et al., 2015). Selective access, internal-external pairing, documentation, boundary-spanning routines, and planned knowledge transfer are consequently not peripheral administrative controls. They are mechanisms for turning dispersed expertise into protected collective capability and for retaining learning after the project ends.

2.4 Sustainable Reconfiguration, Paradox Governance, and Analytics

Paradox theory explains why flexibility cannot be treated as an unconditional good. Innovation projects require flexibility and stability, autonomy and control, openness and protection, and short-term delivery and long-term learning (Smith & Lewis, 2011). Project-based organisations must also manage role clarity, workload sustainability, and employee well-being (Ambituuni et al., 2021; Turner et al., 2008). Evidence from agile work shows that repeated speed and adaptation can contribute to burnout when they are not balanced by coping resources and sustainable work practices (Jafarzadeh et al., 2025).

Governance and paradox management therefore condition the full architecture. Relevant mechanisms include project role and boundary charters, capacity buffers, limits on simultaneous assignments, workload

and overtime monitoring, planned recovery periods after intensive phases, escalation channels for chronic overload, right-to-disconnect expectations, access and knowledge-transfer rules for external collaborators, and periodic well-being reviews. These mechanisms place boundaries around reconfiguration so that adaptation does not become permanent disruption.

HR analytics supports sensing and decision-making across the model by making competencies, workload, availability, skill gaps, and accumulated exposure to high-intensity projects visible (Marler & Boudreau, 2017; Minbaeva, 2018). It can improve gap identification and staffing scenarios, but it may also generate fairness, opacity, surveillance, and accountability risks. Analytics-supported decisions must therefore remain subject to transparent criteria, meaningful human judgment, and dialogue among HR, resource managers, project managers, and affected project members (Kim et al., 2025).

2.5 Integrative Explanatory Logic

The theoretical streams perform distinct functions in the proposed explanation. HR architecture identifies differentiated sourcing and governance choices. Strategic HRM emphasises coherence among practices. AMO explains whether people can, will, and are enabled to contribute. Project-based HRM identifies temporariness and distributed responsibility. Knowledge-integration theory provides the central mechanism connecting configured expertise to project knowledge capability. Paradox theory and well-being research specify conditions for sustainable flexibility. Analytics provides sensing support, while knowledge-retention routines connect temporary project learning to organisational memory.

Integrating these streams produces a recursive explanation rather than a cumulative list. Strategy and project conditions shape changing knowledge requirements; those requirements guide sourcing and work arrangements; sourcing choices shape team configuration and effective availability; knowledge integration transforms the configured expertise into project knowledge capability and innovation project performance; and information from integration and performance triggers adaptive reconfiguration. AMO microfoundations, cross-cutting governance conditions, analytics-supported sensing, and knowledge-retention mechanisms explain when and how this pathway functions.

3. Data and Methodology

3.1 Research Design and Role of the Historical Source

The article uses a retrospective-comparative conceptual design supported by an integrative literature review. Its purpose is to develop a theoretically grounded model, not to test causal relationships or reanalyse individual-level data.

The historical reference is a documented 2005 study of HR provision in two special-purpose public organisations. The original study involved 180 employees and 30 experts. It examined HR policy, needs assessment, internal and external sourcing, recruitment, selection, induction, managerial responsibility, and perceived influence of HR provision on organisational functioning (Igov, 2005). The present article uses only aggregate, non-identifying findings. Individual-level data were unavailable and were not reanalysed.

The 2005 study was selected because it provides a complete, accessible aggregate description of HR provision in the two organisations and an explicit set of process categories that can be traced and compared with later research. Its role is heuristic and taxonomic rather than evidentiary: it supplies sensitising categories for the retrospective comparison, whereas contemporary peer-reviewed literature supplies the theoretical constructs and relationships used to build the model. One author of the present article authored the 2005 study. To limit proximity bias, the present analysis uses only documented aggregate categories, makes no causal inference from the study, and requires that every contemporary reinterpretation be

independently supported in the literature. Removing the source would not invalidate the DHRA model; it would only remove the retrospective comparison.

Table 1. Mapping the 2005 Categories to the DHRA Framework

Category derived from the 2005 study	Historical analytical role	Contemporary reinterpretation and role in DHRA
HR policy visibility	Formal visibility and coherence of staffing policy	Explicit DHRA design principles, governance rules, transparency, and meaningful human oversight
Needs assessment and planning	Identification of required staff numbers and profiles	Repeated mapping of evolving project knowledge requirements across project phases
Internal and external sourcing	Choice between organisational and labour-market sources	Plural work arrangements selected according to knowledge value, uniqueness, duration, transferability, sensitivity, and actual availability
Recruitment and selection	Matching individuals to organisational roles	Configuration of complementary competencies and verification of effective rather than nominal availability
Induction	Introduction to the organisation, group, and role	Knowledge integration through translation routines, psychological safety, collective identification, and internal-external pairing
Managerial responsibility	Allocation of responsibility for HR provision	Distributed interface among HR specialists, resource managers, project managers, and project members
Personnel records and organisational functioning	Administrative information and perceived effects of HR provision	Analytics-supported sensing, workload visibility, knowledge retention, project knowledge capability, and organisational learning, subject to human judgment

3.2 Two-Stage Integrative Review and Evidence-Mapping Strategy

Integrative reviews are appropriate when a study seeks to combine dispersed theoretical streams and develop a conceptual framework (Snyder, 2019). To combine field-level breadth with close theory building, the review used two analytically distinct but complementary evidence layers: a broad metadata-level evidence map and a focused interpretive corpus. The evidence map established the scale, temporal development, and recurrent thematic signals of the wider literature. The focused corpus was used for close reading, construct definition, relational synthesis, proposition development, and setting theoretical boundaries.

The evidence-map searches were conducted in June 2026 and combined project and innovation management with human resource development, human capital, competencies and skills, organisational learning, knowledge management and integration, dynamic and project capabilities, and agile, hybrid, or digitally enabled organising. Archived record-level exports comprised Web of Science (886 records), ScienceDirect (489), Emerald Insight (128), and SAGE Journals (25), for a total of 1,528 records. Supplementary aggregate query summaries from Scopus and OpenAlex were used to check coverage of the principal thematic domains. However, they were not added to the record-level total because complete compatible exports were unavailable and unresolved overlap could have produced double counting.

The focused theory-building corpus was assembled through targeted searches for HR architecture, strategic HRM, AMO, project-based HRM, knowledge integration, paradox management, employee well-being, HR analytics, and associated foundational works, supplemented by backward and forward citation chasing. Sources were retained when they directly defined, connected, refined, or challenged a construct required by the model. Evidence published from 2010 onward was prioritised, while earlier works were retained when

they defined foundational constructs. Practitioner commentary and sources without direct explanatory relevance were excluded.

The focused corpus comprises 28 sources: 27 scholarly sources supporting the contemporary framework and the 2005 historical study. It is not presented as a mechanically screened subset of the evidence-mapping pool. Foundational sources on HR architecture, AMO, paradox, well-being, and review methodology frequently do not use the project-innovation vocabulary that defined the broad map. In contrast, the broad map contains many records useful for field orientation but not for close theoretical synthesis. The study therefore reports the two evidence layers separately and does not claim exhaustive systematic coverage, PRISMA compliance, independent double screening, or intercoder reliability.

3.3 Evidence-Mapping Dataset and Descriptive Profile

Sequential exact-key deduplication removed 467 duplicate records by normalised DOI and a further 31 by normalised title, producing 1,030 unique records. Of these, 919 contained a DOI, 365 contained an abstract, and 204 contained keywords in the archived exports. The evidence map therefore uses complete title metadata and available abstract and keyword metadata; it does not represent full-text coding of all mapped publications.

Table 2. Evidence-Mapping Coverage and Analytical Layers

Evidence layer or processing stage	Records	Interpretation
Web of Science record-level exports	886	Included in the broad evidence map
ScienceDirect record-level exports	489	Included in the broad evidence map
Emerald Insight record-level exports	128	Included in the broad evidence map
SAGE Journals record-level exports	25	Included in the broad evidence map
Total archived record-level exports	1,528	Pool before deduplication
Duplicate DOI records removed	467	Primary exact-identifier pass
Duplicate normalised-title records removed	31	Secondary exact-title pass
Unique evidence-mapping pool	1,030	Metadata-level mapping; not a full-text screening set
Focused theory-building corpus	28	Separate purposive close-reading corpus: 27 scholarly sources plus the 2005 historical study

The publication profile also indicates rapid recent expansion: 68 records were published before 2010, 156 during 2010–2014, 247 during 2015–2019, and 559 from January 2020 to June 2026. Thus, 54.3% of the mapped pool appeared from 2020 onward, although the 2026 count reflects only a partial year.

Table 3. Principal Non-Exclusive Theme Signals in the Evidence Map

Metadata theme signal	n (% of 1,030)	Relevance to the DHRA synthesis
Project and innovation management	306 (29.7%)	Project-level outcomes and changing innovation problems
Governance, collaboration, and integration	200 (19.4%)	Plural arrangements, boundary spanning, and coordination
Competence and skills	173 (16.8%)	Competence configuration and effective availability
Knowledge and organisational learning	131 (12.7%)	Knowledge integration, transfer, and retention
Agile, hybrid, and flexible organising	54 (5.2%)	Reconfiguration and flexibility-stability tensions
Digital, artificial intelligence, and analytics	47 (4.6%)	Analytics-supported sensing and decision support
Dynamic and project capabilities	38 (3.7%)	Adaptation, feedback, and project capability

Note. Theme counts are based on exact and stemmed matches in titles, available abstracts, and keywords. Categories are non-exclusive and should not be summed. Low counts for narrowly worded HR-development, human-capital, well-being, or sustainable-work labels were treated as a limitation of metadata coverage and search vocabulary, not as evidence that these concerns are absent from the field. The focused corpus was used to examine such theoretically necessary themes in depth.

3.4 Coding and Conceptual Synthesis

The analysis used three coding layers. First, titles, available abstracts, and keywords in the 1,030-record evidence map were coded with a transparent, non-exclusive dictionary for recurring field-level themes. Second, the 28-source focused corpus was coded deductively for HR architecture, strategic alignment, ability, motivation, opportunity, project temporariness, distributed HR responsibility, knowledge acquisition and integration, adaptive reconfiguration, paradoxical tensions, employee well-being, analytics, and knowledge retention. Third, the relationship between categories in the 2005 study and contemporary theory was coded as continuity, transformation, extension, or contextualisation.

The synthesis proceeded through six steps. First, record-level exports were harmonised and deduplicated. Second, the evidence-map metadata were coded to identify the field's recurrent and dispersed research streams. Third, the focused corpus was closely read and coded for constructs, mechanisms, causal roles, tensions, and boundary conditions. Fourth, aggregate categories in the historical source were extracted and checked against independent contemporary theory. Fifth, recurring contrasts were organised as changes in the unit, source, integration, governance, and information logic of HR provision, generating the five conceptual findings presented in the Conceptual Findings section. Sixth, the theoretical themes were assigned functional roles in the model: contextual antecedents, architecture design choices, a central mechanism, proximal and distal outcomes, a feedback process, individual-level microfoundations, cross-cutting governance conditions, sensing support, and organisational memory. This sequence makes explicit how broad coverage informed the review while close theory coding generated the model's relational logic.

Heterogeneous export formats and incomplete metadata limit the evidence map: all 1,030 records contained titles, but only 365 contained abstracts and 204 contained keywords in the archived exports. Its theme counts are therefore non-exclusive descriptive signals, not full-text classifications or estimates of effect. The focused synthesis was purposive rather than exhaustively screened, and neither independent double coding

nor intercoder reliability was performed. No new human-subject data were collected. The AI-assisted language tool Grammarly was used solely for English-language refinement and readability improvement under author supervision. The authors retained full responsibility for theoretical interpretation, source selection, argumentation, and the final text.

4. Conceptual Findings

The evidence map established the breadth and dispersion of the relevant field, while the focused synthesis generated five conceptual findings. These findings are not new empirical measurements and were not inferred mechanically from keyword frequencies. They are theoretically derived interpretations of how documented HR-provision categories are retained, transformed, extended, or contextualised in contemporary innovation-project settings, with the evidence map used as a coverage and plausibility check.

4.1 From Staffing Positions to Configuring Competencies

The principal unit of HR provision shifts from the job position to a competence configuration. The broad map contained 173 records with explicit competence or skills signals and 38 with dynamic or project-capability signals, indicating that expertise and capability are recurrent but not consistently integrated research streams. In the 2005 study, HR provision was primarily connected with the number and structure of employees required for organisational tasks (Igov, 2005). This logic remains relevant, but innovation projects rarely operate with fully stable tasks and predefined roles. Staffing becomes part of a broader architecture that includes technical, managerial, relational, regulatory, learning, motivational, and knowledge-protection competencies. The required portfolio is phase-sensitive and must be evaluated against effective availability, not only formal qualification.

From Internal and External Sources to Plural Work Arrangements

The distinction between internal and external sources remains useful but is insufficient. Governance, collaboration, and integration signals appeared in 200 evidence-map records, reinforcing the importance of arrangements that cross-organisational and disciplinary boundaries. Innovation projects may combine permanent employees, internal experts temporarily assigned from other units, newly hired specialists, contractors, consultants, partner representatives, and temporary collaborators (Bredin & Söderlund, 2011; Keegan et al., 2018; Samimi & Sydow, 2021). Sourcing decisions must therefore consider knowledge value, uniqueness, required duration, transferability, sensitivity, incentive alignment, and sustainable availability. The relevant choice is not simply where a person comes from, but what work and governance arrangement makes the knowledge usable and protectable.

4.2 From Induction to Knowledge Integration

Induction expands into knowledge integration. The evidence map identified 131 records with explicit signals of knowledge management, knowledge sharing, knowledge integration, knowledge transfer, organisational learning, or absorptive capacity. Conventional induction introduces individuals to the organisation, group, and role, whereas innovation-project contributors may come from different disciplines, organisations, employment arrangements, and professional languages. The central challenge is to transform individual expertise into project knowledge capability through translation routines, psychological safety, collective identification, cross-disciplinary coordination, and the opportunity to participate (Cohen & Levinthal, 1990; Edmondson & Bransby, 2023; Van der Vegt & Bunderson, 2005).

4.3 From Flexibility to Paradox-Governed Sustainability

Flexibility is reinterpreted as a governed and sustainable capability rather than an unconditional good. The evidence map contained 54 agile, hybrid, or flexible-organising signals and 38 dynamic or project-capability

signals, but explicit well-being and sustainable-work language was sparse. Given incomplete metadata, this pattern cannot establish a field-wide gap; it does show why adaptability signals alone cannot substantiate sustainability claims, so focused well-being research was retained in the close theory-building corpus. Innovation projects require adaptation, but they also require continuity, accountability, knowledge protection, and workload sustainability. Frequent team changes can weaken shared understanding; excessive openness can expose sensitive knowledge; excessive control can suppress learning; and continuous reconfiguration can increase overload and burnout. The architecture must therefore balance stability and agility, autonomy and control, openness and protection, and delivery and long-term learning (Smith & Lewis, 2011).

4.4 From Administrative Records to Analytics-Supported Sensing

Personnel records and managerial assessment expand into analytics-supported sensing. Digital, artificial intelligence, or analytics signals appeared in 47 evidence-map records, indicating a visible but still separate technology-oriented stream. Contemporary projects require timely visibility of competencies, workload, availability, skill gaps, learning needs, and accumulated exposure to high-intensity assignments. HR analytics can improve gap identification, staffing scenarios, and risk monitoring, but cannot replace human judgment. Its value depends on information quality, transparency, fairness, explainability, and meaningful human oversight (Kim et al., 2025; Marler & Boudreau, 2017; Minbaeva, 2018).

Table 4. Summary of the Conceptual Findings

Earlier HR-provision logic	Dynamic architecture logic	Conceptual finding
Staffing predefined positions	Configuring competencies across project phases	The unit shifts from job positions to changing competence portfolios
Internal and external sources	Plural work and governance arrangements	Sourcing depends on value, duration, transferability, sensitivity, incentives, and sustainable availability.
Induction into organisation and role	Knowledge integration across disciplines and arrangements	Individual expertise is transformed into project knowledge capability
Flexibility as adaptation	Paradox-governed sustainable flexibility	Reconfiguration requires safeguards for workload, boundaries, and knowledge protection.
Personnel records and managerial judgment	Analytics-supported sensing with meaningful human oversight	Data support requirements, allocation, and reconfiguration decisions but do not replace judgment.

Together, the findings show why HR provision in innovation projects should be understood as a dynamic architecture rather than a linear staffing process. Its purpose is to transform dispersed, differently governed expertise into project knowledge capability while preserving employee well-being and organisational learning.

5. Dynamic Human Resource Architecture Model and Propositions

5.1 Model Logic

Dynamic human resource architecture (DHRA) is a project-level configuration of competencies, roles, work arrangements, knowledge flows, governance mechanisms, AMO conditions, and retention safeguards through which an organisation obtains, integrates, protects, and reconfigures the knowledge required for an

innovation project. The framework is a recursive, contingency-governed systems model rather than a purely sequential process model.

Organisational strategy and project characteristics define changing knowledge requirements. Those requirements shape sourcing and work arrangements, which in turn shape team configuration and actual availability. Knowledge integration effectiveness is the central mechanism through which configured expertise becomes project knowledge capability and subsequently innovation project performance. Adaptive reconfiguration returns information from integration and performance to requirements, sourcing, and team configuration. AMO conditions operate as individual-level microfoundations. Governance, paradox management, well-being safeguards, and meaningful human oversight condition all stages by limiting unsustainable flexibility. HR analytics provides cross-cutting sensing and decision support, while knowledge-retention routines convert project learning into organisational memory.

Figure 1 distinguishes four analytically different types of relationships. First, the solid arrows specify the core causal sequence. Organisational strategy and project characteristics define evolving project knowledge requirements. These requirements guide sourcing and work-arrangement choices, which determine team configuration and the actual availability of relevant expertise. Knowledge integration effectiveness then converts configured and available expertise into project knowledge capability, which provides the proximal basis for innovation project performance.

Second, the curved orange arrows jointly represent adaptive reconfiguration rather than terminal outcomes. Information about emerging knowledge gaps, integration problems, project milestones, and performance feeds back into subsequent decisions about knowledge requirements, sourcing, roles, work arrangements, and team configuration. The architecture is therefore recursive and changes across the project life cycle.

Third, the dashed arrows identify enabling mechanisms. Ability, motivation, and opportunity conditions influence whether project members can, will, and are enabled to contribute their knowledge to the integration process. HR analytics improves the visibility of competence, availability, workload, knowledge gaps, and prior reconfiguration outcomes, thereby supporting requirements analysis, sourcing, team configuration, and adaptive decisions. Knowledge-retention routines capture learning from project knowledge, capability, and performance and transfer it into organisational memory.

Fourth, the dashed outer frame represents cross-cutting conditions rather than an additional stage. Governance, paradox-management capability, well-being safeguards, and meaningful human oversight bound the entire architecture by balancing flexibility with stability, autonomy with control, openness with knowledge protection, and short-term delivery with employee sustainability and longer-term organisational learning. The model is therefore a recursive, contingency-governed system rather than a linear staffing process.

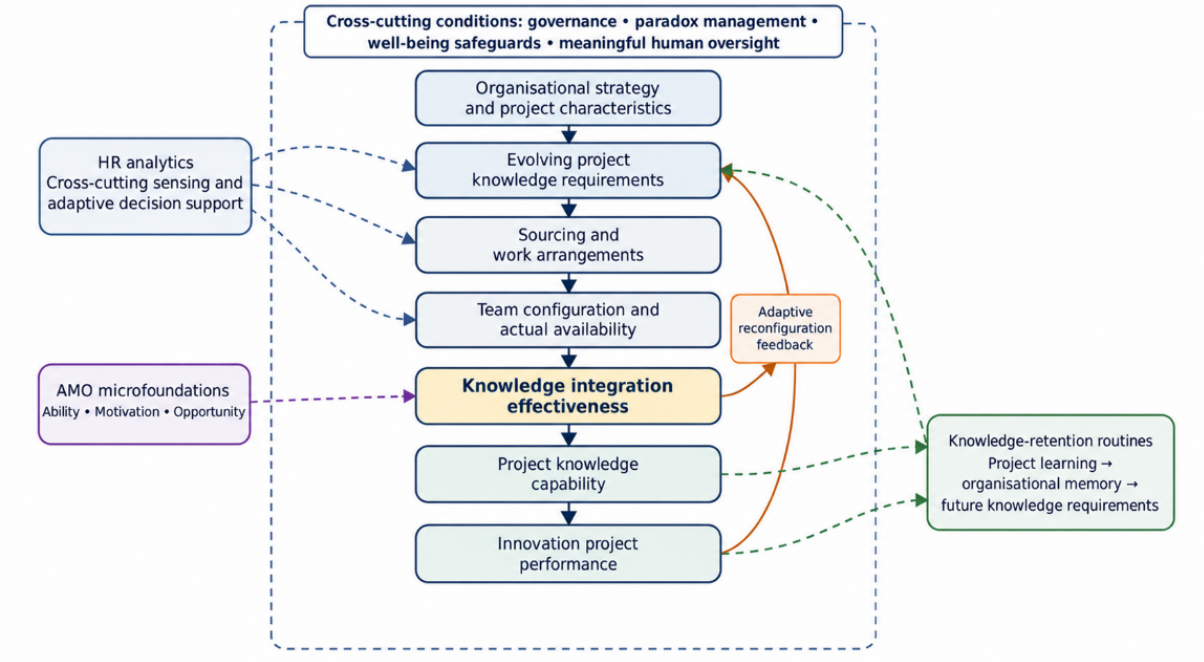

Figure 1. A recursive model of dynamic HR architecture and innovation project performance

Note. Solid arrows represent the proposed directional relationships in the core causal sequence. The curved orange arrows jointly represent adaptive feedback from knowledge integration effectiveness and innovation project performance to subsequent knowledge requirements, sourcing decisions, and team configuration. Dashed arrows represent enabling or supporting influences. The dashed outer frame identifies governance, paradox management, well-being safeguards, and meaningful human oversight as cross-cutting conditions that apply across the architecture rather than as a separate sequential stage. Knowledge-retention routines transfer project learning into organisational memory, informing subsequent project cycles.

Table 5. Functional Roles of the DHRA Model Elements

Functional role	Model element	Explanatory function
Contextual antecedents	Organisational strategy and project characteristics	Define uncertainty, strategic priorities, constraints, and the evolving knowledge problem
Architecture design choices	Knowledge requirements; sourcing and work arrangements; team configuration and actual availability	Determine what expertise is required, where it is accessed, and under what roles and conditions it can contribute.
Central mechanism	Knowledge integration effectiveness	Converts specialised and dispersed expertise into coordinated project action
Proximal outcome	Project knowledge capability	Captures the project's ability to acquire, combine, apply, protect, and update knowledge
Distal outcome	Innovation project performance	Captures technical, delivery, stakeholder, implementation, or commercialisation results appropriate to the project

Functional role	Model element	Explanatory function
Feedback process	Adaptive reconfiguration	Uses emerging knowledge and performance information to revise requirements, sourcing, roles, and team configuration
Individual microfoundations	Ability, motivation, and opportunity	Explain whether project members can, will, and are enabled to contribute knowledge.
Cross-cutting conditions	Governance, paradox management, well-being safeguards, and meaningful human oversight	Bound flexibility and balance competing demands across all stages
Sensing and decision support	HR analytics	Improves visibility of competencies, availability, workload, and gaps without replacing human judgment
Organisational memory	Knowledge-retention routines	Preserve project learning for future projects and longer-term organisational capability

5.2 Research Propositions

The propositions are stated as temporally ordered, empirically testable relationships. Unless otherwise specified, predictors are assessed at project or phase initiation, mediators and team processes during the subsequent execution period, proximal outcomes at a later milestone, and innovation project performance at completion or implementation. HR architecture fit denotes the correspondence between required and actually available competencies. Reconfiguration intensity denotes the combined frequency and magnitude of changes to staffing, roles, or work arrangements. Human-governance quality denotes transparent decision criteria, meaningful human review and override, and clear accountability. Motivation and opportunity remain distinct individual-level AMO microfoundations.

- P1 (HR architecture fit). At project or phase initiation, greater fit between project knowledge requirements and the competence portfolio actually available to the project is positively associated with subsequent team-level knowledge integration effectiveness.
- P2 (Motivation). Perceived motivation-enhancing project HR practices at project or phase initiation are positively associated with project members' sustained knowledge contribution during the subsequent execution period.
- P3 (Opportunity). Perceived opportunity-enhancing project HR practices at project or phase initiation are positively associated with subsequent team-level knowledge integration effectiveness.
- P4 (Sequential mediation). Knowledge integration effectiveness during project execution and project knowledge capability at a subsequent milestone serially mediate the positive relationship between HR architecture fit at project or phase initiation and innovation project performance at completion or implementation.
- P5 (Paradox-management moderation). Paradox-management capability positively moderates the relationship between workforce-arrangement diversity and subsequent knowledge integration effectiveness, such that the relationship is more positive when paradox-management capability is high than when it is low.
- P6 (Workload-safeguard moderation). Workload-sustainability safeguards moderate the relationship between reconfiguration intensity and subsequent employee well-being, such that the negative relationship is weaker when safeguards are strong than when they are weak.
- P7 (Analytics-supported reconfiguration). Higher HR analytics information quality before an adaptive reconfiguration decision is positively associated with the subsequent quality of that decision.

- P8 (Human-governance moderation). Human-governance quality positively moderates the relationship between HR analytics information quality and adaptive reconfiguration decision quality, such that the relationship is stronger when human-governance quality is high than when it is low.

5.3 Operationalisation and Empirical Testing

The model requires time-sensitive and multilevel measurement because architecture choices occur at the project or organisational level, individuals experience AMO conditions, knowledge integration develops within teams, and performance is observed after relevant project phases. Table 6 provides an indicative operationalisation, not a prescriptive measurement instrument.

Table 6. Proposition-to-Measurement and Empirical-Testing Matrix

Proposition	Variables and roles	Indicative measurement and data source
P1	Predictor: HR architecture fit; Outcome: knowledge integration effectiveness	Fit: weighted correspondence between required and actually available competencies based on staffing records and paired project-manager/resource-manager assessments at project or phase initiation. Integration: shared understanding, interdisciplinary coordination, integration speed, closure of knowledge gaps, and effective application of specialised expertise, measured during execution.
P2	Predictor: motivation-enhancing practices; Outcome: sustained knowledge contribution	Meaningful role design, recognition, reward and assignment fairness, career visibility, persistence, voluntary knowledge sharing, and continued contribution. Member survey at initiation and repeated peer or team-leader assessments during execution.
P3	Predictor: opportunity-enhancing practices; Outcome: knowledge integration effectiveness	Participation in technical decisions, psychological safety, access to relevant information, boundary-spanning forums, and protected time for knowledge sharing. Member survey before or during execution; integration measured subsequently.
P4	Predictor: HR architecture fit; Sequential mediators: knowledge integration effectiveness and project knowledge capability; Outcome: innovation project performance	Fit measured at initiation; integration during execution; capability after major milestones; performance through technical achievement, novelty, schedule and budget outcomes, stakeholder satisfaction, implementation, or commercialisation at completion.
P5	Predictor: workforce-arrangement diversity; Moderator: paradox-management capability; Outcome: knowledge integration effectiveness	Diversity based on the distribution of permanent employees, internal assignees, contractors, consultants, and partner personnel. Paradox capability measured through the ability to balance stability–agility, autonomy–control, openness–protection, and short-term delivery–long-term learning.
P6	Predictor: reconfiguration intensity; Moderator: workload-sustainability safeguards; Outcome: employee well-being	Reconfiguration intensity: formative index combining the frequency and magnitude of staffing, role, and work-arrangement changes from dated event logs. Safeguards: capacity buffers, limits on simultaneous assignments, recovery periods, overtime controls, and escalation procedures. Well-being: repeated measures of exhaustion, recovery, boundary erosion, and work–life interference.

Proposition	Variables and roles	Indicative measurement and data source
P7	Predictor: HR analytics information quality; Outcome: adaptive reconfiguration decision quality	Accuracy, completeness, timeliness, relevance, and explainability of competence and workload information; decision speed, appropriateness, fairness, implementation quality, and subsequent effectiveness. Human resource information system data, decision records, and post-decision assessments.
P8	Predictor: HR analytics information quality; Moderator: human-governance quality; Outcome: adaptive reconfiguration decision quality	Human-governance quality: transparent documentation of data sources and decision criteria, explainability, opportunities for human review, challenge and override, and accountability for final decisions. Measure through governance audits and participant assessments after major reconfiguration decisions.

The project is the principal unit of analysis, although AMO perceptions and well-being originate at the individual level and reconfiguration decisions at the event level. Empirical tests should therefore combine temporal separation, multiple data sources, and multilevel analysis. Assess HR architecture fit, AMO practices, workforce-arrangement diversity, paradox-management capability, and safeguards at project or phase initiation; knowledge contribution and knowledge integration effectiveness during the subsequent execution period; project knowledge capability at a later milestone; and innovation project performance at completion or implementation. Record staffing, role, work-arrangement, and adaptive-decision changes as dated events. Operationalise reconfiguration intensity as a formative index of event frequency and magnitude, and human-governance quality as a composite of transparency, review and override, and accountability.

P1–P3 and P7 can be tested using time-separated multilevel regression or structural equation modelling. P4 requires a longitudinal serial-mediation test of the pathway from HR architecture fit through knowledge integration effectiveness and project knowledge capability to innovation project performance, preferably using bootstrapped indirect effects. P5, P6, and P8 require interaction terms and simple-slope analysis, with repeated-measures multilevel modelling particularly appropriate for reconfiguration and well-being. Comparative case studies can complement quantitative testing by examining how the proposed relationships vary across sectors, contractual arrangements, levels of uncertainty, and knowledge-protection requirements.

6. Discussion

6.1 Theoretical Contribution

The model's primary contribution is a dynamic project-level extension of HR architecture theory. Classic HR architecture explains how organisations differentiate employment and governance arrangements based on the value and uniqueness of human capital (Lepak & Snell, 1999, 2002). DHRA adds a project-life-cycle dimension: the relevant knowledge portfolio, the value of particular expertise, and the appropriate sourcing and governance arrangement may change as uncertainty is reduced or redefined. The model therefore treats configuration and reconfiguration as recurring project-level decisions rather than as a relatively stable organisation-level portfolio.

The supporting integrations perform subordinate but necessary explanatory roles. Strategic HRM contributes the requirement for coherence among practices, and AMO explains the individual microfoundations of knowledge contribution. Project-based HRM adds temporariness, plural work arrangements, and distributed responsibility. Knowledge integration specifies the mechanism through which configured expertise becomes project knowledge capability. Paradox management and well-being safeguards

explain why sustainable flexibility, rather than maximum flexibility, is required. Analytics improves sensing across the architecture but is explicitly governed by transparency and meaningful human oversight.

The originality of DHRA lies in three linked theoretical moves. First, it shifts the unit of HR architecture from a relatively stable organisation-level employment portfolio to a project-level configuration that can be revised as the knowledge problem evolves across project phases. Second, it specifies knowledge integration effectiveness, rather than the mere availability of human capital, as the mechanism linking configured expertise to project knowledge capability and innovation project performance. Third, it makes reconfiguration endogenous by modelling integration and performance information as feedback that updates requirements, sourcing, work arrangements, and team configuration. The contribution is therefore the relational and recursive architecture; the component constructs themselves are not claimed as new.
The evidence map reinforces the need for this integration. Competence, governance and collaboration, knowledge and learning, flexible organising, dynamic capability, and digital analytics are all visible in the wider literature, but they appear as partially separate streams. DHRA contributes by assigning those streams distinct causal roles within one project-level, recursive architecture rather than treating their co-occurrence as a sufficient explanation.

6.2 Boundary Conditions

The framework is most applicable to knowledge-intensive innovation projects characterised by moderate or high uncertainty, changing competence requirements, temporary or cross-functional teams, and some dependence on external collaborators. It is particularly relevant in project-based, matrix, and balanced project/non-project organisations where resource and project managers share responsibility for people and knowledge. Applicability is also stronger when organisations face a material need to balance knowledge sharing with knowledge protection or short-term delivery with longer-term capability development.

The model's explanatory value is more limited for routine, low-uncertainty projects with stable roles; very short assignments that allow little time for knowledge integration or reconfiguration; and very small organisations without differentiated HR, resource-management, and project-management roles. In these settings, the mechanisms may still apply, but the formal role structure and analytics requirements require adaptation. Highly regulated or security-sensitive projects may also place stricter limits on external sourcing and openness. In contrast, volunteer or open-source projects may require alternative interpretations of authority, rewards, and employment arrangements.

The proposed relationships also require proposition-specific scope conditions. P1 and P4 presuppose sufficient task interdependence and project duration for knowledge integration to develop, as well as managerial discretion to alter sourcing, roles, or team configuration. P2 and P3 presuppose team-based knowledge work in which motivation and participation opportunities can vary. P5 becomes relevant when plural work arrangements generate competing demands, P6 when reconfiguration is repeated or substantial, and P7–P8 when HR analytics materially informs staffing or allocation decisions. Outside these conditions, the mechanisms may remain conceptually relevant, but the corresponding propositions should not be expected to hold in their stated form.

6.3 Managerial Implications

Managers should begin HR planning for innovation projects with the knowledge problem, not current job descriptions. They should identify what knowledge is needed, how sensitive it is, how long it is required, whether it should be developed internally or accessed externally, how it will be made available, and how it will be integrated and retained. A stable internal core can be combined with external expertise through internal-external pairing, selective access, documentation, and planned transfer.

Resource managers should steward competence pools, development trajectories, allocation fairness, cumulative workload, and recovery across projects. Project managers should translate approved capacity into project roles, maintain knowledge-integration routines, detect emergent gaps, and report overload, boundary erosion, or knowledge-protection problems early. Formal allocation reviews and escalation channels are needed when project urgency conflicts with long-term capability or well-being.

HR analytics should support, not automate, these judgments. Dashboards can identify availability, competence gaps, repeated high-intensity assignments, and workload concentration, but data should be interpreted through transparent criteria and dialogue with affected people. The aim is decision quality and sustainable capability, not surveillance or the appearance of precision.

7. Conclusion

This article developed a dynamic human resource architecture for innovation projects through two complementary evidence layers. A broad evidence map of 1,528 archived records, reduced to 1,030 unique records after sequential deduplication, established the scale, development, and dispersion of the relevant literature. A focused theory-building corpus of 28 conceptually central sources supplied the constructs and relational logic, while a 2005 study supplied a bounded and transparent historical taxonomy.

The principal conclusion is that innovation projects require a recursive project-level architecture rather than a linear staffing process. Strategy and project characteristics define changing knowledge requirements; requirements shape sourcing, work arrangements, and team configuration; knowledge integration transforms configured expertise into project knowledge capability and innovation project performance; and adaptive reconfiguration closes the feedback loop. AMO microfoundations, cross-cutting governance conditions, analytics-supported sensing, and knowledge-retention mechanisms are proposed to condition whether this pathway is effective and sustainable.

The article is conceptual and does not empirically validate the proposed relationships. The broad map is based on archived exports with heterogeneous and incomplete metadata, uses non-exclusive automated theme coding, and was not followed by a retrospectively documented title/abstract and full-text screening funnel into the 28-source focused corpus. The focused synthesis is structured and purposive rather than exhaustive; the study therefore makes no claim of PRISMA compliance, independent double screening, or intercoder reliability. The historical source is unpublished, sector-specific, and authored by one of the present authors, so its use was restricted to aggregate categories and independent contemporary reinterpretation. Future research should test the eight propositions across sectors, project types, and organisational forms using time-separated, multi-source, multilevel, longitudinal, and comparative case designs. Particular attention should be paid to whether recurrent reconfiguration improves adaptation without eroding well-being, and whether analytics-supported decisions remain fair, transparent, and meaningfully governed by humans.

8. References

Alkhalaf, T., & Al-Tabbaa, O. (2024). The effect of ability, motivation and opportunity (AMO) on SMEs' innovation performance. *Creativity and Innovation Management, 33*(1), 21–38. https://doi.org/10.1111/caim.12578

Ambituuni, A., Azizsafaei, F., & Keegan, A. (2021). HRM operational models and practices to enable strategic agility in PBOs: *Managing paradoxical tensions. Journal of Business Research*, 133, 170–182. https://doi.org/10.1016/j.jbusres.2021.04.048

Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. L. (2000). *Manufacturing advantage: Why high-performance work systems pay off.* Cornell University Press.

Boon, C., den Hartog, D. N., & Lepak, D. P. (2019). A systematic review of human resource management systems and their measurement. *Journal of Management, 45*(6), 2498–2537. https://doi.org/10.1177/0149206318818718

Bos-Nehles, A., Townsend, K., Cafferkey, K., & Trullen, J. (2023). Examining the Ability, Motivation and Opportunity (AMO) framework in HRM research: Conceptualization, measurement and interactions. *International Journal of Management Reviews, 25*(4), 725–739. https://doi.org/10.1111/ijmr.12332

Bredin, K., & Söderlund, J. (2011). *Human resource management in project-based organizations: The HR quadriad framework*. Palgrave Macmillan. https://doi.org/10.1007/978-0-230-29751-7

Chen, M., Wu, M., Wang, X., & Wang, H. (2024). The differential effects of human resource management on organizational innovation: A meta-analytic examination. *International Journal of Manpower, 45*(3), 576–596. https://doi.org/10.1108/IJM-08-2021-0487

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly, 35*(1), 128–152. https://doi.org/10.2307/2393553

Edmondson, A. C., & Bransby, D. P. (2023). Psychological safety comes of age: Observed themes in an established literature. *Annual Review of Organizational Psychology and Organizational Behavior*, 10, 55–78. https://doi.org/10.1146/annurev-orgpsych-120920-055217

Igov, D. (2005). *Obezbeđivanje ljudskih resursa za potrebe organizacija posebnih namena* [*Human resource provision for special-purpose organisations*] [Unpublished master's thesis]. Faculty of Organizational Sciences, University of Belgrade.

Jackson, S. E., Schuler, R. S., & Jiang, K. (2014). An aspirational framework for strategic human resource management. *The Academy of Management Annals, 8*(1), 1–56. https://doi.org/10.1080/19416520.2014.872335

Jafarzadeh, H., Mosafer, H., & Sarabadani, J. (2025). Burnout in agile teams: The role of mindful software development. *Information and Software Technology*, 187, Article 107852. https://doi.org/10.1016/j.infsof.2025.107852

Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal, 55*(6), 1264–1294. https://doi.org/10.5465/amj.2011.0088

Jotabá, M. N., Fernandes, C. I., Gunkel, M., & Kraus, S. (2022). Innovation and human resource management: A systematic literature review. *European Journal of Innovation Management, 25*(6), 1–18. https://doi.org/10.1108/EJIM-07-2021-0330

Keegan, A., Ringhofer, C., & Huemann, M. (2018). Human resource management and project-based organizing: Fertile ground, missed opportunities and prospects for closer connections. *International Journal of Project Management, 36*(1), 121–133. https://doi.org/10.1016/j.ijproman.2017.06.003

Kim, S., Khoreva, V., & Vaiman, V. (2025). Strategic human resource management in the era of algorithmic technologies: *Key insights and future research agenda. Human Resource Management, 64*(2), 447–464. https://doi.org/10.1002/hrm.22268

Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review, 24*(1), 31–48. https://doi.org/10.5465/AMR.1999.1580439

Lepak, D. P., & Snell, S. A. (2002). Examining the human resource architecture: The relationships among human capital, employment, and human resource configurations. *Journal of Management, 28*(4), 517–543. https://doi.org/10.1177/014920630202800403

Lin, L., Müller, R., Zhu, F., & Liu, H. (2019). Choosing suitable project control modes to improve the knowledge integration under different uncertainties. International Journal of Project Management, 37(7), 896–911. https://doi.org/10.1016/j.ijproman.2019.07.002

Marler, J. H., & Boudreau, J. W. (2017). An evidence-based review of HR analytics. The *International Journal of Human Resource Management, 28*(1), 3–26. https://doi.org/10.1080/09585192.2016.1244699

Minbaeva, D. B. (2018). Building credible human capital analytics for organizational competitive advantage. *Human Resource Management, 57*(3), 701–713. https://doi.org/10.1002/hrm.21848

Nesheim, T., & Schou, P. K. (2024). Where projects and non-projects coexist in the core: Challenges for frontline managers. *International Journal of Managing Projects in Business, 17*(4/5), 686–705. https://doi.org/10.1108/IJMPB-01-2024-0020

Ritala, P., Olander, H., Michailova, S., & Husted, K. (2015). Knowledge sharing, knowledge leaking and relative innovation performance: An empirical study. *Technovation*, 35, 22–31. https://doi.org/10.1016/j.technovation.2014.07.011

Samimi, E., & Sydow, J. (2021). Human resource management in project-based organizations: Revisiting the permanency assumption. *The International Journal of Human Resource Management, 32*(1), 49–83. https://doi.org/10.1080/09585192.2020.1783346

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review, 36*(2), 381–403. https://doi.org/10.5465/amr.2009.0223

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Turner, J. R., Huemann, M., & Keegan, A. (2008). Human resource management in the project-oriented organization: Employee well-being and ethical treatment. *International Journal of Project Management, 26*(5), 577–585. https://doi.org/10.1016/j.ijproman.2008.05.005

Van der Vegt, G. S., & Bunderson, J. S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal, 48*(3), 532–547. https://doi.org/10.5465/AMJ.2005.17407918