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THE ROLE OF DIGITAL DEXTERITY IN SHAPING EMPLOYEE OUTCOMES: A STUDY OF MTN, GLOBACOM, AND AIRTEL IN SOUTH EAST NIGERIA

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Abstract: The study analysed Effect of Telecom digital dexterity and performance of employees in MTN Nigeria, GLOBACOM LTD and Airtel Nigeria, South East Nigeria. Specifically, it examined the influence of digital learning and development, and digital creation and innovation on employees' performance in the selected companies.. The study made use of survey research design; and primary and secondary sources of data were used. The population the study consisted of all 1,524 employees of these telecom companies in Southeast Nigeria. Purposive sampling technique was employed while Ordinary Least Square (OLS) regression analysis was used to determine the study objectives. At 1% level (Sig < .01) of significance, digital learning and development had a positive and significant effect on employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria, at 1% level (Sig < .01) of significance, digital creation and innovation had a positive and significant effect on employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria. The study concluded that digital dexterity had a positive and significant effect on performance of employees in the telecommunication companies in the South East Nigeria. The study recommended that management of these telecom companies need to sustain their digital skills as it significantly affects employees' performance. They can do this by establishing transparent communication channels using digital platforms and encouraging employees to share ideas, updates, and feedback openly.

Keywords: Digital Dexterity, Employee Performance, Telecommunication Companies

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1. INTRODUCTION

Telecomm Businesses are increasingly digitalizing their operations, requiring employees who are tech-savvy and who can embrace a more collaborative and innovative way of working. With new technologies, and interconnectedness, the world is becoming more and more digitalized, and this has brought a paradigm shift in economic and social aspects of life (Santos- Arteaga, Tavana & Di Caprio, 2022). A raft of new technologies, such as cloud computing, data analytics, the Internet of Things (IoT), and artificial intelligence, has emerged in the past few years and has dramatically changed how work gets done in telecommunications network design, where 5G and Software Defined Networking (SDN) offer carriers a more flexible and responsive communication infrastructure (Alsafadi, 2018). Telecommunications companies found themselves navigating through a rapidly evolving market landscape, as the focus shifted from merely providing network bandwidth to delivering value-added services. At the heart of this transformation lies the concept of Digital Dexterity (DD), the ability to effectively navigate and leverage digital technologies for communication and connectivity. Digital Dexterity (DD) is a learned ability that leads to fluency in collaboration, adaptability, analytical thinking, and creativity and is a critical component of digital societies. DD investigates employees' capacity to do certain jobs with technology and postulates enough ambition to use this skill to achieve organizational success (Al-Jazzazi & Sultan, 2017). As the digital world is constantly changing with the rise of hybrid work in the telecommunication companies, there is accelerated need for employees of MTN Nigeria, Globacom and Airtel Nigeria in Southeast Nigeria to adapt and innovate using new technologies to be able to work effectively with improved performance with digital platforms. The level of DD can affect both the employees and the organisation in their performance targets. Digital change needs to be welcomed and this shift in mindset needs to be seen in each individual employee as well on an organisational level. Thus, employees require digital skills when working remotely or in digital platforms. The need to build processes and social constructs to exploit constant technology disruption through employees DD becomes vital. As digitalization takes a full swing in MTN Nigeria, Globacom Ltd and Airtel Nigeria employee may spend more time online in a virtual world, accomplishing business services in the immersive digital environment. This exacerbates more needs in, digital learning and development, digital creation and innovation, which are the embodiments of DD required among employees in these telecommunication companies if performance are to be sustained. To that end, the need to investigate empirically the effect of telecom digital dexterity on performance of employees in MTN, Globacom and Airtel, Southeast Nigeria becomes necessary. The specific objectives of the study are to:

i. examines the influence of digital learning and development on employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria. ii. determine the effect of digital creation and innovation on employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria

2. REVIEW OF RELATED LITERATURE

Telecom Digital dexterity: It is the desire and ability of telecommunication companies' employees to embrace existing and emerging technologies to achieve better business outcomes. It's a matter of both attitude and skills. (Gartner, 2018) defined digital dexterity as a set of beliefs, mindsets and behaviours that help deliver faster and more valuable outcomes from digital initiatives. According to Gartner, "Digital Dexterity is the ability and desire

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to exploit existing and emerging technologies for better business outcomes". Helen Poitevin, vice president and analyst at Gartner, quoted by (Detwiler, 2020) expands the definition of digital dexterity by adding that it is less about tech skills and more about "a specific set of mindsets, beliefs and behaviors."

Employee Performance: Employee performance is the work output and behavior of an individual who has succeeded in finishing the duties and responsibilities assigned within a specific time frame (Igwedinmah 2020).

Digital learning and Development: refers to the capacity to participate in and benefit from digital learning opportunities; to identify and use digital learning resources; to participate in learning dialogues via digital media; to use learning apps and services (personal or organizational); to use digital tools to organize, plan and reflect on learning; to record learning events/data and use them for self-analysis, reflection and showcasing of achievement; to monitor own progress: to participate in digital assessment and receive digital feedback; to manage own time and tasks, attention and motivation to learn in digital settings (CIPD, 2020)

Digital Creation and Innovation: Digital creation is the capacity to design and/or create new digital artefacts and materials such as digital writing; digital imaging; digital audio and video, digital code, apps and interfaces, web pages. (Svensson & Taghavianfar, 2015).

The Technology Acceptance Model Theory

The Technology Acceptance Model (TAM) proposed by Davis (1989) is widely applied and empirically tested and believed to be parsimonious, predictive and robust in the study of human behavior towards technology (Venkatesh & Davis, 2000) cited in Quingxiong (2004). The Technology Acceptance Model is one of the most widely used models to explain user acceptance behavior. This model is grounded in social psychology theory in general and Theory of Reasoned Action which asserts that beliefs influence attitudes, which lead to intentions and therefore generate behavior. Davis (1986), introduced the constructs of Technology Acceptance Model as follows: Perceived Usefulness (PU), Perceived Ease of Use (PEOU). Among PU and PEOU form an end-user's belief on a technology and therefore predict his or her attitude toward the technology, which in turn predicts its acceptance. The researcher anchored the discussion of the results of the study on Technology Acceptance Model (Davis, 1989).

3.   METHODOLOGY

The study made use of survey research design using both primary and secondary sources of data.

Primary data were elicited with a well-structured questionnaire entitled "Telecom Digital Dexterity and Performance of Employees Questionnaire." The questionnaire was a closed ended type designed in 5-Points Likert Scale (Strongly Agree = SA, agree= A, disagree = D, Strongly Disagree = SD and Neutral = N). The close ended questionnaire had five options. The questionnaire was structured into two sections A and B which captured the study objectives. The population of the study consisted of all MTN Nigeria, Globacom Ltd and Airtel Nigeria employees in Southeast Nigeria, which included MTN Nigeria, Globacom Ltd and Airtel Nigeria employees from Abia State, Imo States, Anambra State, Enugu States and Ebonyi State. The total population of the study is 1,524 employees drawn from the three (3) telecommunication giants in Nigeria. Based on these populations, a normal confidence level of 95% and error tolerance of 5% were used to deduce the actual sample size for the study. The sample size was calculated using Taro Yamane's formula given as $n = \dfrac{N}{1 + N\,(e)^2}$. The computed sample sizes were 317 respondents. To deduce the number

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of respondents that were sampled from MTN Nigeria, Globacom Ltd and Airtel Nigeria Offices in each of these states, Bowley's proportional allocation formula was applied expressed as $nh = \frac{nNh}{N}$

The study made use of random sampling techniques and purposive sampling techniques using both online and face-to-face questionnaire administration. Adopting random sampling techniques, the questionnaire was distributed face to face to MTN Nigeria, Globacom Ltd and Airtel Nigeria employees that are in their Head Offices, Branch Offices and Zonal Offices in major cities of Southeast Nigeria and after a week interval as agreed with the study respondents, the questionnaire was retrieved. Purposively, the researcher selected MTN Nigeria, Globacom Ltd and Airtel Nigeria Head Offices, Branch Offices and Zonal Office that are in the remote areas of Southeast Nigeria, through their database obtained by the researcher, that contained their email address, the research send emails to them to obtain their consent to participate in the study and also send them the online link to visit and complete the survey online of which they participated. Content validity and Cronbach Alpha reliability technique was used to validate the study instrument and test it reliability. The decision rule was based on the coefficient of correlation that is up to 0.8 and above. The study made use of Ordinary Least Square Regression analysis to analyze the objectives with the aid of Statistical Packages for Social Sciences (SPSS) version 23. 275 questionnaires were returned, which represent 86.7% return rate. However, only 260 valid questionnaires returned were used for the data analysis.

## 4.	RESULTS AND DISCUSSION

Table 1: Ordinary Least Regression analysis result on the effects of digital learning and development on employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria.

Variable	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	2.051	0.070		29.210	0.000
Digital learning and development	0.722	0.024	0.883	30.230	0.000
R^2 0.780	$\bar{R}^2$ 0.779			F-Statistics	913.849

a.	Dependent Variable: Employees' effectiveness.
b.	Predictor: Digital learning and development
c.	Source**:** Field Survey 2024.

The result in Table 1 revealed the effect of digital learning and development on employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria. The result revealed that digital learning and development with the regression coefficient of (0.883) is significant and positively affected employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria at 1% level (Sig < .01) of significance. The result portrays that a unit increase in digital learning and development will lead to a positive increase in employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria

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by 0.883. Therefore, at 1% level (Sig < .01) of significance, digital learning and development had a positive and significant effect on employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria.

The **R- square** which showed the proportion of variation in the dependent variable that can be explained by the independent variables revealed that 78.0% of the total variation in employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria was explained by the variation in digital learning and development. While the **Adjusted R** explains the effect of decrease in the degree of freedom arising from the independent variable. The **F-statistics** (913.849) is significant at 1% level, which shows the overall significance of the entire model. Therefore, the independent variables in the model were significant in explaining the change in the dependent variable.

The results in Table 1, revealed that: At 1% level (Sig < .01) of significance, digital learning and development had a positive and significant effect on employees' effectiveness in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria.

The result is in agreement with the findings of Fatima (2022), investigated the relationship between digital transformation and employee readiness as well as to job performance, and revealed that digital transformation has a positive relationship with job performance, and showed that employee readiness plays a role as a mediator, which helped in the relationship between digital transformation and job performance. The findings also agree with that of Carla, Nohelia, Wilmer and Wagner (2020). They determined the impact of digital transformation on the individual job performance of insurance companies in Peru and reviewed that digital transformation had a significant influence on task performance and contextual performance

Table 2, Ordinary Least Regression analysis result on the effects of digital creation and innovation on employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria.

Variable	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**T**	**Sig.**
(Constant)	2.057	0.070		29.557	0.000
Digital creation and innovation	0.719	0.025	0.875	28.974	0.000
R² 0.765					
0.764					**R²**
F-Statistics		839.469			

a. Dependent Variable: Employees' quality of work done.
b. Predictor: Digital creation and innovation
c. Source**:** Field Survey 2024.

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The result in Table 2 revealed the effect of digital creation and innovation on employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria. The result revealed that digital creation and innovation with the regression coefficient of (0.875) is significant and positively affected employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria at 1% level (Sig < .01) of significance. The result portrays that an increase in digital creation and innovation will lead to a positive increase in employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria by 0.875. Therefore, at 1% level (Sig < .01) of significance, digital creation and innovation had a positive and significant effect on employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria.

The **R- square** which showed the proportion of variation in the dependent variable explained by the independent variables revealed that 78.0% of the total variation in employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria was explained by the variation in digital creation and innovation. The **F-statistics** (839.469) is significant at 1% level, which shows the overall significance of the entire model. Therefore, the independent variables in the model was significant in explaining the change in the dependent variable.

The results in Table 2, revealed that: At 1% level (Sig < .01) of significance, digital creation and innovation had a positive and significant effect on employees' quality of work done in MTN Nigeria, Globacom Ltd and Airtel Nigeria in the South East Nigeria.

The result is in tandem with the findings of Sheshadri, Ranjan, Demetris and Guido (2023). They investigated the influence of digital workplace on organization performance, and revealed that dynamic capabilities of organizations have a significant and positive influence on the digital transformation of the workplace, which in turn improves the employees' performance and superior organization performance. The findings also agreed with that of Guzmán-Ortiz, Navarro-Acosta, Florez-Garcia and Vicente-Ramos (2020). They examined the impact of digital transformation on employee performance in insurance companies in Peru and revealed that digital transformation positively impacted task performance and contextual performance. Furthermore**,** Fatima (2022), investigated the relationship between digital transformation and employee readiness as well as to job performance, and revealed that digital transformation has a positive relationship with job performance, and showed that employee readiness plays a role as a mediator, which helped in the relationship between digital transformation and job performance.

CONCLUSION

This study examined the effect of Telecomm digital dexterity on performance of employees in MTN, Globacom and Airtel, Southeast Nigeria and revealed that: digital learning and development had a positive and significant effect on employee effectiveness and digital creation and innovation had a positive significant effect on employees quality of work done in MTN, Globacom and Airtel, southeast Nigeria. Based on these findings, the study concluded that telecom digital dexterity had a positive and significant effect on performance of employees in MTN, Globacom and Airtel, Southeast Nigeria.

Recommendations

Based on the findings of the study, the following recommendations are proffered:

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i.   The Management of MTN Nigeria, Globacom Ltd and Airtel Nigeria need to sustain their employees' digital learning and development as it significantly affect their effectiveness. However, to improve their digital learning and development, they need to offer their employees digital courses specifically designed for telecommunications professionals, covering topics such as network infrastructure, emerging technologies, and customer service techniques. Provide them with mobile apps that enable employees to access learning materials on-the-go, allowing for flexibility in learning and development. Implement VR simulations to provide hands-on training experiences, especially useful for technicians and engineers to practice troubleshooting in simulated environments. Foster a culture of knowledge sharing by creating online forums where employees can exchange ideas, seek advice, and learn from each other's experiences.

ii.   The Management of MTN Nigeria, Globacom Ltd and Airtel Nigeria need to sustain employees' digital creation and innovation as it had significant effect on their quality of work. However, to sustain it, Management needs to foster a culture of experimentation where employees are encouraged to try out new digital tools and methods. Allowing them the freedom to explore different approaches to solving problems and innovating in their work. Encourage employees to think outside the box and use digital tools creatively to solve complex problems. Foster a culture where innovative ideas are valued and rewarded, regardless of their origin. Emphasize the importance of using data to drive decision-making processes and encourage employees to collect and analyze data using digital tools and software to gain insights that can inform strategic decisions and improve performance.

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