

Effect of Communication Tools on Remote Workforce Management for Improved Operational Efficiency of Mobile Telecommunication Network (MTN) and Global Communication Limited (Globacom) in South-South, Nigeria

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Abstract

This study examined the effect of communication tools in remote workforce management for improved operational efficiency of Mobile Telecommunication Network (MTN) and Global Communication Limited (GLOBACOM) in South-South, Nigeria. The study adopted descriptive survey research design through the usage of a well-structured electronic questionnaire using Google forms, primary sources of data and a total population of 8,479 workforce of the two (2) selected telecommunication firms. Taro Yamen's formula was employed to select a sample size of 800 of the two (2) selected telecommunication firms. However, 773 duplicates of the questionnaire were properly filled and returned; hence, 773 respondents became the valid sample size (respondents) of the study. Data were measured using a 5-point Likert Scale Descriptive Index while data were analyzed with descriptive statistics such as frequency and percentage distribution. The hypothesis was tested using simple linear regression. The result of the findings revealed that communication tools have significant effect on operational effectiveness of the two selected mobile telecommunication firms. Based on this, the study concludes that remote workforce management is related to the evaluation of employee productivity because it helps companies, such as telecom companies like MTN and GLO, and their respective line managers, ascertain whether workers are meeting the milestones required to actualize established organizational goals. Consequently, there exists a noteworthy and affirmative correlation between the management of remote labor and the organizational performance of MTN and GLO in the southern region of Nigeria. The study further recommended that both digital and innovative communication tools should be adopted by the studied telecommunication firms in order to facilitate organizational performance during and outside working hours as information is spread quickly through multiple technologies to ensure awareness and promote focus.

Keywords: Remote Workforce Management, Organizational Performance, Communication Tools, Operational Effectiveness, Telecommunications,

INTRODUCTION

The relevance of technology, its advancement and implementation of innovative tools for effective communication and in the development of human activities such as economic development, business transactions, knowledge economy, human resource development and management among others cannot be over-emphasized. However, communication tools such as email, messaging apps, tools for video conferences, and social media platforms like Facebook, Whatsapp, twitter, telegram, zoom and above all linked-in applications for business are indispensable gadgets that facilitate internal and external transmission of information; streamlining of organizational activities, online workspace, employee engagement, employee commitment to work and overall performance of the employee.

It is a well-known fact that the effective utilization of improved communication tools are crucial for various organizational stakeholders both at office and for remote workers as they aid in creating support system, scalable, cost effective and accessibility in a given organizational settings. Furthermore, the acceptance and implementation of technological advancement have led to substantial dynamic modifications in the society as well as promotion and sustainability of businesses. Gone are those days when business activities, actualization of aims and objectives of the organization could only be achieved within the spheres of corporate offices where there is face-to-face interactions, delegation of duties and issuance of guidance from employers and other senior management team (Gabriel, 2020).

No wonder, Lau (2024), cited that effective business collaboration and improved communication are dependent on flexible and interactive communication tools. The performance of telecommunication companies, like Mobile Telecommunication Network (MTN) and Global Communication Limited (Globacom), however, depends primarily on their capacity to adjust to the turbulent business/working environment of today, develop strategies to deal with the changes, and decide how to put those strategies into practice (Rimita, Hoon & Lévasseur, 2020). The information and telecommunication organizations like MTN and GLO are well-known to utilize technological tools, flexible schedules and telecommuting opportunities as well as web-based tools which give the workers greatest resource for working from home. They can maintain constant connectivity, as if they were at their offices instead of at home, with the help of video chats, conference calls, VPN networks, and wireless Internet (Verma, 2020). Telecommunication companies like MTN and Glo had to redesign their working systems in order to meet these challenges, maintain their operations, and guarantee the safety of their employees (Amis & Janz, 2020). Previously, the business environment of these companies had changed frequently due to economic turbulence, climate change, political instability, firm competitiveness, strategic decisions, social cause, and many other factors (Chertkovskaya & Paulsson, 2021). Therefore, remote working is an alternative option for performing organizational activities (Vyas & Butahieo, 2021).

Basically, one technologically advanced technique that many organizations, including telecom companies, are implementing is remote working. This may be viewed as a flexible work strategy where work is done from a location other than the usual workplace (Fogarty, Frantz & Hirschfeld, 2020). It has also been referred to as telecommuting, freelancing, e-working; working at home,

working from home or face-to-display workplace (Beno & Hvorecky, 2021). Lewis and Cooper (2017) opines that remote working is a risk-mitigation strategy where intellectual work are done outside the normal place of work using information and communication technologies to ensure the continuation of vital services during disasters.

Remote workforce management is an innovative working model developed due to the enormous impacts of information and communication technologies (ICT) in organizations including telecommunication firms like MTN and Glo (Kark, Kilpatrick, Phillips, Ciaramella & Lillie, 2020). The practice of successfully directing, coordinating, and managing remote workers is known as remote workforce management in telecom companies such as MTN and Glo. A combination of digital tools, communication, process, and technology are included in remote workforce management; these tools are specifically created to lead a productive staff working remotely (Kark, Kilpatrick, Philips, Ciaramella & Lillie, 2020).

Thus, there is a direct correlation between organizational performance and the management of distant workers. Remote workforce management is a robust and relative tool for measuring and analyzing a company's potentials with actualization of its objectives and goals. Remote workforce management strategy assist firms overcome related organizational challenges, thereby paving way for increased productivity, cost-savings, better talent retention, expansion of workforce (Liam, 2023).

Additionally, remote workforce management helps companies, such as MTN and GLO, and their respective line managers, assess whether workers are meeting the milestones required to actualize predetermined organizational objectives (Saurombe & Barkhuizen, 2020). As a result, it is connected to the evaluation of worker productivity (Ngobeni, Saurombe & Joseph, 2022). Therefore, ascertaining the relationship between remote workforce management and organizational performance relates to how successfully an ordered set of people who work remotely with a particular purpose perform a function (Robert, 2015). Onyekwelu, Dike & Mougbo (2020), postulated that remote workforce management and firm's performance provide detailed information about minimal and effective cost, effective cost and delivered outcome.

Therefore, it is on this basis that this study the effect of communication tools in remote workforce management for improved operational efficiency of Mobile Telecommunication Network (MTN) and Global Communication Limited (GLOBACOM) in Post-COVID-19 era following the hyper-inflation in the economy thereby leaving employers of labour with higher operating costs and laying off of some workers is embarked upon.

STATEMENT OF THE PROBLEM

A careful analysis of Nigerian commercial landscape filled with economic turbulence, managerial problems, climate change, political instability and competitiveness reveal that many businesses organization including telecommunications firms are at the verge of collapse (Xie, Siau & Nah, 2020). Regrettably, these challenges have placed telecommunication workers on a competitive work schedules off from work flexibility, rotation and job description even with little or no actualization of organizational goals due to complexity in the job description, lack of job

allocation, lack of work flexibility, high work pressure and longer working hour and the pressures from an increasingly competitive work environment (Osuji, 2017).

Admittedly, business and organizational activities in Nigeria have been faced with great detrimental economic challenges following hike in volatility, uncertainty and irregular governmental revenue towards boosting business activities thereby prompting firms to diminishing and negative impacts on the survival and sustainability of various organizations, companies both state, federal and privately owned including telecommunication firms like MTN and GLO in the country especially leading to retrenchment of workforce, high operating cost and liquidation/closure of firms (Arntz, Ben & Berlingieri, 2020).

Hence, for firms and other business entities including telecommunication firms like MTN and GLO to stay afloat in this country with this high manifestation of turbulence, marketplace and competitive business era, they ought to resort to business management strategies with less expenses and costs. Therefore, remote workforce could remain one of the cost cutting business management strategy with great chances of business survival, profitability and sustainability, better working flexibility, improved employee satisfaction and retention (ILO, 2020). However, the manner in which businesses have resorted to remote labor has raised a number of concerns and difficulties regarding their current infrastructures, capacities, processes, and procedures. It is therefore, on this premises that this study was embarked upon to ascertain the effect of communication tools in remote workforce management for improved operational efficiency of telecommunication firms (Mobile Telecommunication Network (MTN) and Global Communication Limited (GLOBACOM) in South-South, Nigeria.

LITERATURE REVIEW

Remote Workforce Management

Remote workforce management is also called mobile workforce management. It could be used by everyone in your organization both managers and employees. In fact, the relevance of remote workforce management is multi-dimensional. Grant (2016), emphasized that management of remote workers prevent burnouts. According to Kark et al. (2020), managing the remote workforce is an essential organizational tool that fosters effective performance in a cutthroat international marketplace. An organization should monitor the adoption of remote working through a variety of techniques. Following implementation, job satisfaction and overall work output should be assessed or measured using self-evaluation or human resource management (HRM) (Hickey & Tang, 2015). Remote workforce management aids managers keep an eye on their teams, help managers work efficiently with comprehensive oversight (WorkforceHub, 2022).

Effect of Communication Tools on Operational Effectiveness

Communication is a means to improve commitment and to stimulate employees to achieve organizational goals. Effective communications at all levels of the organization are seen as indispensable tool for improving operational effectiveness (WorkforceHub, 2022; Gardner *et al.*, 2022). However, the ability of a company to achieve a certain, desired result while saving expenses and rigorously adhering to initial objectives is known as operational effectiveness. It is a qualitative

quality that reveals the degree to which personnel solve specific challenges and achieve predetermined aims and objectives (Temessek, 2018). Furthermore, it refers to the level of quality with which a task or process is carried out that ultimately leads to higher overall organizational performance. The concept of effectiveness can be applied to various aspects of an organization's operations. Effectiveness is critical for enhancing results, and clarity is required to execute well (Mitchell, Raynplds & Trevifio, 2017). Organizations that operate effectively and efficiently are evident indicators of high performance (Nwachukwu, 2012).

From a managerial standpoint, an organization is effective if its members complete their assigned jobs. Employees are more effective when they complete things correctly on a consistent basis. This includes the appropriate use of technology for communication as well as organizational and personal resources and expertise (Nicholson & West, 2018). In remote workforce management, communication tools are applications or platforms that facilitate the exchange of information between individuals or groups. Examples include email, messaging apps, video conferencing tools, and social media platforms. Effective communication tools for remote workforce management include:

- a) video conferencing platforms like Zoom or Microsoft Teams,
- b) collaboration tools such as Slack or Microsoft Teams for real-time messaging, and
- c) project management tools like Asana or Trello to coordinate tasks.
- d) Email, virtual whiteboards, and cloud storage services also play crucial roles in facilitating remote communication and collaboration.

Empirically, Neves & Eisenberger (2012), cited that satisfactory, effective and reliable innovative communication tools contribute to an organization's success, employee attitude and morale, and customer satisfaction. Furthermore, Neves & Eisenberger (2012), opined that organizations and managers that openly share information and encourage bi-directional communication have a higher rate of employee job satisfaction. In line with the above findings, Silungwe (2020) conducted a study to determine the effect of remote working with an emphasis on communication/technological tools on operational efficiency amidst the corona virus pandemic in Chipata district. Turkson, Addai, Chowdhury, and Mohammed (2021) observed in multiple instances that implementing remote work, especially at a time of crisis enhanced the frequent communication in the business system, which was backed by better technologies. This is how several firms have managed their performance well in a crucial period. The research used a mixed method approach, based on the pragmatist philosophy and employing a convergence parallel strategy. The purposive sampling method was used to pick 38 employees, representing the target population of active companies. Both quantitative and qualitative data were gathered via the questionnaire. Quantitative data were analyzed through required statistical parameters and qualitative data were analyzed through analogous of themes and patterns. The majority of employees comprehended the notion of remote working, according to the research. Furthermore, workers performed better when they were remote. In conclusion, the results also showed that working remotely proved to be difficult in terms of reliance on technology, unreliability of machines and internet connections, diversions, commitment, screen fatigue, and work-life balance.

Theoretical Framework

This work is pinned on organizational adaptation theory. The organizational adaptation theory is one theory related to remote working since it has a good tendency to explain both independent and dependent variables in this study. According to the theory of organizational adaptation, organizations modify their tactics and ways of doing things to adapt to their changing surroundings. According to organizational adaptation theory, organizations will change their structures or processes entirely or in part to deal with a changing environment, such as a changing economic landscape, new laws affecting their industry, or the arrival of a new parent organization (Purna, 2017). This theory marries basic proportions of the organizational performance reviewed under this study in an innovative environment. However, the organizational adaptation theory maintained that in order for businesses to succeed and improve employee wellbeing, they must adjust to changing environmental elements, market conditions, and technological/innovative advancements. The foundation of this theory is the idea that, in order to survive, an organization must adapt to its surroundings. Ideally, an organization can adapt or change before the perceived necessity for change becomes evident. This theory can be tied to remote working and the millennial generation. Organizational adaptation theory is also necessary as the economic crunch, hardship, high cost of running organizations began. This theory is relevant to this study because the ability of the organization to acclimatize to environmental requirement by encouraging remote workforce and its related management strategies will help enhance the satisfaction of the employees.

METHODOLOGY

The study adopted survey research design, descriptive survey and use of primary data which involves the use of first hand or raw data and information sourced through administration of questionnaire electronically to the employees of MTN and Glo regional offices in Port-Harcourt, Rivers State (South-South) Nigeria. The population of the study comprised of the employees of MTN and Glo, Nigeria. Specifically, the workforce population of MTN were 5,100 workforce and GLO has 3,379 (Personnel Unit of Studied Firms, 2023). The study adopted Boyley's proportional procedure and Taro Yamen method for setting the sample size into each stratum equal to be proportional to the number of sampling units in that stratum. However, a sample size of 400 was realized for each of the two (2) telecommunication firms used for this study. A 16-item researcher developed titled "remote workforce management and performance of Mobile Telecommunication Network (MTN) and Global Communication Limited (GLOBACOM)" The variables of the study were measured using a 5-Point Likert Scale Descriptive Index of SA (Strongly Agree, 5); A (Agree, 4); D (Disagree, 3); SD (Strongly Disagree, 2) and U (Undecided, 1). Section A contained demographic information of the subjects while section B contained 16 self-report items in relation to the effect of communication tools on operational effectiveness as well as the effect of collaboration platforms on service delivery. A criterion means of 3.0 was established to determine acceptance or rejection of the items. Any mean above 3.0 showed acceptance while that below 3.0 indicated rejection. The instrument was subjected to face-to-face validity by three (3) experts from the Department of Industrial Relations and Personnel Management, College of Management Sciences while the reliability was tested using Cronbach Alpha analysis and the reliability was 0.70%. Descriptive statistics such as mean and percentages were used to answer the research questions while the hypotheses were tested using simple linear regression analysis model.

RESULTS

Table 1: Questionnaire Administration

Respondents	No. of Distributed Questionnaire	%	No. of Returned Questionnaire	%
MTN				
Senior/ Principal Management Staff	41	5.1	38	4.8
Permanent Staff	195	24.4	191	23.8
Contract Staff	164	20.5	162	20.3
GLOBACOM				
Management Staff	51	6.4	46	5.7
Permanent Staff	230	28.8	223	27.9
Contract Staff	119	14.8	113	14.1
Grand Total	800	100	773	96.6

Source: Field Survey, 2024

Table 1 above explained questionnaire administration among the staff of MTN and GLO Port-Harcourt, Rivers State (South-South) Nigeria, to examine the how remote workforce management affect organizational performance. As reflected in Table 1, a total of 800 (400 MTN staff and 400 Globacom Staff) copies of questionnaire were administered to the target respondents however, from the administered copies, 773 drafts of the questionnaire were properly filled and returned. This implies that, 8 copies of the questionnaire were lost in the process. Hence, 773 respondents became the valid sample size (respondents) of the study, since it is unethical and highly prohibited for researchers to manipulate data for a particular study in order to avoid uncertainty and unreliable results. Thus, 96.6% copies of the administered questionnaire were retrieved and confirmed.

Table 2: Demographic Characteristics of the Respondents

Variables		Frequency	
Percentage			
Gender			
	Females	472	61.1
	Males	301	38.9
	Total	773	100
Marital status			
Single		247	32.0
	Married	454	58.7
	Divorced	27	3.5
	Widow	26	3.4
	Separated	19	2.4
	Total	773	100
Educational qual.			
	WASSCE/NECO	88	11.4
	OND/NCE	217	28.1
	B.Sc./HND	316	40.8
	PGD/PGDE	102	13.2
	M.Sc./MBA	44	5.7

	PhD	6	0.8
	Total	773	100
Age bracket			
	Below 25	55	7.1
	26 – 30	201	26.0
	31 – 35	294	38.1
	36 – 40	115	14.9
	41 – 45	86	11.1
	46 and above	22	2.8
	Total	773	100
Name of institution			
	MTN	391	50.6
	GLO	382	49.4
	Total	773	100
Rank			
Customer Support/Service Rep		125	16.2
Telemarketer		104	13.4
Contact Centre Engineer/Information System Manager		65	8.5
Network/Support Engineer		91	11.8
Senior/Technical Support Engineer		13	1.7
Network Operation Engineer		42	5.4
Data Centre Technician/Disaster Recovery Manager		55	7.1
Field/Service Engineer		68	8.8
Team Leader/Consultant/Supervisor Officer		59	7.6
Project Manager/Control officer		51	6.6
Software Developer		53	6.8
Others (Pls specify)		47	6.1
Total		773	100
Years of Experience			
Below 5		132	17.1
6-10		361	46.7
11-15		174	46.7
16-20		103	13.3
21-25		3	0.4
26-30		-	-
31 and above		-	-
Total		773	100
6-10			

Source: Field Survey, 2024

Gender: From the Table 2, majority of the respondents 61.1% were females as against 38.9% who were males. From the result, the telecommunication sector in Nigeria has more women employees than their males counterpart. The findings are consistent with data on women's employment, kind of profession, earnings, and employment continuity that have been included in numerous household surveys carried out in developing nations, such as the Demographic and Health Surveys (DHS), which measure women's socioeconomic status. Reports from such surveys are often presented on regional basis, which are habitually shows women dominance in most public sectors than men especially in the health, telecom and civil service sector. The results in Table 2 revealed that a greater proportion of the respondents (58.7%) are married, followed by 32.0% who are married. From the result, 3.5 and 3.4% of the respondents were divorced and widow respectively. In addition, 2.4% of the respondents were separated. However, high percentage for the married respondents conforms with the age bracket and gender of the respondents.

Educational level: Table 2 revealed that most of the respondents constituting 40.8% of the samples are certified B.Sc./HND certificate holders. Followed by OND/NCE certificate holders constituting 28.1% of the respondents. More so, 13.2% and 11.4% of the respondents were M.Sc./MBA and WASSCE/NECO certificate holders respectively. More 5.7% of the respondents are M.Sc./MBA certificate holders. In addition, 0.8% of the employees have PhD. This suggests that not a single respondent lacked formal schooling. Given that every responder had received formal schooling, the respondents' remarkable educational background was apparent.

Age bracket: From the result, 38.1% of the respondents were within 31 – 35 years of age. This was followed by 26.0% of the respondents who were within 26 - 30 years of age. More so, 14.9% of the respondents were within 36 – 40 years of age. In addition, 11.1% and 7.1% of the respondents were within 41 – 45 years of age and below 25 years of age respectively. According to the results, over 90% of the participants were older than 25. This shows that the majority of MTN and GLO employees are capable and mature enough to understand how remote workforce management affects productivity.

The result of agrees with the findings of Oni (2016), who specified that the youthful dynamic age group, which is made up of those within ages 20 to 30 years, the active productive working class which consists of those within ages 31 to 45 years, the declining productivity age class which is made up of those within ages 46 to 60 years and the old age class which is made up of those above 60 years.

According to Table 2's statistics, the majority of respondents—50.6%—work for MTN, while 49.4% work for Globacom. Although equal opportunity was given to both telecom firms, but the rate of return of questionnaire for each of the firm brings forth the minimal variances. The respondents' rank and different department of operation was examined in Table 2. And the result showed that, most of the respondents 16.2%, 13.4% and 11.8% render their services in customer support / service representative, telemarketer / canvasser/ digital marketer and network/support engineer respectively. This was followed by 8.8%, 8.5% and 7.6% who rendered their services in Field/Service Engineer department, Contact Centre Engineer/Information System Manager and Team Leader/Consultant/Supervisor/ Manager /Operations-Technology Officer respectively. More so, 7.1%, 6.8% and 6.6% of the respondents renders their services in the Data Centre

Technician/Disaster Recovery Manager, software developers and Project Manager/Control Officer/Project Coordinator units of the studied telecommunication firms (MTN and GLO). The least were 1.7% of the respondents who work as Senior/Technical Support Engineer in the studied organizations in South-South, Nigeria.

Working experience: Table 2 further revealed that 46.7% of the respondents have 6 -10 years working experience with the studied telecom firms. This was followed by 22.5% of the respondents who have 11 – 15 years working experience with the telecommunication firms in Nigeria. Furthermore, 17.1% and 13.3% of the participants have worked for less than five years, and 16 to 20 years, respectively. Nevertheless, 0.4% of the respondents had worked for the telecom companies under study for 21 to 25 years. According to the results, over 80% of the participants have worked for more than five years. It is very likely that they comprehend the effects of remote workforce management and how it affects the functioning of the firm.

DATA PRESENTATION

Effect of communication tools on operational effectiveness of MTN and GLO in South-South, Nigeria

Table 3: Distribution of Respondents based on Effect of Communication Tool on Operational Effectiveness

Statements	SA	A	U	D	SD	Total	\bar{x}
1. Effective communication tools help in actualization of telecom goals as well which in turn enhances promote employees' relationship and performance.	224 29.0%	215 27.8%	93 12.0%	123 15.9%	118 15.3%	773 100	3.39
2. Effective communication tools influence telecom policies, procedures and supports.	398 51.5%	177 22.9%	61 7.9%	86 11.1%	51 6.6%	773 100	4.01
3. Effective communication tools help in promoting employees' well-being/feelings of happiness and job satisfaction.	326 42.2%	181 23.4%	76 9.8%	102 13.2%	88 11.4%	773 100	3.71
4. Effective communication tools provide avenue for recognizing employee's contribution and building of organizational commitment.	402 52.0%	214 27.7%	83 10.7%	53 6.9%	21 2.7%	773 100	4.19
5. Effective communication tools encourage efficiency, effectiveness and build of organizational commitment through team work, innovative team and stronger work relationship.	216 27.9%	310 40.1%	108 14.0%	94 12.2%	45 5.8%	773 100	3.72
6. Effective communication tools promote better integration in tele firms as well as co-operation between supervisors and	433 56.0%	224 29.0%	66 8.6%	42 5.4%	8 1.0%	773 100	4.33

	subordinates thereby leading to effectiveness.							
7.	Effective communication tools possess the potential of reducing work stress, workplace dissatisfaction thereby increasing tele-firm effectiveness.	108 14.0%	148 19.1%	79 10.2%	216 28.0%	222 28.7%	773 100	2.61
8.	Effective communication creates avenue for inter-activeness and co-ordination among workers thereby improving performance in the telecommunication firms.	276 35.7%	170 22.0%	70 9.1%	141 18.2%	116 15.0%	773 100	3.45
9.	Effective communication tools promote effective collaboration between various actors of remote workforce.	281 36.4%	174 22.5%	108 14.0%	121 15.6%	89 11.5%	773 100	3.56

Source: Field Survey, 2024 Decision rule: mean > 3.0 adopted, mean < 3.0 not adopted.

Table 3 examined the effect of communication tool on operational effectiveness of MTN and Glo in South-South, Nigeria. Based on the results, the majority of respondents (56.0%) strongly agreed that having effective communication tools encourages improved collaboration between superiors and subordinates in telefirms, which in turn leads to effectiveness. This was followed by 52.0% of the respondents who strongly agreed that effective communication tools provide avenue for recognizing employee's contribution and building of organizational commitment. Moreover, 42.2% of respondents strongly agreed that effective communication tools aid in increasing employees' well-being/feelings of happiness and job satisfaction, and 51.5% of respondents strongly agreed that successful communication tools impact telecom policies, procedures, and supports.

In addition, 36.4% and 35.7% of the employees of the studied telecom firms strongly agreed that effective communication tools promote effective collaboration between various actors of remote workforce; and effective communication creates avenue for inter-activeness and co-ordination among workers thereby improving performance in the telecommunication firms respectively. In the same premise, 29.0% of the respondents strongly agreed that effective communication tools help in actualization of telecom goals as well which in turn enhances promote employees' relationship and performance; while 27.9% of the respondents just agree that effective communication tools encourage efficiency, effectiveness and build of organizational commitment through team work, innovative team and stronger work relationship. However, 27.8% of the respondents strongly disagreed that effective communication tools possess the potential of reducing work stress, workplace dissatisfaction thereby increasing tele-firm effectiveness. The precision through the mean value decision rule that, a mean value > 3.0 was accepted while a mean < 3.0 was rejected. From the result, 8/9 of the research statements have mean value above 3.0. This implies that communication tool enhances operational effectiveness of MTN and GLO in South-South, Nigeria.

Test of Hypotheses

H₀₁: Communication tools have no significant effect on operational effectiveness of MTN and GLO in South-South, Nigeria.

Analysis of Simple linear regression analysis result for hypothesis 1.

Table 4: Simple Linear Regression Analysis Result of Communication Tools on Operational Effectiveness of MTN and GLO in South-South, Nigeria

Variables	Parameters	Coefficient	Std error	Tcal – value
Constant	β_0	3.677	0.045	80.918***
Communication tools (X)	β_1	0.284	0.051	5.552***
R-Square (R ²)		0.356		
Adjusted R – Square (R ⁻²)		0.353		
F – Statistics		30.829		
F – Probability		0.000		
Durbin-Watson stat		1.940		

Decision Rule: If $F_{cal} > F_{tab}$ accept the alternate and reject Null hypothesis. Otherwise accept the null hypothesis. (*** = 1%), (** = 5%), and (* = 10%) denotes significance of coefficient at level respectively t-tab value = 1.965, df = 771 Dependent Variable: operational effectiveness (Y) Predictors: (Constant), communication tools (X). **Source: Field Survey, 2024 (SPSS Version 23)**

To test hypothesis 1, simple linear regression analysis was performed. The outcome is as follows: at the 1% level, the operational effectiveness of MTN and GLO in South-South, Nigeria was positively correlated with the coefficient of communication tools (X), which was statistically significant. It is implied that using more communication tools will boost MTN and GLO's operational efficacy by 0.284 units while keeping all other variables constant. From the result, the t-calculated value of communication tools was 5.552; and the t-tabulated value of 1.965. Since the t-calculated value is greater than t-tabulated value in absolute terms, the null hypothesis was rejected in favour of alternative hypothesis thus; communication tools have significant effect on operational effectiveness of MTN and GLO in South-South, Nigeria.

The coefficient of multiple determination (R²) was 0.356, which implies that 35.6% variations in the dependent variable was explained by changes in the independent variable, while 64.4% was unexplained by stochastic terms in the model. Thus, the independent variable (communication tools) can only explain 35.6 percent of changes in operational effectiveness of MTN and GLO in South-South, leaving 64.4% unexplained. The R⁻² adjusted was 35.3% indicating a goodness of fit of the regression model adopted in this study which is statistically significant at 5% probability level. The Durbin-Watson statistical value of 1.940 was observed which falls within 1.8 to 2.5, implying that there is no evidence of autocorrelation in the data analysis. More so, the f-statistical (calculated) value of 30.829 was observed in the analysis which is greater than 1.965 t-table value; and f-probability value of 0.000 was observed from the analysis which is less than 0.05 (95% of freedom), indicating that estimated regression model adopted in this study is statistically significant at 5% level. With this, the researcher rejected the null hypotheses and accept alternative

hypothesis hence, communication tools have significant effect on operational effectiveness of MTN and GLO in South-South, Nigeria.

Discussion of Findings

The study examined the effect of communication tools on remote workforce management for improved operational efficiency of Mobile Telecommunication Network (MTN) and Global Communication Limited (GLOBACOM) in South-South, Nigeria. In order to actualize the objectives, the hypotheses were tested and the results are discussed as follows;

Communication tools have significant effect on operational effectiveness of MTN and GLO in South-South, Nigeria.

The coefficient of communication tools (X) was statistically significant and positively related to operational effectiveness of MTN and Glo in South-South, Nigeria at 1% level. Implying that, increase in communication tools used, holding other variables constant, will lead to increase in operational effectiveness of MTN and GLO by 0.284 unit. From the result, the t-calculated value of communication tools was 5.552; and the t-tabulated value of 1.965. Since the t-calculated value is greater than t-tabulated value in absolute terms, the null hypothesis was rejected in favour of alternative hypothesis thus, communication tools have significant effect on operational effectiveness of MTN and GLO in South-South, Nigeria. The result agreed with the findings of Neves & Eisenberger (2012), who studied employee satisfaction and communication of organization's success. The result revealed that organizations and managers that openly share information and encourage bi-directional communication have a higher rate of employee job satisfaction. And found that employees enjoyed improved sense of well-being, happiness and job satisfaction. Additionally, Turkson et al. (2021) noted on multiple occasions that introducing remote work, particularly during a crisis, has improved the frequent communication within the business system, which was supported by better technologies. As a result, numerous firms have successfully managed their performance during a critical period.

Furthermore, in order to address the primary research question, "How effective was remote working on employees' performance amidst corona virus in Chipata District?" Silungwe (2020) conducted a study to determine the impact of remote working on operational efficiency during the corona virus pandemic in Chipata district. The study's mixed method approach was motivated by the pragmatic philosophical premise. The mixed method approach's strategy was convergence parallel. The sample size of 38 employees was chosen using the purposive sampling method, with the target population being active organizations. Both quantitative and qualitative data were gathered using the questionnaire. Quantitative data were analyzed through required statistical parameters and qualitative data were analyzed through analogous of themes and patterns. The majority of employees comprehended the notion of working remotely, according to the research. Furthermore, workers performed better when they were remote. As a result, remote work proved to be difficult in terms of reliance on technology, machine malfunction and internet connections, ineffectiveness in some situations, diversions, dedication, screen fatigue, and work-life balance.

CONCLUSION AND RECOMMENDATIONS

Remote workforce management plays a fundamental role in enhancing the functionality, operational effectiveness and organizations performance. Hence, remote workforce management represents a strategic business philosophy when combined with appropriate resources to improve investment turnover and high level of productivity. Proper application of remote workforce management dimensions in business operation yields an identifiable positive impact on firm performance. Thus, this study has established and reaffirmed that the application of remote workforce management facilitates the business success in the telecommunication industry.

In relation to the result /findings drawn in this research, the study recommends as follows:

1. That both digital and printed media communication tools should be adopted by the studied telecommunication firms in order to facilitate operational effectiveness during and outside working hours. This is as a result of the rapid dissemination of information across various media to guarantee awareness and encourage attentiveness.
2. The studied telecommunication firms should adopt cloud-based communication tools that ensures accessibility, scalability, and cost-efficiency. Cloud solutions allow employees to access communication tools from anywhere, facilitating remote work and reducing infrastructure costs.
3. Telecommunication firms should Implement feedback mechanisms to continuously assess the effectiveness of communication tools. Employee and customer feedback can provide valuable insights into how these tools are impacting operational efficiency and where improvements can be made.
4. The studied telecommunication firms should ensure that communication tools are regularly updated and maintained to leverage the latest features and security enhancements. Outdated tools can hamper operational efficiency and pose security risks.

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