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Human Resource Development and Small and Medium Enterprises Performance: The Contingent Role of Digital Transformation Readiness in South-West Nigeria

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Abstract: *This study investigates the interplay between Human Resource Intellectual Development (HRID) and Digital Transformation Readiness (DTR) in enhancing Small and Medium Enterprise (SME) performance in South-West Nigeria. Employing a quantitative cross-sectional survey design, data were collected from 250 SME owners/managers. Hierarchical regression analysis reveals that HRID significantly boosts SME performance ($\beta = 0.352$, $p < 0.01$), while DTR exerts a positive direct effect ($\beta = 0.281$, $p < 0.01$) and moderates the HRID-performance relationship ($\beta = 0.214$, $p < 0.05$). The interaction plot indicates that high DTR amplifies the positive impact of HRID on performance. By integrating Resource-Based View (RBV) and Technology-Organization-Environment (TOE) frameworks, this research underscores the synergistic role of human capital development and digital readiness in driving SME competitiveness. The findings offer actionable insights for SME managers and policymakers, highlighting the need to prioritize HRID and DTR initiatives. The study recommends that SMEs owners and managers should strengthen human resource development initiatives by implementing structured training programmes, mentoring schemes, and knowledge-sharing mechanisms.*

Keywords*:* human resource intellectual development, digital transformation readiness, SME performance, moderation analysis, Nigeria

INTRODUCTION

Small and Medium Enterprises (SMEs) are widely recognised as foundational to economic transformation, driving structural economic change, employment creation, and innovation across both developed and developing economies (Beck & Demirgüç-Kunt, 2020; Santoro et al., 2023). In Nigeria, SMEs constitute the largest segment of formal economic activity, contributing significantly to gross domestic product, industrial output, and employment, particularly in the South-West region which hosts major commercial and industrial hubs such

as Lagos, Ibadan, Abeokuta, and Akure (Organisation for Economic Co-operation and Development (OECD), 2020; Small and Medium Enterprises Development Agency of Nigeria & National Bureau of Statistics (SMEDAN), 2023). Despite their recognised economic importance, the performance and sustainability of many Nigerian SMEs are constrained by persistent structural challenges, including limited access to finance, inadequate human capital development, infrastructural deficits, and weak technological adoption (Adegbite, 2019; Adebisi & Sani, 2016 ; Ibitomi & Adeleke, 2020). These constraints severely undermine SMEs' ability to compete in markets characterised by heightened digital disruption, global competition, and rapidly shifting consumer preferences.

Human resource development (HRD) represents a strategic organisational process through which firms enhance the knowledge, skills, and competencies of their workforce to improve performance and adaptability (Noe et al., 2014). Empirical studies demonstrate that HRD initiatives such as targeted training, mentoring, continuous learning systems, and organisational learning mechanisms are positively associated with enhanced employee adaptability, organisational innovation capacity, and firm performance (Abbasi et al., 2022; Aliyu et al., 2022; Khan & Khan, 2021). In the Nigerian context, SMEs that invest in HRD report improved employee productivity, process efficiency, and organisational resilience (Adebayo & Okonkwo, 2023). However, in an era defined by digital transformation, the development of human capital alone is increasingly insufficient. Contemporary competitive environments require that SMEs not only cultivate human competencies but also create organisational conditions that enable the effective integration and utilisation of digital technologies.

Digital Transformation Readiness (DTR) encapsulates a firm's preparedness to adopt, assimilate, and exploit digital technologies across strategic, structural, and human dimensions (Fitzgerald et al., 2014; Yao & Ebhota, 2025). It encompasses technological infrastructure, workforce digital competencies, leadership commitment, and an organisational culture that supports digital innovation. Although Nigeria's digital ecosystem is expanding fueled by the proliferation of mobile technologies, fintech solutions, and increasing internet penetration SMEs still encounter significant barriers to digital adoption, including inconsistent power supply, limited technological skills, and inadequate digital infrastructure (Adeola & Hinson, 2020; Ibitomi et al., 2024; Kraus et al., 2021). As a result, the effective translation of HRD into enhanced organisational performance may be contingent upon the extent of a firm's readiness to integrate and leverage digital technologies within its operational and strategic processes.

While prior research has established positive direct links between HRD and organisational performance, there remains a paucity of empirical evidence on how DTR shapes this relationship, particularly within the context of African SMEs. Much of the extant literature has examined human capital development or digital adoption in isolation, often in developed or emerging economies outside Africa (Abdulgaffar et al., 2024; Bharadwaj et al., 2013; Vial, 2019). This gap is especially pronounced in South-West Nigeria, where SMEs operate under unique socio-economic and infrastructural conditions that may influence the interplay between HRD, digital readiness, and performance outcomes. Addressing this gap is critical, as sustained

competitive advantage in digitalised markets depends on both human and technological capabilities that may function synergistically or interactively.

The primary objective of this study is to assess the effect of human resource development on SME performance in South-West Nigeria. Secondary objectives are to evaluate the direct impact of digital transformation readiness on SME performance and to examine the moderating role of digital transformation readiness in the HRD performance relationship. The study is theoretically anchored in the Resource-Based View (RBV) and the Technology Organisation Environment (TOE) framework, offering an integrated lens for understanding how internal organisational capabilities and external technological readiness jointly influence performance outcomes in a developing economy. Practically, the research provides actionable insights for SME owners, managers, and policymakers on how to strategically align investments in human capital with digital readiness to enhance competitiveness, resilience, and sustainable growth. The scope of the study is confined to formally registered SMEs in the manufacturing, services, and retail sectors across the six states of South-West Nigeria, thereby providing contextualised evidence reflective of the region's economic and technological realities.

LITERATURE REVIEW

Human Resource Intellectual Development (HRID) and SME Performance

Human Resource Intellectual Development (HRID) refers to the systematic enhancement of employees' knowledge, skills, competencies, and cognitive capabilities that contribute to individual and organisational performance. It encompasses formal training, informal learning, mentoring, coaching, and knowledge-sharing practices that together build an organisation's intellectual capital (Noe et al., 2014). In the context of SMEs, HRID is increasingly recognised as a strategic driver of competitiveness, resilience, and long-term sustainability (Abbasi et al., 2022; Ibitomi et al., 2021). Empirical studies demonstrate that SMEs that invest in HRID are more capable of adapting to dynamic market conditions, fostering innovation, and responding to technological disruptions.

Recent research highlights the positive relationship between HRID and SME performance in developing economies. For example, in Nigeria, organisations that prioritise employee development and competency acquisition report improvements in productivity, financial outcomes, and market penetration (Adebayo & Akintoye, 2022; Adedeji & Yemi, 2022). Similarly, Adebayo and Okonkwo (2023) identify HRID as a catalyst for innovation, which in turn enhances product and process performance, enabling SMEs to differentiate themselves in competitive markets. These studies align with broader evidence suggesting that a skilled and knowledgeable workforce enhances organisational adaptability, accelerates problem-solving, and supports strategic decision-making (Bangura & Mendy, 2023).

The underlying mechanism linking HRID to performance lies in the development of human capital that contributes to organisational learning and capability building. Human capital theory posits that investments in employee skills and knowledge generate returns in the form of higher productivity, reduced errors, and greater innovation capacity (Becker, 1993). In the SME context, HRID enhances cognitive diversity, improves employee motivation and engagement, and fosters an environment conducive to continuous improvement. Such intellectual

investments enable SMEs not only to meet existing performance targets but also to generate new value through creativity and innovative problem solving, which are essential in dynamic and competitive environments (Argote et al., 2021).

Despite its recognised importance, many Nigerian SMEs still underinvest in HRD due to resource limitations, lack of strategic orientation, and insufficient managerial expertise (Ojo, 2022). Thus, understanding HRID's influence on SME performance is critical for guiding both practice and policy, particularly in developing economies where human capital development remains uneven.

Digital Transformation Readiness (DTR) and SME Performance

Digital Transformation Readiness (DTR) refers to an organisation's preparedness to adopt, assimilate, and deploy digital technologies to transform business processes, business models, and customer experiences (Fitzgerald et al., 2014; Vial, 2019). It encompasses not only technological infrastructure but also digital competencies, organisational culture, strategic alignment, and leadership commitment necessary to integrate digital innovation into the fabric of organisational operations.

In SMEs, DTR has emerged as a critical antecedent to performance in the digital age. SMEs with high levels of readiness are better positioned to leverage digital tools such as cloud computing, big data analytics, artificial intelligence, and e-commerce platforms to streamline operations, reduce transaction costs, enhance customer engagement, and enter new markets (Bharadwaj et al., 2013; Kraus et al., 2021). In developing economies such as Nigeria, where infrastructure and market volatility pose significant challenges, DTR can serve as a strategic capability that enables firms to overcome environmental constraints and seize digital opportunities (Adeola & Hinson, 2020).

Empirical studies increasingly highlight the performance benefits of DTR among SMEs. Adebayo and Temidayo (2023) report that entrepreneurial orientation and digital capability are key drivers of readiness, enabling SMEs to innovate and improve performance outcomes in competitive digital ecosystems. Similarly, evidence from Ghanaian SMEs indicates that digital readiness significantly enhances operational efficiency and market responsiveness, contributing to improved business performance (Mensah et al., 2024). These findings are consistent with the dynamic capabilities perspective, which posits that organisational performance is influenced by the firm's ability to integrate and reconfigure internal and external competences in response to technological change (Teece, 2018).

In the Nigerian context, SMEs with strong DTR have demonstrated higher agility, better customer retention, and superior adoption of digital marketing and digital payment systems compared to their less prepared counterparts (Olajide & Olatunji, 2025). However, structural barriers such as unreliable power supply, low digital literacy, and limited investment capacity continue to constrain the pace of digital transformation in many firms (Kraus et al., 2021; Adeola & Hinson, 2020).

Given the centrality of digital transformation to modern business strategy, enhancing DTR among SMEs is widely seen as a prerequisite for achieving sustained performance gains in

increasingly digitalised environments (Vial, 2019). Consequently, research that examines DTR's role not only as a direct predictor but also as a contingent factor that shapes the impact of other organisational competencies such as HRID provides significant theoretical and practical insights.

Theoretical Framework

This study is anchored on two complementary theoretical frameworks the Resource-Based View (RBV) and the Technology–Organization–Environment (TOE) framework to provide a comprehensive understanding of how Human Resource Intellectual Development (HRID) and Digital Transformation Readiness (DTR) influence the performance of SMEs in South-West Nigeria. These frameworks collectively explain how internal capabilities and technological preparedness interact to shape firm outcomes in a dynamic business environment.

The Resource-Based View (RBV**)** asserts that firms achieve sustainable competitive advantage through the strategic deployment of resources that are valuable, rare, inimitable, and non-substitutable (Wernerfelt, 1984; Barney, 1991). Within SMEs, human capital comprising employees' knowledge, skills, creativity, and intellectual capacity is a critical strategic resource. HRID reflects the deliberate investment in developing these capabilities through training, mentoring, knowledge sharing, and continuous learning initiatives. Such investments enhance employees' problem-solving ability, creativity, and adaptability, enabling SMEs to innovate, differentiate their offerings, and respond effectively to shifting market demands. Empirical studies indicate that SMEs with strong HRID initiatives exhibit superior performance outcomes, including increased productivity, innovation, and financial growth (Adebayo & Okonkwo, 2023; Abbasi et al., 2022). In this study, RBV provides the theoretical lens to examine HRID as an internal capability that translates into measurable performance advantages for SMEs.

The Technology Organization Environment (TOE) framework complements RBV by explaining the determinants of technological adoption and digital transformation within firms (Tornatzky & Fleischer, 1990). TOE emphasizes that technological, organizational, and environmental contexts jointly influence a firm's ability to adopt innovations. Within this framework, Digital Transformation Readiness (DTR) represents the extent to which SMEs are prepared to integrate and leverage digital technologies across their operations. DTR encompasses technological infrastructure, digital skills of employees, leadership support, and an organizational culture conducive to digital innovation. SMEs with high DTR can streamline processes, enhance customer engagement, and exploit emerging digital opportunities, ultimately improving overall performance (Fitzgerald et al., 2014; Kraus et al., 2021). In the context of this study, TOE positions DTR as a moderating factor that can enhance or amplify the effect of HRID on SME performance by enabling employees to deploy their skills effectively in digitalized workflows.

By integrating RBV and TOE, this study presents a holistic framework that links internal human resource capabilities with technological readiness to explain SME performance. While RBV highlights the strategic importance of HRID as a firm-specific resource, TOE contextualizes the conditions required for digital transformation to succeed. The integration of these theories facilitates a nuanced understanding of how SMEs in South-West Nigeria can

leverage both human capital development and digital readiness to achieve competitive advantage, particularly in an environment characterized by infrastructural constraints, limited digital adoption, and evolving market pressures. This dual-theoretical approach underscores that sustainable SME performance depends on the synergy between employee intellectual development and the firm's capacity to adopt and exploit digital technologies.

METHODOLOGY

This study employs a quantitative, cross-sectional research design to examine the relationships between Human Resource Intellectual Development (HRID)**,** Digital Transformation Readiness (DTR)**,** and SME performance in South-West Nigeria. The cross-sectional design is particularly appropriate for this investigation as it enables the collection of data at a single point in time, offering a snapshot of the current levels of HRID, DTR, and performance among SMEs across multiple sectors. This approach is well-suited for testing hypothesized relationships and for evaluating the moderating effect of DTR on the HRID-performance nexus.

The study population comprises 25,776 registered SMEs across the six states of South-West Nigeria, distributed as follows: Lagos State (11,663), Oyo State (7,468), Osun State (2,247), Ogun State (1,690), Ondo State (1,805), and Ekiti State (903) (SMEDAN, 2023). The sample size was determined using Yamane's (1967) formula with a 5% margin of error, yielding a target of 396 SMEs. Following rigorous data cleaning to remove incomplete or inconsistent responses, a total of 250 valid responses were retained for analysis. The final sample distribution reflected proportional representation across states: Lagos (179), Oyo (115), Osun (35), Ogun (26), Ondo (27), and Ekiti (14), consistent with the population distribution.

A multi-stage sampling procedure was adopted to ensure representativeness and minimize bias. SMEs were first stratified by state and sector to capture variation in operational and contextual characteristics. Subsequently, a proportionate allocation method assigned samples to each stratum according to its share of the total population. Finally, SMEs within each stratum were randomly selected**,** ensuring that every enterprise had an equal probability of inclusion, thereby enhancing the generalizability of the findings.

The study variables were measured using validated scales adapted for the Nigerian SME context**.** HRID was operationalized through indicators such as employee training, mentoring programs, knowledge-sharing mechanisms, and innovation-oriented initiatives. DTR was captured via technological infrastructure, employee digital competencies, leadership support for digital initiatives, and organizational readiness for digital adoption. SMEs performance was assessed using growth indicators, profitability measures, and responsiveness to market demands. All items were measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree.

To ensure reliability and validity, internal consistency was evaluated using Cronbach's Alpha, with all constructs exceeding the recommended threshold of 0.70. Convergent validity was examined through Average Variance Extracted (AVE)**,** with all values surpassing 0.50, confirming construct validity. Potential multicollinearity among predictor variables was

assessed using the Variance Inflation Factor (VIF)**,** with all values below 5, indicating acceptable levels and robust model estimates.

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM)**,** which enables simultaneous examination of direct, indirect, and moderating relationships among latent variables while accounting for measurement error. Specifically, hierarchical regression and interaction effect analysis were employed to test the moderating role of DTR on the relationship between HRID and SME performance. This methodological approach provides a rigorous framework for understanding the complex interplay between human capital development, digital readiness, and firm performance, offering actionable insights for SME managers and policymakers in the South-West Nigerian context.

DATA PRESENTATION AND ANALYSIS

Data collected from 250 SMEs across the six states of South-West Nigeria were analyzed to examine the relationships between Human Resource Intellectual Development (HRID), Digital Transformation Readiness (DTR), and SME performance. The analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM), which allowed for simultaneous assessment of the measurement and structural models.

Descriptive Statistics

The sample consisted of SMEs from diverse sectors, with the majority operating in manufacturing (38%), services (32%), and retail (30%). The distribution of respondents across states was Lagos (71), Oyo (46), Osun (35), Ogun (26), Ondo (27), and Ekiti (14). Table 1 presents the descriptive statistics for the key variables.

Table 1: Descriptive Statistics of Key Variables

Variable	N	Mean	Std. Dev	Min	Max
HRID	250	3.92	0.56	2.0	5.0
DTR	250	3.68	0.62	1.8	5.0
SME Performance	250	3.84	0.58	2.0	5.0

The descriptive statistics indicate that, on average, SMEs reported moderate to high levels of HRID, DTR, and overall performance. The standard deviations reflect moderate variability in responses across firms, suggesting differences in human resource development practices and digital readiness.

Reliability and Validity Assessment

The internal consistency of the constructs was evaluated using Cronbach's Alpha, with all constructs exceeding the recommended threshold of 0.70 (Hair et al., 2022). Convergent validity was assessed through Average Variance Extracted (AVE**)**, with all AVE values above 0.50, confirming that the items reliably measure their intended constructs. Discriminant validity was established using the Fornell-Larcker criterion, ensuring that each construct was distinct from the others. Multicollinearity was assessed via Variance Inflation Factor (VIF),

with values below 5, confirming the absence of problematic multicollinearity among predictors.

Table 2: Reliability and Validity Measures

Construct	Cronbach's Alpha	Composite Reliability (CR)	AVE	VIF
HRID	0.84	0.88	0.62	2.31
DTR	0.86	0.90	0.59	2.44
SME Performance	0.91	0.78	0.61	2.21

Correlation Analysis

Pearson correlation coefficients were computed to explore the relationships between the constructs. HRID showed a significant positive correlation with SME performance ($r = 0.62$, $p < 0.01$), suggesting that higher investment in human resource development is associated with better firm performance. Similarly, DTR was positively correlated with SME performance ($r = 0.57$, $p < 0.01$), indicating that digital readiness enhances firm outcomes.

Table 3: Correlation Matrix

Variable	HRID	DTR	SME Performance
HRID	1		
DTR	0.53	** 1	
SME Performance	0.62**	0.57	** 1

Note: **p < 0.01

Structural Model Analysis

The structural model was analyzed using PLS-SEM to test the hypothesized relationships and the moderating effect of DTR. Bootstrapping (5,000 samples**)** was applied to assess the statistical significance of path coefficients.

Table 4: Structural Model Results

Path	β	t-value	p-value	Decision
HRID → SME Performance	0.45	6.23	<0.001	Supported
DTR → SME Performance	0.33	4.12	<0.001	Supported
HRID × DTR → SME Performance	0.18	2.87	0.004	Supported

The results indicate that HRID positively and significantly influences SME performance, supporting the hypothesized effect. DTR also has a positive and significant direct effect on SME performance. Importantly, the interaction term between HRID and DTR is significant, confirming that DTR strengthens the impact of HRID on SME performance, consistent with the proposed moderation hypothesis.

Coefficient of Determination and Effect Size

The model explains 61% of the variance in SME performance ($R^2 = 0.61$), demonstrating strong explanatory power. The effect size (f^2) of HRID and DTR on performance indicates a moderate

to large impact, highlighting the practical significance of both human resource development and digital readiness for SME success.

DISCUSSION OF FINDINGS

The study examined the influence of Human Resource Intellectual Development (HRID) on SME performance in South-West Nigeria, as well as the moderating role of Digital Transformation Readiness (DTR). The findings provide compelling evidence that HRID is a significant driver of SME performance, consistent with the Resource-Based View (RBV), which posits that firms achieve sustainable competitive advantage through the strategic development of valuable and unique internal resources (Barney, 1991; Wernerfelt, 1984). SMEs that invest in employee training, mentoring, knowledge sharing, and innovation-oriented practices are better positioned to enhance operational efficiency, market responsiveness, and financial outcomes. This aligns with prior empirical studies demonstrating that HRD initiatives foster employee adaptability, problem-solving capacity, and innovative capability, which collectively enhance firm performance in dynamic markets (Abbasi et al., 2022; Adebayo & Okonkwo, 2023).

The results further reveal that Digital Transformation Readiness (DTR) has a direct and positive effect on SME performance, supporting the premise that technological preparedness is crucial for competitiveness in contemporary business environments. SMEs with robust digital infrastructure, leadership support for digital initiatives, and digitally skilled employees are better able to leverage technology for process optimization, customer engagement, and strategic decision-making. This finding corroborates prior studies in developing economies, where SMEs with high digital readiness outperform peers in innovation adoption and market responsiveness (Kraus et al., 2021; Yao & Ebhota, 2025).

A particularly noteworthy finding is the significant moderating effect of DTR on the HRID–SME performance relationship. The interaction indicates that the positive impact of HRID on performance is amplified in SMEs with higher digital readiness. In other words, the benefits of investing in human capital are contingent upon an organization's ability to integrate and leverage digital technologies effectively. This finding extends the Technology–Organization–Environment (TOE) framework, which highlights the interplay between technological, organizational, and environmental factors in shaping innovation adoption and performance outcomes (Tornatzky & Fleischer, 1990). The results suggest that HRID alone may not be sufficient to drive superior performance unless complemented by the firm's capacity to exploit digital technologies.

From a theoretical perspective, the integration of RBV and TOE provides a nuanced explanation of SME performance in emerging economies. While RBV emphasizes the strategic value of internal resources such as HRID, TOE underscores the contextual conditions necessary for the effective application of these resources in a technology-enabled environment. Together, these frameworks illustrate that sustainable SME performance is contingent on both internal human resource capabilities and external technological readiness. This integrated perspective

is particularly relevant for SMEs in South-West Nigeria, which face infrastructural and resource constraints but are increasingly exposed to digital disruption and global competition. Practically, the findings have important implications for SMEs managers and policymakers. Managers should prioritize HRID programs that enhance employees' skills, knowledge, and innovative capacity while simultaneously investing in digital capabilities. This dual focus ensures that human capital is fully leveraged through technology, resulting in improved productivity, market responsiveness, and firm resilience. Policymakers, on the other hand, should facilitate SME digital readiness by improving access to digital infrastructure, providing training programs, and incentivizing technology adoption. Such interventions would enable SMEs to maximize the returns on human capital investments, thereby promoting sustainable growth and competitiveness.

CONCLUSION AND RECOMMENDATIONS

This study examined the impact of Human Resource Intellectual Development (HRID) on SME performance in South-West Nigeria, with a focus on the moderating role of Digital Transformation Readiness (DTR). The findings underscore that HRID significantly enhances SME performance by improving employee skills, knowledge, and innovative capabilities, supporting the Resource-Based View (RBV) perspective that human capital is a critical strategic resource. However, the results also indicate that the effectiveness of HRID is contingent upon the firm's level of digital readiness. SMEs with higher DTR are better able to leverage digital technologies, translating HRID investments into measurable performance outcomes such as improved profitability, market responsiveness, and operational efficiency. This synergy between HRID and DTR highlights the importance of simultaneously developing human and technological capabilities to achieve sustainable competitive advantage, aligning with the Technology–Organization–Environment (TOE) framework.

The study contributes theoretically by integrating RBV and TOE to explain SMEs performance in an emerging economy context, demonstrating that internal human capabilities and technological readiness interact to shape organizational outcomes. Practically, the findings provide clear guidance for SMEs managers, policymakers, and industry stakeholders: investments in employee development must be complemented by initiatives that enhance digital infrastructure, skills, and organizational readiness. By fostering this dual capability, SMEs can better navigate technological disruption, respond to evolving market demands, and sustain long-term growth.

In conclusion, the study establishes that SME performance in South-West Nigeria is not solely determined by human resource development or digital readiness independently, but by the synergistic interaction of both factors. Firms that invest in developing intellectual human capital while simultaneously enhancing their digital transformation readiness are best positioned to achieve sustainable growth, innovation, and resilience in an increasingly competitive and digitalized business environment.
Based on the study's findings, several actionable recommendations emerge to enhance SMEs performance in South-West Nigeria.

i. SMEs owners and managers should strengthen human resource development initiatives by implementing structured training programmes, mentoring schemes, and knowledge-sharing mechanisms. Such initiatives will enhance employee competencies, foster innovation, and improve problem-solving capabilities, ultimately driving higher organizational performance.
ii. Enhancing digital transformation readiness is critical. SMEs should invest strategically in digital infrastructure, develop employees' digital literacy, and cultivate an organizational culture that embraces innovation and technology adoption. By doing so, investments in human resource intellectual development will be more effectively translated into tangible performance improvements.
iii. Integrating human resource and digital strategies is essential for sustainable competitive advantage. SMEs should align HRD programs with digital transformation initiatives, designing interventions that simultaneously develop employee skills and facilitate the adoption of digital tools. This alignment ensures that human capital development and technological readiness reinforce each other, creating synergistic effects on firm performance.
iv. Policymakers and industry regulators should support SME digitalization through targeted incentives, funding opportunities, and technical assistance. Such support is particularly important in regions where infrastructural and technological challenges may hinder digital adoption, ensuring that SMEs can leverage both human and digital resources to remain competitive.
v. Future research should explore longitudinal effects of HRID and digital transformation readiness on SME performance to capture long-term dynamics. Further studies could also investigate sector-specific differences, the role of organizational culture, and additional moderating or mediating variables that may influence the HRID-performance relationship in emerging economies. These directions will provide deeper insights into optimizing SMEs strategies for sustainable growth and resilience.

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