Human Resource Management Practices and Organizational Performance: The Mediating Role of Organizational Identification in Mobile Telecommunications Companies in Yemen

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Abstract:

This study examines the relationships between human resource management (HRM) practices, organizational identification, and perceived organizational performance in Yemeni mobile telecommunications companies. Drawing on social identity theory, a cross-sectional questionnaire survey covered 305 employees at the Sana'a headquarters of three companies. SPSS supported descriptive analysis, and SmartPLS was used for measurement and structural model assessment. Respondents generally reported favorable perceptions of HRM practices, identification, and performance. Recruitment and selection had the highest HRM mean, whereas compensation and rewards had the lowest. Learning and growth had the lowest performance mean. The reported analyses indicated positive relationships among the constructs and a positive indirect association between HRM practices and perceived performance through identification. These findings are consistent with a psychological pathway through which employees' perceptions of HRM may relate to organizational outcomes. However, the cross-sectional design and reliance on employee perceptions limit causal and firm-level interpretations. The study offers contextual evidence from Yemen and highlights the importance of considering organizational identification alongside operational HRM practices.

Keywords: *human resource management; organizational identification; perceived organizational performance; telecommunications; PLS-SEM; Yemen.*

Introduction

Human resource management (HRM) is a central organizational mechanism for acquiring, developing, supporting, and coordinating the workforce. Strategic HRM

research asks how employment practices relate to organizational objectives and why their consequences differ across settings. Theoretical accounts emphasize that the value of human resources depends on how people and organizational systems are combined, rather than on workforce characteristics alone (Barney, 1991; Wright & McMahan, 1992; Becker & Huselid, 2006). This perspective directs attention to coherent HRM systems and the processes connecting them with performance.

Early empirical work linked HR practices with turnover, productivity, financial outcomes, and manufacturing performance (Huselid, 1995; MacDuffie, 1995). Subsequent research distinguished universalistic, contingency, and configurational explanations, recognizing that the same practice need not have the same association with performance in every organization (Delery & Doty, 1996). Meta-analyses support an overall positive relationship between coordinated HRM practices and organizational outcomes while also showing the importance of practice bundles and intermediate mechanisms (Combs et al., 2006; Subramony, 2009; Jiang et al., 2012). More recent cross-national meta-analytic evidence indicates that the relationship between high-investment HR practices and firm performance varies with the configuration of national education quality and labor market flexibility, highlighting the importance of institutional context when interpreting HRM effectiveness (Han et al., 2026).

This evidence does not eliminate the explanatory problem within the HRM–performance relationship. Organizations can implement similar formal practices while employees experience them differently. A recent synthesis of HRM implementation research further indicates that outcomes depend on how line managers, employees, senior managers, and HR departments enact HR practices within particular organizational contexts, rather than on the formal content of practices alone (Roodbari et al., 2025).

Reviews identify continuing questions about causal direction, measurement, institutional context, and the mechanisms through which HRM becomes consequential (Paauwe, 2009; Guest, 2011). Research examining causal order also cautions against assuming that favorable performance necessarily follows HRM implementation: successful organizations may have more resources to invest in HR practices (Wright et al., 2005). The present study therefore examines associations rather than asserting causal effects.

Employees' perceptions offer one entry point into this explanatory problem. The distinction between intended HRM and employee-experienced HRM matters because policies must be interpreted before they can shape attitudes and behavior. Liao et al. (2009) examined managerial and employee perspectives on high-performance work systems in relation to service quality. Nishii et al. (2008) considered employees' explanations for why HR practices are adopted. More recently, Hu et al. (2025) synthesized HR-attribution research, reinforcing the relevance of perceived organizational intentions. These approaches suggest that employees do not respond

merely to the presence of practices; their interpretation of those practices also matters.

Organizational identification is relevant to this psychological interpretation. Social identity theory treats organizational membership as potentially part of a person's self-definition (Ashforth & Mael, 1989). Identification connects the question of what the organization represents with the question of who the employee understands themself to be. Research has linked identification with organizational images, belonging, communication, and perceived external prestige (Mael & Ashforth, 1992; Dutton et al., 1994; Smidts et al., 2001). It can therefore provide an explanation for why employees connect HRM experiences with organizational goals.

Identification should nevertheless be distinguished from related attitudes. Organizational commitment concerns attachment to the organization, whereas identification specifically concerns self-definition through membership (van Knippenberg & Sleebos, 2006). Conceptual and measurement reviews warn that treating loyalty, satisfaction, and identification as interchangeable can obscure the mechanism being tested (Edwards, 2005; Edwards & Peccei, 2007). Meta-analytic evidence indicates that identification relates to work attitudes and behavior, but this does not mean that it is identical to commitment or that it invariably benefits every performance outcome (Riketta, 2005; Lee et al., 2015).

Recent studies provide a clear starting point for the present research. Yang and Mostafa (2024) examined identification in the relationship between high-performance HR practices and employee commitment. Lee et al. (2025) investigated employee-friendly workplace practices, identification, and innovation productivity. Ashforth and Mael (2024) also revisited the conceptual emphasis of identification theory, highlighting affect, internalization, and the reasons identification matters. Thus, the present study does not claim to discover identification as an HRM mechanism. Its question concerns the applicability of that mechanism to employees' assessments of multidimensional organizational performance in a specific telecommunication setting.

Performance also requires precise specification. Financial results, customer service, internal processes, and learning and growth describe different facets of organizational functioning. The balanced scorecard makes this multidimensional perspective explicit (Kaplan & Norton, 1992). Methodological work further emphasizes that performance measures should match the research question and level of analysis, and that perceptual measures should be distinguished from independently observed outcomes (Richard et al., 2009). In this study, performance is assessed through employee responses and is consequently termed perceived organizational performance.

The study covers employees at the Sana'a headquarters of SabaFon, YOU, and Yemen Mobile. Telecommunications work combines technical capabilities with customer-facing coordination, making HRM and employees' connection with their organization relevant subjects of inquiry. Yemen is the empirical setting, but environmental fragility is not separately measured and no stable-economy comparison is included.

The study therefore provides contextual evidence, rather than demonstrating that instability changes the proposed relationships or that the findings represent all Yemeni organizations.

The research question is whether favorable HRM perceptions are associated with perceived organizational performance directly and indirectly through organizational identification. The study makes three bounded contributions. It examines an identification pathway alongside a residual direct HRM relationship; considers performance through four domains rather than a single general rating; and adds evidence from employees in Yemeni mobile telecommunications companies. These contributions remain subject to the cross-sectional design, perceptual measurement, and limited number of participating companies.

Theoretical Framework and Hypotheses

Human Resource Management and Perceived Performance

The present HRM construct covers planning, recruitment and selection, training and development, compensation and rewards, occupational health and safety, and performance appraisal. Planning aligns staffing with work requirements; recruitment and selection influence the available skills; development builds capabilities; rewards and appraisal communicate priorities; and health and safety support employees' capacity to perform their roles. These functions can complement one another, so examining a coordinated set of practices is theoretically more informative than assuming that any isolated practice is sufficient (MacDuffie, 1995; Combs et al., 2006; Subramony, 2009).

The resource-based perspective explains why workforce capabilities and organizational arrangements may be relevant to competitive outcomes (Barney, 1991). Strategic HRM accounts extend this logic to the alignment of employment systems with organizational requirements (Wright & McMahan, 1992; Becker & Huselid, 2006). The ability–motivation–opportunity mechanisms synthesized by Jiang et al. (2012) further explain how HR systems can relate to outcomes through employee skills, motivation, and opportunities to contribute. A more recent review refines this explanation by distinguishing AMO-enhancing HR practices from employees' actual abilities, motivation, and opportunities, and by emphasizing the need to specify the mechanisms and levels of analysis connecting HRM with performance (Bos-Nehles et al., 2023). These accounts are complementary explanations; the present study does not separately measure or test all of them.

A residual direct relationship is plausible because effective staffing, training, and work coordination need not operate exclusively through identification. At the same time, a generally positive association does not imply that every practice has an equal independent contribution or that formal policy is experienced uniformly. Differences between HRM content, implementation, and employee perceptions are relevant to this

interpretation (Delery & Doty, 1996; Liao et al., 2009; Guest, 2011). The hypothesized direct relationship is therefore conditional on identification in the joint model.

H1 HRM practices are positively associated with perceived organizational performance after accounting for organizational identification.

Human Resource Management and Organizational Identification

Social identity theory suggests that organizational membership can become a basis for self-definition when employees regard the organization as meaningful to who they are (Ashforth & Mael, 1989; Ashforth et al., 2008). Identification is not simply an assessment that a workplace is satisfactory. It concerns the incorporation of organizational membership into the self-concept, which may involve both cognitive recognition and affective belonging (Edwards & Peccei, 2007; Ashforth & Mael, 2024). HRM practices may contribute to this process by communicating what the organization values and how employees are treated. Development opportunities can signal investment in employees' future; appraisal can clarify valued contributions; and fair rewards and safe working conditions can make membership more attractive. Bowen and Ostroff (2004) emphasize the importance of a coherent HRM system in conveying organizational messages. Nishii et al. (2008) and Hu et al. (2025) show why employees' interpretations of HR practices deserve attention. These arguments support a positive association, but do not establish that practices are invariably interpreted as supportive.

Communication and organizational images provide related pathways through which membership becomes meaningful (Dutton et al., 1994; Smidts et al., 2001). The organization may be perceived as distinctive or valued, and those perceptions can relate to identification (Mael & Ashforth, 1992). Accordingly, coherent HRM experiences may coexist with stronger organizational identification. Recent evidence examining HRM and identification supports the relevance of this relationship, although its strength depends on the particular practices, employees, and outcomes being studied (Yang & Mostafa, 2024). Evidence from 10,421 employees across 35 countries also links sustainable HRM practices with organizational identification and shows that the strength of this relationship varies across national cultural contexts, providing further support for examining the HRM–identification relationship in specific settings (Turek et al., 2025).

H2 HRM practices are positively associated with organizational identification.

Organizational Identification and Perceived Performance

When organizational goals become self-relevant, employees may devote more attention to collective outcomes and coordinate their behavior around shared priorities. Reviews and meta-analyses link identification with work attitudes, in-role behavior, and extra-role contributions (Ashforth et al., 2008; Riketta, 2005; Lee et al., 2015). Such evidence offers a basis for expecting identification to relate to favorable

performance assessments, but individual behavior and firm-level financial performance remain different outcomes.

Empirical work also illustrates how identification can connect work experiences with performance-related outcomes. Callea et al. (2016) examined identification in relation to qualitative job insecurity, organizational citizenship behavior, and job performance. Lee et al. (2025) considered identification in a workplace-practices model of innovation productivity. These studies support the relevance of the construct, while their different designs and outcomes prevent direct equivalence with the present employee-rated balanced scorecard dimensions.

The particular target of identification matters. Employees may identify with a team, profession, workplace, or organization, and these forms should not be collapsed into a single undifferentiated attachment (Greco et al., 2022). Ashforth et al. (2024) likewise distinguish identification with a workplace from identification with the employing organization. The present study concerns organizational identification specifically, operationalized through loyalty, membership, and similarity. Because loyalty can overlap with commitment, its measurement requires conceptual and empirical scrutiny (Edwards, 2005; van Knippenberg & Sleebos, 2006).

H3 Organizational identification is positively associated with perceived organizational performance after accounting for HRM practices.

The Indirect Identification Pathway

Combining the preceding arguments yields an indirect pathway: employees' perceptions of HRM practices may relate to the meaning of membership, which in turn may relate to perceived performance. This explanation supplements operational accounts rather than replacing them. Studies of HRM mechanisms have considered human capital, social exchange, and organizational commitment, establishing that more than one intermediate process can connect HRM with outcomes (Takeuchi et al., 2007; Kehoe & Wright, 2013). Identification adds a self-definitional interpretation to this wider literature.

Identification and social exchange can be related without being identical. Social exchange explanations concern employees' responses to treatment by an organization regarded as a separate entity, whereas identification concerns the extent to which membership becomes part of the self (van Knippenberg & Sleebos, 2006). Yang and Mostafa (2024) apply identification to the HRM–commitment relationship, while Lee et al. (2025) consider innovation productivity. The present study extends the empirical question to perceived performance across financial, customer, process, and learning domains; it does not assume that those earlier outcomes are interchangeable.

Statistically, the indirect association is the product of the HRM–identification path and the identification–performance path in the joint model. Its significance should be assessed through a bootstrap confidence interval (Preacher & Hayes, 2008). Classification as complementary partial mediation additionally requires a significant conditional direct relationship in the same direction within that same model (Zhao et

al., 2010). Cross-sectional mediation cannot establish that HRM precedes identification and performance over time (Maxwell & Cole, 2007).

H4 HRM practices have a positive indirect association with perceived organizational performance through organizational identification.

Conceptual Model

Figure 1 summarizes the proposed relationships. Human resource management practices (HRMP) constitute the predictor, organizational identification (OI) the mediator, and perceived organizational performance (OP) the outcome. H1 proposes a positive direct association between HRMP and OP after accounting for OI. H2 proposes a positive association between HRMP and OI, while H3 proposes a positive association between OI and OP after accounting for HRMP. Together, H2 and H3 form the indirect pathway examined in H4. The model therefore distinguishes the direct HRMP–OP relationship from the indirect association through organizational identification. The arrows represent hypothesized relationships rather than established causal effects, and the plus signs indicate their expected positive direction.

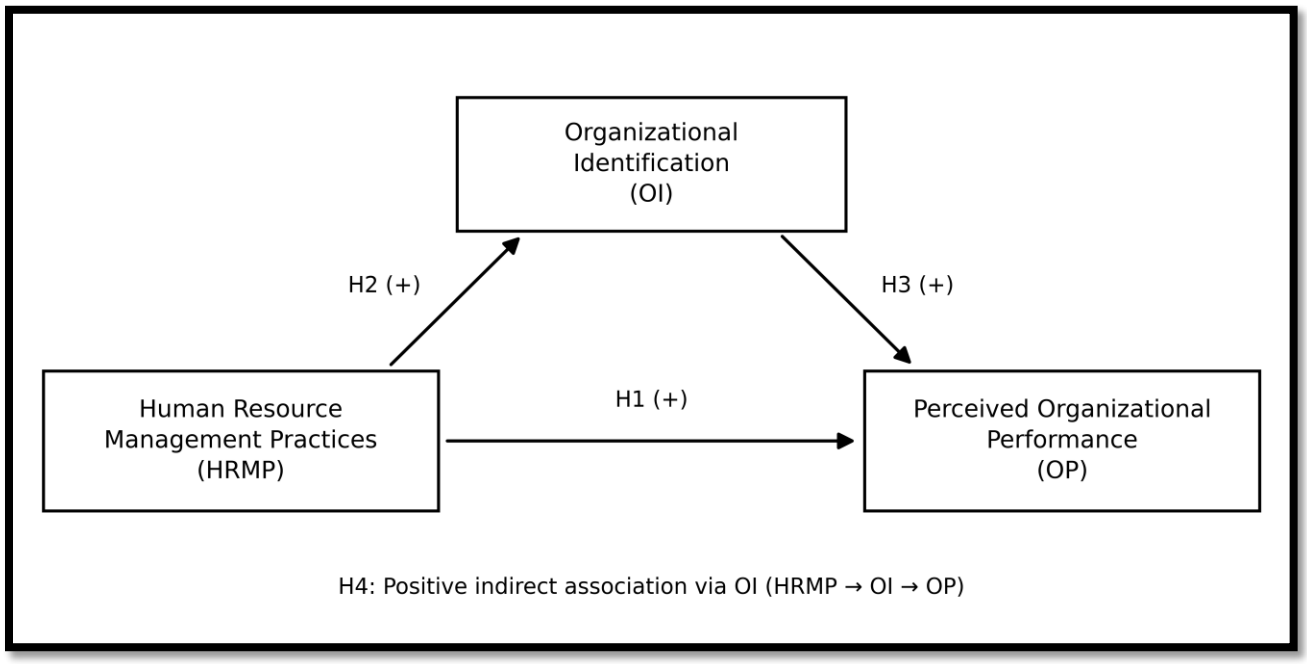

Figure 1. Proposed conceptual model.

Note. HRMP = human resource management practices; OI = organizational identification; OP = perceived organizational performance. H4 concerns the indirect association HRMP → OI → OP. (+) denotes the hypothesized positive direction; no estimated coefficients are displayed.

Methods

Design and Participants

A quantitative cross-sectional questionnaire survey was conducted among employees at the headquarters of three mobile telecommunications companies in Sana'a, Yemen: SabaFon, YOU, and Yemen Mobile. The reported sampling frame comprised 1,648 employees in executive, managerial, supervisory, and specialist positions. Non-proportional stratified random sampling was reported, with strata defined by job title. The sampling procedure was intended to represent different functional levels.

The target sample was 313 employees, using a finite-population sample-size calculation with a 95% confidence level, a 5% margin of error, and an assumed proportion of 0.50 (Thompson, 2012). Of 313 distributed questionnaires, eight were excluded and 305 were retained, representing 97.4% of distributed questionnaires. Paper and electronic questionnaires were used. The sample-size calculation concerns precision for estimating a proportion; it does not itself establish statistical power for the mediation model.

The analysis uses individual employee responses. Organizational performance is therefore interpreted as perceived organizational performance, rather than independently observed firm performance. The three companies form the sampling context; they do not provide 305 independent company-level observations. No aggregation of responses to company means is used in the reported individual-response analysis.

Measures

The questionnaire comprised 72 substantive items: 30 HRM items covering six dimensions with five items each, 18 identification items covering three dimensions with six items each, and 24 performance items covering four dimensions with six items each. Performance dimensions were financial performance, customer service, internal processes, and learning and growth. These domains follow the balanced scorecard framework (Kaplan & Norton, 1992), but the responses represent employee assessments rather than objective financial or operational records.

The questionnaire was developed through a review of relevant literature and evaluated by academic experts in management and organizational behavior for clarity and relevance. Responses were recorded on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating more favorable perceptions of the measured constructs.

The identification dimensions used here reflect the study's questionnaire. Edwards and Peccei (2007) are cited for conceptual and measurement considerations, rather than as the source of this 18-item instrument. Their measure should not be described as identical to the questionnaire administered in this study.

Analysis

SPSS 28 was used for descriptive analysis, and SmartPLS 4.0.8.6 was used for PLS-SEM. Descriptive summaries included means, standard deviations, skewness, and kurtosis. Overall stored scores were calculated as means of dimension scores. The dataset contains 20 missing substantive item values across 14 respondents; complete stored composite scores therefore do not establish that all item responses were observed.

The measurement model was assessed using outer loadings, internal consistency, composite reliability, average variance extracted (AVE), and the heterotrait–monotrait ratio (HTMT). These criteria serve different purposes and should not be treated as interchangeable evidence of validity (Henseler et al., 2015; Hair et al., 2019). The constructs are multidimensional, so assessment of their higher-order specification is also necessary (Sarstedt et al., 2019). The distinction between reflective scales and formative indices requires conceptual justification (Diamantopoulos & Winklhofer, 2001; Jarvis et al., 2003). Higher-order estimation and assessment should follow the chosen construct type (Becker et al., 2012), while convergent validity and reliability remain separate measurement questions (Fornell & Larcker, 1981).

Structural assessment considered path coefficients, explained variance (R^2), reported predictive relevance (Q^2), and SRMR. Bootstrap estimates were used in the supplied analysis to assess statistical significance. Mediation is evaluated through the indirect path in a jointly estimated model; its classification also requires the conditional direct path from that same model (Zhao et al., 2010). Separate simple-path models do not establish complementary partial mediation.

Results

Descriptive Statistics

Table 1 summarizes dimension and overall scores for the 305 respondents. The overall means were 5.045 for HRM practices, 5.404 for organizational identification, and 5.333 for perceived organizational performance. Recruitment and selection had the highest HRM mean (5.426), whereas compensation and rewards had the lowest (4.710). Identification dimension means ranged from 5.337 to 5.481. Learning and growth had the lowest performance mean (4.424), compared with 5.561–5.684 for the other performance dimensions. These are descriptive comparisons; no significance test of differences between dimension means is implied.

Table 1 Descriptive Statistics

Variable	Dimension	Mean	SD
Human Resource Management Practices *(Independent Variable)*	HR Planning	4.819	1.026
	Selection and Recruitment	5.426	0.760

Variable	Dimension	Mean	SD
	Training and Development	5.340	0.727
	Compensation and Rewards	4.710	1.051
	Occupational Health and Safety	4.931	0.960
	Performance Appraisal	5.043	0.936
Overall Human Resource Management Practices		**5.045**	**0.713**
Organizational Performance *(Dependent Variable)*	Financial Dimension	5.663	0.624
	Customer Dimension	5.684	0.653
	Internal Processes Dimension	5.561	0.670
	Learning and Growth Dimension	4.424	1.213
Overall Organizational Performance		**5.333**	**0.606**
Organizational Identification *(Mediating Variable)*	Organizational Loyalty	5.481	0.792
	Organizational Membership	5.337	0.824
	Organizational Similarity	5.393	0.774
Overall Organizational Identification		**5.404**	**0.694**

SD = standard deviation. Scores describe employee responses on the stored seven-point scale.

Measurement Model

The reported lower-order measurement results are presented in Table 2. Alpha values ranged from 0.745 to 0.894, composite reliability from 0.745 to 0.905, and AVE from 0.504 to 0.659. These summaries meet commonly used minimum criteria, although several loadings were below 0.70. The lowest reported loadings were 0.525 for compensation and rewards and 0.542 for financial performance. Their retention requires a content-based rationale and assessment of the resulting measurement properties, rather than a claim that every indicator is strongly reliable (Hair et al., 2019).

Table 2 Reported Lower Order Measurement Results

Variable	Dimension	Loading Range	Cronbach's Alpha	CR	AVE
Human Resource Management Practices	HR Planning	0.692–0.830	0.843	0.874	0.605
	Selection and Recruitment	0.709–0.815	0.831	0.835	0.597
	Training and Development	0.730–0.778	0.745	0.745	0.567
	Compensation and Rewards	0.525–0.806	0.785	0.826	0.542
	Occupational Health and Safety	0.684–0.800	0.808	0.812	0.567
	Performance Appraisal	0.656–0.820	0.800	0.806	0.558
Organizational Performance	Financial Dimension	0.542–0.888	0.805	0.860	0.640
	Customer Dimension	0.643–0.840	0.863	0.878	0.594
	Internal Processes Dimension	0.645–0.819	0.858	0.859	0.589
	Learning and Growth Dimension	0.701–0.909	0.894	0.905	0.659
Organizational Identification	Organizational Loyalty	0.595–0.819	0.784	0.794	0.541
	Organizational Membership	0.593–0.809	0.760	0.807	0.504
	Organizational Similarity	0.652–0.789	0.784	0.791	0.537

CR = composite reliability; AVE = average variance extracted. The supplied loading table lists four retained training and development indicators, although five were administered.

HTMT values ranged from 0.248 to 0.891 (Table 3). The loyalty–membership ratio of 0.891 exceeds the conservative 0.85 criterion and is below 0.90. Membership of the same higher-order construct does not automatically resolve this overlap. The result calls for a theoretically justified criterion and inferential HTMT assessment, particularly because loyalty and identification may overlap with commitment (Henseler et al., 2015; Edwards & Peccei, 2007).

Table 3 Reported HTMT Matrix

Construct / Dimension	FP	CS	IP	LG	HRP	RS	TD	RC	OHS	PA	OL	OM	OS
FP	—												
CS	0.501	—											
IP	0.521	0.796	—										
LG	0.248	0.445	0.539	—									
HRP	0.293	0.303	0.394	0.565	—								
RS	0.572	0.534	0.551	0.486	0.511	—							
TD	0.254	0.562	0.591	0.811	0.512	0.627	—						
RC	0.466	0.333	0.513	0.685	0.594	0.633	0.692	—					
OHS	0.447	0.385	0.556	0.704	0.477	0.588	0.745	0.842	—				
PA	0.623	0.378	0.578	0.579	0.631	0.671	0.585	0.845	0.849	—			
OL	0.275	0.549	0.489	0.616	0.526	0.453	0.590	0.419	0.476	0.468	—		
OM	0.372	0.658	0.648	0.806	0.566	0.602	0.746	0.560	0.610	0.587	0.891	—	
OS	0.322	0.627	0.581	0.742	0.378	0.482	0.725	0.501	0.626	0.528	0.723	0.823	—

FP = financial performance; CS = customer service; IP = internal processes; LG = learning and growth; HRP = HR planning; RS = recruitment and selection; TD = training and development; RC = rewards and compensation; OHS = occupational health and safety; PA = performance appraisal; OL = organizational loyalty; OM = organizational membership; OS = organizational similarity.

The supplied higher-order table reports identification loadings of 0.843, 0.908, and 0.850, with alpha 0.836, CR 0.851, and AVE 0.753. Performance loadings were 0.579, 0.810, 0.853, and 0.764, with alpha 0.755, CR 0.791, and AVE 0.576. The HRM higher-order table reports weights and VIFs, with VIFs ranging from 1.513 to 2.488. These results indicate that lower-order and higher-order assessment should be reported separately; reflective criteria alone do not establish validity for a construct specified formatively (Sarstedt et al., 2019).

Structural and Predictive Assessment

The reported joint model explained 65.2% of variation in perceived performance and 49.7% of variation in identification. Reported Q^2 values were 0.348 and 0.362, respectively. The Q^2 label in the source is 1 − SSE/SSO; this should be distinguished from out-of-sample prediction. SRMR was 0.088, above the frequently cited 0.08 benchmark, so it should be interpreted cautiously rather than described as evidence of excellent fit (Hair et al., 2019).

The supplied PLSpredict comparison provides a more qualified prediction assessment. PLS RMSE was lower than the linear-model benchmark for customer service, internal processes, loyalty, and membership, but higher for financial performance, learning

and growth, and similarity. Consequently, the evidence does not establish uniformly strong predictive superiority over the linear benchmark.

Table 4 Structural and Prediction Summary

Outcome	Reported R^2	Reported Q^2	PLS RMSE lower than LM
Perceived performance	0.652	0.348	2 of 4 dimensions
Identification	0.497	0.362	2 of 3 dimensions

SRMR = 0.088. Q^2 and R^2 are reported from the supplied analysis; the PLSpredict counts refer to the seven dimension-level RMSE comparisons supplied.

Reported Paths and Mediation

The source analysis presents HRM–performance and identification–performance paths with separate R^2 values of 0.560 and 0.183. Their standardized coefficients are 0.748 and 0.428, respectively (Table 5). Because these R^2 values approximate the squared coefficients, the rows are reported as separate-path results rather than treated as the conditional paths in the joint mediation model. The source also reports an indirect coefficient of 0.302, with t = 7.475. These estimates indicate positive associations in the reported analyses, but the conditional direct coefficient and bootstrap confidence interval from the joint model are required before deciding H1 and classifying mediation as partial or indirect-only.

Table 5 Reported Paths with Their Analysis Context

Analysis context	Path	β	R^2	Reported t
Separate HRM–performance path	HRM → performance	0.748	0.560	27.104
HRM–identification path	HRM → identification	0.705	0.497	22.656
Separate identification–performance path	Identification → performance	0.428	0.183	7.733
Reported indirect path	HRM → identification → performance	0.302	—	7.475

Discussion

Interpretation of the Descriptive Pattern

The descriptive findings reveal variation within the three principal constructs. Recruitment and selection had the highest HRM mean, whereas compensation and rewards had the lowest. This pattern is consistent with the possibility that employees distinguish staffing and development activities from their experience of recognition and material rewards. However, the study does not directly measure implementation quality, pay adequacy, or fairness, so those explanations remain possibilities. A higher mean also does not demonstrate a larger conditional contribution to performance.

The literature on HRM bundles offers a useful interpretation of these differences. Complementarity means that strengths in recruitment or training may not fully compensate for limitations in rewards, appraisal, or other domains (MacDuffie, 1995; Subramony, 2009). This does not establish a specific interaction in the present data, because interactions between practices were not tested. It does suggest that managers should review consistency across the HRM system rather than focus only on its highest-rated dimension. Evidence for broad HRM–performance associations also warrants attention to how practices are combined and experienced (Huselid, 1995; Combs et al., 2006).

Learning and growth had a lower performance mean than financial performance, customer service, and internal processes. Its coexistence with favorable training ratings is particularly informative. Training describes an input or practice, whereas learning and growth concern perceived organizational functioning; the two need not receive similar evaluations. The balanced scorecard framework makes this distinction between performance domains visible (Kaplan & Norton, 1992). Research on performance measurement further cautions against allowing a favorable overall score to conceal differences among outcomes (Richard et al., 2009).

One possible explanation is that development activities have not translated into an equally favorable perception of organizational learning. Another is that the item wording, reference period, or variability of the domains differs. The data cannot distinguish these explanations. A useful next step for the companies would be to review whether training opportunities connect with applied skill use, knowledge sharing, and documented service improvements. These are proposed managerial inquiries, not outcomes demonstrated by the current study.

The HRM Performance Relationship

The reported positive relationships fit the broad strategic HRM literature, in which coordinated employment practices are associated with operational and organizational outcomes (Becker & Huselid, 2006; Jiang et al., 2012). The present study contributes employee-level perceptual evidence rather than a replication of firm-level financial analyses. This distinction matters because employees' understanding of practices may differ from managerial descriptions of the same systems (Liao et al., 2009).

Recent meta-analytic findings also suggest that country-level human capital conditions shape the association between high-performance work systems and organizational performance, with training and development playing an important role in this relationship; this offers a contextual perspective for interpreting the present findings, although such country-level mechanisms were not tested in this study (Zhai et al., 2025).

A psychological interpretation also requires attention to what employees believe the practices are intended to achieve. Favorable perceptions may reflect supportive organizational intentions, but they may also be influenced by general satisfaction or favorable views of company performance. HR-attribution research demonstrates the relevance of distinguishing practice content from employee explanations of that content (Nishii et al., 2008; Hu et al., 2025). The present model does not include attributions, so it cannot determine which interpretation explains the association. Consistency of organizational messages provides a plausible theoretical consideration rather than a tested additional mechanism (Bowen & Ostroff, 2004).

The results should not be taken to mean that favorable performance inevitably follows changes in HRM. Prior work questions causal ordering and identifies unresolved methodological issues in this literature (Wright et al., 2005; Paauwe, 2009; Guest, 2011). Better-performing companies may be able to invest more in development and rewards, while employees with generally positive experiences may rate both HRM and performance favorably. Longitudinal and multi-source evidence would be necessary to separate these possibilities.

Identification as a Proposed Psychological Mechanism

The positive reported identification relationship is theoretically consistent with employees treating organizational membership as self-relevant (Ashforth & Mael, 1989). Identification can connect organizational experiences with employees' sense of belonging and shared priorities. Meta-analytic work supports its association with work attitudes and behavior (Riketta, 2005; Lee et al., 2015). However, these general findings do not imply that identification alone explains objective performance differences among the three companies.

The result is also compatible with the identification pathway examined by Yang and Mostafa (2024), although their outcome was employee commitment. Lee et al. (2025) considered innovation productivity, providing a further example of the mechanism with a different outcome. The present study examines performance perceptions across four domains. The contribution lies in this empirical combination and setting, rather than in claiming that identification has not previously been considered in HRM research.

The reported indirect coefficient of 0.302 is consistent with a positive identification pathway. Nevertheless, the source analysis presents the HRM–performance coefficient of 0.748 alongside $R^2 = 0.560$ and the identification–performance coefficient of 0.428 alongside $R^2 = 0.183$ in separate tables. Those values must not be treated as

simultaneous conditional paths solely because they appear in the same manuscript. A joint-model direct coefficient and bootstrap confidence interval are required to determine whether the evidence supports complementary partial mediation, indirect-only mediation, or another pattern (Preacher & Hayes, 2008; Zhao et al., 2010).

Conceptual overlap places another boundary on interpretation. Identification is not equivalent to being satisfied with the employer or intending to remain with it (Edwards, 2005; van Knippenberg & Sleebos, 2006). The loyalty–membership HTMT of 0.891 therefore deserves attention. Its position below 0.90 does not automatically demonstrate separation, particularly without inferential assessment. Both the item content and the higher-order model need to support the intended identification interpretation (Edwards & Peccei, 2007; Henseler et al., 2015).

Contextual and Theoretical Implications

The study suggests that examining workforce practices together with employees' sense of organizational membership is relevant in the sampled Yemeni telecommunications setting. Its contextual value should be stated proportionately: it includes three headquarters, does not quantify instability, and does not compare institutions across countries. The findings therefore cannot show that crisis conditions strengthen or weaken identification. They motivate future work on whether insecurity and organizational support alter the proposed relationships, a question related to identification research on qualitative job insecurity (Callea et al., 2016).

Identification research also recognizes that the organization is one of several possible targets. Employees' professional and team identities may explain additional variation in their responses (Greco et al., 2022). Identification with a physical or social workplace is another related but distinct process (Ashforth et al., 2024). These distinctions provide a useful direction for further telecommunications research, where technical teams, occupational communities, and company membership may coexist. They were not measured separately here and should not be invoked as confirmed explanations.

Theoretical development would benefit from considering affect and internalization alongside self-categorization, as proposed in the recent reconsideration by Ashforth and Mael (2024). This is especially relevant to the present broad operationalization of identification. It does not justify combining any favorable employment attitude into the construct. Rather, it calls for clearer item justification and attention to the cognitive and affective meaning of membership. The broader identification review similarly emphasizes conceptual precision when linking the construct with organizational outcomes (Ashforth et al., 2008).

Practical Implications

For managers, the findings support reviewing the coherence of employment practices and the meanings employees attach to them. Recruitment standards, development opportunities, appraisal expectations, and reward criteria should be understandable

and consistent. Where descriptive scores are lower, managers can seek more detailed employee feedback before deciding on an intervention. Theoretical work on HRM-system strength provides a rationale for this focus on clarity and consistency, while studies of employee-experienced practices underline the importance of checking how policies are actually perceived (Bowen & Ostroff, 2004; Kehoe & Wright, 2013). Managers should also distinguish practices that provide employees with resources from those that increase work demands: recent evidence shows that participation and autonomy can support employee wellbeing, whereas training and performance-related pay may involve wellbeing trade-offs through time pressure and workload (Li et al., 2024).

Identification should be supported through meaningful inclusion, communication, and alignment between expressed organizational values and everyday treatment. Communication and perceived organizational image have been associated with identification (Dutton et al., 1994; Smidts et al., 2001). Nevertheless, efforts to build attachment should also consider employee well-being, rather than equating strong loyalty with successful HRM (Guest, 2017). The present results do not show that demanding greater loyalty will improve performance.

Any intervention should be evaluated with repeated employee measures and independent records, such as service quality, process performance, or appropriately defined financial indicators. The available prediction comparisons do not establish uniformly strong superiority of the PLS model over a linear benchmark. Prediction and explanation answer different questions, and a high R^2 is insufficient to establish future predictive accuracy (Shmueli et al., 2019). Likewise, a significant cross-sectional indirect association does not establish a temporal mediation process (Maxwell & Cole, 2007).

Limitations and Future Research

The cross-sectional design prevents conclusions about temporal ordering and causality. All central measures were collected from employees, so common method variance and socially desirable responding may influence their associations (Podsakoff et al., 2003). Performance ratings are perceptions and do not replace audited financial outcomes or operational records.

Participants were drawn from three company headquarters in Sana'a. The findings should not be generalized automatically to all branches, sectors, or national employees. Respondents are nested within companies, and ordinary individual-response bootstrap estimates may understate uncertainty if company-level dependence is substantial. With only three companies, conventional cluster-robust or multilevel firm-level inference is limited. Future studies should include more organizations and independent performance data.

The multidimensional operationalization also requires caution. Loyalty can overlap conceptually with commitment, and the observed HTMT value of 0.891 raises a

measurement question. Future research should examine identification using clearly justified items and compare alternative measurement specifications. Longitudinal designs and multi-source data would provide a stronger assessment of the proposed mediation pathway.

Conclusion

Employees in the sampled companies reported generally favorable perceptions of HRM practices, organizational identification, and organizational performance, with lower ratings for compensation and rewards and for learning and growth. The reported analyses indicate positive relationships consistent with an identification pathway. These findings provide contextual evidence for studying psychological processes alongside HRM practices in Yemeni telecommunications. They do not establish causal effects or objective company-level performance, and the joint-model mediation estimates require consistent reporting before a definitive mediation classification is made.

Declarations

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Ethics and consent: The study received academic approval for the research plan and assistance with data collection from the Center of Business Administration, Sana'a University, Yemen. Participants were informed of the study's purpose and the voluntary nature of participation, and provided informed consent before completing the questionnaire.
Data availability: The data supporting the findings are available from the corresponding author upon reasonable request, subject to participant confidentiality.
Author contributions: Hamzah developed the study concept and methodology, collected and analyzed the data, and prepared the manuscript. Al ashwal supervised the research and critically reviewed the manuscript. Both authors reviewed and approved the manuscript, as stated in the source submission.

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