International Review of Management and Marketing

ISSN: 2146-4405

available at http: www.econjournals.com

International Review of Management and Marketing, 2026, 16(6), 455-469.

Orchestrating Sustainability: How Gender-Focused HRM and Tacit Knowledge Drive Sustainable Performance through Resource Orchestration Capability

Ikhah Malikhah*, Soulthan Saladin Batubara, Oktarini Khamilah Siregar

Faculty of Social Sciences, Universitas Pembangunan Panca Budi, North Sumatera, Indonesia.
*Email: ikhahmalikhah@dosen.pancabudi.ac.id

Received: 15 April 2026 **Accepted:** 30 July 2026 **DOI:** https://doi.org/10.32479/irmm.24383

ABSTRACT

Organisations with comparable sustainability commitments often produce markedly different outcomes. Resource possession and equitable policy adoption explain part of this variation, but not enough. Drawing on resource orchestration theory and the resource-based view (RBV), this study argues that resource orchestration capability (ROC) is the mechanism through which gender-focused human resource management (GFHRM) and tacit knowledge translate into sustainable performance. Data came from a cross-sectional survey of 210 professionals across Indonesia's food industry. All constructs were operationalised using a validated two-stage higher-order construct (HOC) approach in PLS-SEM; twelve first-order dimensions served as manifest indicators for four second-order constructs. Composite reliability (CR) exceeded 0.85 and average variance extracted (AVE) exceeded 0.65 for all constructs; HTMT ratios and the Fornell–Larcker criterion confirmed discriminant validity. GFHRM significantly predicted both ROC ($\beta = 0.318$, $P < 0.001$) and sustainable performance ($\beta = 0.276$, $P = 0.002$). Tacit knowledge had the strongest antecedent effect on ROC ($\beta = 0.393$, $P < 0.001$) and independently predicted sustainable performance ($\beta = 0.297$, $P = 0.001$). ROC in turn predicted sustainable performance ($\beta = 0.324$, $P = 0.001$) and partially mediated both upstream relationships: GFHRM (indirect $\beta = 0.103$, VAF = 27.17%) and tacit knowledge (indirect $\beta = 0.127$, VAF = 30.04%). PLSpredict confirmed out-of-sample predictive superiority over a linear benchmark across all twelve indicators. The findings establish ROC as a mediating mechanism, not a moderating condition, in the resource-to-performance pathway, and situate GFHRM within a capability-building framework rather than treating it as a standalone diversity intervention.

Keywords: Gender-Focused Human Resource Management, Tacit Knowledge, Resource Orchestration Capability, Sustainable Performance, Food Industry
JEL Classifications: J16, M12, M14, Q13

1. INTRODUCTION

Much sustainability research attributes performance outcomes to resource ownership (green technologies, certifications, CSR policies) or to normative commitment to sustainability agendas (Ahsan, 2024; Domfeh et al., 2025). The implicit assumption is that having the right resources naturally produces superior results. In practice, organisations with comparable commitments routinely produce divergent outcomes (Abid et al., 2024; Iyer et al., 2023). That discrepancy points to a theoretical problem, not just a measurement one. The field has accumulated inventories of "good" practices without adequately explaining the internal processes through which those practices generate, or fail to generate, performance.

Resource orchestration theory addresses this gap directly. Rather than treating resources as inert inputs, it distinguishes three active managerial processes: structuring (acquiring and configuring the resource portfolio), bundling (integrating resources into capabilities), and leveraging (deploying capabilities against

strategic opportunities and threats) (Chin et al., 2025; Iyer et al., 2023; Lee and Kim, 2021). Performance differences, on this view, stem less from what organisations hold than from how managers allocate, align, and adapt resources under environmental and stakeholder pressures (Wan et al., 2025).

The question is what supplies those processes. Two inputs are central to this study. GFHRM shapes information flows, talent access, and decision quality, yet the gender dimension of HRM has received limited attention as a mechanism in capability formation (Campos-García et al., 2023a; Kutaula et al., 2024a; Stahl et al., 2020). Tacit knowledge about internal processes and stakeholder dynamics is widely recognised as a sustainability competence (Dzhengiz and Niesten, 2020), but without attention to orchestration its performance pathway remains underspecified (Chowdhury et al., 2022; de Sena Silva et al., 2025; Iyer et al., 2023).

Indonesia's food industry provides the empirical context. Food security, carbon footprint, and regulatory pressure give the triple bottom line practical urgency here (Kumar et al., 2020; Wani et al., 2023), and the sector's reliance on tacit relational knowledge and informal HR practices provides a productive setting in which the proposed orchestration mechanisms can be meaningfully tested.

Two questions structure the inquiry: (1) How do GFHRM and tacit knowledge relate to sustainable performance? (2) How does ROC mediate these relationships?

2. LITERATURE REVIEW

2.1. Gender-Focused Human Resource Management

GFHRM refers to a systemic configuration of HR practices directed at advancing gender equality across the full employment cycle. Isolated diversity policies do not constitute GFHRM. When implemented as complementary bundles, such practices generate synergies that individual policies cannot (Baker et al., 2025). The concept of gender-equality management systems (GEMS) captures this logic, describing how gender-oriented practice bundles can permeate the entire staffing system and link corporate objectives to Sustainable Development Goal 5 (Campos-García et al., 2023b; Zaidi et al., 2025).

The rationale for this systemic design is grounded in social role and role congruity theories. Both show that gender stereotypes create incongruence between how "woman" is perceived and what leadership demands, generating unfavourable evaluations of female leaders and blocking career advancement (Jiang et al., 2024; Triana et al., 2023a, 2023b). Gender-aware HR systems intervene by modifying formal rules, career structures, and the climate governing resource distribution (Campos-García et al., 2023a).

GFHRM sends institutional signals that gender equality is central to strategy, particularly when women hold senior positions (García et al., 2025). Formalised procedures constrain the scope for stereotypes in assessment and pay decisions; cross-national data show that fairness perceptions depend on both management gender composition and national egalitarianism (Basuil et al., 2025a, 2025b). Inclusive climates, in turn, enable women to express themselves more authentically at work (Fletcher and Lysova, 2025a). Longitudinally, female senior leadership predicts broader GEMS adoption and improved social performance across employee, community, and human rights dimensions (Baker et al., 2025; García et al., 2025; Stahl et al., 2020).

2.2. Tacit Knowledge

Tacit knowledge is individually embedded, resistant to articulation, and difficult to replicate. These properties make it a strategically valuable resource within the knowledge-based view and RBV (Grant and Phene, 2021; Gubbins and Dooley, 2021a). Practical expertise, intuition, and contextual understanding are its distinguishing components, and they form the foundation for learning, innovation, and performance in ways that codified knowledge cannot (Gubbins and Dooley, 2021b; Ray et al., 2022).

Its strategic significance is amplified under dynamic conditions. Frontline workers carry undocumented operational insights that are essential for technology adaptation and process innovation (López-Cabarcos et al., 2020; Zirnig et al., 2025). As tacit knowledge circulates through social interaction, it accumulates into organisational memory and collective capability (Brennecke et al., 2024b). Under genuine uncertainty — public health crises or climate shocks — it is intuitive judgement and local knowledge, not formal procedures, that guide effective response (Meisch et al., 2021; Sanford et al., 2020a). In knowledge-intensive settings more broadly, tacit knowledge underpins coordination under ambiguity and, where a learning culture tolerates failure, stimulates intellectual capital growth (Brennecke et al., 2024a, 2024b; Kucharska, 2022a, 2022b).

A persistent measurement challenge is that the tacit–explicit distinction is usually assumed rather than operationalised, collapsing into proxies such as tenure (Gubbins and Dooley, 2021a; López-Cabarcos et al., 2020). Instruments that separately capture awareness, sharing, and integration are scarce (Kucharska, 2022a). The empirical base is concentrated in large, knowledge-intensive service firms; SMEs, food supply chains, and natural resource settings receive comparatively limited coverage (Meisch et al., 2021; Sanford et al., 2020a). In food and sustainability contexts specifically, local tacit knowledge enables practices calibrated to ecological and social realities — a resource that formal systems cannot easily substitute (Grant and Phene, 2021; Meisch et al., 2021; Ray et al., 2022; Sanford et al., 2020b). Translating that resource into collective capability and performance depends on the organisational processes through which it is accessed, integrated, and applied — processes that resource orchestration theory makes explicit.

2.3. Resource Orchestration Capability

Resource orchestration theory extends both the RBV and dynamic capabilities by insisting that competitive advantage depends on what managers do with resources, not merely on what they hold. The framework specifies three processes: Structuring (acquiring and reconfiguring the resource portfolio), bundling (integrating resources into mutually reinforcing capabilities), and leveraging (deploying capabilities into strategic action) (D'oria et al., 2021). Whereas the RBV emphasises resource attributes and dynamic capabilities

emphasise environmental sensing and reconfiguration, resource orchestration theory specifies the managerial actions through which resources are converted into value (Linde et al., 2021).

Meta-analytic evidence indicates that models testing direct resource-to-performance paths without orchestration as an intervening mechanism are systematically underspecified (D'oria et al., 2021). Resources such as digital assets, green intellectual capital, and employee knowledge only generate value when actively structured into portfolios and bundled into capabilities such as green innovation or supply chain resilience (Asiaei et al., 2022; Jiang et al., 2023b). Without orchestration, the resource base fragments rather than compounding into value (Li et al., 2023a).

The empirical record bears this out. Green intellectual capital influences environmental performance only when routed through management accounting systems (Asiaei et al., 2022). Supply chain disruptions, including pandemic-related losses, are mitigated by ROC (El Baz et al., 2023; Queiroz et al., 2022a, 2022b). Externally sourced knowledge and digital technologies improve green innovation primarily through orchestration as mediator (Wang et al., 2020; Zhou et al., 2024; Peretz-Andersson et al., 2024). Functional capabilities, similarly, yield value only through cross-functional integration (Duah et al., 2024).

Despite its promise, ROC research carries persistent methodological constraints: the three processes are frequently collapsed into a single composite score (Andersén, 2023), measurement relies on general perceptions rather than action-specific items (Li et al., 2023a, 2023b), and the evidence base is concentrated in large manufacturing firms. Evidence on how ROC mediates relationships between human-centred resources and sustainability outcomes, particularly in food sector contexts, is limited (D'oria et al., 2021; Xin et al., 2022).

2.4. Sustainable Performance in the Food Sector Context

Sustainable performance refers to simultaneous achievement across economic, environmental, and social dimensions — a composite organisational outcome, not a checklist of practices (Eikelenboom and de Jong, 2019; Elkington, 1998b). The RBV traces this outcome to the combination of scarce, valuable, and inimitable resources into competitive advantages that span all three dimensions (Annunziata et al., 2018). Dynamic capabilities add a temporal element: ongoing reconfiguration in response to regulatory shifts, changing consumer preferences, and environmental risk (Eikelenboom and de Jong, 2019; Dias et al., 2021). Indonesia's food sector sharpens all three pressures. Carbon footprint, food waste, and food safety demands are not rhetorical concerns in this context; they are enforced through market access requirements and regulatory oversight (Domfeh et al., 2025; Harun et al., 2023a, 2023b).

Agile capabilities amplify the effect of sustainable supply chain practices, enabling rapid response without sacrificing operational targets (Geyi et al., 2020). External information integration, partner collaboration, and continuous process adaptation are prerequisites for improvement across all three dimensions simultaneously (Bhadra et al., 2024). Sustainable HRM drives energy efficiency, waste reduction, and fair labour standards (Kutaula et al., 2024a, 2024b; Somuah et al., 2025 ; Cooke et al., 2022). Gender-sensitive practices broaden the knowledge base and strengthen sustainability-relevant innovation (Stahl et al., 2020). Tacit knowledge about processes and local context is difficult to imitate; it is activated through knowledge-sharing and collective learning (Dzhengiz and Niesten, 2020). ROC, by allocating and redirecting resources across life cycles and supply chains, mediates the relationship between technological capability and performance outcomes (Chin et al., 2025; Chowdhury and Quaddus, 2020).

3. THEORETICAL FRAMEWORK AND HYPOTHESES

Resources do not generate performance simply by being held. Resource orchestration theory holds that human resources must be actively structured, bundled, and leveraged before they become strategically valuable (Sirmon et al., 2011). Integrated HR practices create inimitable employee assets that reach performance through organisational mechanisms and capabilities (Collins and Smith, 2006; Jiang et al., 2012). GFHRM is particularly relevant here: By expanding the talent base, diversifying decision-making perspectives, and strengthening social ties, gender-focused practices produce a richer human capital portfolio on which orchestration can draw.

- H_1: Gender-focused human resource management is positively associated with resource orchestration capability.

Tacit knowledge, embedded in experience, social interaction, and everyday practice, confers competitive advantage precisely because it resists articulation and imitation (Kogut and Zander, 1992; Nonaka, 1994). Dynamic capabilities depend on accessing and leveraging implicit knowledge (Teece, 2007). A rich tacit knowledge base extends the managerial space for structuring, bundling, and leveraging: actors with deep experiential understanding can identify complementary resource combinations that formal knowledge systems miss (Helfat and Peteraf, 2015; Sirmon et al., 2011).

- H_2: Tacit knowledge is positively associated with resource orchestration capability.

GFHRM's effect need not pass through orchestration to reach performance. HR practices improve sustainability outcomes by strengthening commitment, pro-environmental behaviour, and adaptive capacity more directly (Rasool et al., 2019; Salas-Vallina et al., 2020). GFHRM contributes through inclusion, equal opportunity, and cross-gender recognition — conditions that reduce talent waste, strengthen working relationships, and foster a climate conducive to economic stability, social equity, and environmental responsibility (Collins and Smith, 2006).

- H_3: Gender-focused human resource management is positively associated with sustainable performance.

Tacit knowledge improves decision-making, cross-functional coordination, and sustained innovation (Abubakar et al., 2019).

Implicit understanding of local processes, stakeholder dynamics, and social-environmental conditions helps organisations design solutions that are contextually appropriate, reducing waste, improving safety, and building resilient supply chains (Dzhengiz and Niesten, 2020). Through each of these channels, organisations with deeper tacit knowledge bases are better positioned to advance all three sustainability dimensions simultaneously.

- H_4: Tacit knowledge is positively associated with sustainable performance.

The capacity to configure resources toward sustainability objectives is also expected to improve performance directly (Sirmon et al., 2011). Organisations more adept at combining and reconfiguring exploit opportunities and manage risks more effectively (Helfat and Peteraf, 2015). Applied to sustainability, that capacity translates into balancing short- and long-term trade-offs, directing green investments, and aligning internal incentives with social and environmental stakeholder expectations (Queiroz et al., 2022a; Teece, 2018).

- H_5: Resource orchestration capability is positively associated with sustainable performance.

GFHRM expands the human capital portfolio available for orchestration, as argued above. Without the capability to structure, bundle, and leverage that foundation, however, it fragments before reaching performance. Both orchestration theory and the dynamic capabilities view are explicit on this point: resource portfolios connect to organisational outcomes through active managerial processes, not through possession alone (Helfat and Peteraf, 2015; Sirmon et al., 2011; Teece, 2007). The GFHRM–performance path is therefore expected to run partly through ROC.

- H_6: Resource orchestration capability mediates the relationship between gender-focused human resource management and sustainable performance.

A parallel argument applies to tacit knowledge. Individual and small-group insights do not automatically become collective capability; they require organisational processes that articulate, integrate, and embed them in routines (Abubakar et al., 2019). ROC is the mechanism that determines whether tacit knowledge is consistently activated toward sustainability objectives, or whether it remains dispersed and underutilised (Queiroz et al., 2022a; Teece, 2018).

- H_7: Resource orchestration capability mediates the relationship between tacit knowledge and sustainable performance.

4. RESEARCH METHODS

4.1. Research Design and Analytical Approach

The study uses a quantitative cross-sectional survey to test causal relationships among GFHRM, tacit knowledge, ROC, and sustainable performance. PLS-SEM was the analytical choice: it handles multiple latent constructs and mediating relationships well, pursues both theoretical explanation and prediction, and imposes relatively undemanding distributional requirements (Guenther et al., 2023; Hair et al., 2019).

4.2. Sampling

The unit of analysis is the individual professional acting as a decision-maker in resource and knowledge management. Purposive sampling was used, which is appropriate when respondents need to meet specific experiential criteria and probability sampling is not feasible (Russo and Stol, 2021). Recruitment ran through professional networks, practitioner communities, and industry associations. Eligibility required active involvement in resource or knowledge management within a professional or business setting.

4.3. Measurement

Items for all constructs were adopted or adapted from established literature (see Appendix A). GFHRM was measured across equitable access, career opportunity, and inclusive climate (Collins and Smith, 2006; Nishii, 2013). Tacit knowledge items captured experiential use, intuitive reasoning, and knowledge integration, drawing on combinative capabilities theory and knowledge creation theory (Kogut and Zander, 1992; Nonaka, 1994). ROC items addressed structuring, bundling, and leveraging (Helfat and Peteraf, 2015; Sirmon et al., 2011). Sustainable performance adapted the triple bottom line to the individual level, covering economic, social, and environmental contributions (Elkington, 1998a; Jiang and Bansal, 2003). All scales were translated and terminologically adjusted for the Indonesian food industry context while preserving original conceptual meaning (Cheah et al., 2018).

4.4. Data Collection and Ethics

Before completing the questionnaire, respondents received written information about the study's objectives and data use. Participation was voluntary; informed consent confirmed the right to withdraw at any point. No personally traceable identifiers were collected. Neutral language and aggregated data storage reduced social desirability pressures.

4.5. Common Method Variance

Ex-ante controls included separating predictor constructs (GFHRM and tacit knowledge), the mediator (ROC), and the outcome (sustainable performance) into distinct questionnaire sections, with instructions emphasising that no answer is correct or incorrect, and explicit assurances of anonymity (Podsakoff et al., 2003). Ex-post, full collinearity VIF values were computed for all constructs (Hair et al., 2019; Kock, 2015) and a theoretically unrelated marker variable served as a latent method control (Williams and McGonagle, 2016).

4.6. Analysis Procedure

The measurement model was evaluated on internal reliability (Cronbach's α, CR), convergent validity (AVE), and discriminant validity via the Fornell–Larcker criterion and HTMT ratio (Cheah et al., 2018; Henseler et al., 2015). The structural model was assessed through path coefficients, bootstrapped significance (5,000 resamples), R^2, effect sizes (f^2; Cohen, 1988), and Q^2 via blindfolding (Ciavolino et al., 2024; Hair et al., 2019). Indirect effects were bootstrapped for mediation analysis; VAF determined full versus partial classification (Preacher and Hayes, 2008). Alternative model specifications were tested as a robustness check (Guenther et al., 2023; Russo and Stol, 2021).

Table 1: Respondent characteristics (n=210)

Characteristic	Category	n	%
Gender	Male	116	55.2
	Female	94	44.8
Age	<25 years	8	3.8
	25-30 years	47	22.4
	31-40 years	89	42.4
	41-50 years	51	24.3
	>50 years	15	7.1
Education	Senior High School	12	5.7
	Diploma (D3)	28	13.3
	Bachelor's (S1)	121	57.6
	Master's (S2)	45	21.4
	Doctorate (S3)	4	1.9
Work experience	<2 years	14	6.7
	2-5 years	52	24.8
	6-10 years	71	33.8
	11-20 years	55	26.2
	>20 years	18	8.6
Position	Staff/Employee	48	22.9
	Supervisor/Coordinator	61	29.0
	Manager/Head of Division	57	27.1
	Director/Executive	23	11.0
	Entrepreneur/Business Owner	21	10.0
Industry sector	Food processing	87	41.4
	Distribution and supply chain	42	20.0
	Food retail	35	16.7
	Agriculture and agribusiness	28	13.3
	Food-related services	18	8.6

Respondents recruited via purposive sampling from professional networks and practitioner communities across Indonesia's food sector.

5. RESULTS

5.1 Respondent Characteristics

Table 1 summarises the profile of the 210 respondents, recruited from professional networks and sector associations across Indonesia's food industry. The sample skewed male (55.2%) and mid-career: 42.4% were aged 31-40, and 60.0% had between 6 and 20 years of experience. Bachelor's degree holders made up 57.6%. Supervisors and coordinators (29.0%) were the largest position group, followed closely by managers and division heads (27.1%). Food processing accounted for the largest sector share (41.4%), with distribution and retail each contributing around one-fifth.

5.2. Common Method Bias Assessment

All four full collinearity VIF values fell between 1.324 and 1.538, well below the 3.3 threshold, ruling out common method bias (Kock, 2015). Harman's single-factor test extracted a first factor accounting for 37.49% of total variance, below the 50% threshold that would indicate systematic common method variance (Podsakoff et al., 2003). Table 2 reports the complete results.

5.3. Measurement Model

A two-stage HOC approach was used. In Stage 1, all twelve first-order dimensions produced outer loadings above 0.70, with Cronbach's α, CR, and AVE each exceeding their minimum thresholds, confirming internal consistency and convergent validity at the dimension level (Hair et al., 2019; Table 3, Stage 1 rows). Latent variable scores from Stage 1 then served as manifest indicators for the four second-order constructs in Stage 2. Outer loadings ranged from 0.798 to 0.893; all constructs again satisfied CR > 0.70 and AVE > 0.50 (Table 3, Stage 2 rows).

Table 2: Common method bias and common method variance assessment

Test	Measure	Value	Threshold	Result
Full collinearity VIF	GFHRM	1.324	<3.3	No CMB
	Tacit knowledge	1.406		
	Resource Orch. Capability	1.538		
	Sustainable performance	1.324		
Harman's single factor	First factor variance	37.49%	<50%	No CMV

CMB assessed via full collinearity VIF (Kock, 2015); CMV via Harman's single-factor test (Podsakoff et al., 2003)

5.4. Discriminant Validity

With reliability and convergent validity established, discriminant validity was examined next. At the first-order level, every HTMT value fell below 0.85. The one exception was the within-construct pair comprising TK–Intuitive Understanding and TK–Experiential Knowledge, which reached 0.853 (Table 4, upper section; Henseler et al., 2015). This is expected given the two dimensions share a common higher-order factor. At the second-order level, inter-construct values ranged from 0.463 to 0.765, comfortably below the threshold (Table 4, lower section). The Fornell–Larcker criterion added a complementary check: for every construct, the square root of AVE on the diagonal exceeded all off-diagonal correlations (Table 5; Fornell and Larcker, 1981). Taken together, both criteria support the empirical distinctiveness of all four constructs.

5.5. Structural Model Results

Every hypothesised direct path reached significance (Table 6). GFHRM predicted ROC ($\beta = 0.318$, $t = 3.715$, $P < 0.001$; H_1) and sustainable performance ($\beta = 0.276$, $t = 3.107$, $P = 0.002$; H_3). Tacit knowledge had the strongest antecedent effect on ROC ($\beta = 0.393$, $t = 4.420$, $P < 0.001$; H_2) and independently predicted sustainable performance ($\beta = 0.297$, $t = 3.312$, $P = 0.001$; H_4). ROC, in turn, significantly predicted sustainable performance ($\beta = 0.324$, $t = 3.264$, $P = 0.001$; H_5). Effect sizes were largely small ($f^2 = 0.119$-0.141), with the TK-to-ROC path as the only exception at medium ($f^2 = 0.203$).

5.6 Predictive Assessment

Beyond significance, the model's explanatory and predictive power warrants attention. ROC's R^2 was 0.350 (adj. 0.344): GFHRM and tacit knowledge together explained 35.0% of variance in orchestration capability. The model explained considerably more for sustainable performance, with $R^2 = 0.515$ (adj. 0.507), a substantial level by PLS-SEM standards (Hair et al., 2019). Q^2 values of 0.255 and 0.338 confirmed predictive relevance for both endogenous constructs. Model fit was acceptable: SRMR = 0.062 and NFI = 0.814 (Table 7).

5.7 Mediation Analysis

Both indirect effects were significant, with 95% bias-corrected confidence intervals that excluded zero (Table 8). For the

Table 3: Measurement model assessment (two-stage higher-order construct approach)

Stage	Construct/Dimension	Item	λ	α	CR	AVE
Stage 1	First-order constructs					
	GFHRM/access equity	GFHRM1.1	0.902	0.764	0.894	0.809
		GFHRM1.2	0.897			
	GFHRM/procedural fairness	GFHRM2.1	0.908	0.794	0.907	0.829
		GFHRM2.2	0.913			
	GFHRM/Inclusive climate	GFHRM3.1	0.881	0.742	0.885	0.794
		GFHRM3.2	0.902			
	TK/Experiential knowledge	TK1.1	0.914	0.808	0.912	0.839
		TK1.2	0.918			
	TK/Intuitive understanding	TK2.1	0.908	0.788	0.904	0.825
		TK2.2	0.908			
	TK/Knowledge integration	TK3.1	0.910	0.797	0.908	0.831
		TK3.2	0.914			
	ROC/Structuring	ROC1.1	0.900	0.765	0.895	0.810
		ROC1.2	0.900			
	ROC/Bundling	ROC2.1	0.908	0.781	0.901	0.820
		ROC2.2	0.904			
	ROC/leveraging	ROC3.1	0.922	0.830	0.922	0.855
		ROC3.2	0.927			
	SP/Econ. Sustainability	SP1.1	0.912	0.779	0.900	0.819
		SP1.2	0.898			
	SP/Social contribution	SP2.1	0.901	0.763	0.894	0.808
		SP2.2	0.897			
	SP/Environ responsibility	SP3.1	0.907	0.780	0.901	0.819
		SP3.2	0.903			
Stage 2	Second-order constructs					
	Gender-focused HRM	Access equity	0.837	0.784	0.874	0.698
		Procedural Fairness	0.826			
		Inclusive climate	0.845			
	Tacit knowledge	Experiential knowledge	0.874	0.851	0.909	0.770
		Intuitive understanding	0.893			
		Knowledge integration	0.866			
	Resource orch. capability	Structuring	0.858	0.827	0.897	0.743
		Bundling	0.867			
		Leveraging	0.861			
	Sustainable performance	Econ. sustainability	0.834	0.750	0.857	0.666
		Social contribution	0.817			
		Environ. responsibility	0.798			

Stage 1: λ=item loading onto first-order dimension; Stage 2: λ=first-order dimension loading onto second-order construct. All λ>0.70, α>0.70, CR>0.70, AVE>0.50 at both stages.
TK: Tacit knowledge, ROC: Resource orchestration capability, SP: Sustainable performance

Table 4: Discriminant validity–HTMT matrix (two-stage higher-order construct approach)

Stage 1: First-Order Constructs (12 dimensions)											
Dimension	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1. GFHRM–Access Equity	—										
2. GFHRM–Procedural Fairness	0.643	—									
3. GFHRM–Inclusive Climate	0.758	0.746	—								
4. ROC–Bundling	0.452	0.439	0.475	—							
5. ROC–Leveraging	0.450	0.404	0.395	0.761	—						
6. ROC–Structuring	0.446	0.403	0.411	0.773	0.797	—					
7. SP–Econ. Sustainability	0.510	0.497	0.495	0.594	0.516	0.601	—				
8. SP–Environ. Responsibility	0.491	0.439	0.408	0.618	0.519	0.516	0.626	—			
9. SP–Social Contribution	0.530	0.485	0.437	0.588	0.450	0.479	0.692	0.618	—		
10. TK–Experiential Kn.	0.299	0.354	0.280	0.459	0.421	0.447	0.455	0.488	0.439	—	
11. TK–Intuitive Und.	0.358	0.419	0.373	0.565	0.476	0.511	0.606	0.561	0.617	0.853*	—
12. TK–Kn. Integration	0.345	0.385	0.379	0.541	0.440	0.516	0.515	0.440	0.511	0.811	0.803

Stage 2: Second-Order Constructs (4 constructs)				
Construct	**1**	**2**	**3**	**4**
1. Gender-focused HRM	—			
2. Tacit knowledge	0.463	—		
3. Resource Orch. capability	0.578	0.607	—	
4. Sustainable performance	0.702	0.705	0.765	—

All cross-construct HTMT values<0.85 at both stages (Henseler et al., 2015). Stage 1 threshold applied to 12 first-order dimensions; Stage 2 threshold applied to 4 second-order constructs. *Within-construct TK pair; elevated value expected given shared higher-order factor

GFHRM–sustainable-performance path, the indirect effect through ROC was β = 0.103 (t = 2.063, p = 0.039, BC CI [0.027, 0.221]; VAF = 27.17%). For tacit knowledge, the indirect effect was slightly larger: β = 0.127 (t = 2.418, p = 0.016, BC CI [0.041, 0.248]; VAF = 30.04%). Both VAF values sit within the 20-80% range, indicating partial mediation in each case (Hair et al., 2019). Direct effects from GFHRM and tacit knowledge to sustainable performance remained significant, confirming that ROC transmits part, but not all, of each upstream influence.

5.8. Out-of-Sample Predictive Accuracy

In-sample fit and predictive relevance (Q^2) are necessary but not sufficient; out-of-sample accuracy provides a more demanding test. PLSpredict with 10-fold cross-validation confirmed out-of-sample predictive superiority across all twelve indicators (Table 9; Shmueli et al., 2019). All Q^2_predict values were positive; RMSE_PLS fell below the linear regression benchmark for every indicator. Sustainable performance indicators showed stronger predictive accuracy (Q^2_predict: 0.205-0.271) than ROC indicators (Q^2_predict: 0.113-0.214), a pattern consistent with the model's higher in-sample R^2 for sustainable performance.

Table 5: Discriminant validity – Fornell–Larcker criterion (second-order constructs)

Construct	1	2	3	4
1. Gender-focused HRM	**0.836**			
2. Tacit knowledge	0.380	**0.877**		
3. Resource Orch. capability	0.467	0.513	**0.862**	
4. Sustainable performance	0.541	0.568	0.606	**0.816**

Diagonal (bold) = √AVE. Each diagonal value exceeds all off-diagonal values in its row and column

Table 6: Structural model results

Path	β	t	P-value	f^2	Decision
H_1: GFHRM→ROC	0.318	3.715	<0.001	0.133	Supported
H_2: TK→ROC	0.393	4.420	<0.001	0.203	Supported
H_3: GFHRM→SP	0.276	3.107	0.002	0.119	Supported
H_4: TK→SP	0.297	3.312	0.001	0.129	Supported
H_5: ROC→SP	0.324	3.264	0.001	0.141	Supported

β: Standardised path coefficient, t: Bootstrap t-statistic (5,000 subsamples); f^2: Cohen's effect size: Small (0.02-0.14), medium (0.15-0.34)

Table 7: Predictive assessment and model fit

Endogenous construct	R^2 (adj. R^2)	Q^2	Assessment
Resource Orch. capability	0.350 (0.344)	0.255	Moderate
Sustainable performance	0.515 (0.507)	0.338	Moderate
Index	**Value**	**Threshold**	**Assessment**
SRMR	0.062	< 0.08	Acceptable fit
NFI	0.814	≥ 0.80	Acceptable fit

Q^2>0 confirms predictive relevance (Hair et al., 2019). SRMR and NFI thresholds per Henseler et al. (2015)

6. DISCUSSION

Five significant direct paths and two confirmed partial mediations: the results converge on a consistent finding. Sustainable performance in Indonesia's food sector depends on the combination of gender-equitable HRM, tacit knowledge, and the capacity to orchestrate them. None of the three inputs operates in isolation.

6.1. GFHRM and Resource Orchestration Capability

GFHRM predicted ROC at β = 0.318 (P < 0.001). In settings with greater access equity, procedural fairness, and inclusive climate, respondents also reported stronger capacity to structure, bundle, and leverage resources. Baker et al. (2025) showed longitudinally that gender equity systems accumulate capability-enabling HR practices; the present finding advances that work by linking GFHRM directly to the orchestration process — a relationship previously theorised but not empirically demonstrated. The effect size (f^2 = 0.133) is small, positioning GFHRM as one contributor among several rather than the dominant driver of ROC. That the effect was detectable at all with a multidimensional construct responds to Bader et al.'s (2025) critique that single-item proxies lack the resolution to detect system-level gender equity effects.

6.2. Tacit Knowledge and Resource Orchestration Capability

Tacit knowledge was the strongest antecedent of ROC (β = 0.393, f^2 = 0.203), and the only path to cross into medium effect territory. Experiential and intuitive knowledge matters more for orchestration capability than gender-equitable HR conditions do, at least in this sample. Li et al. (2023a) and Zirnig et al. (2025) identified experiential knowledge as a primary lever of dynamic capability in service and manufacturing settings; the present result replicates that pattern in a food sector context where formal knowledge management is typically underdeveloped. Supplier heterogeneity, seasonal variability, and shifting regulatory requirements create conditions in which informal know-how is inherently more actionable than codified procedure — a reality that the coefficient magnitude plausibly reflects.

6.3. GFHRM and Sustainable Performance

GFHRM's direct effect on sustainable performance (β = 0.276, P = 0.002) survived the introduction of ROC as mediator. Gender-equitable HR practices generate performance benefits through channels operating independently of formal orchestration: pro-sustainability employee behaviour, reduced talent attrition, and enhanced stakeholder legitimacy. García et al. (2025) and Stahl et al. (2020) linked gender-oriented HR systems to social performance through workforce commitment and reputation; the present finding replicates that pathway. Doing so in an Indonesian food sector sample, rather than the Western European or North

Table 8: Mediation analysis - resource orchestration capability as mediator

Path	Indirect β [t; p; 95% BC CI]	Direct β	Total β	VAF (%)	Type
GFHRM→ROC→SP	0.103 [2.063; 0.039; 0.027-0.221]	0.276	0.379	27.17	Partial
TK→ROC→SP	0.127 [2.418; 0.016; 0.041-0.248]	0.297	0.424	30.04	Partial

Indirect effects via bootstrapping (5,000 subsamples). BC CI=bias-corrected confidence interval. VAF 20-80% = partial mediation (Hair et al., 2019)

Table 9: PLSpredict results-out-of-sample predictive accuracy (10-fold cross-validation)

Construct	Indicator	Q^2_predict	RMSE (PLS)	MAE (PLS)	RMSE (LM)	MAE (LM)	Assessment
Resource Orch. capability	ROC1.1	0.113	1.063	0.809	1.074	0.830	PLS>LM
	ROC1.2	0.185	0.977	0.733	1.007	0.754	PLS>LM
	ROC2.1	0.214	0.971	0.747	1.001	0.779	PLS>LM
	ROC2.2	0.192	0.988	0.802	1.006	0.818	PLS>LM
	ROC3.1	0.131	1.056	0.792	1.088	0.820	PLS>LM
	ROC3.2	0.163	1.056	0.780	1.094	0.812	PLS>LM
Sustainable performance	SP1.1	0.270	0.976	0.709	0.997	0.730	PLS>LM
	SP1.2	0.259	0.951	0.692	1.001	0.738	PLS>LM
	SP2.1	0.229	0.991	0.760	0.996	0.758	PLS>LM
	SP2.2	0.205	0.984	0.742	0.996	0.761	PLS>LM
	SP3.1	0.271	0.972	0.733	0.988	0.742	PLS>LM
	SP3.2	0.210	1.025	0.757	1.058	0.795	PLS>LM

Q^2_predict=1 − SSE/SSO (Shmueli et al., 2019). All Q^2_predict >0 and RMSE_PLS <RMSE_LM across all 12 indicators

American contexts that dominate this literature, extends its geographic scope.

6.4. Tacit Knowledge and Sustainable Performance

A parallel pattern holds for tacit knowledge. Its direct effect on sustainable performance (β = 0.297, P = 0.001) likewise survived mediation. Experiential and intuitive knowledge shape everyday routines and contextual judgements that improve economic, social, and environmental outcomes through channels that do not require formal resource management. This extends Dzhengiz and Niesten (2020) by using a multidimensional scale rather than absorptive capacity proxies, and resolves the measurement ambiguity flagged by Gubbins and Dooley (2021a) by showing that disaggregating tacit knowledge into experiential knowledge, intuitive understanding, and knowledge integration produces a detectable direct effect.

6.5. Resource Orchestration Capability and Sustainable Performance

ROC's direct effect on sustainable performance (β = 0.324, P = 0.001) was the largest of the three direct antecedents, exceeding tacit knowledge (β = 0.297) and GFHRM (β = 0.276). This ordering carries theoretical weight: it supports resource orchestration theory's core claim that what organisations do with resources outweighs what they hold, even when those resources include high-quality tacit knowledge and gender-equitable HR systems. Asiaei et al. (2022) and Eikelenboom and de Jong (2019) established ROC's direct performance effect in intellectual capital and SME contexts respectively; the present result extends that to the food sector and uses a multidimensional ROC operationalisation that addresses the single-construct measurement problems Andersén (2023) and Li et al. (2023a) identified.

6.6. Mediating Role of Resource Orchestration Capability

The preceding sections confirm that all three direct antecedents matter. What the mediation analysis adds is an account of how much of each upstream effect runs through orchestration. ROC accounted for 27.17% of the GFHRM effect on sustainable performance and 30.04% of the tacit knowledge effect, indicating partial mediation in both cases. The marginally higher VAF for tacit knowledge suggests orchestration captures a slightly larger share of that pathway than of GFHRM's.

That mediation was partial rather than full is the theoretically important result. Full mediation would imply GFHRM and tacit knowledge matter only insofar as they feed formal orchestration processes. The data contradict this: both constructs retain significant direct effects, meaning they generate performance benefits through motivation, informal commitment, and everyday practice. These channels operate regardless of orchestration strength, accounting for approximately 70-73% of the upstream effects on performance - a share that orchestrated resource management cannot explain. This challenges the implicit assumption that orchestration is the sole translation mechanism between resources and outcomes (D'oria et al., 2021; Sirmon et al., 2011).

The partial pattern makes particular sense in Indonesia's food sector. Supply chain relationships here are often governed by informal norms; smallholder-processor ties rest on trust rather than contract. In such a context, attitudinal and social mechanisms account for a substantial share of performance effects. Formal orchestration matters, but so do the relational and informal channels that formal systems cannot replace.

6.7. Theoretical Contributions

The results carry several implications for theory. First, ROC is confirmed as a partial mediating mechanism, not a moderator, in the resource-to-performance pathway, tested simultaneously for GFHRM and tacit knowledge within a single sustainability model. D'oria et al.'s (2021) meta-analytic review established this logic for general resources; this study applies it to two underexplored antecedents in a food sector context. Second, GFHRM is established as an empirically tractable antecedent of ROC. This brings sustainable HRM research inside the resource orchestration framework rather than treating gender equity as a separate normative agenda. Third, the study advances the KBV by empirically separating tacit knowledge's direct contribution to sustainable performance from its orchestration-mediated contribution. The distinction has been theorised (Gubbins and Dooley, 2021a; Teece, 2018) but empirical separation of the two pathways in field settings remains limited.

6.8. Practical Implications

For food sector leaders and HR practitioners, the results carry a clear message: gender-focused HR systems are not compliance instruments. They are strategic investments in the human resource

base that feeds orchestration capability. Access equity, procedural fairness, and inclusive climate each contributed to a measurable ROC effect (β = 0.318) and to sustainable performance directly (β = 0.276). Designing these as integrated system properties, not isolated policy interventions, is what the measurement evidence supports.

Tacit knowledge warrants the same strategic attention. Its medium effect on ROC ($f^2 = 0.203$) is notably strong for a model of this type. Experience-sharing, mentoring, communities of practice, and apprenticeship programmes are not soft benefits. They are associated with tangible gains in orchestration capacity. Since both the direct and mediated pathways are significant, cutting either GFHRM investment or tacit knowledge development leaves part of the performance potential unrealised. ROC itself had the largest direct effect on sustainable performance (β = 0.324). Investing in orchestration as a distinct organisational capability — through management development, adaptive planning, and systems supporting dynamic resource reconfiguration - therefore yields returns independent of what the upstream inputs provide.

6.9. Limitations and Future Research

Three limitations bound the findings. The cross-sectional design precludes causal inference: the model is theoretically sequenced, but the data cannot verify that temporal ordering. Longitudinal or panel designs would test whether GFHRM and tacit knowledge investments accumulate into ROC over time before translating into performance. The sample covers one sector in one national context, recruited through professional networks; boundary conditions across sectors, firm sizes, and institutional environments remain untested. All measures are self-reported; dyadic data, observer assessments, or objective indicators would reduce single-source dependency.

The model's explanatory scope is also bounded. Unexplained variance in ROC ($R^2 = 0.350$) points to additional antecedents not captured here; social capital, relational capabilities, and green dynamic capabilities are the most theoretically plausible candidates. The strength of mediated pathways probably varies with industry dynamism, regulatory stringency, and firm size; none of these were modelled. Perhaps the most consequential open question is temporal: how quickly do GFHRM or tacit knowledge investments manifest in orchestration capability, and how long before that capability yields performance gains? Longitudinal process-tracing designs would be needed to answer it.

7. CONCLUSION

This study examined how GFHRM and tacit knowledge contribute to sustainable performance and the extent to which ROC mediates those relationships. On a sample of 210 professionals from Indonesia's food industry, all five direct paths were supported and ROC confirmed as a significant partial mediator of both upstream relationships. The theoretical claim that orchestration is the mechanism through which GFHRM and tacit knowledge reach performance was supported. Equally important is the qualification: orchestration accounts for only 27-30% of each upstream effect. The remainder flows through direct pathways involving motivation, informal practice, and relational trust.

The implication for practice is direct. Sustainable performance is not a passive result of accumulating the right resources or adopting equitable policies. It depends on structuring those resources into coherent portfolios, bundling them into capabilities, and deploying those capabilities toward economic, social, and environmental ends. GFHRM, tacit knowledge, and orchestration capacity each contribute; none substitutes for the others. Resource orchestration, in this account, is not organisational scaffolding. It is a foreground strategic competence that deserves investment in its own right.

8. ACKNOWLEDGMENTS

This research was funded by the Ministry of Higher Education, Science, and Technology of the Republic of Indonesia through the Research and Community Service programme (Master Contract No. 4/SPK/LL1/AL.04.03/PL/2025; Derivative Contract No. 265/08/F/17/2025). The authors declare no conflict of interest. The funders played no role in study design, data collection, analysis, interpretation, or the publication decision.

REFERENCES

Abid, N., Ceci, F., Aftab, J. (2024), Attaining sustainable business performance under resource constraints: Insights from an emerging economy. Sustainable Development, 32(3), 2031-2048.

Abubakar, A.M., Elrehail, H., Alatailat, M.A., Elçi, A. (2019), Knowledge management, decision-making style and organizational performance. Journal of Innovation and Knowledge, 4(2), 104-114.

Ahsan, M.J. (2024), Unlocking sustainable success: Exploring the impact of transformational leadership, organizational culture, and CSR performance on financial performance in the Italian manufacturing sector. Social Responsibility Journal, 20(4), 783-803.

Andersén, J. (2023), Green resource orchestration: A critical appraisal of the use of resource orchestration in environmental management research, and a research agenda for future study. Business Strategy and the Environment, 32(8), 5506-5520.

Annunziata, E., Pucci, T., Frey, M., Zanni, L. (2018), The role of organizational capabilities in attaining corporate sustainability practices and economic performance: Evidence from the Italian wine industry. Journal of Cleaner Production, 171, 1300-1311.

Asiaei, K., Bontis, N., Alizadeh, R., Yaghoubi, M. (2022), Green intellectual capital and environmental management accounting: Natural resource orchestration in favor of environmental performance. Business Strategy and the Environment, 31(1), 76-93.

Bader, A.K., Knappert, L., Lazarova, M., Ng, E. (2025), Managing gender equity and equality across borders: A review and introduction to the special issue. Human Resource Management Journal, 35(4), 1064-1077.

Baker, M., Ali, M., Grabarski, M.K., Konrad, A. (2025), Influence of women in leadership on gender-equality, work-life, and domestic violence coping practices: The role of chief executive officer gender. Human Resource Management Journal, 35(4), 1032-1046.

Basuil, D.A., Agarwal, A., Manegold, J.G., Casper, W.J. (2025a), Gender differences in perception of gender inequity in human resource management practices. Human Resource Management Journal, 35, 687-698.

Basuil, D.A., Manegold, J.G., Casper, W.J. (2025b), National context and gender pay gap perceptions: A multi-level examination. Human Resource Management, 64(1), 93-112.

Bhadra, K.V., Kamalanabhan, T., Singh, S.K. (2024), Evolution of dynamic capabilities for business sustainability performance:

Evidence from the Indian manufacturing sector. Business Strategy and the Environment, 33(1), 381-399.
Brennecke, J., Coutinho, J.A., Gilding, M., Lusher, D., Schaffer, G. (2024a), Invisible iterations: How formal and informal organization shape knowledge networks for coordination. Journal of Management Studies, 61(4), 1196-1226.
Brennecke, J., Khanagha, S., Oborn, E. (2024b), Microfoundations of coordination: How knowledge networks emerge and enable organizational capabilities. Strategic Management Journal, 45(4), 712-741.
Campos-García, I., Alonso-Muñoz, S., González-Sánchez, R., Medina-Salgado, M. (2023b), Human resource management and sustainability: Bridging the 2030 Agenda. Corporate Social Responsibility and Environmental Management, 30(6), 2754-2773.
Campos-García, I., Zúñiga-Vicente, J.Á., De la Fuente-Cabrero, C. (2023a), Gender equality management systems and firm performance: A resource-based view. Journal of Business Research, 154, 113316.
Cheah, J.H., Sarstedt, M., Ringle, C.M., Ramayah, T., Ting, H. (2018), Convergent validity assessment of formatively measured constructs in PLS-SEM. International Journal of Contemporary Hospitality Management, 30(11), 3192-3210.
Chin, T.L., Amy, Y.C., Ling, C.P. (2025), Growing success with sustainable business practices among small and medium enterprises (SMEs): A resource orchestration theory perspective. Sustainable Development, 33(1), 112-128.
Chowdhury, M.M.H., Quaddus, M.A. (2020), Supply chain sustainability practices and governance for mitigating sustainability risk and improving market performance: A dynamic capability perspective. Journal of Cleaner Production, 279, 123521.
Chowdhury, S., Dey, P.K., Rodríguez-Espíndola, O., Parkes, G., Tuyet, N.T.A., Long, D.D., Ha, T. (2022), Impact of organisational factors on the circular economy practices and sustainable performance of small and medium-sized enterprises in Vietnam. Journal of Business Research, 143, 318-336.
Ciavolino, E., Angelelli, M., Sternativo, G.A., De Carlo, E., Catalano, A., Ingusci, E. (2024), A higher-order job crafting mediation model with PLS-SEM: Relationship between organizational identification and communication satisfaction. Soft Computing, 28, 13781-13796.
Cohen, J. (1988), Statistical Power Analysis for the Behavioral Sciences. 2nd ed. New Jersey: Lawrence Erlbaum.
Collins, C.J., Smith, K.G. (2006), Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. Academy of Management Journal, 49(3), 544-560.
Cooke, F.L., Dickmann, M., Parry, E. (2022), Building sustainable societies through human-centred human resource management: Emerging issues and research opportunities. The International Journal of Human Resource Management, 33(1), 1-20.
D'oria, L., Crook, T.R., Ketchen, D.J., Sirmon, D.G., Wright, M. (2021), The evolution of resource-based inquiry: A review and meta-analytic integration of the strategic resources-actions-performance pathway. Journal of Management, 47(6), 1383-1429.
De Sena Silva, N., Gomes, S.C., Arruda Filho, E.J.M., Galina, S.V.R. (2025), Sustainability orientation, environmental knowledge integration, and strength of ties: Governance and sustainable performance in regulated agribusiness. Corporate Social Responsibility and Environmental Management, 32(4), 1350-1367.
Dias, C.S.L., Rodrigues, R.G., Ferreira, J.J. (2021), Small agricultural businesses' performance: What is the role of dynamic capabilities, entrepreneurial orientation, and environmental sustainability commitment? Business Strategy and the Environment, 30(7), 3071-3087.
Domfeh, S.A., Govindan, K., Xu, S. (2025), Drivers and outcomes of sustainable manufacturing practices: A technological, organisational, and environmental-natural resource-based view perspective. Supply Chain Management an International Journal, 30(2), 254-272.
Duah, F.A., Bamfo, B.A., Marfo, J.S. (2024), Marketing capability and firm performance: The mediating role of resource orchestration capability. Cogent Social Sciences, 10(1), 2332329.
Dzhengiz, T., Niesten, E. (2020), Competences for environmental sustainability: A systematic review on the impact of absorptive capacity and capabilities. Journal of Business Ethics, 162(4), 881-906.
Eikelenboom, M., De Jong, G. (2019), The impact of dynamic capabilities on the sustainability performance of SMEs. Journal of Cleaner Production, 235, 1360-1370.
El Baz, J., Ruel, S., Fozouni Ardekani, Z. (2023), Predicting the effects of supply chain resilience and robustness on COVID-19 impacts and performance: Empirical investigation through resources orchestration perspective. Journal of Business Research, 159, 113745.
Elkington, J. (1998a), Cannibals with Forks: The Triple Bottom Line of 21st Century Business. Canada: New Society Publishers.
Elkington, J. (1998b), Partnerships from cannibals with forks: The triple bottom line of 21st-century business. Environmental Quality Management, 8(1), 37-51.
Fletcher, L., Lysova, E.I. (2025a), Addressing gender in authenticity and inclusion at work: Nuancing conservation of resources theory with social role theory. Human Resource Management, 65, 219-234.
Fletcher, L., Lysova, E.I. (2025b), Exploring the relationship between inclusion climate and women's workplace authenticity: The role of structural empowerment. Human Resource Management, 64(1), 75-91.
Fornell, C., Larcker, D.F. (1981), Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39-50.
García, M.F., Liu, H.F., Triana, M., Treviño, L.J. (2025), Support for sustainable development goal 5 and social performance: The role of diversity targets, work-life balance practices, and female representation. Human Resource Management, 64, 1457-1479.
Geyi, D.G., Yusuf, Y., Menhat, M., Abubakar, T., Ogbuke, N. (2020), Agile capabilities as necessary conditions for maximising sustainable supply chain performance: An empirical investigation. International Journal of Production Economics, 222, 107501.
Grant, R.M., Phene, A. (2021), The knowledge based view and global strategy: Past impact and future potential. Global Strategy Journal, 11(1), 99-126.
Gubbins, C., Dooley, L. (2021a), Delineating the tacit knowledge-seeking phase of knowledge sharing: The influence of relational social capital components. Human Resource Development Quarterly, 32(2), 321-345.
Gubbins, C., Dooley, L. (2021b), Exploring social learning and knowledge integration in knowledge-intensive firms. Journal of Knowledge Management, 25(7), 1792-1814.
Guenther, P., Guenther, M., Ringle, C.M., Zaefarian, G., Cartwright, S. (2023), Improving PLS-SEM use for business marketing research. Industrial Marketing Management, 112, 29-43.
Hair, J.F., Risher, J.J., Sarstedt, M., Ringle, C.M. (2019), When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24.
Harun, M., Høgset, H., Mwesiumo, D. (2023a), Dynamic capabilities and sustainability performance: Exploring the moderating role of environmental dynamism in the Norwegian fishing industry. Sustainable Development, 31(2), 1170-1185.
Harun, T.W.R., Hashim, N., Muhamad, S., Abdul Karim, Z. (2023b), Dynamic capabilities and sustainable performance in the food manufacturing industry. Sustainability, 15(2), 1234.
Helfat, C.E., Peteraf, M.A. (2015), Managerial cognitive capabilities and the microfoundations of dynamic capabilities. Strategic Management

Journal, 36(6), 831-850.
Henseler, J., Ringle, C.M., Sarstedt, M. (2015), A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1), 115-135.
Iyer, K.N.S., Srivastava, P., Srinivasan, M. (2023), Symbiotic association of resources and market-facing capabilities in supply chains as determinants of performance: A resource orchestration perspective. European Journal of Marketing, 57(13), 12-38.
Jiang, K., Lepak, D.P., Hu, J., Baer, J. (2012), How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. Academy of Management Journal, 55(6), 1264-1294.
Jiang, R.J., Bansal, P. (2003), Seeing the need for ISO 14001. Journal of Management Studies, 40(4), 1047-1067.
Jiang, Y., Cheng, W., Xie, X. (2024), The dismissal of new female CEOs: A role congruity perspective. Journal of Business Ethics, 192(3), 639-662.
Jiang, Y., Feng, T., Huang, Y. (2023b), Antecedent configurations toward supply chain resilience: The joint impact of supply chain integration and big data analytics capability. Journal of Operations Management, 71(2), 209-236.
Kock, N. (2015), Common method bias in PLS-SEM: A full collinearity assessment approach. International Journal of e-Collaboration, 11(4), 1-10.
Kogut, B., Zander, U. (1992), Knowledge of the firm, combinative capabilities, and the replication of technology. Organization Science, 3(3), 383-397.
Kucharska, W. (2022a), Tacit knowledge awareness and sharing affect intellectual capital and firm performance. Journal of Intellectual Capital, 23(6), 1303-1325.
Kucharska, W. (2022b), Tacit knowledge influence on intellectual capital and innovativeness in the healthcare sector: A cross-country study of Poland and the US. Journal of Business Research, 140, 389-397.
Kumar, A., Mangla, S.K., Kumar, P., Karamperidis, S. (2020), Challenges in perishable food supply chains for sustainability management: A developing economy perspective. Business Strategy and the Environment, 29(5), 1809-1831.
Kumar, M., Raut, R.D., Mangla, S.K., Moizer, J., Lean, J. (2024a), Big data driven supply chain innovative capability for sustainable competitive advantage in the food supply chain: Resource-based view perspective. Business Strategy and the Environment, 33(3), 1221-1237.
Kumar, P., Singh, R.K., Soni, G. (2024b), Role of big data analytics capability and knowledge management in sustainable performance: Evidence from Indian food industry. International Journal of Production Economics, 270, 109156.
Kutaula, S., Chowdhury, S., Gillani, A., Budhwar, P., Dey, P. (2024a), Linking HRM with sustainability performance through sustainability practices: Unlocking the black box. British Journal of Management, 36, 615-632.
Kutaula, S., Gillani, A., Budhwar, P.S. (2024b), Sustainable HRM and employee pro-environmental behaviour: The role of sustainability practices and environmental strategy. Human Resource Management Journal, 34(2), 412-432.
Lee, J., Kim, S.J. (2021), How can David orchestrate resources to enhance firm performance? A dynamic approach to coping with resource constraints. Long Range Planning, 54(4), 102065.
Li, L., Chen, L., Yan, J., Xu, C., Jiang, N. (2023a), How does technological opportunism affect firm performance? The mediating role of resource orchestration. Journal of Business Research, 160, 113806.
Li, Y., Vanhaverbeke, W., Schoenmakers, W. (2023b), Exploration and exploitation in innovation: Reframing the interpretation. Creativity and Innovation Management, 32(1), 77-91.
Linde, L., Sjödin, D., Parida, V., Wincent, J. (2021), Dynamic capabilities for ecosystem orchestration: A capability-based framework for smart city innovation initiatives. Technological Forecasting and Social Change, 166, 120614.
López-Cabarcos, M.Á., Srinivasan, S., Vázquez-Rodríguez, P. (2020), The role of product innovation and customer centricity in transforming tacit and explicit knowledge into profitability. Journal of Knowledge Management, 24(5), 1123-1144.
Meisch, S., Bremer, S., Young, M., Funtowicz, S. (2021), Extended peer communities: Appraising the contributions of tacit knowledges in climate change decision-making. Futures, 133, 102868.
Nishii, L.H. (2013), The benefits of climate for inclusion for gender-diverse groups. Academy of Management Journal, 56(6), 1754-1774.
Nonaka, I. (1994), A dynamic theory of organizational knowledge creation. Organization Science, 5(1), 14-37.
Peretz-Andersson, E., Tabares, S., Mikalef, P., Parida, V. (2024), Artificial intelligence implementation in manufacturing SMEs: A resource orchestration approach. International Journal of Information Management, 71, 102649.
Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., Podsakoff, N.P. (2003), Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879-903.
Preacher, K.J., Hayes, A.F. (2008), Contemporary approaches to assessing mediation in communication research. In: Hayes, A.F., Slater, M.D., Snyder, L.B., editors. The SAGE Sourcebook of Advanced Data Analysis Methods for Communication Research. London: SAGE. p13-54.
Queiroz, M.M., Fosso Wamba, S., Jabbour, C.J.C., Machado, M.C. (2022a), Supply chain resilience in the UK during the coronavirus pandemic: A resource orchestration perspective. International Journal of Production Economics, 245, 108395.
Queiroz, M.M., Fosso Wamba, S., Pereira, S.C.F., Jabbour, C.J.C. (2022b), The role of big data analytics in supply chain resilience: An empirical analysis of the UK retail sector. Annals of Operations Research, 318, 605-631.
Rasool, S.F., Samma, M., Wang, M., Zhao, Y., Zhang, Y. (2019), How human resource management practices translate into sustainable organizational performance: The mediating role of product, process and knowledge innovation. Psychology Research and Behavior Management, 12, 1009-1025.
Ray, P.K., Ray, S., Kumar, V. (2022), A knowledge-based view of emerging market firm internationalization: The case of the Indian IT industry. Journal of Knowledge Management, 26(7), 1715-1745.
Russo, D., Stol, K.J. (2021), PLS-SEM for software engineering research. ACM Computing Surveys, 54(4), 1-38.
Salas-Vallina, A., Alegre, J., López-Cabrales, Á. (2020), The challenge of increasing employees' well-being and performance: How human resource management practices and engaging leadership work together toward reaching this goal. Human Resource Management, 59(3), 333-348.
Sanford, A.H., Christenson, J., Jarrett, T. (2020a), The role of tacit knowledge in public health emergency decision-making. Disaster Medicine and Public Health Preparedness, 14(5), 632-639.
Sanford, S., Schwartz, B., Khan, Y. (2020b), The role of tacit knowledge in communication and decision-making during emerging public health incidents. International Journal of Disaster Risk Reduction, 50, 101684.
Shmueli, G., Sarstedt, M., Hair, J.F., Cheah, J.H., Ting, H., Vaithilingam, S., Ringle, C.M. (2019), Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. European Journal of Marketing, 53(11), 2322-2347.

Sirmon, D.G., Hitt, M.A., Ireland, R.D., Gilbert, B.A. (2011), Resource orchestration to create competitive advantage: Breadth, depth, and life cycle effects. Journal of Management, 37(5), 1390-1412.

Somuah, C.O., Mensah, H.K., Okyere, G.A., Gyimah, P., Kamil, N. (2025), A systematic review on socially responsible human resource management: Implications for social value creation. Corporate Social Responsibility and Environmental Management, 32, 5102-5118.

Stahl, G.K., Brewster, C., Collings, D.G., Hajro, A. (2020), Enhancing the role of human resource management in corporate sustainability and social responsibility: A multi-stakeholder, multidimensional approach to HRM. Human Resource Management Review, 30(3), 100708.

Teece, D.J. (2007), Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. Strategic Management Journal, 28(13), 1319-1350.

Teece, D.J. (2018), Business models and dynamic capabilities. Long Range Planning, 51(1), 40-49.

Triana, M.C., Gu, P., Chapa, O., Richard, O., Colella, A. (2023a), Sixty years of discrimination and diversity research in human resource management: A review with suggestions for future research directions. Human Resource Management, 62(1), 157-204.

Triana, M.C., Song, R., Um, C.T., Huang, L. (2023b), Stereotypical perception in management: A review and expansion of role congruity theory. Journal of Management, 49(1), 3-35.

Wan, X., Chun, S., Xue, S., Shehzad, M.U. (2025), The causal and interactive approach to drive sustainability: Role of green dynamic capabilities, ambidextrous green innovation strategy and resource orchestration capability. Business Process Management Journal, 32, 1085-1112.

Wang, J., Xue, Y., Yang, J. (2020), Boundary-spanning search and firms' green innovation: The moderating role of resource orchestration capability. Business Strategy and the Environment, 29(3), 1407-1419.

Wani, N.A., Rather, R.A., Farooq, A., Padder, S.A., Baba, T.R., Sharma, S., Mubarak, N.M., Khan, A., Singh, P., Ara, S. (2023), New insights in food security and environmental sustainability through waste food management. Environmental Science and Pollution Research, 30(26), 70044-70069.

Williams, L.J., McGonagle, A.K. (2016), Four research designs and a comprehensive analysis strategy for investigating common method variance with self-report measures using latent variables. Journal of Business and Psychology, 31(3), 339-359.

Xin, X., Miao, X., Cui, R. (2022), Enhancing sustainable development: Innovation ecosystem coopetition, environmental resource orchestration, and disruptive green innovation. Business Strategy and the Environment, 31(7), 3004-3020.

Zaidi, S.Y.A., Aslam, M., Mahmood, F., Ahmad, B., Tasaddque, S. (2025), Accomplishing the SDGs through green HRM practices: Insights from industrial sustainability experts. Global Business and Organizational Excellence, 44(2), 6-22.

Zhou, Q., Wang, S., Ma, X., Xu, W. (2024), Digital technologies and corporate green innovation: Opening the "black box" of resource orchestration mechanisms. Sustainability Accounting, Management and Policy Journal, 15(2), 277-306.

Zirnig, C., Ruiner, C., Jungtäubl, M. (2025), When outsiders are in and insiders are out: Unveiling the role of executant tacit knowledge in fostering dynamic capabilities in Germany. Journal of the Knowledge Economy, 17, 6017-6049.

APPENDIX 1

A. Measurement Instrument

A.1 Gender-Focused HRM (6 items, 3 dimensions)

Theoretical basis: Collins and Smith (2006): High-Performance Work Systems; Nishii (2013): Climate for Inclusion; Campos-García et al. (2023): Gender Equality Management Systems.

Dimension	Core concept	Items	Basis
Access Equity	Equal opportunities in recruitment, promotion, and career development	2	Nishii (2013); Collins and Smith (2006)
Procedural Fairness	HR procedures free from gender bias in assessment and compensation	2	Nishii (2013); Basuil et al. (2025)
Inclusive Climate	Climate encouraging equal participation and recognition	2	Fletcher and Lysova (2025a; 2025b); Nishii (2013)

Code	Item Statement	Basis
GFHRM1	In my work environment, women and men have equal opportunities to access leadership positions.	Nishii (2013)
GFHRM2	Training and development programmes support career advancement regardless of gender.	Collins and Smith (2006); Campos-García et al. (2023)
GFHRM3	Promotion and compensation procedures are applied without reference to gender stereotypes.	Nishii (2013); Basuil et al. (2025)
GFHRM4	Performance evaluations are based on actual work outcomes rather than gender-related assumptions.	Triana et al. (2023)
GFHRM5	The work environment encourages equal participation by women and men in decision-making.	Fletcher and Lysova (2025a; 2025b); Nishii (2013)
GFHRM6	Individuals' opinions and contributions are valued regardless of gender.	Nishii (2013)

A.2 Tacit Knowledge (6 items, 3 dimensions)

Theoretical basis: Nonaka (1994): Knowledge Creation Theory; Kogut and Zander (1992): Combinative Capabilities; Gubbins and Dooley (2021): Tacit Knowledge in Knowledge-Intensive Firms.

Dimension	Core concept	Items	Basis
Experiential knowledge	Practical, undocumented knowledge difficult to articulate	2	Nonaka (1994); Kogut and Zander (1992)
Intuitive understanding	Intuitive comprehension and experience- based judgement	2	Nonaka (1994); Kucharska (2022)
Knowledge integration	Combining knowledge from multiple sources through social interaction	2	Kogut and Zander (1992); Gubbins and Dooley (2021)

Code	Item Statement	Basis
TK1	I rely on undocumented practical experience when resolving work-related problems.	Nonaka (1994); Kogut and Zander (1992)
TK2	Much of the knowledge I use to work effectively cannot be fully expressed in written form.	Nonaka (1994); Gubbins and Dooley (2021)
TK3	I understand effective ways of working through intuition built up over years of experience.	Nonaka (1994); Kucharska (2022)
TK4	In complex situations, I rely more on intuitive judgement than on formal procedures.	Kogut and Zander (1992); Sanford et al. (2020)
TK5	I draw on knowledge from diverse experiences to generate new solutions.	Kogut and Zander (1992); Brennecke et al. (2024)
TK6	I integrate what I learn from interactions with colleagues into my own work practices.	Gubbins and Dooley (2021); Nonaka (1994)

A.3 Resource Orchestration Capability (6 items, 3 dimensions)

Theoretical basis: Sirmon et al. (2011): Resource Orchestration Framework; Helfat and Peteraf (2015): Managerial cognitive capabilities; Teece (2018): dynamic capabilities.

Dimension	Core concept	Items	Basis
Structuring	Identifying, acquiring, and allocating key resources	2	Sirmon et al. (2011); Helfat and Peteraf (2015)
Bundling	Combining and aligning resources into coherent capabilities	2	Sirmon et al. (2011); Queiroz et al. (2022a; 2022b)
Leveraging	Mobilising and adapting resources in response to opportunities	2	Sirmon et al. (2011); Teece (2018)

Code	Item statement	Basis
ROC1	I identify the key resources (time, networks, knowledge) required to achieve my objectives.	Sirmon et al. (2011); Helfat and Peteraf (2015)
ROC2	I can reorganise resource allocation when priorities change.	Sirmon et al. (2011); D'oria et al. (2021)
ROC3	I combine time, knowledge, and networks to develop more effective ways of working.	Sirmon et al. (2011); Helfat and Peteraf (2015)
ROC4	I align available resources so that they mutually reinforce one another.	Sirmon et al. (2011); Queiroz et al. (2022a; 2022b)
ROC5	I draw on available resources to respond to new opportunities in my work environment.	Sirmon et al. (2011); Li et al. (2023)
ROC6	I adapt the way I use resources when environmental conditions change.	Sirmon et al. (2011); Teece (2018)

Code	Item Statement	Basis
SP1	My work activities generate stable economic outcomes over time.	Elkington (1998); Eikelenboom and de Jong (2019)
SP2	I sustain the income or economic value that my work produces.	Eikelenboom and de Jong (2019); Harun et al. (2023)
SP3	My work activities contribute positively to the well-being of colleagues or the wider community.	Elkington (1998); Kutaula et al. (2024)
SP4	My work supports sustained social impact.	Eikelenboom and de Jong (2019); Kutaula et al. (2024)
SP5	I actively minimise the negative environmental impact of my work activities.	Elkington (1998); Dzhengiz and Niesten (2020)
SP6	I apply work practices that account for environmental sustainability.	Eikelenboom and de Jong (2019); Kumar et al. (2024a; 2024b)

A.4 Sustainable Performance (6 items, 3 dimensions)

Theoretical basis: Elkington (1998): Triple Bottom Line; Eikelenboom and de Jong (2019): SME Sustainability Performance; Jiang and Bansal (2003): Organisational Sustainability.

Dimension	Core concept	Items	Basis
Economic sustainability	Stability and continuity of economic outcomes	2	Elkington (1998); Eikelenboom and de Jong (2019)
Social contribution	Positive contribution to social welfare and community well-being	2	Elkington (1998); Kutaula et al. (2024)
Environmental responsibility	Work practices that minimise negative environmental impact	2	Elkington (1998); Dzhengiz and Niesten (2020)

Code	Item Statement	Basis
SP1	My work activities generate stable economic outcomes over time.	Elkington (1998); Eikelenboom and de Jong (2019)
SP2	I sustain the income or economic value that my work produces.	Eikelenboom and de Jong (2019); Harun et al. (2023)
SP3	My work activities contribute positively to the well-being of colleagues or the wider community.	Elkington (1998); Kutaula et al. (2024)
SP4	My work supports sustained social impact.	Eikelenboom and de Jong (2019); Kutaula et al. (2024)
SP5	I actively minimise the negative environmental impact of my work activities.	Elkington (1998); Dzhengiz and Niesten (2020)
SP6	I apply work practices that account for environmental sustainability.	Eikelenboom and de Jong (2019); Kumar et al. (2024a; 2024b)