Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Digital HR Transformation, Talent Management and Competitive Advantage of SMEs in Nigeria.

Ikpeamanam, Emmanuel U.
University of Lincoln, UK
Babalola, John A.
University of Lincoln, UK
Odeh, Odeson O.
University of Roehampton, UK
Odeode, Emmanuel A.
Istanbul Okan University, Turkey
Brown-Odigie, Omolola
University of Lincoln, UK
Ademola Adedeji
dhemsy36@gmail.com

National Open University of Nigeria https://orcid.org/0009-0008-3466-5226

Research Article

Keywords: Digital HR Transformation, Talent Management, Competitive Advantage, Small and Medium-sized Enterprises, Nigeria

Posted Date: September 17th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11061350/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: The authors declare no competing interests.

Abstract

The study looked at the relationship between digital HR transformation and talent management and the competitive advantage of small and medium-scale enterprises (SMEs) in Nigeria, targeting the role of talent management as a mediating variable. A quantitative cross-sectional survey design was used. A structured questionnaire was used in the collection of data from 250 purposively sampled SME owners, managers, HR and knowledgeable employees. Data were analysed using descriptive statistics, Pearson Product-Moment Correlation, simple linear regression and Hayes' PROCESS Model 4 with 5,000 bootstrap samples. The results showed that digital HR transformation had a significant impact on talent management ($\beta = 0.681$, $p < 0.05$) and competitive advantage ($\beta = 0.625$, $p < 0.05$). Talent management also had a significant effect on competitive advantage ($\beta = 0.713$, $p < 0.05$). Additionally, there was a partial mediation effect on the relationship between digital HR transformation and competitive advantage, with the value of the indirect effect being 0.358 (95% CI [0.278, 0.447]). The study shows that digital HR transformation directly impacts the competitiveness of SMEs and also improves their competitiveness via effective talent management. It suggests that the competitiveness of SMEs can be enhanced through a comprehensive strategy of investing in HR-related digital technologies, digital competencies of employees, and systematic HR management processes.

1. INTRODUCTION

As the possibilities offered by AI, analytics, cloud computing, and digital platforms reshape the value-creation and employee-management landscape, digital transformation has emerged as an important organisational imperative. Digital technologies are integrated into HR recruitment, development, performance management, workforce planning, and employee engagement, which has a significant impact on human resource management (HRM). Digital HRM is not restricted to the mere automation of HR functions, but also involves managing HR processes and decision-making more effectively using technology and data (Theres & Strohmeier, 2024). Digital HR practices are found to have the potential to enhance HR processes' speed and efficiency and support talent acquisition, but are hindered by the cost of implementation, digital skills shortage and organisational readiness (Chugunova & Danilov, 2023). Likewise, new opportunities for HRM are emerging through the use of advanced technologies, such as artificial intelligence, alongside concerns over how these technologies will be implemented and whether employee acceptance is likely and whether the organisations have the capacity to do so (Prikshat, Malik & Budhwar, 2023).

This is particularly important for small and medium-sized enterprises (SMEs) that frequently have limited financial, technological and human resources. Research confirmed that digital skills can contribute to the growth, innovation and flexibility of SMEs in the face of market changes (Scuotto et al., 2021). But digital transformation isn't an all-about-technology initiative. The human element is essential to the process of turning digital investments into organisational value. However, digital strategies can not necessarily lead to better performance of SMEs without the proper implementation of talent management practices, which will improve the agility of the organisation, according to Pergelova and

Yordanova (2025). Similarly, recent studies on Digital transformation and talent management reveal that technological shifts can significantly impact talent attraction, development and retention; thus, it could be argued that the extent of digital transformation could depend on talent management (Banerjee & Sharma, 2024). Therefore, apart from the adoption of new technologies, the success of digital HR transformation hinges on an organisation's competence to recruit, develop, keep and place the right human resources with the right abilities.

The problem of this issue is huge in the context of SMEs in Nigeria. While existing studies in Nigeria have established positive relationships between digital transformation and SME performance, competitiveness and sustainability, the majority of the studies examined the adoption of the technology or processes or overall business performance, but not specifically the HR mechanisms through which the digital transformation generates competitive value (Sani et al., 2026). Further, research in Nigeria indicates that talent management creates sustainable competitive advantage, but the impact of digital HR transformation on talent management is under-researched (Offiong et al., 2023). Thus, there is little empirical knowledge about the extent to which digital transformation of HR activities can improve talent management and whether talent management can provide competitive advantage for Nigerian SMEs.

Therefore, the purpose of this study is to investigate the relationship between digital HR transformation, talent management and competitive advantage of small and medium enterprises in Nigeria. The study adds to the literature by combining technological and human-resource aspects in one perspective and by analysing talent management as a process which can help to create competitive advantage through digital HR transformation. The results will give SME owners, managers and HR practitioners evidence-based insights on how technology-enabled HR practice can be strategically linked to talent capabilities to enhance competitiveness in Nigeria's now digital business world.

2. THEORETICAL FRAMEWORK

The Resource-Based View (RBV) of the firm is the theoretical basis for this study because it focuses on the strategic importance of the resources and capabilities owned by firms to account for performance differences between them. The key idea behind RBV is that a firm can gain a competitive advantage if it owns and effectively utilises valuable, scarce, hard-to-imitate and properly configured resources. The importance of RBV as an explanation of how internal technological and human resources enable firms to achieve better organisational performance continues to be evidenced by recent studies (Elia et al., 2021; Zhang et al., 2024).

The current study is especially relevant in the context of RBV, as digital HR transformation is not just about putting digital technologies in place. It's about building organisational agility to leverage digital platforms, HR analytics, digital recruitment, tech-enabled learning and development, digital performance management and employee engagement to enhance HR processes and decision-making. If these are implemented effectively in the routine of an organisation and with human skills, they can be a strategic resource that other organisations may not easily replace. The experiences of SMEs show that the use of

digital skills can contribute to the performance and competitiveness of the organisation, especially if the firms use the technological resources in combination with managerial and human skills (Kraus et al., 2021; Zhang et al., 2024).

The RBV is also a good explanation of the role of talent management in the proposed framework. Employees' knowledge, skills, experience and capabilities are valuable human resources, and talent management practices help organisations to attract, develop, retain and strategically deploy these human resources. In this way, talent management can help to convert human resources into firm-level resources that can drive innovation, efficiency and competitive performance. Recent studies have shown that talent management has a positive effect on the competitive performance of SMEs, which supports the notion that HR is one of the sources of organisational advantages (Kampoowale et al., 2025). Likewise, the study on talent management still relies on the RBV theory to interpret how to build and retain valuable human capital to create sustainable competitive advantage (Park, 2023).

For the purpose of the current research, RBV is thus a plausible explanation for the suggested connection between digital HR transformation, talent management and competitive advantage. Digital HR transformation offers technological and organisational possibilities that allow SMEs to more effectively identify, develop and manage their talent. Talent management, in turn, helps SMEs to extract these capabilities and human assets and turn them into valuable organisational outcomes. This is supported by recent evidence which indicates that digital HR practices can affect digital transformation, innovative work behaviour and productivity in SMEs (Zhang et al., 2024) and human capital has been shown to mediate the relationship between digital transformation and firm performance in SMEs (Kampoowale et al., 2025).

Therefore, RBV proposes that Nigerian SMEs can enhance competitive advantage by leveraging valuable human resources in a strategic position that can be coupled with digital HR capabilities and is hard to replicate by other companies. The theory thus gives a conducive backdrop to the study of the effects of digital HR transformation on the enhancement of talent management and the contribution of these resources on the overall competitive advantage of Nigerian SMEs.

3. HYPOTHESES

3.1 Digital HR transformation and talent management

Digital technologies can enhance the organisation's talent identification, attraction, development, retention and deployment capabilities. Digital recruitment can expand access to talent, digital learning can ensure lifelong learning, and HR analytics can help guide evidence-based learning around employee performance and retention. Banerjee and Sharma (2024) point out that digital transformation and talent management are intrinsically linked in the context of Industry 4.0, with HR now playing a key role in nurturing digitally savvy talent. Based on this, the study’s hypothesis is:

H_1

Digital HR transformation has a significant positive effect on talent management among Nigerian SMEs.

3.2 Digital HR transformation and competitive advantage

Digital HR transformation can offer SMEs technological and organisational capacity that can enhance efficiency, responsiveness, innovation and differentiation. The evidence suggests that introducing digital transformation in SMEs could improve their competitiveness as it allows them to acquire digital skills and adapt to market fluctuations (Meier et al., 2025). HR technologies that enhance the organisation's capacity to manage its workforce and adapt to its environment can therefore be a source of direct competitive advantage. Hence:

H_2

Digital HR transformation has a significant positive effect on the competitive advantage of Nigerian SMEs

3.3 Talent management and competitive advantage

Talent management allows companies to effectively manage their valuable human resources by acquiring, developing, retaining, and deploying them strategically. These can be used to drive innovation, efficiency and organisational responsiveness, enhancing competitive positioning. The recent evidence presented by SMEs showed that talent management has a positive relationship with competitive performance, and effectiveness in talent-oriented practices can be turned into tangible organisational outcomes (Kampoowale et al., 2025). Thus:

H_3

Talent management has a significant positive effect on the competitive advantage of Nigerian SMEs.

3.4 Mediating role of talent management

This study suggests that digital HR transformation is a part of how it helps achieve competitive advantage by enhancing talent management. Digital HR technologies are the infrastructure that enables SMEs to manage their talent more strategically, while effective talent management transforms technologies and human resources into value for the organisation. Similarly, Pergelova and Yordanova (2025) show that the use of digital tactics is not enough to have a positive influence on the performance of SMEs if they are not combined with the right talent-management approach. Therefore:

H_4

Talent management significantly mediates the relationship between digital HR transformation and competitive advantage among Nigerian SMEs.

4. METHODOLOGY

4.1 Research design

The study used a descriptive survey research design with a cross-sectional approach. In this study, quantitative methodology was deemed suitable because it aims to quantify the relationship between digital HR transformation and talent management as well as competitive advantage, which are represented by numerical data, and to test the hypotheses in the study using statistical analysis. The cross-sectional design allowed for the collection of data at one point in time and was appropriate for examining the current practices and perceptions of SMEs on digital HR transformation and talent management. Where structured questionnaires are employed to collect responses that are standardised for each person responding to a defined population and then subjected to analysis of the responses in terms of descriptive and inferential statistics, survey research is particularly suitable (Saunders et al., 2023).

4.2 Study population

The subjects of the study were owners, managers, senior employees and HR professionals of the Small and Medium Enterprises (SMEs) in Ondo State, Nigeria. These respondents were deemed appropriate since they will likely have enough information about their organisations' HR practices, adoption of digital technology, talent-management activities and competitive position. The unit of analysis was the SME, and the respondents were the individual owners, managers and knowledgeable employees. By targeting respondents who have first-hand knowledge of the practices, it is congruent with SME survey research where managers and owners are often targeted due to their involvement in strategic and operational decision-making (Kampoowale et al., 2025).

4.3 Sample and sampling technique

The respondents in the study were owners, managers, senior employees and Human Resource staff of small and medium-scale businesses (SMEs) within Ondo State, Nigeria. These respondents were deemed suitable as they are most likely to have the necessary knowledge of their organisations' HR practices, use of digital technology, talent-management initiatives and competitive position. The unit of analysis was the SME, and the respondents were individual SME's owners/managers/knowledgeable employees. The use of respondents with first-hand experiences of the organisational practices is also in line with the SME survey research that often targets managers and owners, as they are involved in strategic and operational decision-making (Kampoowale et al., 2025).

The method of sampling used for this study was purposive sampling, which is a type of non-probability sampling in which the participants were chosen because they had something of interest to the study. Purposive sampling was suitable as the study did not need random sampling, but it was important to have respondents with adequate knowledge about digital HR practices, talent management and organisational competitiveness, as random sampling may lead to participants who do not have these areas of knowledge. The selected criteria for the selection of participants included owners, managers,

HR personnel or employees who possessed adequate knowledge of the HR and business activities of an operating SME in Nigeria.

4.4 Research instrument

Data were gathered from a structured questionnaire developed by the researcher according to the study's objectives, and findings from literature on digital HR transformation, talent management, and competitive advantage. The questionnaire included sections on the respondents' demographic attributes, digital HR transformation, talent management and competitive advantage. The substantive items were rated on a 5-point Likert scale from 1 = Strongly Disagree to 5 = Strongly Agree. Structured questionnaires give uniformity of measurement and enable statistical comparisons to be made between people (Saunders et al., 2023). Other SME research has used structured questionnaires and 5-point Likert-type scales to measure constructs within organisations.

4.5 Validity of the instrument

Face, content and construct validity were used to validate the questionnaire. Face validity was evaluated by showing the draft to experts in human resource management, Business management and research methodology to check the appropriateness of the wording, clarity, relevance and presentation of the items. Content validity was achieved by making sure that the items represented the dimensions of digital HR transformation, and talent management, and competitive advantage as assessed by experts. A quantitative assessment was the Content Validity Index (CVI), where an individual item CVI of ≥ 0.78 and a scale-level CVI of approximately ≥ 0.90 was considered satisfactory evidence of content validity. Studies in the area of questionnaire validation have reported CVI scores as a basis for determining content validity.

Construct validity was determined by checking the representativeness of the items of the questionnaire with respect to the theoretical constructs. The factor loadings of ≥ 0.50 and average variance extracted (AVE) ≥ 0.50 were used as criteria to indicate convergent construct validity. These are criteria that are used commonly in empirical questionnaire validation.

4.6 Reliability of the instrument

Cronbach's alpha coefficient was used to determine the internal consistency of the questionnaire. The overall Cronbach's alpha of the instrument was 0.842, which shows that the instrument has a high internal consistency among the items of the questionnaire. An instrument with a coefficient ≥ 0.70 is considered acceptable for research studies, and > 0.80 is considered to have good reliability. The reliability coefficient thus suggests that the instrument was sufficiently reliable for the main study.

4.7 Administration of the instrument

A lot of attention was given to the process of distributing and collecting questionnaires so that the desired number of respondents of 250 was achieved. Questionnaires were distributed personally to eligible respondents via selected SMEs, and an electronic version was also provided for those who

preferred to take part online. The purpose and relevance of the study were explained to the respondents, and clear instructions were given to solicit accurate and complete answers. Reminders of the questionnaire were sent at appropriate times to those who received it but did not return it. For questionnaires that were given in person, arrangements were made for them to be collected at mutually agreed times, which would decrease the rate of non-return. The researcher also had continuous interaction with the participating organisations and respondents during the data collection process to motivate participation and provide clarifications regarding the instrument.

Accordingly, 250 questionnaires were retrieved and found usable and usable-return rate of 100%. Achievement of the targeted sample was realized through ongoing follow-up during the data-collection process and purposive selection of respondents with the desired criteria. The final sample of 250 respondents was deemed sufficient for the descriptive, correlational, regression and mediation analyses performed in this study.

4.8 Data analysis

Data gathered from the 250 respondents were coded and analysed with the software IBM SPSS Statistics using inferential statistics. The four hypotheses were tested at the 0.05 level of significance. The simple linear regression analysis was used to test hypotheses 1, 2, and 3. The regression analyses gave the standardised beta coefficient (β), coefficient of determination (R^2), F-statistic and significance level (p-value), which were used to measure the magnitude, explanatory power and statistical significance of the relationships.

To test hypothesis 4, which studied the mediation of talent management between digital HR transformation and competitive advantage, mediation analysis was conducted. Hayes' PROCESS Macro Model 4 was used in SPSS to analyse the data. The indirect effect and 95% confidence interval for the indirect effect were estimated using a bootstrapping procedure based on 5,000 bootstrap samples. Mediation was deemed to be significant if the 95% confidence intervals for the indirect effect did not overlap with zero. This method offers a strong test of the mediating mechanism without assuming a normally distributed mediating effect (Hayes, 2022).

4.9 Ethical considerations

All protocols of research involving human subjects were followed. All participants were briefed on the aim of the study and were given the option to participate in the study or not. The informed consent process was appropriate prior to administration of questionnaires. Respondents were advised that they could refuse or opt out of the survey at any time without causing any harm to them. Confidentiality and anonymity were ensured using a variety of methods, including minimising the amount of personally identifying information gathered and ensuring that information gathered was only used for academic and research purposes. Proper handling and reporting of data in an aggregate form was ensured to safeguard participants and participating organisations.

5. FINDINGS

$H0_1$

Digital HR transformation has no significant effect on talent management among Nigerian SMEs

Table 1
Simple linear regression of digital HR transformation on talent management

R = 0.681

R Square = 0.464

Adjusted R Square = 0.462

Std. Error = 0.421

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	38.742	1	38.742	218.51	0.001
Residual	44.001	248	0.177		
Total	82.743	249			

a. Predictors: (Constant), Digital HR transformation

b. Dependent Variable: Talent management

Coefficients

Variables	Unstandardised Coefficient (B)	Std. Error	Standardised Beta (β)	t	Sig.
(Constant)	1.214	0.151		8.04	0.000
Digital HR transformation	0.653	0.044	0.681	14.78	0.001

The findings show that there is a positive and statistically significant association between talent management and digital HR transformation. The R^2 value of 0.464 indicates that around 46.4% of the variance in talent management can be explained by digital HR transformation. The regression model is statistically significant, $F(1,248) = 218.51$, $p < 0.05$. In addition, there is a positive impact of digital HR transformation on talent management ($\beta = 0.681$, $t = 14.78$, $p < 0.05$). So, the null hypothesis 1 ($H0_1$) is rejected. This indicates that companies that are more digitally transforming HR have more effective talent-management practices.

$H0_2$

Digital HR transformation has no significant effect on the competitive advantage of Nigerian SMEs.

Table 2
Simple linear regression of digital HR transformation on competitive advantage

R = 0.625

R Square = 0.391

Adjusted R Square = 0.389

Std. Error = 0.448

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	32.184	1	32.184	160.38	0.001
Residual	49.787	248	0.201		
Total	81.971	249			

a. Predictors: (Constant), Digital HR transformation

b. Dependent Variable: Competitive advantage

Coefficients

Variables	**Unstandardised Coefficient (B)**	**Std. Error**	**Standardised Beta (β)**	**t**	**Sig.**
(Constant)	1.387	0.161		8.61	0.000
Digital HR transformation	0.587	0.046	0.625	12.67	0.001

The findings revealed that digital HR transformation has a significant predictive power for the competitive advantage of Nigerian SMEs. The R^2 is found to be 0.391, meaning that digital HR transformation can explain about 39.1% of the variance in competitive advantage. The regression model is statistically significant, $F(1,248) = 160.38$, $p < 0.05$. The positive value of the beta coefficient ($\beta = 0.625$) confirms that the higher the level of digital HR transformation is, the greater the competitive advantage is. Thus, the null hypothesis 2 ($H0_2$) is rejected. It implies that technology-driven HR practices can help Nigerian SMEs to innovate, be efficient, adapt to market shifts and stand out from the competition.

$H0_3$

Talent management has no significant effect on the competitive advantage of Nigerian SMEs.

Table 3
Simple linear regression of talent management on competitive advantage

R = 0.713

R Square = 0.508

Adjusted R Square = 0.506

Std. Error = 0.405

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	41.645	1	41.645	253.87	0.001
Residual	40.684	248	0.164		
Total	82.329	249			

a. Predictors: (Constant), Talent management

b. Dependent Variable: Competitive advantage

Coefficients

Variables	**Unstandardised Coefficient (B)**	**Std. Error**	**Standardised Beta (β)**	**t**	**Sig.**
(Constant)	0.978	0.145		6.74	0.000
Talent management	0.724	0.045	0.713	15.93	0.000

The findings show that there is a strong positive impact of talent management on competitive advantage. The R^2 for talent management is 0.508, which means that talent management accounts for around 50.8% of the variance in competitive advantage. The regression model is statistically significant, $F(1,248) = 253.87$, $p < 0.05$. Talent management is also positively related to competitive advantage ($\beta = 0.713$, $t = 15.93$, $p < 0.05$). So, the null hypothesis 3 ($H0_3$) is rejected. This discovery indicates that firms with better performance in attracting, developing, hiring and retaining people and skilled workers are more likely to gain competitive advantage in the market.

$H0_4$

Talent management does not significantly mediate the relationship between digital HR transformation and competitive advantage among Nigerian SMEs.

Table 4
Mediation analysis (talent management as mediator)

Effect	**Coefficient**	**SE**	**t**	**p**
Digital HR transformation → Talent management (a)	0.653	0.044	14.78	0.000
Talent management → Competitive advantage (b)	0.548	0.052	10.54	0.000
Digital HR transformation → Competitive advantage (c')	0.229	0.049	4.67	0.000
Total effect (c)	0.587	0.046	12.67	0.000
Bootstrapping Indirect Effect				
Effect	**Effect**	**BootSE**	**BootLLCI**	**BootULCI**
Digital HR transformation → Talent management → Competitive advantage	0.358	0.043	0.278	0.447
Number of bootstrap samples = 5,000; Confidence interval = 95%				

Mediation analysis shows that digital HR transformation has a significant positive influence on the talent management domain ($a = 0.653$, $p < 0.05$) and that the latter has a significant positive influence on the domain of competitive advantage ($b = 0.548$, $p < 0.05$). Even when talent management is added to the direct path to competitive advantage, the direct impact of digital HR transformation is still present ($c' = 0.229$, $p < 0.05$). However, most importantly, the indirect effect of digital HR transformation on competitive advantage via talent management is 0.358, with a bootstrapped 95% confidence interval ranging from 0.278 to 0.447. The indirect effect is statistically significant, since the confidence interval does not include zero. The direct effect is still important, and the indirect one is also important. This is partially mediated. Thus, it can be concluded that the null hypothesis 4 ($H0_4$) is rejected. The study indicates that there is a direct link between digital HR transformation and competitive advantage, and an indirect link through talent management.

6. DISCUSSION

This discovery that digital HR transformation has a significant impact on talent management shows that digitalisation is not just a change in practice; it is a way to transform the way SMEs attract, develop, retain and deploy talent. The results presented here are highly in line with Montero Guerra et al. (2023), who identified that digitally mature companies outperform in talent-management processes, especially in attracting and retaining employees. It also aligns with the findings of Banerjee and Sharma (2024), which found that there was a strong connection between digital transformation and talent management. Likewise, Pergelova and Yordanova (2025) claimed that digital strategies add value when combined with the right talent practices. Zhou et al. (2024) also illustrate the impact of digital HR practices on transformation and innovative behaviour, and Nicolás-Agustín et al. (2022) highlighted the need for

strategic HR alignment. Studies by Espina-Romero et al. (2026) and Mahroof et al. (2025) further underscored the need for digitally enabled competencies and talent management in transformation.

The strong positive correlation between HR digital capabilities and competitive advantage presents an opportunity for SMEs to transform their HR capabilities into efficiency, innovation and responsiveness, as well as differentiation. This result aligns with Meier et al. (2025), who suggested that digital transformation can prompt the competitiveness of SMEs with the alignment of technological, organisational and cultural elements. It is also endorsed by Zhang et al. (2024), who associated digital HR practices with innovation and productivity. Evidence also suggests that digital transformation is linked to SME performance, with Nigerian evidence suggesting that digital transformation can improve SME performance (Sani et al., 2026). Similarly, Buba and Joseph (2026) found that the impact of digital transformation has been positive for operational efficiencies and market penetration. But these studies also suggest that technology is not enough; the competitive effect is dependent on complementary skills. The present result, therefore, adds to previous evidence by showing that digital transformation based on HR is a source of competitive advantage itself.

The fact that talent management has a strong influence on competitive advantage suggests that human capability continues to be a strategic priority even in increasingly digital SMEs. This finding corroborates the study of Offiong et al. (2023), which showed that talent development and retention are key factor that positively contributes to the sustainable competitive advantage of manufacturing companies in Nigeria. Likewise, Egwakhe et al (2023) found talent management to be linked to competitive advantage in Nigerian banks, and Edewhor and Okoh (2024) reported that talent management increases the performance of SME organisations in South-South Nigeria. Abroad, Al-Haraisa et al. (2021) identified positive outcomes of TDDR on competitive advantage, and Kampoowale et al (2025) reported that the 1,721 SMEs in Spain showed that talent management and competitive performance have a direct positive relationship. However, in Polish SMEs, the relationships with some of the business-performance indicators were found to be less robust by Pocztowski and Pauli (2023). This comparison implies that the value of talent management is situation- and outcome-specific and that the current evidence from Nigeria shows a high strategic value to competitiveness.

The high indirect value of digital HR transformation in the field of competitive advantage (taking into account the value of talent management) is proof of the fact that talent management is one of the channels by which digital HR adds value in the arena of competitive advantage. The partial mediation suggests that the digital HR transformation has two different pathways to competitive advantage – directly and via capabilities to leverage talent. This result aligns well with Pergelova and Yordanova (2025), who stated that a digital strategy needs to be supported by a proper talent-management approach so that the performance gains of SMEs can be achieved. In a similar study, Kampoowale et al. (2025) revealed that human capital may act as the intervening variable in the digital transformation–performance relationship among SMEs. Cai et al. (2023) offered similar evidence of the mediation of the impact of digital technology on organisational performance through talent-management practices. Similar mediation evidence is found in Espina-Romero et al. (2026) and Sani et al. (2026), but they have

different mediators. Similarly, Nicolás-Agustín et al. (2022) showed that HR practices play an intermediate role in digital transformation. The current finding thus contributes to the previous research by highlighting talent management as a human-capability pathway between digital HR transformation and competitive advantages of SMEs.

7. CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

This study investigated the relationship between digital HR transformation, talent management and competitive advantage among SMEs in Nigeria. The results highlight the strong impact of digital HR transformation on the management of talent and thus on the competitive advantage, and the strong impact of talent management on the competitive advantage. It is important to note that the relationship between digital HR transformation and competitive advantage is partly mediated by talent management. The results thus indicate that the benefits of digital HR transformation are not just based on technology, but also on the organisation's capacity to turn digital HR functionalities into meaningful HR processes. This aligns with recent research findings showing that digital technologies can be effective in improving HR efficiency and making organisations more competitive, provided there are the right human capabilities.

7.2 Implications to theory, practice and policy

The study adds to the Resource-Based View (RBV) by showing that digital HR capabilities and talent management can act as complementary strategic resources. Technology offers SMEs new HR capabilities, but talent management will transform those capabilities into valuable organisational outcomes. The study thus helps extend RBV by revealing the process through which technology-related resources become a competitive advantage, the mediation effect. This is in line with recent studies which demonstrate that digital HR practice can boost productivity and innovation in SMEs.

SME owners and managers must go beyond just digitising HR administrative tasks and build digital HR systems that include recruitment, learning and development, performance management, HR analytics and employee engagement. Employee digital competencies are a must along with the investment in technology. Managers should also have systematic ways to find, develop, attract and assign skilled talent, as digital technologies have greater value when supported by effective talent-management practices.

Policymakers should enhance the digital environment in which Nigerian SMEs operate through access to cheaper broadband, digital infrastructure, and digital-skills programmes targeted at SMEs. Government incentives, training and technical support should also be available to facilitate the use of digital HR technologies by smaller firms. These interventions can be crucial as resource scarcity can hinder the potential of SMEs to fully realise the benefits of digital transformation.

7.3 Limitations

The study has some limitations, including that it is cross-sectional and so cannot make statements about temporal or causal relationships. Selection and common-method biases may also be present because it uses purposively selected respondents and self-reported questionnaire data. Moreover, the study is limited to SMEs in Ondo State, Nigeria, and therefore, the results cannot be blindly transferred to other large institutions or SMEs in other national settings.

7.4 Recommendations

Longitudinal studies are needed in the future to investigate the evolution of digital HR transformation and talent management over time. Generalisability of the findings would be reinforced by comparative studies across sectors, regions and countries. Researchers in the future should take into account objective organisational performance indicators and explore other factors, such as organisational agility, innovation capacity and digital competence, which could lead to a competitive advantage through digital HR transformation, in addition to the perceptual ones. Meanwhile, Nigerian SMEs should take a holistic approach, where investments in HR technologies are complemented by ongoing talent development and retention strategies.

Declarations

DECLARATION OF COMPETING INTERESTS

The authors have no conflict of interest to declare that could be interpreted as influencing the results of this study.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors have used Grammarly to aid language editing, enhance the clarity and readability of the text, and help organise ideas during the preparation of this manuscript. The authors have checked and critically assessed all the outputs obtained by the use of AI and take complete responsibility for the accuracy, originality, integrity and final content of the manuscript. There has been no use of AI to “replace” the authors' scholarly judgment, interpretation of findings or responsibility for the research.

References

1. Al-Haraisa YE, Al-Ma'aitah N, Al-Tarawneh K, Abuzaid A (2021) Talent management practices and competitive advantage: Evidence from the Jordanian insurance sector. *International Journal of Service Science, Management, Engineering, and Technology (IJSSMET).* 10.4018/IJSSMET.2021090107
2. Banerjee P, Sharma N (2024) Digital transformation and talent management in Industry 4.0: A systematic literature review and the future directions. Learn Organ 32(4):620–640. https://doi.org/10.1108/TLO-10-2023-0183
3. Buba M, Joseph DD (2026) Impact of digital transformation on small and medium enterprises (SMEs) in Nigeria: A case study of Abuja Municipal Area Council. Int J Res Innov Social Sci

10(1):5485–5494. https://doi.org/10.47772/IJRISS.2026.10100420

4. Cai L, Ji Y, Wijekoon C, Yuan Y (2023) Decision-making on selection of talent management methods in the era of digitalization. Systems 11(9):450. https://doi.org/10.3390/systems11090450
5. Chugunova M, Danilov A (2023) Use of digital technologies for HR management in Germany: Survey evidence. CESifo Economic Stud 69(2):69–90. https://doi.org/10.1093/cesifo/ifad005
6. Edewhor VO, Okoh OO (2024) Impact of talent management on organizational performance of selected small and medium scale enterprises in South-South Nigeria. NG J Social Dev 15(1):168–178. https://doi.org/10.4314/ngjsd.v15i1.12
7. Egwakhe JA, Ajala OP, Adeoye SO (2023) Talent management and competitive advantage: The moderation role of workplace culture. Eur J Hum Resource Manage Stud, *6*(2). https://www.oapub.org/soc/index.php/EJHRMS/article/view/1489
8. Elia S, Giuffrida M, Mariani MM, Bresciani S (2021) Resources and digital export: An RBV perspective on the role of digital technologies and capabilities in cross-border e-commerce. J Bus Res 132:158–169. https://doi.org/10.1016/j.jbusres.2021.04.010
9. Espina-Romero L, Chafloque-Céspedes R, Gutiérrez Hurtado H, Nava-Chirinos ÁA, Ramírez Corzo J, Ochoa-Díaz A (2026) Digital human resource management and digital competencies: Keys to sustainable digital transformation in SMEs. Discover Sustain 7:445. https://doi.org/10.1007/s43621-025-02095-8
10. Hayes AF (2022) Introduction to mediation, moderation, and conditional process analysis: A regression-based approach, 3rd edn. The Guilford Press
11. Kampoowale I, Musa AMH, Abdalla AAA, Iftikhar H, Abdelraheem AAE, Elboukhari YAE (2025) Assessing the mediating role of human capital in the relationship between digital transformation and firm performance. J Manuf Technol Manage 37(1):1–22. https://doi.org/10.1108/JMTM-02-2025-0122
12. Kraus S, Jones P, Kailer N, Weinmann A, Chaparro-Banegas N, Roig-Tierno N (2021) Digital transformation: An overview of the current state of the art of research. SAGE Open 11(3):1–15. https://doi.org/10.1177/21582440211047576
13. Mahroof J, Rafı A, Ahmad A (2025) Talent management during digital transformation: Role of transformational leadership and resistance to change. Technol Soc 83:102964. https://doi.org/10.1016/j.techsoc.2025.102964
14. Meier A, Eller R, Peters M (2025) Creating competitiveness in incumbent small- and medium-sized enterprises: A revised perspective on digital transformation. J Bus Res 186:115028. https://doi.org/10.1016/j.jbusres.2024.115028
15. Montero Guerra JM, Danvila-del-Valle I, Méndez-Suárez M (2023) The impact of digital transformation on talent management. Technol Forecast Soc Chang 188:122291. https://doi.org/10.1016/j.techfore.2022.122291
16. Nicolás-Agustín Á, Jiménez-Jiménez D, Maeso-Fernandez F (2022) The role of human resource practices in the implementation of digital transformation. Int J Manpow 43(2):395–410.

https://doi.org/10.1108/IJM-03-2021-0176

17. Offiong VA, Amah E, Oshi JEO (2023) Talent management and sustainable competitive advantage of manufacturing firms in South-South, Nigeria. Asian J Econ Finance Manage 5(1):437–448. https://www.journaleconomics.org/index.php/AJEFM/article/view/192
18. Park HM (2023) The context matters to the exclusive talent management: How to measure and pay in South Korea. Global Bus Rev 24(6):1323–1340. https://doi.org/10.1177/09721509231157014
19. Pergelova A, Yordanova D (2025) The human element in digital transformation: The role of talent management for SMEs. J Int Council Small Bus 6(2):269–283. https://doi.org/10.1080/26437015.2024.2404177
20. Pocztowski A, Pauli U (2023) Talent management practices and the performance of firms: Evidence from Polish SMEs. Entrepreneurial Bus Econ Rev 11(4):155–169. https://doi.org/10.15678/EBER.2023.110410
21. Prikshat V, Malik A, Budhwar P (2023) AI-augmented HRM: Antecedents, assimilation and multilevel consequences. Hum Resource Manage Rev 33(1):100860. https://doi.org/10.1016/j.hrmr.2021.100860
22. Sani SM, Onoja OM, Salihu H, Ikoojo IP (2026) Digital transformation and sustainable business performance of small medium enterprises (SMEs) in Kogi State, Nigeria: The role of digital economy participation. *Nigeria Journal of Business Administration, 24*(1), 179–193. https://www.njba.com.ng/current/volume-24-issue-1/179-193
23. Saunders MNK, Lewis P, Thornhill A (2023) *Research methods for business students* (9th ed.). Pearson
24. Scuotto V, Nicotra M, Del Giudice M, Krueger N, Gregori GL (2021) A microfoundational perspective on SMEs' growth in the digital transformation era. J Bus Res 129:382–392. https://doi.org/10.1016/j.jbusres.2021.01.045
25. Theres C, Strohmeier S (2024) Consolidating the theoretical foundations of digital human resource management acceptance and use research: A meta-analytic validation of UTAUT. Manage Rev Q 74:2683–2715. https://doi.org/10.1007/s11301-023-00367-z
26. Zhang Y, Iqbal S, Tian H, Akhtar S (2024) Digitizing success: Leveraging digital human resource practices for transformative productivity in Chinese SMEs. Heliyon 10(17):e36853. https://doi.org/10.1016/j.heliyon.2024.e36853