ADOPTION OF HUMAN RESOURCE TECHNOLOGY (HRT): ITS IMPLICATION ON ENTREPRENEURS AND MICRO SCALE INDUSTRIES' (MSI) EMPLOYEE PERFORMANCE IN YOBE STATE

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ABSTRACT: *This study examines the impact of adopting the implementation of technology on HR practices on employees of entrepreneurs and MSI in Yobe State, Nigeria. The research explores the barriers and enablers of technology adoption in HR practices, considering factors such as limited access to technological infrastructure, the digital divide among the workforce, data security concerns, and resistance to change. The findings highlight the challenges faced by organizations in Yobe State in adopting and effectively utilizing HR technologies. Limited access to technological infrastructure and disparities in digital skills among employees emerge as significant barriers. The data security concerns and resistance to change hinder technology adoption efforts. The study emphasizes the need for strategies and enablers to overcome these barriers and promote successful technology adoption in HRT practices. The research identifies gaps in the existing literature and highlights the need for further studies that specifically address the context of Yobe State. By addressing these research gaps, entrepreneurs and MSI in Yobe State can better understand the implications of technology adoption on their HR practices and develop effective strategies for successful implementation.*

KEYWORDS: Human Resource; Technology; Entrepreneurs; Micro Scale Industries; Employees' Performance.

INTRODUCTION

In recent years, the rapid advancement of technology has transformed various aspects of organizational management, including human resource (HR) practices. The integration of technology in HR functions has revolutionized the way organizations attract, engage, develop, and retain their workforce (Bondarouk, Parry, & Furtmueller, 2017). Yobe State, located in Northeastern Nigeria, is no exception to this global trend. With its diverse industries such as agriculture, commerce, education, and healthcare, Yobe State is witnessing the increasing influence of technology in HR practices (Kolo, 2020).

Yobe State has experienced economic growth and technological advancements, creating both challenges and opportunities in managing its human capital. The adoption of technology in HR practices has the potential to streamline processes, optimize resource allocation, and enhance employee experiences (Holland & Light, 2020). However, the specific implications and effectiveness of technology-driven HR practices in Yobe State require empirical investigation to inform practice and policy in the region.

The utilization of technology in HR practices is still in its early stages in Yobe State. There is a need for comprehensive research to understand the extent to which entrepreneurs and MSI embraced technology, the types of technologies employed, and the impact on HR processes and outcomes (Kolo, 2020). This study aims to address this gap by exploring the impact of technology on HR practices in organizations operating in Yobe State.

The digital transformation of HR practices encompasses various areas, including recruitment and selection, training and development, performance management, employee engagement, and HR information systems (Bondarouk et al., 2017). By leveraging technology, organizations can automate administrative tasks, improve data accuracy and accessibility, enable remote work arrangements, and enhance communication and collaboration among employees (Holland & Light, 2020).

However, the adoption of technology in HR practices is not without challenges. Organizations in Yobe State may face barriers such as limited access to technological infrastructure, the digital divide among the workforce, data security concerns, and resistance to change (Kolo, 2020). It is essential to understand these challenges and identify strategies to mitigate them effectively.

By examining the influence of technology on HR practices, this research seeks to uncover the potential benefits, challenges, and implications for organizations in Yobe State. The findings of this study will contribute to the existing body of knowledge on HR management, specifically within the context of technology adoption and utilization in a developing region (Holland & Light, 2020). Furthermore, the insights gained from this research may inform practitioners, policymakers, and organizational leaders in Yobe State on the strategic integration of technology in HR practices to improve efficiency, effectiveness, and employee experiences.

Problem Statement

The integration of technology in human resource (HR) practices has the potential to revolutionize the way entrepreneurs and MIS in Yobe State, Nigeria attract, engage, develop, and retain their workforce. However, the extent to which organizations in Yobe State have adopted and effectively utilized technology in their HR practices remains unclear. Furthermore, the specific implications of technology-driven HR practices in this region, including the benefits, challenges, and impact on HR processes and outcomes, have not been comprehensively examined.

Yobe State, like many developing regions, faces unique challenges in leveraging technology for HR management. Limited access to technological infrastructure, the digital divide among the workforce, data security concerns, and resistance to change are potential barriers that organizations may encounter. It is crucial to understand these challenges and identify strategies to mitigate them effectively.

Objectives of the Study

- To evaluate the impact of HR technology adoption on employee engagement in Yobe State.

- To investigate the impact of HR technology adoption on employee satisfaction in Yobe State.

- To examine the impact of HR technology adoption on employee commitment in Yobe State.

- To determine the impact of HR technology adoption on employee productivity in Yobe State.

Hypothesis of the Study

- HR technology adoption has no significant impact on employee engagement in Yobe State.

- HR technology adoption has no significant impact on employee satisfaction in Yobe State.

- HR technology adoption has no significant impact on employee commitment in Yobe State.

- HR technology adoption has no significant impact on employee productivity in Yobe State.

LITERATURE/THEORETICAL UNDERPINNING

The integration of technology in human resource (HR) practices has become increasingly prevalent, offering new opportunities and challenges for organizations worldwide. Yobe State, Nigeria, with its growing economy and technological advancements, is not immune to the influence of technology on HR management. The impact of technology on HR practices in Yobe State is an area of study that warrants attention and exploration.

Technology adoption in HR practices has the potential to revolutionize traditional HR processes and enhance organizational performance. Technology-driven HR practices can improve efficiency, accuracy, and data management, leading to streamlined operations and improved decision-making (Strohmeier & Kabst 2019). The use of technology in HR processes can positively impact employee experiences and outcomes. Technology-enabled HR practices can enhance employee engagement, satisfaction, and productivity, ultimately contributing to organizational success (Parry & Tyson 2018).

Evolution of Technology in HR Practices

The historical development and evolution of technology in HR practices have transformed the way organizations manage their human resources. Over the years, technological advancements have revolutionized various HR processes, leading to increased efficiency, accuracy, and effectiveness. Notable advancements in technology include HR Information Systems (HRIS). HRIS emerged as a significant advancement in technology, enabling organizations to automate HR processes and centralize employee data. HRIS provides functionalities such as employee record management, payroll processing, benefits administration, and reporting, streamlining HR operations and improving data accuracy (Strohmeier & Kabst, 2019). Others include 'Applicant Tracking Systems' (ATS) (Strohmeier & Kabst, 2019), 'Learning Management Systems' (LMS) (Strohmeier & Kabst, 2019), and 'Performance Management Software' (PMS) (Strohmeier & Kabst, 2019), among others.

Key Benefits and Advantages of Technology Adoption in HR Practices

The adoption of technology in HR practices brings several benefits and advantages to organizations. Its Increased Efficiency Technology automates manual tasks, reduces paperwork, and accelerates HR processes, leading to increased efficiency and time savings (Strohmeier & Kabst, 2019). Others are 'Improved Data Accuracy' (Strohmeier & Kabst, 2019), 'Enhanced Decision-Making' (Strohmeier & Kabst, 2019), 'Enhanced Employee Experience' (Strohmeier & Kabst, 2019), and 'Improved Compliance' (Strohmeier & Kabst, 2019), among others.

Impact of Technology on HR Processes and Outcomes

Numerous research studies have investigated the impact of technology on various HR processes and outcomes. Here is an overview of some key findings:

● **Recruitment and Selection:** Research indicates that technology adoption in recruitment and selection processes has several positive effects. Applicant tracking systems (ATS) streamline candidate sourcing and screening, reducing time-to-hire and improving recruitment efficiency. Studies have shown that ATS can enhance the quality of hires by enabling better candidate matching and reducing bias in the selection process (Campion,

Palmer, & Campion, 2017). Additionally, video interviewing platforms have been found to increase convenience, widen the talent pool, and improve candidates' experiences (Bangerter, Roulin, König, & Krumm, 2019).

● **Training and Development:** Technology-driven approaches to training and development have demonstrated numerous benefits. Learning management systems (LMS) provide flexible and personalized learning experiences, leading to improved employee engagement, knowledge retention, and skill development (Noe, 2017). E-learning platforms and virtual reality (VR) training have shown promising results in enhancing learning outcomes and reducing training costs (Parry & Tyson, 2018).

Other viable positive improvements for adoption include the field of 'Performance Management' (DeNisi & Murphy, 2017; Levenson & Van der Stede, 2017), 'Technology-driven' (Bondarouk, Ruël, & Looise, 2019; Parry & Tyson, 2018; Bondarouk et al., 2019), and 'Efficiency, Accuracy, Satisfaction, and Retention' (Parry & Tyson, 2018; Bondarouk et al., 2019), among others.

Potential Benefits and Challenges of Technology-driven HR Practices

The benefits include 'Increased Efficiency' as technology automates manual tasks, reduces paperwork, and accelerates HR processes, leading to enhanced efficiency and time savings. Others are Improved Accuracy, Enhanced Employee Experience, Data-driven Decision Making, Compliance and Reporting, Implementation and Integration, and Data Security and Privacy. However, there exist some challenges such as Resistance to Change. Employees and HR professionals may resist adopting new technologies due to fear of job displacement or lack of familiarity. The challenge may also be Technological Constraints as technical issues, system failures, and compatibility problems can hinder the effectiveness of technology-driven HR practices, or Bias and Fairness as while technology can reduce certain biases, it is essential to ensure that algorithms and systems are designed and monitored to avoid perpetuating biases or discrimination.

Barriers to Technology Adoption in HR Practices

Limited Access to Technological Infrastructure: Organizations may face challenges in adopting technology due to limited access to reliable internet connectivity, hardware, and software resources. Insufficient technological infrastructure can impede the implementation and effective utilization of HR technologies (Bondarouk, Ruël, & Looise, 2019). Other barriers may include 'Digital Divide Among the Workforce' (Parry & Tyson, 2018), 'Data Security Concerns' (Bondarouk et al., 2019), and 'Resistance to Change' (Parry & Tyson, 2018), among others.

Strategies and Enablers for Successful Technology Adoption in HR Practices

Develop Technological Infrastructure: Organizations can invest in technological infrastructure, including internet connectivity, hardware, and software, to ensure access and availability of HR technologies. Collaboration with local governments, private sector partners, and technology providers can help address infrastructure limitations (Bondarouk et al., 2019). Some strategies may include 'Provision of Training and Support' (Parry & Tyson, 2018), 'Emphasizing on Data Security and Privacy' (Bondarouk et al., 2019), Fostering a 'Change-Ready Culture' (Parry & Tyson, 2018), and 'Pilot Projects and Incremental

Implementation' as organizations can start with small-scale pilot projects to test the effectiveness of HR technologies before full-scale implementation. Incremental adoption allows for learning, adaptation, and addressing any challenges or concerns along the way (Bondarouk et al., 2019), etc.

The Technology Acceptance Model (TAM) Theory

The TAM was developed by Fred Davis in 1989 and later extended by Venkatesh and Davis in 2000. It is based on the premise that users' acceptance and adoption of technology are influenced by their perceptions of the technology's usefulness (perceived usefulness) and ease of use (perceived ease of use).

METHODOLOGY

In this study, the survey research design was adopted and the data was collected through the distribution of questionnaire. The nature of the questionnaire used for this study was a five-point Likert-scale. A total of questionnaires was distributed and 201 questionnaires were returned, which represents a response rate of 78.5%.

Data analysis was conducted using partial least square (PLS) software 4.5.9, an approach to structural equation modeling and presented as required. The PLS-SEM in this study tested for the measurement model and the structural model.

The measurement model assesses the constructs involved in the study, which is to determine whether the indicators, such as Composite reliability (CR), convergent validity, average variance extracted (AVE) and discriminant validity, as described by Hair et al. (2011), Hair et al. (2012) and Henseler et al. (2009), met their required threshold.

Table 1: Convergent Validity

Construct	Item	Loading	CR	AVE
Technology Adoption	TAD1	0.826	0.854	0.661
	TAD2	0.780		
	TAD3	0.833		
Employee Engagement	EME3	0.842	0.697	0.541
	EME5	0.610		
Employee Satisfaction	EMS3	0.753	0.804	0.577
	EMS4	0.734		
	EMS5	0.792		
Employee Commitment	EMC2	0.575	0.736	0.596
	EMC5	0.927		
Employee Productivity	EMP1	0.564	0.736	0.597
	EMP5	0.936		

Source: *Smart-Pls*

The result in Table 1 shows the convergent validity for the constructs under study. The results thus demonstrated a high level of convergent validity of the latent construct and used in the model. An AVE value of at least 0.5 indicates sufficient convergent validity, meaning that a latent variable can explain at least half of the variance of its indicators on average.

Table 2: Fornell-Lacrker Discriminant Validity

	EMC	EME	EMP	EMS	TAD
EMC	**0.772**				
EME	0.221	**0.735**			
EMP	0.124	0.207	**0.773**		
EMS	0.349	0.462	0.234	**0.76**	
TAD	0.185	0.242	0.189	0.156	**0.813**

Source: *Smart-Pls*

Table 2 shows the discriminant validity result. The result reveals that diagonal bolden values are greater than the inner value. Therefore, discriminant validity is achieved.

The Structural Model

Structural model fitness is examined after measurement model assessment has been met and fitness is shown to be acceptable. The structural or inner model consists of the factors and the arrows that connect one factor to another. The loadings of the direct paths connecting factors are standardized regression coefficients. To ensure that the final estimated result from the PLS is true, it is important to determine the fitness of the model. The fitness of the model can be assessed in the following ways: testing for collinearity of the structural model and assessing the significance and relevance of the structural model relationships, the level of the R^2 values, and the f^2 effect size (Tenenhaus, Vinzi, Chatelin & Lauro 2005). Höck and Ringle (2006) described the results above the cutoffs 0.67, 0.33 and 0.19 to be "substantial," "moderate" and "weak" respectively. The R-square here would be considered to be of moderate strength or effect. To assess multicollinearity in the structural model, tolerance or VIF criteria may be applied, discussed and illustrated. The VIF benchmark should be less than 4.

The f-square effect size measure is another name for the R-square change effect. The f-square coefficient can be constructed equal to (R^2 Original - R^2 Omitted)/(1 - R^2 Original). The denominator in this equation is "Unexplained." The f-square equation expresses how large a proportion of unexplained variance is accounted for by R^2 change (Hair et al., 2014). Following Cohen (1988), .02 represents a "small" f^2 effect size, .15 represents a "medium" effect, and .35 represents a "high" effect size.

Table 3: Structural Fitness Indices

Construct	Item	VIF	R^2	f^2	Q^2
Technology Adoption	TAD1	1.055		0.035, 0.062, 0.037, 0.025	
	TAD2	1.055			
	TAD3	1.008			
Employee Engagement	EME3	1.008	0.059		0.012
	EME5	1.059			
Employee Satisfaction	EMS3	1.059	0.024		0.115
	EMS4	1.69			
	EMS5	1.599			
Employee Commitment	EMC2	1.123	0.034		0.212
	EMC5	1.464			
Employee Productivity	EMP1	1.511	0.036		0.211
	EMP5	1.491			

Source: *Smart-Pls*

Table 3 also presents the VIF diagnostic and estimated PLS weights for the indicators of all the items from the questionnaire. A common rule of thumb is that problematic multicollinearity may exist when the variance inflation factor (VIF) coefficient is higher than 4.0. (Some use the more lenient cutoff of 5.0.) None of the original indicators had VIF greater than 5.

The overall effect size measure for the structural model, as in regression, indicated that 5.9%, 2.4%, 3.4% and 3.6% variations in the employee engagement, employee satisfaction, employee commitment and employee productivity respectively are explained by the effect of HR technology adoption in Yobe State.

The f-squared for HR technology adoption is considered to be weak for employee engagement, employee satisfaction, employee commitment and employee productivity. The Q^2 was estimated by the blindfolding method. The values of the Q^2 are 0.012, 0.115, 0.212 and 0.211 indicated that a greater than greater than zero, they have predictive relevance for this study.
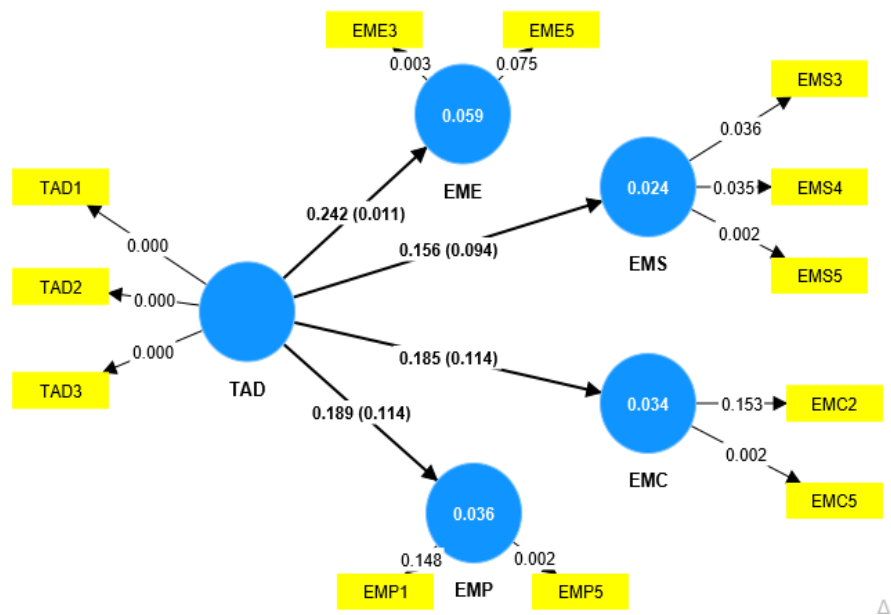
Source: Smart-Pls

Figure 1: PLS-SEM Structural Model

RESULTS/FINDINGS

Results

Table 4: PLS-SEM Result

	Coeff	Stand dev	T statistics	P values	Decision
					Insignificant
TAD -> EMC	0.185	0.117	1.583	0.114	
TAD -> EME	0.242	0.096	2.53	0.011	Significant
TAD -> EMP	0.189	0.119	1.582	0.114	Insignificant
TAD -> EMS	0.156	0.093	1.675	0.094	Insignificant

Source: *Smart-Pls*

The result in Table 4 demonstrates the impact of HR technology adoption on employee performance in Yobe State. HR technology adoption showed a positive and significant effect on employee engagement. This means that the more HRs adopt technology, the more the employees are engaged. The result agreed with the study which found that an improvement in HRIS leads to enhanced employee engagement (Acheampong & Ofori, 2019). Furthermore, HR technology adoption showed a positive and insignificant effect on employee satisfaction. The result is consistent with a study by Adegunle and Aderibigbe (2019) which found that HRIS improves feedback and goal setting.

KEY FINDINGS

Limited Access to Technological Infrastructure: Yobe State may face challenges in adopting technology due to limited access to reliable internet connectivity, hardware, and software resources. This constraint can hinder the implementation and effective utilization of HR technologies. Other challenges found are disparities in digital literacy and skills among employees, concerns about data security and privacy when adopting HR technologies, and resistance to change, among others.

DISCUSSION

In the case of employee commitment, the result shows that there is a positive and insignificant relationship between HR technology adoption and employee commitment. The outcome is consistent with the findings that highlighted the effectiveness of social media in attracting younger talent, reaching diverse applicant pools, and enhancing employer branding (Amoako & Addae, 2018). Finally, HR technology adoption was found to be positive and significant to employee productivity. This result does agree with the study which found that HRIS leads to increased productivity (Adegunle & Aderibigbe, 2019).

IMPLICATION TO RESEARCH AND PRACTICE

The study identified the significant impacts of IT on recruitment, selection, training, performance management, compensation, and employee relations. It highlighted increased efficiency, accuracy, and cost-effectiveness of HR processes. It is advocated that researchers, practitioners and entrepreneurs should continue making an investment in IT infrastructure and training for HR professionals to maximize the benefits of technology.

The potential impact of AI on HR practices in Nigeria was explored, identifying both opportunities and challenges using literature review and expert interviews, and it is suggested that AI could revolutionize HR through automation, data-driven decision making, personalized employee experiences, and talent analytics (Adebayo & Adeyemo, 2021). A few, but many of these analyses were conducted revealing a positive effect of HRT in employee performance in Yobe State's public sector.

CONCLUSION

Based on the result, it was found that the theory of TAM was found to be applicable in this study. Thus, TAM has brought about increased employee engagement, employee satisfaction, employee commitment and employee productivity, thereby enhancing Perceived Usefulness and Perceived Ease of Use.

FUTURE RESEARCH

This study recommends that innovation should be intensified by researchers in this dimension while applying them by HR departments in entrepreneurs and MSI in Yobe State, using technology for consistent and sustainable employee performance.

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