

Digital Recruitment in Micro, Small and Medium Enterprises (MSMEs) in the Tech Sector in Nigeria: A Systematic Literature Review

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ABSTRACT

This systematic literature review (SLR) employs thematic synthesis to investigate the adoption and strategic integration of digital recruitment practices among Micro, Small, and Medium Enterprises (MSMEs) in the tech sector in Nigeria. Drawing from 50 peer-reviewed articles, institutional reports, and grey literature published between 2015 and 2025, the study evaluates adoption trends, barriers, various digital platforms used, sectoral and demographic influences and outcomes. Using the PRISMA framework, the quality and validity were evaluated. Also, the use of inclusion and exclusion criteria was employed to identify studies focused on relevance to MSMEs and digital recruitment in Nigeria's technology industry. The findings of the study emphasize that the adoption of digital tools in recruitment has remained tactical and largely uneven in MSMEs. Higher engagements levels were demonstrated by urban, growth oriented and youth-led enterprises. Some challenges to the successful adoption and integration include infrastructural gaps, informal HR practices, and low digital literacy. The study identified a need for policy support, capacity building, and localized digital platforms to enhance recruitment efficiency and strategic alignment. The contributions of this review will be relevant to the discourse on digital transformation in emerging markets and also offer actionable insights for stakeholders in Nigeria's MSME development landscape.

Keywords: Digital recruitment, MSMEs, systematic literature review, PRISMA, HR practices

INTRODUCTION

The relevance of the Micro, Small, and Medium Enterprises (MSMEs) to the economy of Nigeria has continued to increase, accounting for over 96% of businesses and contributing approximately 48% to GDP (PwC Nigeria, 2021). Similarly, the technology sector has emerged as the chief driver of youth employment, business innovation and digital transformation (Alfian et al., 2025). As digital platforms become widely used for recruitment globally, the MSMEs in Nigeria's tech sector are faced with both opportunities and challenges in the adoption and successful integration of these digital tools to attract and retain skilled talents. According to Bissola & Imperatori, (2019), the use of online platforms, social media, and AI-powered systems to streamline hiring processes, expand candidate reach, and improve employer branding is referred to as Digital recruitment. Such platforms as LinkedIn, Jobberman, and WhatsApp are increasingly used by MSMEs, particularly in urban and youth-led enterprises (GIZ/DTC Nigeria, 2024; Watson & Smith, 2024). Strategic adoption, however, remains fragmented amongst MSMEs due to infrastructural limitations, lack of standardisation of HR practices, and low level of digital literacy (Ajayi & Adebayo, 2022). As the strategic integration of digital recruitment into MSME operations remains critical for promoting competition and aligning the acquisition of skilled manpower with business goals (Ogunlana, 2025) many tech MSMEs continue to use digital tools reactively rather than as part of a structured HR strategy.

While digital recruitment has gained global traction, existing studies on the subject have either focused on large corporations or emphasised general digital transformation without isolating recruitment practices. Also, there is a lack of longitudinal data to assess long-term outcomes and properly represent demographical and sectoral variations. There is limited systematic research focused specifically on its adoption and strategic integration within MSMEs in Nigeria's technology sector. To this effect, this study fills the gap by offering a targeted, thematic synthesis of 50 peer-reviewed articles, institutional reports, and gray literature published between 2015 and 2025, highlighting adoption trends, platform usage, barriers, and strategic alignment in Nigeria's tech MSME landscape. This review seeks to answer the following research questions:

- 1) What is the extent of adoption of digital recruitment in MSMEs in Nigeria's technology sector since 2015?
- (2) What are the major factors influencing the adoption of digital recruitment in Nigeria's tech MSMEs?

The study contributes to both policy and practice by underscoring the need for increased digital HR training nationwide. By identifying demographic differences, the research can also guide inclusive policies targeted at youth-led and women-led MSMEs. In practice, the study will provide platform guidance by highlighting structured and informal recruitment tools that are beneficial to enterprises of different sizes and sectors. It also encourages the transition from reactive hiring practices to strategic integration aligned with business goals

The earliest signs of digital recruitment among Nigerian MSMEs were informal and largely experimental. Platforms like WhatsApp and Facebook were used for candidate outreach, especially by micro-enterprises lacking formal HR structures (Ajagu et al., 2024; Watson & Smith, 2024). These platforms offered low-cost, accessible alternatives to traditional hiring methods, particularly in urban centers. Ochinanwata & Ochinanwata (2023) emphasised that digital platforms helped micro-enterprises increase visibility and attract talent beyond their immediate geographic reach. However, adoption was reactive rather than strategic, often driven by necessity rather than planning (Akache et al., 2025). The launch of Nigeria's National Digital Economy Policy (2020–2030) and the Revised National Employment Policy (NEP 2025) marked a turning point. These frameworks encouraged MSMEs to integrate digital tools into business operations, including recruitment (GIZ/DTC Nigeria, 2024; PwC Nigeria, 2023). Alfian et al. (2025) found that digital maturity which is an enterprises level of preparedness to adopt and integrate digital tools, strongly predicts innovation in recruitment. MSMEs with higher digital maturity were more likely to use structured platforms like LinkedIn Recruiter and Jobberman in their recruitment processes.

METHODOLOGY

Research Design

This study employs a qualitative systematic review (SLR) using thematic synthesis. It is structured in line with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guideline. This research approach was adopted because it provides a platform for a comprehensive, reproducible, and unbiased synthesis of existing research on the subject matter. Unlike traditional narrative reviews, the systematic review offers a more rigorous and transparent method, facilitating the identification of patterns, trends, and knowledge gaps across the literature, which reduces bias and promotes replicability

Literature Search Strategy

The literature search strategy included the use of databases such as Scopus, Scimago, Google Scholar, and institutional repositories. Boolean operators and targeted keywords used include: "Digital recruitment," "MSMEs," "technology sector," "Nigeria," "HRM," "applicant tracking systems."

Inclusion /Exclusion Criteria

The process of selection was also guided by the inclusion/exclusion criteria as follows: Eligible works included were works published between 2015 and 2025. Also, works that focused on MSMEs in Nigeria's technology sector were included. The study also included reviews and articles that addressed digital recruitment on HR

technology. Only works that were published in English language were included. The works excluded were studies outside Nigeria, studies not focused on MSMEs and reviews and studies not written in English language. Also excluded were works that lacked methodological rigor i.e clear design, data collection and analysis

Quality Assessment

The PRISMA framework was used to evaluate the study's validity. 50 studies were identified, and only 20 remained after excluding studies not focused on MSMEs, not related to digital adoption or recruitment or outside Nigeria or in irrelevant sectors. Also, 5 grey literature theoretical /institutional support were among the studies identified initially but only 1 was included eventually.

Disagreements regarding the inclusion/ exclusion decisions were resolved through discussions. The PRISMA Flowchart for the literature searching and screening process are itemized below:

Identification

Records identified through database searching:

No in Scopus: 10

No in Scimago: 6

No in Google Scholar: 27

No in Institutional Repositories: 7

Total Records Identified: 50

Additional records identified through gray literature and manual search: 5

Total records after duplicates removed: 45

Screening

No of records screened using their titles and abstracts: 45

No of records excluded: 25

Reasons for exclusion include: Not focused on MSMEs, not related to digital adoption or recruitment or Outside Nigeria or irrelevant sectors

Eligibility

No of full-text articles assessed for eligibility: 20

No of full-text articles excluded: 10

Reasons include: Lacked methodological rigor, non-English publications, did not meet inclusion criteria

Included

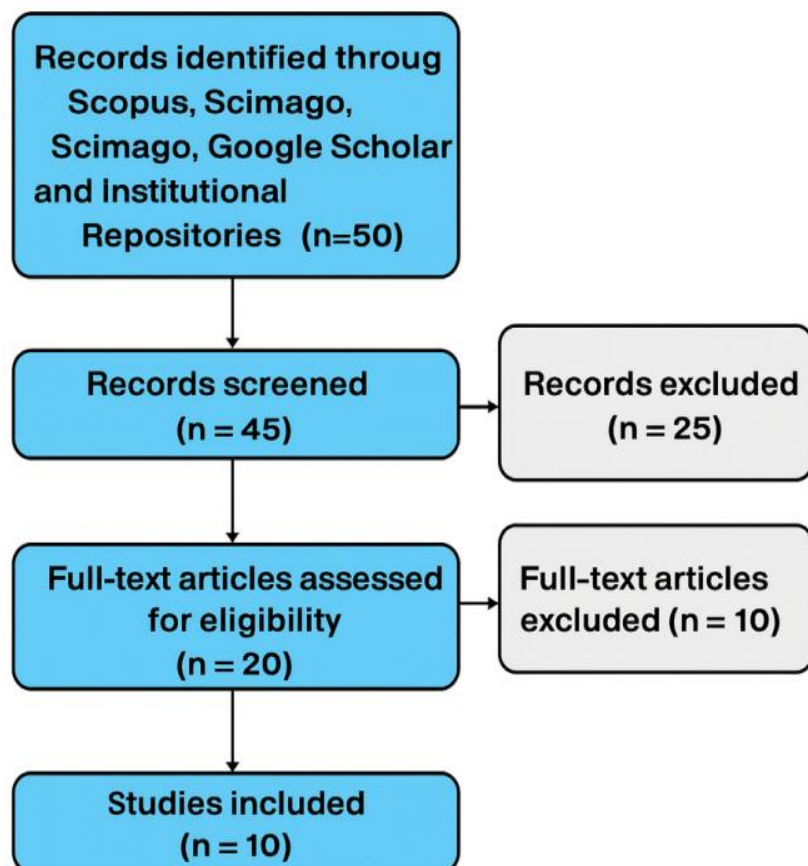
Studies included in qualitative synthesis: 10

Peer-reviewed articles: 6

Institutional reports: 3

Grey literature/theoretical support: 1

Figure 1: PRISMA flowchart for Literature search strategy



PRISMA Flow chart

RESULTS

The following themes emerged from the thematic synthesis.

Strategic Integration of Digital recruitment into Business Goals and Decision Making

Majority of Nigerian MSMEs lack a strategic framework for using digital recruitment tools into their business models, despite growing awareness of these technologies. The review identified some recurrent adoption and integration issues including:

- Reactive versus Strategic adoption: Digital hiring is frequently prompted by urgent personnel needs rather than proactive workforce planning, according to research by Biea et al. (2024) and Ogunlana (2025). MSMEs seldom maintain organized digital HR pipelines, but they frequently use Jobberman, LinkedIn, and WhatsApp during hiring spikes. According to Unegbu et al. (2024), digital transformation in HR is frequently surface-level and does not integrate with talent development or performance management systems.
- Organizational Readiness and Leadership: According to Bissola & Imperatori (2019), digital HRM necessitates cultural and structural readiness in addition to tool adoption.

Strategic alignment is challenging because many MSMEs, particularly micro-enterprises, lack institutional HR departments, according to Akache et al. (2025). Only 22% of MSMEs had defined HR policies, and less than 10% connected hiring platforms to company KPIs, according to the GIZ Digital Maturity Assessment (2025).

- **Barriers to Strategic Integration:** According to the Cheetahs Policy Institute (2025), the main challenges to strategic digital HRM are insufficient digital literacy, disjointed registration systems, and inadequate connectivity. Many MSMEs are unable to assess recruitment results because they do not have access to analytics dashboards or applicant tracking systems (ATS).

Ad hoc hiring methods are also a result of informal business operations, when managers or founders without HR experience frequently make employment decisions.

- **Size and Sectoral differences:** Higher levels of strategic integration were demonstrated by tech and creative MSMEs in Lagos and Abuja in previous studies, which frequently used platforms like BambooHR or Zoho Recruit. Retail and agriculture MSMEs in rural areas, on the other hand, relied on social media posts and human referrals with little data tracking and strategic planning

Digital Platforms used for recruitment and talent engagement in MSMEs in Nigeria

The transition from unstructured to structured tools is reflected in the evolution of platform usage. Due to their affordability and ease of use, early users mostly depended on Facebook and WhatsApp (Ajagu et al., 2024). More recently, LinkedIn Recruiter, Jobberman, and AI-powered application tracking systems are becoming more and more popular among growth-oriented MSMEs (PwC Nigeria, 2023).

Women-led MSMEs preferred social media platforms because of their community interaction capabilities, according to Watson & Smith (2024). Forvis Mazars (2024) promoted mobile-first, streamlined hiring methods designed for MSMEs, particularly in settings with limited bandwidth.

- **Structured Recruitment Platforms:** These platforms provide capabilities for candidate screening, job posting, and application monitoring. For instance, medium-sized and growth-oriented MSMEs frequently use LinkedIn Recruiter for focused hiring and professional networking. Also, Jobberman Nigeria is a well-known local job board that provides recruitment services specifically designed for Nigerian companies, including MSMEs. MyJobMag and HotNigerianJobs platforms are used to advertise job openings and reach a large number of local applicants, while SEAMLESSHR is a more recent HR digital platform in Nigeria that provides HR automation and end-to-end recruitment services. (GIZ/DTC Nigeria, 2024)

- **Social media and messaging apps:** Due to their affordability and accessibility, social media and messaging apps are extensively utilized by micro and small business. WhatsApp dominates informal recruitment, particularly for rapid outreach and referrals (Ajagu et al., 2024). On the other hand, Jobs are posted on business sites and in community groups on Facebook. Creative and youth-led MSMEs occasionally use Instagram for outreach and employer branding.

- **Mobile-First recruitment platforms:** MSMEs with limited digital Infrastructure can benefit from these tools, like Simplified HR apps including Workforce Africa, Zoho Recruit, and Recruiter are just a few of the platforms that provide basic monitoring functions and mobile-friendly interfaces (GIZ/DTC Nigeria, (2025). Forvis Mazars (2024) suggests mobile-first solutions with low bandwidth and training requirements, particularly for MSMEs in rural areas.

- **Government and Institutional Portals:** For efforts involving public-private employment. MSMEs looking for government-sponsored recruitment channels occasionally use the Federal Civil Service Commission (FCSC) and NITDA's Digital Literacy for All (DL4ALL) portal for digital skills and job matching. (Africa & Africa, 2025; Shehu, 2025)

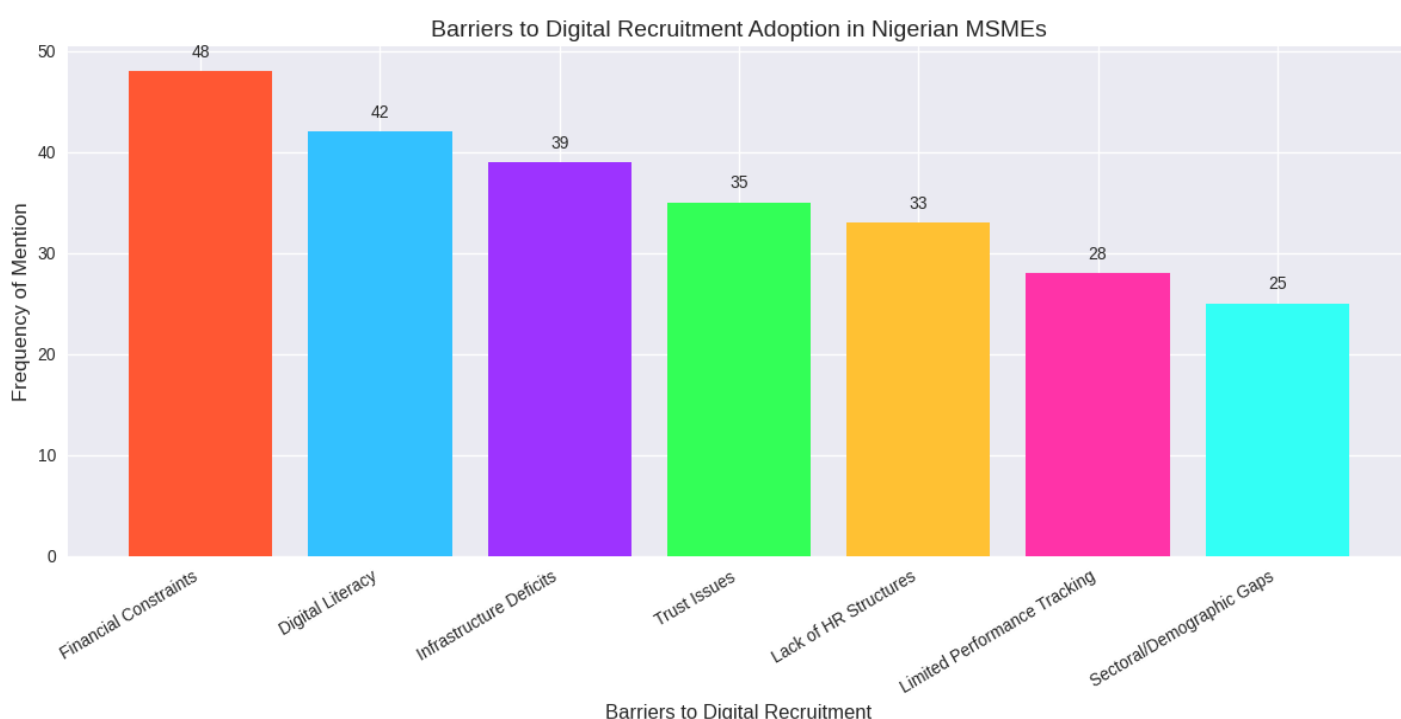
The Barriers to the adoption of digital recruitment in MSMEs in Nigeria

The systematic review revealed significant challenges that MSMEs face when they decide to adopt digital recruitment methods. These challenges vary in complexity, prevalence, and impact on organisational effectiveness. According to Adebayo (2022), issues such as cost, reliability and digital literacy are persisting

barriers. Similarly, Nwabuatu (2024) identified financial limitations and infrastructural challenges as two major challenges in Rivers State MSMEs

Another barrier identified was skepticism about the credibility of online hiring among rural MSMEs. Emphasising the issue of skepticism, Olowu & Ojo (2023) identified the issue of low trust in AI screening among micro-enterprises (Eze et al 2021). Díaz-Arancibia et al. (2024) also identified a gap in digital upskilling by emphasising its need in developing countries. Notably, only 22% of MSMEs in Nigeria tracked recruitment metrics digitally (PwC Nigeria 2023) which is an indication of lack of structure in data collection relating to recruitment. Bissola & Imperatori (2019) and Akache et al. (2025) highlighted the absence of HR structures to be a barrier to strategic integration

Figure 2: Barriers to the adoption of digital recruitment in MSMEs in Nigeria



Sectoral Variations and Demographic influences in the Adoption of digital recruitment in MSMEs in Nigeria

The review identified different sectoral and demographic variations in the adoption of digital recruitment in MSMEs in Nigeria. While GIZ/DTC Nigeria (2025) found out that Tech and Service Sectors Lead Adoption in 10 states in the nation, especially Lagos, Abuja, and Port Harcourt, making more use of platforms like LinkedIn, Jobberman, and SEAMLESSHR. Ogunlana (2025) noted that tech MSMEs particularly had a higher potential for adopting digital recruitment in MSMEs. On the contrary, agriculture and trade sectors were not as keen. The review found that youth-led MSMEs were more agile and experimental in adopting digital tools; as such, MSMEs in Lagos and Abuja showed *early adoption of AI-based customer service tools and e-commerce platforms* (Taiwo & Adedotun 2025) as against others. Also, Watson & Smith, (2024) identified that gender disparities affected choice of platforms and adoption rates, as women-led enterprises particularly in Enugu and Rivers State, showed higher engagement with social media platforms like Instagram, Facebook and WhatsApp Business, while male-led firms leaned toward structured tools.

Outcomes and Performance Indicators

The analysis painted a complex picture of the results of digital hiring in MSMEs in Nigeria. Although adoption is increasing, long-term effects are not well documented, and performance metrics are being underutilized. Faster hiring cycles, better candidate quality, and increased operational efficiency are among the favorable results found in numerous researches. According to Biea et al. (2024) and Mohammed et al. (2025), MSMEs utilizing

Jobberman, LinkedIn, and WhatsApp Business reported a 40% reduction in time-to-hire, particularly in the tech and creative industries. More qualified applicants resulted from improved targeting and filtering made possible by digital tools. Mohammed et al. (2025) connected this to improved employer visibility and branding, especially in youth-led businesses. Karimu et al. (2025) showed that MSMEs using applicant tracking systems (ATS) and cloud-based HR platforms experienced *higher recruitment throughput and reduced administrative burden*.

Ajayi & Adebayo (2022) highlighted the long-term impact by finding no significant relationship between digital recruitment and productivity or long-term staff retention. In order to maintain gains, many MSMEs lacked performance management and onboarding mechanisms. Once again, according to PwC Nigeria (2023), only 22% of MSMEs monitored digital recruitment KPIs like retention rates, cost per hire, and source effectiveness. Evidence-based HR choices are hampered by this gap. Informality and a lack of HR infrastructure are two of the obstacles noted. GIZ (2025), Low Digital Literacy: Many MSME owners are ill-equipped to understand recruitment analytics, which results in underutilization of dashboards and reporting tools (Cheetahs Policy Institute, 2025). Tool Fragmentation: MSMEs frequently use several unintegrated platforms, like Facebook, WhatsApp, and email, which makes data analysis and consolidation more difficult (Ajagu et al., 2024).

Table 1: Thematic summary of systematic literature review

	Themes	Findings	Sources
1	Strategic Integration of Digital Recruitment	- Adoption of digital tools is mostly reactive and not infused in long-term HR strategy. - The presence of informal HR systems /processes in MSMEs prevents alignment with organizational goals. - It is critical to emphasize leadership engagement and preparedness.	Biea et al. (2024); Ogunlana (2025); Akache et al. (2025); Bissola & Imperatori (2019)
2	Platform types and Extent of Adoption in Tech MSMEs	- The use of platforms like LinkedIn, Jobberman, and WhatsApp is increasing in urban tech hubs. rural MSMEs rely more on informal channels as messaging apps	Mohammed et al. (2025); GIZ (2025); Ajagu et al. (2024)
3	Adoption Drivers and Barriers	- Youth leadership, cost-efficiency, and mobile-first platforms are reported as drivers of adoption of digital recruitment - The barriers and challenges include low digital literacy, lack of HR infrastructure, and use of fragmented tool. Many MSMEs operate without HR departments and they rely totally on the founders hiring decisions.	Taiwo & Adedotun (2025); Cheetahs Policy Institute (2025); Ajayi & Adebayo (2022); Akache et al. (2025); GIZ (2025)
4	Outcomes and Performance Indicators	- In the short term there are benefits like faster hiring and better candidate quality. The long-term impact on retention and productivity is limited. Reports reveal also that only 22% of MSMEs track recruitment metrics digitally.	Biea et al. (2024); Mohammed et al. (2025); Ajayi & Adebayo (2022); PwC Nigeria (2023)
5	Sectoral and Demographic dynamics	- MSMEs led by females often prefer social media platforms while men-led firms lean toward structured tools. - Northern and rural MSMEs face greater infrastructural challenges. Medium-sized firms show higher adoption of digital recruitment processes than micro and nano enterprises.	Watson & Smith (2024); Nwabuatu (2023)

DISCUSSION

Comparative Insights

When compared to international contexts, Nigerian MSMEs still lag in strategic integration despite the growth in digital recruitment practices. The size of the firm, urban location and digital maturity are decisive factors. In India, according to Deshpande et al 2025, MSMEs face similar literacy and infrastructural challenges; however, government interventions through training programs have accelerated adoption of digital recruitment. European SMEs have demonstrated stronger integration as they often link recruitment outcomes in the organizations to retention and innovation metrics. (Springer, 2024). Also, startups located in Latin America usually combine informal referrals with digital tools. This reflects their cultural reliance on networks but increases the formalisation process post-COVID (Frontiers, 2025). In Nigeria, youth-led startups used LinkedIn, Jobberman and Whatsapp business, but adoption is often reactive rather than strategic.

Implications for HRM and Entrepreneurship theory and practice

1. Strategic HRM: The traditional HRM theories of job design and talent management have been challenged by digital recruitment processes. Frameworks that account for fragmented and digitally enabled processes are now required as mobile-first platforms and informal networks increasingly mediate recruitment. Practically, recruitment outcomes should be built into performance metrics like innovation and productivity.
2. Ethics and bias: Bias, data privacy and fairness in hiring are areas in which reliance on algorithmic tools is raising concerns. (Singh & Pande, 2024)
3. Entrepreneurship: As Nigerian firms exemplify bricolage (innovation by repurposing accessible digital tools) rather than investing in formal HR systems, resource-constrained firms showcase their ability and strength to adapt under institutional voids.
4. Policy Implication: As in the cases of India and Europe, targeted support such as training, infrastructure, and incentives) is necessary to bridge the gaps of literacy and resource.

Research Limitations

One significant limitation of the study is that the literature search covered only works published between 2015 and 2025 and was restricted to English language sources. While this ensured focus, it may have excluded some works outside the stated time frame and published in other languages which may have been relevant to the study. Also, although the study focused on MSMEs in the Nigerian tech sector, increasing its relevance, this sectoral and geographical focus limits generalizability to other industries or regions.

CONCLUSION

Digital recruitment has emerged as a transformative mechanism for talent acquisition among Micro, Small, and Medium Enterprises (MSMEs) in Nigeria's technology sector. Since 2015, its adoption has steadily increased, particularly among urban, youth-led, and growth-oriented enterprises. From an international perspective, however, these MSMEs in Nigeria, still lag in strategic integration, underscoring the need for HRM theories and practical reforms to be recalibrated during the hiring process in entrepreneurial contexts. Intentional attempts to bridge the knowledge and resource gaps, embed recruitment into performance measurements, and encourage the entrepreneurial practices that will go a long way to position digital recruitment as a strategic asset in these MSMEs rather than a tactical necessity.

RECOMMENDATIONS

The findings of this systematic review highlight the growing strategic importance of the adoption of digital recruitment in MSMEs tech sector in Nigeria. In light of this, the study therefore recommends the following:

MSMEs should begin to formalise core HR processes, like job descriptions, recruitment workflows, and standards for onboarding. Doing this will promote the adoption and strategic use of digital recruitment in Nigeria's tech sector and help to fill gaps that are both structural and behavioural in nature. Government organisations and development partners can assist this endeavour by providing MSME-specific templates and streamlined toolkits. Developing digital literacy among MSME managers and owners is equally very important. They should be able to handle applicant tracking systems, browse recruitment platforms, and understand analytics dashboards. This can be facilitated through focused training programs. As they are more tech-savvy, youth-led MSMEs can act as peer educators to hasten adoption throughout the industry.

Public-private partnerships should provide subsidised access to premium recruitment platforms with tiered pricing structures or bundled services incorporated into tech hub support packages in order to lower financial obstacles. In order to provide fair access to digital recruitment tools, MSMEs in underserved areas need better internet infrastructure and mobile network coverage. It is also imperative to address existing regional imbalances.

As strategic integration depends on leadership engagement, MSME founders need to understand that digital recruitment is more than just a hiring tool; it is a catalyst for business expansion and innovation. Data-driven decision-making and digital HRM should be covered in leadership development courses. MSMEs should also use simple dashboards to keep track of data that is relevant metrics such as cost-per-hire and source effectiveness in order to connect recruiting outcomes to business success indicators, such as retention rates, employee productivity, and customer satisfaction.

Lastly, given that MSMEs led by females typically prefer mobile-first and social media-based solutions, the study recommends developing gender-sensitive platforms. To promote inclusive adoption, advertisements should showcase female-led success stories and recruitment systems should take these preferences into account. Lastly, in order to foster confidence and guarantee responsible use, national MSME policies should encourage the adoption of digital HR through grants or tax breaks, and regulatory frameworks should support data privacy and moral hiring practices.

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