Journal of Economics, Finance and Management Studies

ISSN (print): 2644-0490, ISSN (online): 2644-0504

Volume 09 Issue 06 June 2026

Article DOI: 10.47191/jefms/v9-i6-17, Impact Factor: 8.735

Page No: 2978-2987

Strategic Human Resource Management Practices as Key Drivers of Innovation and Sustainability of Nigeria's MSMEs

Nwanesi Clement C. (*Ph.D. Candidate*) [1], Anyim Godfrey *Ph. D.* [2], Ikechukwu Dialoke *Ph.D.* [3], Prof. Gideon A. Emerole[4]

[1]Michael Okpara University of Agriculture, Umudike, Nigeria.

[2]Niagara University, Ontario Canada

[3]Dept of Employment Relations and Human Resources Management College of Management Sciences Michael Okpara University of Agric. Umudike, Nigeria

[4]Dept. of Business Administration, College of Management Sciences Michael Okpara University of Agriculture, Umudike, Nigeria

ABSTRACT: Micro, small, and medium enterprises in emerging economies help to sustain jobs and local value creation, but many of them struggle to innovate consistently. This study investigates the joint effect of strategic human resource management and talent management on innovation capability and subsequently the sustainability performance of Nigerian MSMEs. Data from 420 firms was analyzed, and then multi-item Likert composites for strategic human resource management, talent management, innovation, and sustainability were created. Ordinary least squares models with (heteroskedasticity-consistent) HC3 robust errors were used to evaluate the direct and conditional relationships, controlling for firm size, firm age, sector, and owner education. Strategic human resource management was a positive predictor of innovation with a beta of 0.320 and p less than 0.001. Talent management enhanced this relationship as evidenced by a significant interaction with a beta of 0.156 and p less than 0.001. Innovation was a strong predictor of sustainability, with a beta of 0.342 and p less than 0.001, and a partial mediator of the effect of strategic human resource management. The indirect impact was 0.106 with a 95% confidence interval from 0.067 to 0.149, and the proportion mediated was about 38%, while a direct effect remained with a beta of 0.170 and p less than .001. Owners should build up HR routines and pipelines. The statistical data has been used to support the fact that systematic HR alignment and targeted talent development play a major role in the difference in the results of innovation and sustainability across the Nigerian MSMEs. These results suggest that the benefits of performance due to small shifts in people systems can be quantified, which contributes to the discussion of the fact that HR strategy needs to be incorporated into national MSME support and policy frameworks.

KEYWORDS: Strategic Human Resources Management, Micro Small Medium-scale Enterprises, sustainability, Innovation capability.

INTRODUCTION

Micro, small, and medium enterprises (MSMEs) are the backbone of enterprise activity in Nigeria, as in many other emerging economies, in terms of employment, income generation, and local value creation (Madgavkar et al., 2024). In Nigeria, approximately 96% of all businesses are MSMEs, and they contribute approximately 46 to 50 percent of the GDP of the country and employ approximately 84 to 88 percent of the population (PwC, 2024; Pulka & Gawuna, 2022; Moniepoint, 2025). Many Nigerian MSMEs find it difficult to develop a robust capability for innovation, even as customers, regulators, and communities demand that they operate in economically viable, socially responsible, and environmentally sound ways, where the pressures of day-to-day survival often outcompete investment in formal people systems and intentional learning processes. Owners rely on informal oversight, ad hoc training, and ad hoc recruitment, which seldom result in the consistent skills and behaviors required for continuous improvement. The prospects of human resource practices that are explicitly correlated with business goals and the purposeful management of limited talent are under-researched and under-utilized.

Statement of the research problem

The policy imperative of MSMEs to innovate in order to grow and be sustainable has always been in a long-standing disconnect with the reality of people practices in small firms where the empirical evidence on the relationship between strategic human

resource management and innovation capability in the Nigerian context is scarce, and the existing literature seldom considers the conditions under which the relationship is stronger or weaker. The role of talent management in MSMEs is particularly ambiguous since small firms compete with larger organizations for skilled employees and are unable to provide formal career ladders. It is also not clear if this capacity is translated into wider sustainability outcomes such as resilient revenues, stakeholder trust, and responsible use of resources. Owners, support agencies, and lenders cannot prioritize the people investments that deliver the greatest impact without clear evidence.

Objectives of the study

The main objective is to find out if MSMEs that report greater congruence between human resource practices and business strategy report higher innovation capability after controlling for firm size, firm age, sector, and owner education. The second objective is to determine whether talent management enhances the relationship between SHRM and innovation capability, whether firms that deliberately identify, develop, and retain scarce skills gain more innovation from strategic HR alignment. The third objective is to test if innovation capability is positively related to sustainability performance and if innovation capability is a mediating variable through which SHRM contributes to sustainability. These objectives translate the broad aim of building innovative and sustainable MSMEs into specific relationships that can be tested using firm-level data from Nigeria.

Research hypotheses

- H1. Strategic Human Resource Management is positively associated with innovation capability among Nigerian MSMEs.
- H2a. Innovation capability is positively associated with sustainability performance among Nigerian MSMEs.
- H2b. Innovation capability mediates the relationship between strategic human resource management and sustainability performance, such that part of the effect of strategic human resource management on sustainability performance occurs indirectly through innovation capability.
- H3. Talent Management moderates the relationship between Strategic Human Resource Management and innovation capability such that the positive association is stronger at higher levels of Talent Management than at lower levels.

LITERATURE REVIEW

Conceptual Framework and Conceptual Underpinnings

Strategic Human Resource Management (SHRM) is defined as the systematic coordination of staffing, training and development, performance management, participation, and rewards with the firm's competitive objectives so that human resource practices function as a package rather than as activities (Eshete & Birbirssa, 2024). High-performance work systems are popular forms of this, focusing on selective hiring, developmental training, accuracy of appraisal, incentives alignment, and employee voice to develop skills and commitment that contribute to strategy execution. Talent Management (TM) is concerned with the identification, development, engagement, and retention of employees in jobs that are disproportionately important to value creation and renewal (Menezes et al., 2025). Common practices include talent segmentation, accelerated development paths, succession coverage, and retention levers. TM tends to focus on the protection of bottleneck skills, cross-training employees, and scaffolding careers to mitigate poaching risks and project delays in MSMEs. Innovation capability is the ability of an organization to continually create, modify, and realize product, process, or marketing innovations (Zastempowski, 2022: Seefloth et al., 2025). The conceptual framework places SHRM as an upstream driver building human and social capital, clarifying roles, and facilitating participation. TM is a contextual amplifier that stabilizes scarce skills and accelerates learning in pivotal roles. These people systems increase innovation capability, which is the conduit that converts HR investments into sustainability performance. Safety, compliance, retention, and fair employment are also likely direct connections between SHRM and sustainability. The framework suggests a people-centered route from SHRM to innovation and from innovation to sustainability, where TM enhances the SHRM-innovation relationship and innovation partially mediates the SHRM-sustainability relationship.

Theoretical Framework

The resource-based view proposes that long-term advantage can be gained from resources that are valuable, rare, inimitable, and non-substitutable (D'Oria et al., 2021). Coherent HR architectures generate such resources through the development of skills, the social capital embeddedness, and the codification of path-dependent and causally ambiguous routines. MSMEs in emerging economies are often technologically and capital-intensity homogeneous, and therefore HR architectures and culture become defensible sources of advantage. Dynamic capabilities are higher-order routines that allow firms to sense opportunities, capture them, and reorient assets under transformation (Siddiqi et al., 2025). SHRM and TM provide the enabling routines that mobilize expertise and coordination, whereas innovation capability is a reconfiguration competence. In volatile settings like the MSME

sector in Nigeria, the ability to recombine people and processes over and over again is critical to survival and growth. The Ability-Motivation-Opportunity (AMO) model describes the impact of HRM on performance through the development of employee ability, motivation to effort, and opportunity to contribute (Bos-Nehles et al., 2023). SHRM creates the A-M-O levers at a system level, where TM focuses those levers on key jobs. Innovation occurs when employees have relevant skills, perceive significant incentives, and have discretion to experiment and exchange ideas. This framing explains the logic of mediation, where SHRM increases ability and motivation, which increases innovation capability, which impacts sustainability outcomes. The natural resource-based view states that pollution prevention, product stewardship, and sustainable development capabilities can create a competitive advantage (Hart, 1995). Sustainable and green HRM integrates people practices into environmental and social performance by influencing knowledge, motivation, and pro-social behaviors such as eco-initiatives and safety citizenship. This extension enables a direct SHRM-sustainability relationship and an indirect pathway through innovation capability.

Empirical Review

A large empirical literature has shown that SHRM bundles are related to innovation outcomes. The results indicate that selective staffing, developmental training, performance pay, and employee involvement are predictors of product and process innovation over and above controls. Meta-analytic results suggest that high-performance work systems have a positive impact on both operational and innovation performance, which are mediated partly through human capital and social climate. In the case of entrepreneurial and small-firm contexts, the formalization of basic HR practices is particularly effective since small firms start from a low baseline and are more sensitive to coordination frictions. Practices that promote knowledge sharing, autonomy, and continuous improvement are the most strongly associated with innovation. Evidence from developing and emerging markets is directionally consistent but highlights institutional contingencies. Weak external labor markets, skills shortages, and informality increase the value of internal development. In these environments, even a small SHRM package with structured selection, targeted upskilling, regular feedback, participative problem solving, and aligned recognition can significantly reduce delays and rework and therefore enhance innovation capability.

Talent management literature maintains that the returns of HR systems are increased when firms recognize and develop employees in strategically important positions. Empirical research links TM to increased engagement, improved knowledge retention, and improved strategy implementation, especially where bottleneck roles limit throughput. Studies of high-growth SMEs suggest that a focus on star performers and project leaders lowers the incidence of failure in new product development and shortens cycle times. In emerging markets, TM reduces the risk of poaching and emigration and facilitates learning-by-doing when the infrastructure for formal training is weak. These patterns are consistent with a moderating effect: SHRM's relationship to innovation should be stronger when TM is high because the knowledge carriers who translate HR intent into experimentation and implementation are present long enough to implement and spread learning.

A growing literature has associated innovation with sustainability outcomes. Product and process innovations that increase efficiency, decrease waste, or offer greener products are associated with better economic performance and reputational benefits, particularly for smaller firms serving niches (Dangelico, 2016). Reviews of green and sustainable HRM show that people practices have environmental and social impacts by preparing and motivating employees to engage in eco-efficiency, safety, and community practices (Guerci et al., 2015). The strongest effects, however, are found when HR systems generate innovation orientation rather than isolated compliance controls. These results place innovation capability as a plausible mediator between SHRM and sustainability. Sustainability pressures themselves can be a source of innovation, generating a virtuous cycle when firms view them as opportunities for redesign rather than as constraints. While MSMEs with limited slack often cannot afford to pursue all sustainability initiatives, incremental process improvements and frugal product redesigns usually have disproportionate efficiency and credibility benefits when embedded in routines.

Micro-level research often tests HRM-innovation-performance chains and usually finds partial mediation where HRM influences performance both directly and indirectly through innovation, knowledge sharing, or learning climate (Jiang et al., 2012). Although less statistically modelled as a moderator in this chain, qualitative and survey evidence indicate that talent pipelines and succession coverage enhance execution by ensuring continuity in key roles and mitigating knowledge loss. Moderating effects should be stronger in volatile environments because shocks reveal whether critical knowledge is concentrated in flight-risk individuals or institutionalized in teams. The size of HR effects is determined by context. In MSMEs, owner-manager values, informality, and limited administrative bandwidth limit the adoption of complex HR systems, where formalization tends to lag until growth inflection points. Labor market frictions make TM more important for retention, whereas credit constraints make low-cost HR interventions with high payoffs more important. Less developed knowledge infrastructure values on-the-job learning,

coaching, and peer problem solving. These contingencies make a people-led approach to innovation more compelling, as technology- or capital-intensive approaches to innovation may not be feasible.

One empirical theme that emerges is complementarity between HR practices. Performance-based rewards are more effective in conjunction with training, and selective staffing has greater returns when development opportunities are available. For MSMEs, a minimum viable bundle is both possible and effective: structured selection, developmental coaching, regular feedback, team problem-solving, and targeted recognition. When combined with basic TM practices, talent spotting for mission-critical roles, cross-skilling to eliminate single-point dependencies, and sensible retention levers, AMO produces the conditions for low-cost innovation.

Synthesis and implications

The empirical streams converge on a unified mechanism. SHRM brings together and integrates people practices to develop ability, motivation, and opportunity. TM ensures that the knowledge base is stabilized and learning is accelerated by ensuring that the roles with disproportionate impact on innovation are staffed, developed, and retained. These conditions increase innovation capacity, the ability to repeatedly produce and implement improvement, which in turn defines sustainability in terms of efficiency, legitimacy, and resilience. There are still direct SHRM-sustainability effects, which result in partial rather than complete mediation. These people-centered mechanisms are especially significant in MSMEs in emerging economies where volatility, scarcity of skills, and informality are dominant. This synthesis provides support for testing a model in which innovation mediates the SHRM-sustainability relationship and TM enhances the SHRM-innovation relationship in Nigerian MSMEs.

METHODOLOGY

Research design

The study adopts a cross-sectional, quantitative research design to test directional hypotheses on the relationship between strategic human resource management and talent management and innovation capability, and the relationship between innovation capability and sustainability performance of Nigerian micro, small, and medium enterprises. A single time-point survey was selected to balance internal consistency in measurement with the practical constraints facing small firms. The design allows estimation of direct, indirect, and conditional effects, keeping observable firm characteristics constant. All analyses are based on a pre-specified plan that puts summary tables and figures in the appendix according to the conference requirements.

Sampling and data collection

The target population consists of formal and semi-formal Nigerian MSMEs in manufacturing, services, and trade. To ensure heterogeneity in operating contexts, recruitment aimed at a roughly proportional distribution across the three sectors and across the micro, small, and medium-sized bands. Owner-managers or senior administrators completed a self-administered questionnaire delivered via the Internet and paper form through professional networks and local business associations. After checking for completeness and duplicate entries, the final analytic sample consists of 420 firms. Participation was voluntary and unincentivized. The instrument was piloted with a small group of MSME managers in order to refine wording and flow before fielding.

Measures

All focal constructs were measured using multiple-item Likert scales with five response points ranging from strongly disagree to agree strongly. Strategic Human Resource Management captured the extent to which staffing, training and development, performance management, participation, and rewards are strategically aligned with the business goals. Talent management captured the extent to which the firm identifies mission-critical roles, develops high-potential employees, plans for succession, and uses pragmatic retention levers. Innovation capability was the frequency and success with which the firm creates and implements new products, processes, or methods of service. Sustainability performance was based on the firm's performance in economic resilience, responsible resource use, and stakeholder and workforce practices suitable in small-firm settings. Firm size, firm age, sector, and owner education were used as control variables, as they have well-documented links with management practices and outcomes in MSMEs. The industry was entered as a categorical factor with manufacturing as the reference category.

Table 1 Measurement Items and Reliability of Constructs

Construct	Example Items	Cronbach's α	Scale Range
SHRM	Our hiring and selection are structured and aligned to role requirements.	0.846	1–5
TM	We have identified mission-critical roles in the firm.	0.812	1–5
Innovation	We frequently introduce new or improved products/services.	0.748	1–5

Sustainability	We monitor and reduce energy and material use where possible.	0.752	1–5

All constructs demonstrated acceptable internal consistency (Cronbach's $\alpha \geq 0.74$).

Data preparation and reliability

Data were checked for out-of-range values, straight-lining, and duplicate submissions. Descriptive statistics and inter-construct correlations are provided in Appendix B. Internal consistency was measured using coefficient alpha for each multi-item scale, where all focal scales met conventional thresholds for exploratory field research. Item-total correlations and alpha-if-deleted diagnostics were reviewed to ensure that each item had a positive contribution to its construct. Composite scores were standardized to z-scores prior to modeling to aid in the interpretation of coefficients and interaction terms. Cases missing any of the four focal composites were excluded from the analysis, and remaining missingness on controls was minimal and handled listwise in the relevant models after confirming that patterns of missingness were not systematic.

Analytical strategy

The empirical strategy is conducted in three steps, which are in line with the hypotheses. Ordinary least squares regression using heteroskedasticity-consistent (HC3) standard errors is first used to estimate the effect of strategic human resource management on innovation capability, controlling for firm size, firm age, sector, and owner education. Moderation by talent management is then tested by including the interaction term between strategic human resource management and talent management, which is estimated on standardized variables to minimize multicollinearity and facilitate interpretation. Simple-slope plots and Johnson-Neyman intervals are reported to visualize conditional effects over the observed range of talent management. Mediation is tested by estimating the impact of strategic human resource management on sustainability performance with innovation capability and the controls in the outcome model, coupled with a mediator model regressing innovation capability on strategic human resource management, talent management, and the controls. The indirect effect is measured with non-parametric bootstrap confidence intervals with 5,000 resamples to prevent assumptions of normality. Direct, indirect, and total effects are reported, and the proportion mediated is calculated for interpretive context.

Assumptions, robustness, and diagnostics

Model assumptions were investigated and dealt with in various ways. Residual plots were checked for non-linearity and influential observations. Variance inflation factors were examined to check for multicollinearity, and all were within acceptable limits based on the use of standardized variables and a small set of controls. Because MSME survey data tend to be heteroskedastic, HC3 robust covariance estimators are used uniformly for inference. As a specification check, results were compared against models without controls and models with alternative sector references to check for stability of the focal coefficients. Moderation inferences were supported using graphical probes and conditional marginal effects. Mediation inferences are based on the sequential ignorability assumption, and to enhance plausibility, the same covariates are used in both mediator and outcome models, and the indirect effect is bootstrapped with bias-corrected intervals. Full coefficient tables, robust statistics, and the interaction plot are presented in Appendix C, and the mediation bootstrap output is presented in a separate appendix file.

Software and reproducibility

All analyses were performed in R using commonly used packages for data management, estimation, and visualization. The workflow uses tidy verse for wrangling, psych for reliability and descriptives, sandwich and lmtest for robust inference, interactions for probing and plotting moderation, and mediation for bootstrap estimation of indirect effects. Camera-ready tables were created programmatically to ensure that the appendix matches models reported in the text. The analysis script is modular and annotated so that results can be replicated or extended with sector-specific subsamples or alternative operationalizations of the constructs.

Ethical considerations

The research is conducted in accordance with the general ethical principles of minimal-risk organizational research where the participation was voluntary, and the respondents were allowed to withdraw at any time. No personally identifiable information was also included in the instrument except generic firm descriptors required as control variables. Data were encoded and processed in bulk to prevent re-identification. The results are presented on a group level without mentioning individual firms.

RESULTS

Descriptive patterns

The final analytic sample consists of 420 Nigerian micro, small, and medium enterprises in manufacturing, services, and trade. Descriptive statistics reveal significant variation on the four focal composites of strategic human resource management, talent

management, innovation capability, and sustainability performance, which were in line with heterogeneity in people systems and outcomes across firms. Bivariate correlations between the four composites are all positive and of moderate magnitude, providing an initial indication that the postulated people-centered pathway is feasible. Because correlations are vulnerable to common method variance and omitted variables, they are used as preliminary context rather than inferential evidence. All formal tests are ordinary least squares with HC3 robust standard errors and include firm size, firm age, sector, and owner education controls. Descriptive and inter-construct correlations are given in the table below.

Table 2 Inter-construct Correlations (n = 420, standardized composites)

Variable	SHRM	TM	Innovation	Sustainability
SHRM	1	0.42	0.37	0.29
TM	0.42	1	0.28	0.21
Innovation	0.37	0.28	1	0.41
Sustainability	0.29	0.21	0.41	1

All correlations were positive and of moderate size, supporting initial expectations

Innovation capability and strategic human resource management (H1)

The first hypothesis is that there is a positive relationship between strategic human resource management and innovation capability. The moderation model, estimated on standardized variables and controlling for firm size, firm age, sector, and owner education, reveals an accurate and substantively significant coefficient for strategic human resource management. The standardized effect is $\beta = 0.320$ with a robust standard error of approximately 0.049, yielding $t = 6.51$ and $p < 0.001$. Interpreted substantively, a one standard deviation increase in the alignment of strategic human resource management is related to about a one-third standard deviation increase in the innovation capability, controlling for the observed firm characteristics. This magnitude is non-trivial in small-firm environments where small improvements in coordination, learning routines, and feedback can quickly become visible product or process improvements.

Talent Management as a mediator of the SHRM-innovation relationship (H3)

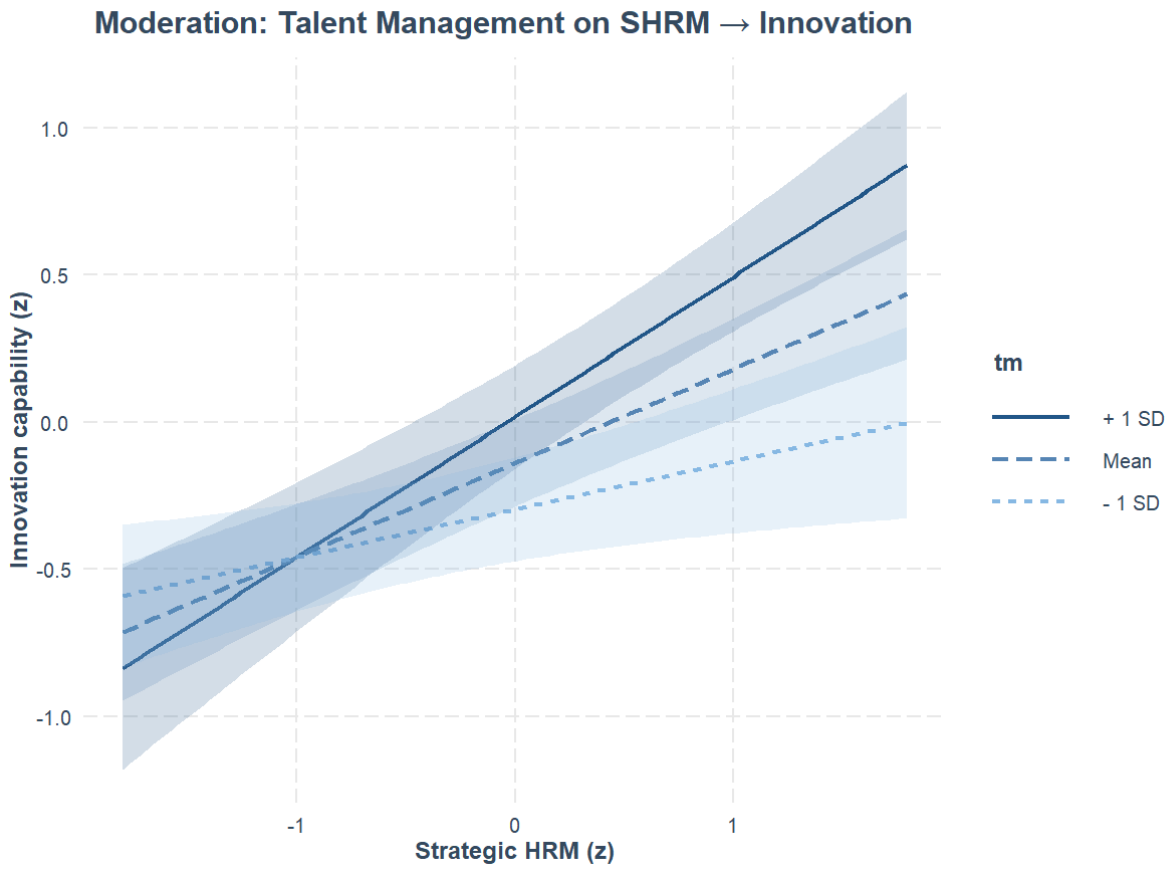


Figure 1 slope analysis

The third hypothesis states that talent management enhances the relationship between strategic human resource management and innovation capability. The interaction term is positive and precise, β = 0.156, robust SE = 0.044, t = 3.60, p < .001. This trend suggests that the payoff of aligning people practices with business objectives is larger in firms that consciously identify, develop, and retain key employees. Simple-slope plots in figure 1 show that the slope of innovation in strategic human resource management is significantly greater at higher levels of talent management than at lower levels, where Johnson-Neyman intervals show a wide area of significance over the observed range of talent management. The moderation result is robust to alternative sector baselines and to specifications with fewer controls.

Innovation ability and sustainability performance: mediation (H2)

The second hypothesis is composed of two factors. First, there is a positive relationship between the capability for innovation and the performance in terms of sustainability. In the sustainability outcome model including strategic human resource management, innovation capability, and controls, the standardized coefficient on innovation is β = 0.342, robust SE = 0.047, t = 7.23, p < .001. Companies that more frequently develop and deploy new products or processes report better sustainability performance, operationalized as a composite measure of economic resilience, responsible resource use, and stakeholder and workforce practices.

Second, innovation capability should mediate the relationship between strategic human resource management and sustainability performance. The non-parametric bootstrap mediation analysis with 5,000 resamples is based on the mediator model that regresses innovation capability on strategic human resource management, talent management, and controls, and the sustainability outcome model. The average causal mediation effect (ACME) is 0.105 (95% CI [0.067, 0.149]), which is a statistically significant indirect pathway. The mean direct effect (ADE) of strategic human resource management on sustainability is 0.170 (CI excludes zero), and the total impact is around 0.276. The implied mediation proportion is approximately 38%, which suggests partial rather than complete mediation. The effect of strategic human resource management on sustainability is partially transferred to innovation capability, while a direct path still exists.

Table 3 Regression Results for Innovation and Sustainability Models

Predictor	Innovation (β)	Sustainability (β)
SHRM	0.320***	0.170***
TM	0.157***	—
SHRM × TM	0.156***	—
Innovation	—	0.342***
Controls	Included	Included
R^2	0.20	0.19

Table 3 shows that SHRM significantly predicted innovation (β = 0.320, p < .001), while innovation strongly predicted sustainability (β = 0.342, p < .001)

Control and diagnostics variables

Control variables are reasonable. Sector differences exist but do not reverse focal relationships; size and age are modestly related, in line with incremental structure and slack in larger or older firms. The educational level of the owner has a positive effect but does not proxy away the strategic human resource management signal. Variance inflation on standardized predictors is well within standard limits; residual diagnostics do not suggest systematic non-linearity or dependence of outliers on other predictors that would require alternative functional forms. Because heteroskedasticity is prevalent in small-firm surveys, HC3 robust standard errors are used throughout. Results are robust to reasonable specification tests, such as omitting controls and changing sector reference categories. Appendix C contains all coefficients, robust statistics, and the moderation figure.

DISCUSSION

Understanding the SHRM-innovation effect

The positive and accurate relationship between strategic human resource management and innovation capability supports a key proposition of the strategic HR literature in the context of a resource-constrained, emerging-economy setting. The results indicate that coherent bundles of practices that link staffing, development, appraisal, participation, and rewards to competitive objectives actually work in Nigerian MSMEs. The size (about a third of a standard deviation for a one standard deviation change in strategic human resource management) is practically significant where absolute budgets for R&D are thin and where much of the

innovation is incremental and process-oriented. The finding is consistent with evidence from larger-firm and advanced-economy samples in that it demonstrates that even with minimal formal HR infrastructure, disciplined coordination of people practices enhances the generation and execution of ideas. From an Ability-Motivation-Opportunity perspective, Strategic Human Resource Management increases the likelihood that employees have the right skills, are motivated to look for ways to improve, and have defined opportunities to contribute. In MSMEs, where the firm's tacit knowledge is often concentrated in a few individuals, these A-M-O levers decrease coordination frictions and shorten the distance from suggestion to implementation. The robustness of the effect to controls and specification tests suggests that it is not simply a proxy for size, age, sector, or owner education.

Why Talent Management drives greater returns

The positive relationship between strategic human resource management and talent management reflects complementarity. Strategic human resource management creates systems where talent management maintains continuity in the key positions that make those systems productive. If critical roles are not identified and developed, knowledge may leave the organization before processes pay off. With even lean talent management, simple skills matrices, cross-skilling for coverage, and targeted retention levers, the same strategic human resource management investments pay greater innovation dividends. This is clearly seen in the conditional effects plot, whereas talent management increases, the slope of innovation on strategic human resource management increases. For owner-managers, the message is that small, manageable talent management multiplies the value of every hour already spent on hiring discipline, coaching, feedback, and recognition.

Innovation as a pathway to sustainability

The positive association between innovation capability and sustainability performance is consistent with studies linking process efficiency, waste reduction, and greener offerings to economic and non-economic performance. In the everyday life of a Nigerian MSME, many innovations are low-tech, with re-sequencing steps to eliminate rework, small layout changes that reduce movement, or supplier changes that stabilize quality. Such changes can at the same time increase margins, decrease material or energy consumption, and increase customer confidence and worker safety. The mediation analysis indicates that a significant portion of the SHRM effect on sustainability is transmitted through this innovation channel. The other direct effect is important. Safety practices, compliance behaviors, fair scheduling, and compensation—these people-practice channels also contribute to sustainability even if innovation is kept constant. The pattern of partial mediation is thus theoretically consistent and managerially useful. It urges companies to follow two complementary paths of building HR systems that fuel problem-solving and experimentation and institutionalize everyday behaviors that protect people and reputation.

Policy and ecosystem significance

The evidence points to the need for coherence over breadth in support programs and policy. Coupling strategic human resource management basics with practical talent management tools is likely to be more effective than generic HR workshops. Incentives such as light-touch grants or vouchers that are linked to the adoption of simple innovation routines, in particular those that are tied to sustainability metrics, can crowd in private effort. Sector associations can develop templates—skills matrices, feedback scripts, suggestion logs—and facilitate peer sessions where owners share their successes. Because the effects are greater when talent bottlenecks are addressed, focusing interventions on jobs that limit throughput for priority sectors may have outsized returns.

Constraints and constraints on the boundary conditions

The inferences are valid for MSMEs that have similar characteristics to the sample and the institutional conditions existing at the time of data collection. The cross-sectional nature of the design does not allow for strong causal inferences; sequential ignorability for mediation cannot be ensured. Common method variance is a possibility, but the pattern of partial, rather than inflated, full conciliation and the use of robust errors and controls mitigates this concern. Future work should include longitudinal designs to see whether improvements in SHRM and talent management precede innovation and sustainability gains, and multi-source measurement that links owner reports to external audits or administrative data on process change, energy consumption, or labor outcomes. Digging deeper into micro-mediators such as psychological safety, team reflexivity, or knowledge sharing might help to open the black box further, whereas testing digital enablement as a boundary condition might help to uncover complementarities between people, systems, and technology.

CONCLUSION

The purpose of this study was to unravel a people-centered approach to innovation and sustainability in Nigerian micro, small, and medium enterprises. The evidence indicates that strategic human resource management has a significant positive relationship

with innovation capability after controlling for firm size, firm age, sector, and owner education. Second, talent management reinforces this relationship, suggesting that the return on alignment of HR routines is greater when key roles are identified, developed, and retained. Third, innovation capability has a significant relationship with sustainability performance and mediates a large part of the SHRM effect, whereas a significant direct path persists. Taken together, these results provide a pragmatic message. Getting the people basics right is not a luxury for small firms; it is a lever for repeatable improvement and for progress on economic, environmental, and social outcomes.

A number of suggestions are then made for MSME owner-managers. Begin with a small strategic human resource management package that is appropriate to the administrative reality of a small firm. Use structured selection to mitigate hiring noise, offer developmental coaching that is tied to near-term goals, conduct short two-way performance conversations that regularly surface impediments and ideas, and reward contributions in locally meaningful ways. Then add a lean talent management practice. Identify mission-critical roles, map bottleneck skills, cross-skill to create coverage, and deploy targeted retention levers like predictable schedules, learning opportunities, and small tenure-linked benefits. Institute a rhythm of small experiments (performance and sustainability). Challenge teams to make monthly proposals for time-saving, scrap/energy reduction, or customer experience improvements. Measure two or three simple metrics that represent both innovation and sustainability, such as first-pass yield, rework rate, and electricity per unit produced, and discuss them in regular stand-ups.

The implications for the ecosystem around MSMEs include that, rather than generic HR workshops, support organizations and policy programs should focus on coherence rather than breadth by combining the basics of strategic human resource management with practical talent management tools. Crowding in private effort can be achieved through light-touch vouchers or matching grants that are linked to adopting simple innovation routines that are associated with sustainability metrics. Sector associations can compile templates like skills matrices, feedback scripts, and suggestion logs, and provide peer sessions where owners share tested practices. Banks and other financial institutions that support MSMEs can integrate people-system measures into credit analysis and advisory services, and reward firms that put in place coherent routines and safeguard bottleneck roles, since these practices mitigate execution risk.

The study limitation is that despite the modelling choices made here, the cross-sectional nature of the data means that causal claims cannot be made, and common method variance cannot be ruled out. Longitudinal designs, multi-source measures, and sector-specific panels allow for establishing temporal ordering and triangulating outcomes like energy intensity, defect rates, or labor conditions. It would also be interesting to experiment with fine-grained mediators like psychological safety or team reflexivity and to analyse how digital tools complement people systems in the formation of innovation routines.

REFERENCES

1) Bos-Nehles, A., Townsend, K., Cafferkey, K., & Trullen, J. (2023). Examining the Ability, Motivation and Opportunity (AMO) framework in HRM research: Conceptualization, measurement, and interactions. International Journal of Management Reviews, 25(4), 725-739. https://doi.org/10.1111/ijmr.12332
2) D'Oria, L., Crook, T. R., Ketchen Jr, 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. https://doi.org/10.1177/0149206321994182
3) Eshete, S. K., & Birbirssa, Z. A. (2024). Strategic Human Resource Management (SHRM) in Creating an Inclusive Workplace: Systematic Review. SAGE Open, 14(4), 21582440241287667. https://doi.org/10.1177/21582440241287667
4) Gallardo-Gallardo, E., Dries, N., & González-Cruz, T. F. (2013). What is the meaning of "talent" in the world of work? Human Resource Management Review, 23(4), 290–300. https://www.taylorfrancis.com/chapters/edit/10.4324/9781315200170-3/meaning-talent-world-work-eva-gallardo-gallardo
5) Guerci, M., Longoni, A., & Luzzini, D. (2015). Translating stakeholder pressures into environmental performance. International Journal of Human Resource Management, 26(2), 256–281. https://doi.org/10.1080/09585192.2015.1065431
6) Jabbour, C. J. C., & Jabbour, A. B. L. de S. (2016). Green human resource management and green supply chain management. International Journal of Human Resource Management, 27(2), 236–260. https://doi.org/10.1016/j.jclepro.2015.01.052
7) Jiang, K., Lepak, D. P., Hu, J., & Baer, J. (2012). How does HRM influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. Academy of Management Journal, 55(6), 1264–1294.
8) Hart, S. L. (1995). A Natural-Resource-Based View of the Firm. The Academy of Management Review, 20(4), 986–1014. https://doi.org/10.2307/258963
9) Madgavkar, A., Piccitto, M., White, O., Ramírez, M. J., Mischke, J., & Chockalingam, K. (2024, May 2). A microscope on small businesses: Spotting opportunities to boost productivity (MGI Report). McKinsey Global Institute.

https://www.mckinsey.com/mgi/our-research/a-microscope-on-small-businesses-spotting-opportunities-to-boost-productivity

10) Menezes, D. B., Gumashivili, M., & Kanokon, K. (2025). The Role of Talent Management in Enhancing Employee Retention: Mediating the Influence of Psychological Empowerment. Sustainability, 17(7), 3277. https://doi.org/10.3390/su17073277
11) Moniepoint Blog. (2025). Small business statistics in Nigeria for 2025. Moniepoint Blog. Available at https://moniepoint.com/blog/nigeria-small-business-statistics
12) Pulka, B. M., & Gawuna, M. S. (2022). Contributions of SMEs to employment, gross domestic product, economic growth and development. Jalingo Journal of Social and Management Sciences, 4(1), 1–18. https://oer.tsuniversity.edu.ng/index.php/jjsms/article/view/100
13) PwC. (2024). Building resilience: Strategies for MSME success in a changing landscape. PwC Nigeria. Available at https://www.pwc.com/ng/en/assets/pdf/pwc-msme-survey-report-2024.pdf
14) Seefloth, M., Siedler, F., Kayser, C., Retsch, B. T., & Zülch, H. (2025). Sustainability performance and its impact on financial distress risk—Evidence from STOXX Europe 600. Business strategy and the environment, 34(5), 5699-5741. https://doi.org/10.1002/bse.4263
15) Siddiqi, R. A., Codini, A. P., Ishaq, M. I., Jamali, D. R., & Raza, A. (2025). Sustainable supply chain, dynamic capabilities, eco-innovation, and environmental performance in an emerging economy. Business Strategy and the Environment, 34(1), 338-350. https://doi.org/10.1002/bse.3976
16) Zastempowski, M. (2022). What shapes innovation capability in micro-enterprises? New-to-the-market product and process perspective. Journal of Open Innovation: Technology, Market, and Complexity, 8(1), 59.

There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (https://creativecommons.org/licenses/by-nc/4.0/), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.