

Digital Leadership and Remote Work Management. A Study of MTN, Akwa Ibom State, Nigeria

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Abstract

This study examines the relationship between digital leadership and remote work management. A study of MTN, Akwa Ibom State. A cross-sectional survey of 162 respondents was conducted from the respondents. For the objectives of the study to be achieved, three hypotheses were formulated and tested. The study utilized structured questionnaire as a major instrument for data collection. Simple percentage and regression models were used to analyze the research questions and hypotheses. The results revealed significant positive relationship between digital leadership and remote work management in MTN, Akwa Ibom state. Based on the findings, the study recommends that the MTN, Akwa Ibom State should implement comprehensive digital literacy training programs tailored for her employees, develop strategies to enhance employee engagement in a remote work setting by incorporating regular feedback mechanisms and virtual team-building activities, and establish transparent employee monitoring practices that respect privacy while ensuring accountability.

Keywords: Digital Leadership, Remote Work Management Digital Literacy, Decreased Employee Engagement, Employee Monitoring

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1. Introduction

1.1 Background of the Study

Digital leadership has become a central theme in modern organizational management, particularly in the context of the evolving digital workplace. In recent years, the integration of digital technologies and remote work practices has reshaped the traditional management landscape, offering new possibilities and challenges (Zahra & George, 2023). Digital leadership refers to the strategic adoption and application of digital tools and technologies by leaders to guide and transform organizational processes (Marquardt & Berger, 2022). It involves the utilization of digital capabilities to enhance communication, collaboration, and overall business performance. This shift has become increasingly critical, especially as businesses navigate the complexities of remote work environments. Remote work, driven by advancements in digital communication technologies, has gained significant prominence, allowing employees to work from locations outside the traditional office setting (Bajwa et al., 2024). The COVID-19 pandemic further accelerated the adoption of remote work globally, highlighting the importance of digital leadership in sustaining organizational operations and employee productivity (Bennett & Seger, 2023). Companies like MTN, one of Africa's largest telecommunications providers, have had to adapt rapidly to the demands of remote work management, requiring leaders to embrace digital tools and strategies effectively. The MTN, Akwa Ibom State, serves as a case study to explore the role of digital leadership in managing remote teams in a dynamic business environment. In this context, digital leadership is essential for fostering a culture of trust, ensuring effective communication, and maintaining productivity in remote work settings (Cascio & Montealegre, 2023). However, managing a remote workforce presents unique challenges, including difficulties in monitoring performance, ensuring employee engagement, and addressing issues related to work-life balance (Gilson et al., 2023). As digital transformation continues to shape the future of work, there is a growing need for empirical research to understand the relationship between digital leadership and remote work management, particularly in the context of developing economies like Nigeria (Chukwu et al., 2024).

1.2 Statement of the Problem

Despite the growing emphasis on digital leadership and its potential to enhance remote work management, organizations in Nigeria, including MTN, Akwa Ibom State, face significant challenges in fully leveraging these opportunities. While digital leadership is known to facilitate better communication and collaboration, many leaders still struggle with adapting to the digital tools required for efficient remote work management (Okeke & Nwosu, 2024). The shift to remote work has exposed gaps in leadership practices, particularly in areas related to digital literacy, employee monitoring, and maintaining a cohesive organizational culture (Olowookere et al., 2024). In MTN, Akwa Ibom State, leaders are confronted with the task of managing a diverse and dispersed workforce, often hindered by inadequate digital infrastructure and varying levels of technological competence among employees (Adedeji, 2024). The absence of effective digital leadership strategies has led to issues such as decreased employee engagement, reduced productivity, and challenges in performance assessment (Ibanga & Asuquo, 2024). Furthermore, there is limited empirical evidence on the specific impacts of digital leadership on remote work outcomes in the context of telecommunications firms operating in Nigeria. This study seeks to address this gap by examining how digital leadership influences remote work management in the MTN, Akwa Ibom State. It aims to provide insights into the effectiveness of digital tools and leadership practices in enhancing employee engagement, productivity, and overall organizational performance in a remote work setting. By doing so, the study will contribute to the growing body of knowledge on digital leadership and remote work management in developing economies, providing practical recommendations for improving remote work strategies in the telecommunications industry.

1.3 Objectives of the Study

The main purpose of this study is to examine the relationship between digital leadership and remote work management. A study of MTN, Akwa Ibom State. Specific objectives of this study include:

- To examine the relationship between digital literacy and remote work management in MTN, Akwa Ibom State.
- To examine the relationship between decreased employee engagement and remote work management in MTN, Akwa Ibom State.
- To examine the relationship between employee monitoring and remote work management in MTN, Akwa Ibom State

1.4 Research Questions

From the objectives of the study, the following research questions are raised to guide the study:

- What is the relationship between digital literacy and remote work management in MTN, Akwa Ibom State?
- What is the relationship between decreased employee engagement and remote work management in MTN, Akwa Ibom State?
- What is the relationship between employee monitoring and remote work management in MTN, Akwa Ibom State?

1.5 Hypotheses

From the objectives of this study, the following research hypotheses are formulated to guide the study:

- There is no significant relationship between digital literacy and remote work management in MTN, Akwa Ibom State.
- There is no significant relationship between decreased employee engagement and remote work management in MTN, Akwa Ibom State.
- There is no significant relationship between employee monitoring and remote work management in MTN, Akwa Ibom State.

1.6 Significance of the Study

The study on "Digital Leadership and Remote Work Management in MTN, Akwa Ibom State is significant for several reasons:

- It provides insights into how digital leadership practices can effectively manage remote work, boosting productivity and efficiency at MTN, Akwa Ibom State.
- Understanding the dynamics of digital leadership helps in addressing challenges related to employee engagement and satisfaction in a remote work setting, fostering better workplace morale.
- The study aids MTN, Akwa Ibom State's management in making data-driven decisions regarding technology adoption, work policies, and leadership strategies, which are crucial in the current digital economy.
- It expands existing literature on digital leadership and remote work management, especially within the Nigerian telecommunications sector, providing a localized perspective for future research.
- The findings can inform policy development for remote work frameworks, helping organizations in Akwa Ibom State and beyond to implement effective digital leadership strategies.

1.7 Scope of the Study

Unit scope: The study focused on the 162 staff of MTN, Akwa Ibom State.

Content scope: The content scope of this study is confined to literature on digital leadership and remote work management.

Geographical scope: This study focused on the staff of MTN, Akwa Ibom State.

2. Literature Review

2.1 Concept of Digital Leadership and Remote Work Management

Digital leadership refers to the capability of leaders to guide organizations in leveraging digital tools and technologies to drive strategic objectives. It goes beyond technical proficiency; it includes adaptability, strategic vision, and emotional intelligence (Avolio et al., 2014). According to Van Doorn et al. (2023), effective digital leaders foster a culture of innovation, align digital initiatives with business goals, and enhance employee engagement by empowering teams. The focus is on inspiring change and managing digital transformation with a blend of technology and people-oriented skills. Remote Work Management in the other hand, involves overseeing and guiding teams that operate outside a traditional office environment. Key elements include maintaining effective communication, fostering collaboration, and ensuring productivity through digital platforms. As noted by Toth et al. (2020) and Juyumaya & Torres (2023), successful remote management requires leaders to establish trust, set clear expectations, and adapt to flexible working conditions. Emphasis is placed on using digital tools for collaboration and prioritizing employee well-being to maintain engagement and efficiency. Digital leadership is the use of technology to facilitate better decision routine, teamwork, and efficiency. According to Abaikpa, Udoh, Thomas & Etuk (2022) time management, as a significant factor of leadership, allows digital leaders to optimize resource allocation, plan critically important tasks and provide continuity in workflows in a virtual world. By leveraging digital technologies (i.e project management tools, AI-powered schedulers, automated reminders), digital leaders build efficiency and introduce a planned approach to fulfilling the goals of the organization. Telework models pose special considerations that include communication challenges, interruptions, and supervision.

As stated by Abaikpa, Thomas, Daniel & Udoh (2022) effective time management is of paramount importance to remote work managers, to prevent loss of productivity among employees whilst providing work-life balance. Digital devices for tracking work, virtual meetings, and cloud-based co-ordination tools are supporting managers to optimize workflow, keep track of the progress and minimize time utilization. Through the combination of structured time management tools, remote leaders create accountability, a sense of efficiency, and commitment in distributed teams (Abaikpa, Thomas, Daniel & Udoh, 2023). In their study, Abaikpa, Thomas, Udoh & Daniel (2023) define digital leadership in the educational context as a method that can contribute to building inclusive and participatory school climate by using technology to facilitate communication, collaboration, and feedback. Tools such as virtual learning platforms, student performance watchdogs, and artificial intelligence (AI) - based analysis system that can be used to support and facilitate school leaders' efforts to enhance transparency, promote teacher-student interactions and to build a digitally inclusive learning ecosystem. School management in the 21st century requires a change from traditional to a digital form of transformation, to maximize institutional administrative efficiency, academic achievement, and institutional prestige. Digital leadership has an important role in the efficiency of schools, the automation of administrative affairs, and the data-driven decision making. From online enrollment portals to digital management of resources and cloud-based collaboration tools, digital leaders improve school administration by making information more accessible, decreasing administrative work, and facilitating unified and coordinated by-laws among stakeholders (Abaikpa, Udoh, Thomas & Etuk 2022).

Digital literacy and Remote Work Management

The relationship between digital literacy and remote work management is significant, as digital literacy is foundational for effectively managing remote teams. Digital literacy involves the ability to use technology proficiently, which includes navigating digital tools, understanding online communication norms, and utilizing software for collaboration. As organizations adopt remote work, employees and managers need these skills to maintain productivity and ensure seamless operations (Gilster, 1997; Walton, 2016). During the shift to remote work, especially accelerated by the COVID-19 pandemic, digital literacy became a critical competency. Employees with strong digital skills are better equipped to adapt to new remote work tools, such as project management software and virtual communication platforms. This adaptation enhances efficiency and reduces the challenges associated with managing dispersed teams (Feher & Szabo, 2019; Stofkova et al., 2022). For effective remote work management, leaders must ensure that their teams are digitally literate, as this directly impacts the success of remote workflows and digital transformation initiatives. Training programs aimed at improving digital skills help bridge gaps in employee competencies, fostering a smoother transition to remote work environments and enhancing overall organizational performance (Al-Alawi et al., 2023; Grgurevic et al., 2022). Thus, digital literacy serves as a key enabler of successful remote work management by empowering employees to utilize digital tools effectively and by facilitating better communication and collaboration within virtual teams.

Decreased Employee Engagement and Remote Work Management

Decreased employee engagement is a significant challenge in remote work management. The shift to remote work often impacts the level of engagement due to factors like reduced communication, lack of social interaction, and difficulties in maintaining organizational culture. Research indicates that remote work can disrupt regular feedback mechanisms and reduce face-to-face interactions, which are vital for maintaining employee motivation and a sense of belonging (Jackson & Clark, 2021; Tkalac Verčić & Špoljarić, 2020). The sudden transition to remote work, especially during events like the COVID-19 pandemic, highlighted the negative impact on engagement over time. Employees often experienced increased job demands without adequate resources to cope, leading to stress and burnout, which further reduced engagement (Whitman et al., 2014). When job demands outweigh available resources, employees may experience disengagement as a self-protective mechanism against resource depletion. Moreover, remote work environments can sometimes lack the necessary communication channels that foster strong employee-supervisor relationships, which are crucial for maintaining engagement. Inadequate communication tools and limited interactions can exacerbate feelings of isolation, diminishing employee motivation and connection to the organization (Chanana & Sangeeta, 2020). Thus, effective remote work management strategies should focus on improving communication, providing resources for employee support, and fostering a strong virtual culture to mitigate engagement decline.

Employee Monitoring and Remote Work Management

The relationship between employee monitoring and remote work management is complex, driven by the need to maintain productivity while balancing employee privacy and trust. In the context of remote work, monitoring tools are often implemented to track performance, manage workflow, and ensure that tasks are completed efficiently (Ravid et al., 2020; Wang et al., 2021). Managers use these tools to gain insights into employee activities, allowing them to provide timely feedback and support, which can enhance productivity when used effectively (Tomczak et al., 2018; Blumenfeld et al., 2020). However, excessive or intrusive monitoring can negatively impact remote work management. Many employees perceive extensive surveillance as a sign of distrust, leading to decreased job satisfaction, increased stress, and a sense of privacy invasion (Aloisi & De Stefano, 2021). This erosion of trust can create a hostile work environment, reduce motivation, and hinder the collaborative culture needed for effective remote work (Bernstrøm & Svare, 2017). Moreover, continuous monitoring, especially during the pandemic, has exacerbated work-life conflicts and contributed to employee burnout (Wang et al., 2021; CIPD, 2020). Successful remote work management involves finding a balance in monitoring practices—ensuring transparency, involving employees in decision-making, and focusing on supportive feedback rather than punitive measures. This approach helps maintain trust and engagement, which are critical for long-term productivity and job satisfaction in remote settings.

2.2 Theoretical Review

The best theory that can support this study is transformational leadership theory.

Transformational Leadership Theory

Transformational leadership is highly relevant for digital leadership and remote work management. This theory emphasizes a leader's ability to inspire, motivate, and support employees through change, which is crucial in managing remote teams. Leaders in digital contexts must leverage technology to foster innovation, build trust, and sustain engagement despite physical separation. Bass and Avolio (1994) believe that transformational leadership theory applies well to motivating remote teams through vision and individualized support. Similarly, Sinek (2020) believes that transformational leadership theory helps in fostering employee trust and engagement in virtual settings. However, by integrating this theory, the study can effectively analyze how digital leadership strategies impact the management of remote teams.

2.3 Empirical Review

Sarker, Xiao & Beaulieu (2022) found that remote leaders with advanced digital skills facilitate a knowledge-sharing culture, helping teams adapt to new technologies and maintain alignment despite geographical dispersion. Chaudhary et al. (2022) found that decreased engagement in remote work settings can be mitigated by regular virtual interaction, recognition programs, and the use of gamified platforms to motivate teams. These interventions directly combat isolation. Bloom et al. (2022) found that hybrid remote monitoring strategies—like progress-based rather than time-based metrics—reduce micromanagement perceptions, improving both performance and trust. de Klerk, Joubert & Mosca (2021) emphasize that digitally literate leaders are better equipped to integrate tools like video conferencing and task management software, ensuring productivity and collaboration in remote environments. These competencies significantly reduce technological barriers and foster smooth virtual operations. Gallup (2021) reports that digital leaders employing frequent personalized feedback and fostering psychological safety have significantly higher employee engagement rates, even in remote contexts. Eldor, Harpaz, & Westman (2020) demonstrated that remote engagement improves when leaders prioritize work-life balance and allow flexibility in work schedules, reducing burnout and increasing job satisfaction. George (2011) highlights the importance of transparency in remote monitoring. Leaders using fair and objective performance-tracking systems experience less resistance from employees and improved accountability. Deloitte Insights (2021) suggests that AI-driven monitoring tools, when used ethically and with open communication, enhance productivity

while respecting employee autonomy. Misuse of these tools, however, can erode trust and morale. Avolio et al. (2014) discuss that digital literacy is foundational for virtual leadership, as it enables leaders to effectively communicate goals, address team needs, and use analytics tools to optimize performance.

2.4 Issues/Gaps in Literature and Knowledge

Most studies on digital leadership and remote work management focus on developed countries, with minimal research addressing the unique cultural, infrastructural, and economic contexts of Nigeria, particularly in Akwa Ibom State. There is insufficient research on how organizations like MTN Akwa Ibom State adapt digital leadership practices to address local challenges, such as unreliable internet, inconsistent electricity, and limited access to advanced technology. Existing studies prioritize organizational benefits like productivity and cost savings, but there is limited exploration of how digital leadership affects employee well-being, engagement, and satisfaction in remote work environments. Few studies analyze the specific digital tools and platforms used for remote work management in Nigerian telecoms, highlighting their adoption, effectiveness, and challenges in a localized context. There is a lack of frameworks or models for measuring the effectiveness of digital leadership in remote work settings, particularly in the Nigerian telecom industry, including MTN Akwa Ibom State. Addressing these gaps would enhance understanding and provide practical strategies for digital leadership and remote work management in organizations like MTN Akwa Ibom State.

3 Research Methodology

The study employed a cross-sectional survey, which is effective in gathering important insights from a population regarding their opinions on relevant variables for the researcher. This approach also aids in the development of the questionnaire (Etuk & Udonde, 2024). The population of this study consisted 20 staff of MTN Uyo, Akwa Ibom State. Purposive sampling technique was adopted for the study. The research relied on primary data sources, and the quantitative analysis involved descriptive statistics. To evaluate the impact of the variables, Simple Linear Regression Analysis was utilized.

4 Data Presentation, Analysis and Discussion of Findings

4.1 Presentation of Data

This section is basically designed to present, analyze and interpret the primary data obtained via the questionnaire which was purposively administered to the respondents. These are shown in the table below:

Table 1: Number of questionnaires administered and returned

No. of questionnaires administered	No. of questionnaires returned	Percentage of Questionnaire Returned
162	141	87.0

Source: Researcher's Computation (2024)

From Table 1 out of the 141 respondents, 88 representing 62.4% were male and 53 representing 37.6% were female. With regard to the age of the respondents, 19 respondents representing 13.4% were between 15 - 20 years of age, 41 respondents representing 29.0% were between 21 - 30 years of age. Those between 31 - 40 years were 50 representing 35.4% and those 41 years and above were 31 representing 21.9% of the respondents. With regards to the education qualification of the respondents, 25 representing 17.7% were SSCE holders, 30 representing 21.3% were OND/NCE holders, 67 representing 47.5% were HND/B.Sc holders, 10 representing 7.1% were Master holder while 9 representing 6.4% were P.hD holders. With regards to the years of experience of the respondents, 6 representing 5.8% of the respondents have spent under 1 years years, 17 representing 16.5% respondents have spent between 1 - 5 years, and 48 representing 46.6% respondents have spent between 6 - 10 years while and 32 representing 31.1% respondents have spent between 11 years and above. The managerial rank of the organization were; management staff were 19(13.5); senior staff were 55 (39.0) while junior staff of the organization were 67 (47.5).

Table 2 Percentage Analysis on Digital Literacy and Remote Work Management

Gender Distribution	Frequency (141)	Percent
Male	88	62.4
Female	53	37.6
Age distribution of the respondents		
15-20years	19	13.4
21-30years	41	29.0
31-40years	50	35.4
41 years and above	31	21.9

Education Qualification		
SSCE	10	7.1
OND/NCE	30	21.3
HND/B.Sc	67	47.5
Masters	25	17.7
P,hD	9	6.4
Respondents' Years of Experience		
1 - 2 years	6	5.8
3 - 4 years	17	16.5
5-6 years	48	46.6
7 years and above	32	31.1
Managerial Rank		
Management Staff	19	13.5
Junior staff	67	47.5
Senior staff	55	39.0

Source: Researcher's Computation (2025)

Table 2, presents analysis of responses on digital literacy and remote work management. With regards to the first question on the table, a total of 41 respondents representing 29.1% strongly agreed that digital literacy among employees influence our productivity in remote work settings. A total of 79 respondents representing (56.0%) ticked agree, 7 (5.0%) were strongly agree, 9 (6.4%) respondents ticked disagree and 5 (3.5%) respondents ticked neutral.

With regards to the second question on the table, a total of 64 respondents representing 45.4% strongly agreed that digital leadership plays an integral role in enhancing digital literacy skills for remote teams. A total of 46 respondents representing (32.6%) ticked agree, 15 (10.6%) were strongly agree, 10 (7.1%) respondents ticked disagree and 6 (4.3%) respondents ticked neutral.

With regards to the third question on the table, a total of 68 respondents representing 48.2% strongly agreed that lack of digital literacy affects team collaboration and communication in a remote work environment. A total of 42 respondents representing (29.8%) ticked agree, 19 (13.5%) were strongly agree, 7 (5.0%) respondents ticked disagree and 5 (3.5%) respondents ticked neutral.

With regards to the fourth question on the table, a total of 76 respondents representing 53.9% strongly agreed that training programs are most effective methods in improving digital literacy for remote employees. A total of 39 respondents representing (29.7%) ticked agree, 5 (3.5%) were strongly agree, 5 (3.5%) respondents ticked disagree and 16 (11.3%) respondents ticked neutral.

With regards to the fifth question on the table, a total of 79 respondents representing 56.0% strongly agreed that the organizations is among those assessing the digital literacy levels of their workforce to better manage remote work. A total of 39 respondents representing (29.7%) ticked agree, 5 (3.5%) were strongly agree, 7 (5.0%) respondents ticked disagree and 11 (7.8%) respondents ticked neutral.

Table 3 Percentage Analysis on Decreased Employee Engagement and Remote Work Management

Dimensions	SA	A	SD	D	U
Digital literacy among employees influence our productivity in remote work settings	41 (29.1%)	79 (56.0%)	7 (5.0%)	9 (6.4%)	5 (3.5%)
Digital leadership plays an integral role in enhancing digital literacy skills for remote teams	64 (45.4%)	46 (32.6%)	15 (10.6%)	10 (7.1%)	6 (4.3%)
Lack of digital literacy affects team collaboration and communication in a remote work environment	68 (48.2%)	42 (29.8%)	19 (13.5%)	7 (5.0%)	5 (3.5%)
Training programs are most effective methods in improving digital literacy for remote employees	76 (53.9%)	39 (29.7%)	5 (3.5%)	5 (3.5%)	16 (11.3%)
Our organizations is among those assessing the digital literacy levels of their workforce to better manage remote work	79 (56.0%)	39 (27.7%)	5 (3.5%)	7 (5.0%)	11 (7.8%)

Source: Researcher's Computation (2025)

Table 3, presents analysis of responses on decreased employee engagement and remote work management. With regards to the first question on the table, a total of 69 respondents representing 48.9% strongly agreed that several factors contribute to decreased employee engagement in remote work scenarios compared to in-office environments. A total of 47 respondents representing (48.9%) ticked agree, 11 (13.3%) were strongly agree, 8 (5.7%) respondents ticked disagree and 6 (4.3%) respondents ticked neutral.

With regards to the second question on the table, a total of 73 respondents representing 51.8% strongly agreed that digital leadership strategies mitigate the impacts of decreased engagement among remote employees in MTN Akwa Ibom State. A total of 35 respondents representing (24.8%) ticked agree, 7 (5.0%) were strongly agree, 14 (9.9%) respondents ticked disagree and 12 (8.5%) respondents ticked neutral.

With regards to the third question on the table, a total of 47 respondents representing 33.3% strongly agreed that specific remote work practices have been shown to enhance employee engagement in virtual teams. A total of 72 respondents representing (51.1%) ticked agree, 12 (8.5%) were strongly agree, 5 (3.5%) respondents ticked disagree and 5 (3.5%) respondents ticked neutral.

With regards to the fourth question on the table, a total of 58 respondents representing 41.1% strongly agreed that the use of technology influence employee engagement levels in remote work settings. A total of 55 respondents representing (39.0%) ticked agree, 14 (9.9%) were strongly agree, 6 (4.3%) respondents ticked disagree and 8 (5.7%) respondents ticked neutral.

With regards to the fifth question on the table, a total of 47 respondents representing 33.3% strongly agreed that there is are long-term effects of decreased employee engagement on organizational performance in a remote work model. A total of 58 respondents representing (41.1%) ticked agree, 5 (3.5%) were strongly agree, 18 (12.8%) respondents ticked disagree and 13 (9.2%) respondents ticked neutral.

Table 4 Percentage Analysis on Employee Monitoring and Remote Work Management

Dimensions	SA	A	SD	D	U
Several factors contribute to decreased employee engagement in remote work scenarios compared to in-office environments	69 (48.9%)	47 (48.9%)	11 (13.3%)	8 (5.7%)	6 (4.3%)
Digital leadership strategies mitigate the impacts of decreased engagement among remote employees in MTN Akwa Ibom State	73 (51.8%)	35 (24.8%)	7 (5.0%)	14 (9.9%)	12 (8.5%)
Specific remote work practices have been shown to enhance employee engagement in virtual teams	47 (33.3%)	72 (51.1%)	12 (8.5%)	5 (3.5%)	5 (3.5%)
The use of technology influence employee engagement levels in remote work settings	58 (41.1%)	55 (39.0%)	14 (9.9%)	6 (4.3%)	8 (5.7%)
There is are long-term effects of decreased employee engagement on organizational performance in a remote work model	47 (33.3%)	58 (41.1%)	5 (3.5%)	18 (12.8%)	13 (9.2%)

Source: Researcher’s Computation (2025)

Table 4, presents analysis of responses on employee monitoring and remote work management. With regards to the first question on the table, a total of 55 respondents representing 39.0% strongly agreed that employee monitoring impact trust and morale among remote workers. A total of 46 respondents representing (32.6%) ticked agree, 20 (14.2%) were strongly agree, 8 (5.7%) respondents ticked disagree and 12 (8.5%) respondents ticked neutral.

With regards to the second question on the table, a total of 51 respondents representing 36.2% strongly agreed that there are ethical implications of employee monitoring in remote work environments. A total of 38 respondents representing (27.0%) ticked agree, 29 (20.6%) were strongly agree, 15 (10.6%) respondents ticked disagree and 8 (5.7%) respondents ticked neutral.

With regards to the third question on the table, a total of 67 respondents representing 48.9% strongly agreed that different employee monitoring tools affect productivity and job satisfaction in remote teams. A total of 38 respondents representing (27.0%) ticked agree, 18 (12.8%) were strongly agree, 11 (7.8%) respondents ticked disagree and 5 (3.5%) respondents ticked neutral.

With regards to the fourth question on the table, a total of 58 respondents representing 41.1% strongly agreed that there is a good relationship between perceived surveillance and employee performance in remote work settings. A total of 55 respondents representing (39.0%) ticked agree, 14 (9.9%) were strongly agree, 6 (4.3%) respondents ticked disagree and 8 (5.7%) respondents ticked neutral.

With regards to the fifth question on the table, a total of 64 respondents representing 45.4% strongly agreed that organizations balance the need for employee monitoring with the promotion of autonomy in remote work. A total of 54 respondents representing (38.3%) ticked agree, 6 (4.3%) were strongly agree, 9 (6.4%) respondents ticked disagree and 8 (5.7%) respondents ticked neutral.

4.2 Testing of Hypotheses

Hypothesis One:

There is no significant relationship between digital literacy and remote work management in MTN Akwa Ibom State.

Table 5 Digital Literacy and Remote Work Management

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.518 ^a	.268	.261	.43873

a. Predictors: (Constant), digital literacy

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.114	1	7.114	36.959	.000 ^b
	Residual	19.441	139	.192		
	Total	26.554	140			

a. Dependent Variable: remote work management

b. Predictors: (Constant), digital literacy

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	1.032	.380		2.712	.008
	digital literacy	.668	.110	.518	6.079	.000

a. Dependent Variable: remote work management

From the above model summary, R² value of 0.268 implies that about 26.8% variation in remote work management in MTN, Uyo was explained by the independent variable (digital literacy). The regression model appears fit with F-value of 36.595 which is significant at 5% level. The regression model is a robust predictor of the influence of digital literacy on remote work management in MTN, Uyo. Therefore, the alternate hypothesis which states that there is a significant positive influence of digital literacy on remote work management in MTN, Uyo is accepted. The value of Unstandardized Coefficient Beta of pricing decisions is 0.668; which implies that every digital literacy will result in 66.8 % unit increases in remote work management in MTN, Uyo.

Hypothesis Two:

There is no significant relationship between decreased employee engagement and remote work management in MTN Akwa Ibom State.

Table 6 Employee Engagement and Remote Work Management

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.558 ^a	.312	.305	.42541

a. Predictors: (Constant), decreased employee engagement

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.276	1	8.276	45.732	.000 ^b
	Residual	18.278	139	.181		
	Total	26.554	140			

a. Dependent Variable: remote work management

b. Predictors: (Constant), **decreased employee engagement**

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	.857	.368		2.327	.022
	decreased employee engagement	.739	.109	.558	6.763	.000

a. Dependent Variable: remote work management

From the above model summary, R2 value of 0.312 implies that about 26.8% variation in remote work management was explained by the independent variable (decreased employee engagement). The regression model appears fit with F-value of 45.732 which is significant at 5% level. The regression model is a robust predictor of the influence of decreased employee engagement on remote work management. Therefore, the alternate hypothesis which states that there is a significant positive influence of decreased employee engagement on remote work management is accepted. The value of Unstandardized Coefficient Beta of decreased employee engagement is 0.739; which implies that every remote work management will result in 73.9 % unit increases in remote work management in MTN, Uyo.

Hypothesis Three:

There is no significant relationship between employee monitoring and remote work management in MTN Akwa Ibom State.

Table 7 Employee Monitoring and Remote Work Management

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692 ^a	.479	.474	.37019

a. Predictors: (Constant), employee monitoring

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.713	1	12.713	92.768	.000 ^b
	Residual	13.841	139	.137		
	Total	26.554	140			

a. Dependent Variable: remote work management

b. Predictors: (Constant), employee monitoring

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	.334	.313		1.067	.289
	employee monitoring	.907	.094	.692	9.632	.000

a. Dependent Variable: remote work management

From the above model summary, R2 value of 0.479 implies that about 47.9% variation in remote work management in MTN, Uyo was explained by the independent variable (employee monitoring). The regression model appears fit with F-value of 92.768 which is significant at 5% level. The regression model is a robust predictor of the influence of employee

monitoring on remote work management in MTN, Uyo. Therefore, the alternate hypothesis which states that there is a significant positive influence of employee monitoring on remote work management in MTN, Uyo is accepted. The value of Unstandardized Coefficient Beta of employee monitoring is 0.907; which implies that every employee monitoring will result in 90.7 % unit increases in remote work management in MTN, Uyo.

4.3 Discussion of Findings

The first objective was to examine the effect of poor infrastructure on small and medium enterprises in Uyo, Nigeria. The result shows there is negative and significant relationship poor infrastructure and small and medium enterprises in Uyo, Nigeria. This collaborates with the study and finding of OECD, (2020) who reported that inadequate infrastructure, can leave SMEs out of larger markets. This restricts their potential customer base and limits potential market expansion. With insufficient transport and digital solution, SMEs are unable to identify new clients or to operate in e-commerce, which is becoming the most important factor in the businesses of the 21st century (United Nations, 2020). Infrastructure bottlenecks, including inadequate internet connectivity, constrain the availability of the digital instruments and other resources that support business innovation. SMEs are not in a position to access technologies that would improve their productivity and service delivery. Consequently, they are less nimble and less responsive to changes in the market. Inadequate infrastructure is a major constraint to the effectiveness, the market penetration and the expansion opportunities of SMEs, ultimately dampening their role in economic development.

The second objective was to evaluate the effect of limited access to financing on small and medium enterprises in Uyo, Nigeria. The result shows there is negative and significant relationship limited access to financing and small and medium enterprises in Uyo, Nigeria. This is in agreement with the study and findings of (Beck and Demirgüç-Kunt 2006), who reported that SMEs generally experience greater credit risk, leading banks to be unwilling to provide loans without significant collateral. The lack of capital availability restricts their ability to expand, acquire new equipment, or to market into new markets, considerably limiting their growth opportunity. Lack of access to finance limits SMEs' scope to make investments in research and development (R&D), a key area of innovation. As noted by (Ayyagari, Demirgüç-Kunt, and Maksimovic 2011), limited financial resources limit SMEs to the ability to innovate in terms of new products or services and therefore their competitiveness decreases. SMEs are usually not provided with the internal finance necessary for innovation, and they rely almost exclusively on external funding, which is hard to obtain.

The third objective was to ascertain the effect of inconsistent policy support on small and medium enterprises in Uyo, Nigeria. The result shows there is negative and significant relationship there is no significant relationship between inconsistent policy support and small and medium enterprises in Uyo, Nigeria. This is in disagreement with the study and findings of (Rajah, 2022) who reported that inconsistent policy provision may have adverse effects on small and medium enterprises (SMEs) by creating an insecure business environment that is detrimental to growth and promotion of strategic decision-making. Small medium enterprises (SMEs) operate on the assumption that regulatory environments are predictable and supportive, such that they can make effective arrangements for operation. If rules are frequently altered or unclear, companies experience higher uncertainty and, as a result, decreased investments and a demise of long-term planning.

5 Conclusions and Recommendations

5.1 Summary of the Findings

The main purpose of this study was to examine the relationship between digital leadership and remote work management. A study of MTN Akwa Ibom State. The specific objectives of the study were to examine the relationship between digital literacy and remote work management in MTN Akwa Ibom State, to examine the relationship between decreased employee engagement and remote work management in MTN Akwa Ibom State, and to examine the relationship between employee monitoring and remote work management in MTN Akwa Ibom State. Three hypotheses were formulated and tested in this study. Bearing in mind the nature of the study, the researcher employed the use of survey research design in which primary data were obtained through questionnaire administration. Data for this study were obtained from both primary and secondary sources. Primary data were obtained through a structured questionnaire. The questions were closed-ended, and directed to collect relevant data on digital leadership and remote work management from staff of MTN Akwa Ibom State. Secondary sources were information from existing literature such as relevant textbooks, journals and internet. The researcher employed tables and simple percentage method to analyze the research questions. However, the regression technique was used to test hypotheses. The results of the regression analysis presented consistent findings. This implies that, there is a significant positive relationship between digital leadership and remote work management in MTN Akwa Ibom State.

5.2 Conclusion

The researcher examine the relationship between digital leadership and remote work management in MTN Akwa Ibom State with three specific objectives namely; digital literacy and remote work management in MTN Akwa Ibom State, decreased employee engagement and remote work management in MTN Akwa Ibom State, and employee monitoring and

remote work management in MTN Akwa Ibom State. Based on the findings, there is a significant positive relationship between digital leadership and remote work management in MTN Akwa Ibom State.

5.3 Recommendations

From the findings of this study, the following recommendations were made:

- MTN Akwa Ibom State should implement comprehensive digital literacy training programs tailored for employees at MTN Akwa Ibom State. These programs should focus on enhancing skills related to digital tools and platforms essential for remote work.
- MTN Akwa Ibom State should develop strategies to enhance employee engagement in a remote work setting by incorporating regular feedback mechanisms and virtual team-building activities. They should prioritize creating a sense of community among remote workers through scheduled check-ins and collaborative projects.
- MTN Akwa Ibom State should establish transparent employee monitoring practices that respect privacy while ensuring accountability. They should adopt a balanced approach to monitoring that focuses on outcomes rather than micromanagement. This could involve using performance metrics that align with organizational goals, fostering trust, and encouraging autonomy among employees.

Conflict of Interest

The authors declare that they have no conflicting interests

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Ethical considerations

The article followed all ethical standards appropriate for this kind of research.

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APPENDIX I: QUESTIONNAIRE

SECTION A: DEMOGRAPHIC DATA

1. Please kindly tick () or complete the following provided below:
2. Gender: Male [] Female []
3. Indicate your age group: 15-20 [] 21-30 [] 31- 35 [] 36 - 40 [] 41 - 50 [] 51 and above []
4. Indicate your marital Status: Single [] Married [] Separated [] Divorced [] Widowed []
5. Indicate your educational Qualification: SSCE [] OND/NCE [] HND/B.Sc. [] M.Sc./MBA [] Ph.D. []
6. Indicate your years of Service/Experience: 0 - 2 [] 3 - 5 [] 6 - 8 [] 9 - 11 [] 12 - 14 [] 15 and above []
7. Indicate your rank: Management Staff [] Senior Staff [] Junior Staff []

SECTION B: QUESTIONNAIRE

Please read carefully each of the statement below and tick to indicate your agreement or disagreement to each item. Each item has to do with the level of relationship between the role of deposit money banks and financial intermediation. The level or degrees of your responses are: Strongly agree (SA), Agree (A), strongly disagree (SD), disagree (D) and Neutral (N).

S/N	DIGITAL LEADERSHIP AND REMOTE WORK MANAGEMENT	SA	A	SD	D	N
A	Digital Literacy and Remote Work Management					
1	Digital literacy among employees influence our productivity in remote work settings.					
2	Digital leadership plays an integral role in enhancing digital literacy skills for remote teams.					
3	Lack of digital literacy affects team collaboration and communication in a remote work environment.					
4	Training programs are most effective methods in improving digital literacy for remote employees.					
5	Our organizations is among those assessing the digital literacy levels of their workforce to better manage remote work.					
B	Decreased Employee Engagement and Remote Work Management					
6	Several factors contribute to decreased employee engagement in remote work scenarios compared to in-office environments.					
7	Digital leadership strategies mitigate the impacts of decreased engagement among remote employees in MTN Uyo.					
8	Specific remote work practices have been shown to enhance employee engagement in virtual teams.					
9	The use of technology influence employee engagement levels in remote work settings.					
10	There is are long-term effects of decreased employee engagement on organizational performance in a remote work model.					

C	Employee Monitoring and Remote Work Management					
11	Employee monitoring impacts trust and morale among remote workers.					
12	There are ethical implications of employee monitoring in remote work environments.					
13	Different employee monitoring tools affect productivity and job satisfaction in remote teams.					
14	There is a good relationship between perceived surveillance and employee performance in remote work settings.					
15	Organizations balance the need for employee monitoring with the promotion of autonomy in remote work.					