INFLUENCE OF DIGITAL LEADERSHIP ON ORGANISATIONAL EFFECTIVENESS AMONG STAFF OF PRIVATE UNIVERSITY IN OGUN STATE, NIGERIA

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Abstract
The pandemic served as a catalyst for private universities in Nigeria to rapidly shift to digital teaching platforms, remote work practices, and virtual leadership, ensuring effectiveness and efficiency in service delivery, particularly during the COVID-19 pandemic. However, this study specifically investigated the influence of digital leadership on organizational effectiveness among staff of private university in Ogun State, Nigeria. An ex-post-facto research design was used for the study. Data were collected using a structured questionnaire. The study adopted simple random sampling techniques and stratified sampling techniques to select respondents for the study. The method of data analysis was strictly descriptive statistics and inferential statistics. Descriptive statistics were used to analyze the socio-demographic characteristics of the respondents, while inferential statistics were used to analyze the study's hypothesis. Specifically, linear regression was used to test the research hypothesis at 0.05 significant level. The findings of the study revealed that digital leadership significantly influenced organisational effectiveness ($R^2 = 0.409$, $\beta = 0.639$, $F(1,632) = 437.266$, $p < 0.05$).
The study concluded that digital leadership significantly influenced organisational effectiveness. It was recommended that selected Universities should prioritize training their academic staff on the use of digital tools, virtual team management, and remote management skills for improved organizational effectiveness and effective performance in future crises.

Keywords: *Digital, Digital Leadership, Organisational Effectiveness, COVID-19 Pandemic*

1. Introduction

The advent of COVID-19 has introduced new methods of work to many organizations worldwide, including working from home and flexible work arrangements, among others. While this pandemic has caused many organizations, it serves as a gain to others. It also led to a rapid increase in the number of employees working from home, with little time and conditions provided to organize themselves for this transition (Maheshwari et al., 2024). COVID-19 presented numerous challenges to businesses and individuals globally. Since the pandemic spread, several studies have suggested that leadership is even more crucial in affecting organisational effectiveness (Bailey & Breslin, 2021; Contreras et al., 2021). The COVID-19 pandemic has had an impact on the effectiveness of organizations, economies, and social conditions globally since the end of 2019 (Atalan, 2020). It pressure on economic conditions had a broad effect in each region, coupled with conditions that were worse than before (Nyoma & Gede, 2023), as a result of this, governments agencies in various countries immediately came up with steps to suppress the transmission rate by introducing measures, such as social distance, reducing physical contact by implementing lockdowns and limiting community activities (Bonal. & González, 2020). The existence of this lockdowns and restrictions on community and organisations activities affected the effectiveness and efficiency of organisations.

Meanwhile, an organisation can only survive in a well-structured and crisis-free environment, but it is

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important to note that COVID-19 obstructed businesses and hindered organisations from being effective and efficient. That notwithstanding, organisational effectiveness is the extent to which an organisation has recorded a milestone achievement over time. According to Mikelsone & Leila (2016), organizational effectiveness can be characterized as multidimensional, and it has been realized that organizational effectiveness extends beyond the traditional predictors of success. However, numerous variables have been identified as influencing factors of organisational effectiveness, especially during COVID-19; for the purpose of this study, digital leadership was examined. Digital leadership connotes the ability for an individual to navigate using advanced information technology to deliver value to an organisation. This concept was first introduced by Avalio, et al., (2000) they asserted that digital leadership is a social influence process mediated by AIT (advanced information technology) to produce a change in attitudes, feelings, thinking, behavior, and/or performance with individuals, groups, and/or organizations (Avolio et al., 2000). They also asserted that digital leadership can occur at any hierarchical level within an organization, involving both one-to-one and one-to-many interactions through the use of electronic media. This leadership style became a reality during the COVID-19 pandemic, when many businesses and institutions faced staff shortages. Moreover, in the literature today, digital leadership has been identified as e-leadership, digital leadership, and virtual leadership (Sunarsi et al., 2020; Restu & Wibowo, 2022; Nuha & Lim, 2022). According to Ojo et al. (2024), digital leadership is the ability to lead an organisation successfully through digital transformation. Furthermore, it is a new leadership paradigm that requires the leader to achieve the leadership objectives in a computer-mediated manner with virtual teams that are dispersed over space and time, the main medium of communication amongst leader(s) and followers being the electronic conduit supported by computers. This new paradigm provides a plethora of new opportunities, as well as several new challenges and strategies (Carreño, 2014).

COVID-19 opened the eyes of many organizations to a new Style of work. Despite the pandemic threatening life and businesses, it has led to a new business model that is becoming increasingly normal, such as working from home, hybrid work arrangements, and flexible work schedules. These work arrangements may not be easily practiced without technological driven individual. The ability for this individual to navigate and influence behavior using technological tools to connect employees both near and far, and ensure goals are met, is referred to as digital leadership. According to ElSawy et al. (2016), digital leadership represents a new form of communication and organization, distinct from traditional or physical leadership, which includes transactional, democratic, and autocratic styles. The reason is that it is not limited by space and time, and emphasizes the use of digital assets and technologies. Despite this, many organisations still struggle to implement it during the pandemic, which has affected the effectiveness and efficiency of many organisations. Poor knowledge of technology, a negative attitude toward technology, and a poor perception of technology may be the reasons for not practicing digital leadership (Ojo & Odebode, 2022). However, it is important know that study of this nature is scanty, for instance, Ojo et al., (2024) investigated the influence of digital leadership style on employees work engagement, Elyousfi and Amitabh (2021) investigated the impact of digital leadership and team dynamics on virtual team performance in a public organization, Noor and Suhair (2022) investigated the role of digital leadership in the effectiveness of organisation management. It is based on this that the study specifically analyses the role of digital leadership on organisational effectiveness during the COVID-19 Pandemic in a private university in Ogun State, Nigeria.

2. Literature Review
2.1 Concept of Digital Leadership

Digital leadership is a new Style of leadership that simultaneously operates in multiple ways using advanced information technology. It can also be seen as the effective use of technology and blending of electronic and traditional methods of communication to achieve organisational goal. It implies an awareness of current information and communication technology, the selective adoption of new information and communication Technology for oneself and the organization, and technical competence in using those selected ICTs (Wart et al., 2016). Thus, as defined the effective use of e-leadership it does not necessarily imply greater use of information communication Technology, but does imply using ICTs when they are advantageous for various reasons, using the best and most appropriate ICTs available relative to value of various resources, using physically present communication channels when most appropriate, and using information communication Technology with competence such as when we would distinguish a good face-to-face speaker from a poor one on a variety of grounds. Effective e-leaders utilize numerous information and communication technologies in a range of contexts, integrating them with physically present methods, seeking out the best ones for the appropriate purposes, and knowing how to use them competently (Wart et al., 2016).

Researchers such as Rudito & Sinaga (2017) and Oberer and Erkollar (2018) have varied opinions about the concept of digital leadership. Some researchers consider it to be digital leadership intended to guide and provide instructions through the Internet (Holtmann, 2011). Learned, (2011) believes that virtual leadership is the process of social influence using advanced information technology to effect change in the attitudes, feelings, ideas, behaviors, and performance of individuals and groups. Caulat (2010) defines virtual leadership as the phenomenon of intentional influence by one person over members of an organization in an organizational environment where interaction occurs mostly through computers and phone calls.

2.2 Concept of Organizational Effectiveness

The concept of organizational effectiveness is defined as the extent to which a given organization achieves its intended goals and objectives, or, in short, goal attainment. Therefore, organizational effectiveness has been connoted as one aspect of organizational performance (Lee, 2003). Lewin (2000) elaborated on the concept of organizational effectiveness, which is a phrase used almost exclusively by many scholars and one of the most widely researched issues since the early development of organizational theory. Despite some agreement, there is still a significant lack of conformity regarding the operationalisation of this concept. Organisational effectiveness has been defined as the practice of fulfilling objectives without depleting organisational means. Among researchers in management, organizational effectiveness is characterized as defining goals, allocating resources, and determining whether the goals were achieved.

Yankey et al. (2003) affirmed that the effectiveness of an organization is the extent to which it has achieved its stated goals accordingly and how well it performed in the process. Malik et al. (2011) also disclosed that organizational effectiveness is a complex concept and is practically not possible to measure. Instead of relying on organization to measure effectiveness, the organization determines proxy measures that can be used to signify efficiency.

2.3 Theoretical Review

The underpinning theory for this study was Adaptive Structuration Theory (AST), which was initially proposed by Giddens (1984); however, its most influential development came from DeSanctis and Poole (1994). The theory originated from Giddens' Structuration Theory, which examines the interplay between individual actions and social structures. DeSanctis and Poole adapted Giddens' ideas to explain how information technology is used in organizations and how it shapes and is shaped by organizational structures. AST primarily focuses on understanding how individuals and groups use, interpret, and adapt

technological structures, emphasizing that technology and organizational structures are co-constructed through social practices. The theory suggests that technology both influences and is influence by social action, emphasizing human agency in shaping technological outcomes.

AST is grounded in several key assumptions, one of which is the concept of human agency. It assumes that individuals within an organization are not passive recipients of technological systems, but rather active agents who interpret and adapt technology to fit their needs (DeSanctis & Poole, 1994). Additionally, AST assumes that structures whether technological or social are neither fixed nor deterministic. Instead, they are seen as dynamic and subject to change through the continuous interaction between human actors and technology. It also assumes that technology is neither inherently good nor inherently bad; its impact on organizations depends on how it is utilized. Lastly, AST proposes that both social structures (such as organizational norms) and technological systems (such as software or hardware) must be understood in their interdependent relationship to explain organizational behavior and change.

2.4 Empirical Review
Digital Leadership and Organizational Effectiveness

Nuha and Lim (2022) carried out research on the effectiveness of digital leadership styles and Skills in E-Business. This study investigates the effectiveness of e-leadership styles and skills in e-businesses and their impacts on employee performance. This study employs a qualitative approach, supported by secondary research based on reviewed documents. The data were collected through open-ended questions created using a Google Form, and links were sent to respondents, allowing them to participate in these questions. The analysis indicates that coaching in e-leadership is the most effective Style to improve effectiveness. It was concluded that Leaders should have the training, skills, experience, and good practices to enable the team to achieve organizational goals.

Bandana et al. (2018) investigated the role of leadership style and effectiveness in a study on the food processing industry in India. The objectives of the study were to measure the relationship between the different leadership styles and organizational effectiveness in food processing industry in India. The method used for collecting data was a primary source of data, utilizing questionnaires. Two hundred and twenty seven (227) employees serve as the sample size. The results of the study revealed that the leadership styles of managers and supervisors have a significant impact on organisational effectiveness in the food processing industry in India. It was concluded that a strong relationship exists between leadership and organizational effectiveness.

Sunarsi et al. (2020) examine the effect of e-Leadership Style on organizational service effectiveness and its impact on Indonesian School Performance. The study employed a qualitative research method, utilizing data processing tools with the SmartPLS version 3.0 program. Data were collected through the use of online questionnaire using snowball sampling system. The results of the study show that e-leadership, organizational commitment, and service quality significantly influence school performance. The study concluded that e-leadership, organizational commitment and service quality significantly influence school performance.

Leidner (2017) examines leadership effectiveness in global digital teams. The objectives of the study were to identify factors related to effective team leadership in digital team environment. Secondary data was used to collect data for the study. The study's findings reveal that effective team leaders demonstrated the ability to navigate paradox and contradiction by simultaneously performing multiple leadership roles. It was concluded that detailed and prompt communication should be embraced.

Noor and Suhair (2022) investigated the role of digital leadership in the effectiveness of organisation management. The study adopted a descriptive exploratory approach, with 160 respondents sampled. The study used questionnaires and personal interviews to collect data from the respondents. The result revealed a strong statistical influence of digital leadership on effectiveness of organizational management. It was concluded that digital insight achieved the highest score among the study's dimensions for all variables. Elyousfi and Amitabh (2021) investigated the impact of digital leadership and team dynamics on virtual team performance in a public organization. The convenient sample and snow bow sample were used for the study. The total population of the study was two hundred and twenty two (224). The results of the study reveal that certain practices of digital leadership had a significant impact on work outcomes. It was concluded that digital leadership significantly influenced work engagement.

Ojo et al. (2024) investigated the influence of digital leadership style on employees' work engagement at Osun State University. Data were collected through the use of a structured questionnaire. One hundred seventeen respondents participated in the study. The data were analyzed using both descriptive statistics and inferential statistics. The t-test was the statistical tool used for data analysis, and the Statistical Package for the Social Sciences (SPSS) version 21.0 was used to run the analyses. The results of the study revealed that leader's trust significantly influenced employees work engagement. It was therefore concluded that employee work engagement will increase when leaders' trust and communication are adopted in the organization, as the study recorded a positive influence of digital leadership on employee work engagement.

3. Research Methodology

The study adopted *an Ex-Post Facto research design, which* was considered suitable for the study. The target population comprises academic staff in selected universities in the south-west of Nigeria. Their total population stood at one thousand eight hundred and forty-five (1,845). Gotten from administrative department of the university, simple random sample techniques and stratified sample techniques was used to select respondents, the total sample size of the study was seven hundred and thirteen (713). The methods of data collection was structured questionnaire which was divided into three parts namely: section A which consist of socio-demographic characteristics of the respondents, section B consist of information on digital leadership developed by (Elyousfi et. al., 2021) this scale has five likert rating scale ranging from Strongly Agree (SA=5), Agree (A=4), Undecided (U=3), Disagree (D=2) and Strongly Disagree (SD=1). Section C entails information on organisational effectiveness developed by Trierweiller, (2012). The scale consisted of a five-point rating scale with a Cronbach's alpha of 0.91, as reported by the scale's author. Descriptive and inferential statistics was used to analysed the data. Descriptive statistics were used to analyze the information of the respondents, while inferential statistics were used to analyze the stated hypothesis. Specifically, linear regression was used to analyze the hypothesis at a 0.05 significance level.

4. Findings
4.1 Hypothesis Testing

Digital leadership will not significantly influence organisational effectiveness in private university in Ogun State, Nigeria.

The results displayed in Table 1 indicated a significant prediction of organisational effectiveness by the digital leadership variable. The F-statistic, $F(1, 632) = 437.266$, with a p-value less than 0.05, indicates that the overall regression model exhibits a high level of statistical significance in terms of its goodness of fit. This is supported by the fact that the calculated F-statistic (Fcal) surpasses the critical F-value (Ftab). This result therefore, suggests that digital leadership significantly explains variance in organisational

effectiveness.

Table 1: Linear Regression Showing the F ratio of the Predictive Influence of Digital Leadership on Organisational Effectiveness

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27180.985	1	27180.985	437.266	.000[b]
	Residual	39285.911	632	62.161		
	Total	66466.896	633			
a. Dependent Variable: ORGANISATIONAL EFFECTIVENESS						
b. Predictors: (Constant), DIGITAL LEADERSHIP						

Source: **Author's Field Survey (2024)**

Discussion

This study evaluated the influence of digital leadership on organisational effectiveness during COVID-19 Pandemic in private university in Ogun State, Nigeria. The hypothesis stated that digital leadership will not significantly influence organisational effectiveness in private university in Ogun State, Nigeria. However, the results showed that digital leadership will significantly influence organisational effectiveness in private university in Ogun State, Nigeria. The findings were in line with the results of Maheshwari et al. (2024), who affirmed that digital leadership style was positively significant to employee work outcomes in the higher education sector during COVID-19 and beyond in Vietnam. The study also relates to the study by Nuha and Lim (2022), who asserted that e-leadership is the most effective Style to improve effectiveness. The study also corroborates with the study of Ojo et al. (2024), which also finds that digital leadership influences employees' work engagement at Osun State University.

Conclusion and Recommendation

This study has examined the importance of digital leadership on organizational effectiveness during the COVID-19 pandemic. The pandemic served as a catalyst for organizations to rapidly shift to digital platforms, remote work, and virtual leadership, providing a unique context for exploring how digital leadership impacts organizational effectiveness in crisis scenarios. The findings of this study demonstrate that digital leadership plays a critical role in shaping organizational effectiveness, particularly in times of uncertainty, such as the COVID-19 Pandemic. It was therefore recommended that the management of the private university prioritise training its staff on the use of digital tools, virtual team management, and remote management skills for improved organisational effectiveness, especially during times of uncertainty.

Limitation of the Study

Conducting a study of this nature and obtain a good result requires more time to collect and analyze data. However, the researchers find it difficult to apportion his time between lectures, and research work. Additionally, finance is another factor that hindered the successful completion of this thesis. This is due to the high cost of transportation required to move from one place to another to administer questionnaires, as well as the general economic condition of the country. However, despite the limitations mentioned above, the results obtained from the gathered data were significantly consistent and accurate enough to meet the study's needs.

Contributions to Knowledge

The study highlighted the importance of digital leadership in improving organisational effectiveness. It equally provided adequate data on digital leadership and organisational effectiveness. Moreover, the study has made an immense contribution by developing a comprehensive framework that illustrates the influence of digital leadership on organisational effectiveness.

Suggestion for Further Studies

Further studies could be conducted in manufacturing industries to compare findings, as this present study was carried out in a private university. Furthermore, future studies could also focus on how digital leadership influenced various employee demographic characteristics (e.g., age, gender, tenure, or cultural background) during remote work.

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