Effect of Workplace Flexibility and Employee Engagement in Telecommunication Industry in South East Nigeria

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Abstract
This study examined effect of workplace flexibility and employee engagement in telecommunication industry in South East, Nigeria. Specifically, the study sought to: evaluate the relationship between workplace flexibility on employee engagement, explore the relationship between asynchronous collaboration on employee productivity The study adopted a survey design approach while primary and secondary sources of data were used to obtain accurate data from the study. The target population of five hundred and sixty-four (564) obtained from the twenty (20) selected MNOs in South-East, Nigeria. The sample size of three hundred and ninety-two (392) respondents was derived from Godden (2004) statistical formula. The study utilized Simple Linear Regression Model, Analysis of Variance (ANOVA) and Pearson Correlation Coefficient of SPSS Version 27.0 to test the hypotheses the result of the findings revealed that there is a positive and significant relationship between workplace flexibility and employee engagement, there is a positive and significant relationship between asynchronous collaboration and employee. From the results of the hypotheses testing, the study concluded that workplace flexibilit had a positive and significant effect on employee engagement of telecommunication industry in South-East, Nigeria and therefore recommended that the management of MNOs should regularly establish a definitive flexi-time policy. Conclusively, the business world is heading a new way and changes in the labor markets to keep businesses running are imperative across industries of all sizes in the post-pandemic era. Hence, adequate digital infrastructure adoption is essential for employees' superior performance in the future.

Background to The Study

The continuity of services during pandemic became challenging across the public sector, private sector and non-profit sector (Raghavan, Demircioglu & Orazgaliyev, 2021). Even basic services such as healthcare, education, public administration, food delivery, and community services were all affected (Raghavan et al., 2021). The crisis transposed the economy, societies, homes, and services including schools and other organizations into a new reality which has resulted in a new normal in how private and public organizations services were delivered (Ramos-Morcillo, Leal-Costa, Moral-García & Ruzafa-Martínez, 2020). However, it is anticipated that the world of work will undergo a significant shift toward hybrid work in the post-coronavirus disease world, making hybrid working to some extent the new normal at work (Ro, 2020). The word new normal was first used in 2008 during the financial crisis and the term was used in the context of cautioning the economist and policymakers to believe that the industrial economy would recover and come back

to their rich recent past post 2007-08 financial crisis. The word was termed as new normal's by Paul Grover in 2009 (Kiconco & Shi-Mei, 2021). In United State of America, the post subprime economy meaning the subpar growth was named as New Normal (Kiconco et al., 2021 citing Rich & Banjamin, 2008). The new normal is a state of which economy, society, school, and other concerns settle following a pandemic crisis (Cacayan, Baua & Alvarado, 2020). The new normal, during crisis is being referred to as the changes in human behavior in adopting the current scenario as normal though being new (Kiconco et al., 2021). The pandemic catapulted to the rapid rise of e-learning, online learning, technology-enhanced learning, distance learning and any form of remote or hybrid work (Oducado & Soriano, 2021). Hence, the potential of adopting remote work largely depends on whether a job has tasks and activities which do not require workers to be physically present on-site to get the work done (Lund, Madgavkar, Manyika & Smit, 2020). Also, professions requiring in-person involvement such as agricultural work, restaurant, and hotel services are not able to adopt remote working (Dingel & Neiman, 2020).

In other words, the adoption of new normal work practices, remote working and work from home (WFH) will depend on the nature of the work, because some professions requiring in-person involvement such as agricultural work, restaurant, and hotel services tasks cannot be accomplished remotely (Dingel & Neiman, 2020). However, despite the lack of time for preparation and detailed planning in various organizations, the traditional face-to-face services, theoretical learning, instruction and other placements, employees have swiftly switched in a more flexible, distant, and online, remote or hybrid work style environment on an untested and unprecedented scale to reduce close contact and help suppress virus transmission (Brooks & Grajek, 2020). Hence, changes in the labor markets to keep businesses running are inevitable in the post-pandemic era, and technological adoption is the most visible change in the labor market. It has been shown that digital technology was adopted in organizations prior to the emergence of the pandemic, and this adoption was accelerated during the pandemic (Vargo, Zhu, Benwell & Yan, 2021). The pandemic has thus triggered a shift to a more digital society or, to be more precise, the real world is gradually dying out, and the fast-paced technological world is rapidly replacing the old one. Digital transformation has, therefore, become an imperative for businesses across industries of all sizes for survival, and adequate digital infrastructure is essential for working in the future (Melhem, Lawal & Bashir, 2020). The world of work is therefore heading a new way, in line with the changes in the business world. Thus, it could be said that digital and technological enhancements and transformations have an impact on several types of work (Gadhi, 2020).

However, the telecommunications (telecom) market is a part of the information and communication technology industry. The market is primarily engaged in operating and providing access to facilities for the transmission of voice, data, text and video (Businesswire, 2016). According to the International Telecommunications Union (ITU), 97 per cent of the world population now live within reach of a mobile cellular signal and 93 per cent within reach of a 3G (or higher) network. In the Americas, the Asia-Pacific region and Europe, over 95 per cent of the population is covered by a 3G or higher mobile broadband network. In the Arab States the figure stands at 91 per cent; the Commonwealth of Independent States, 88 per cent; and Africa, 79 per cent. Thus, of the 85 countries that provided data on mobile phone ownership, 61 have a higher proportion of men with mobile phones than women (ITU, 2019). Similarly, the Nigeria telecommunication sector witnessed a major revolution in 2001 with the granting of the global system for mobile telecommunication (GSM) license to providers. As at the end of Quarter 1 2019, the country's telecommunication industry contributed 10.11% to the total GDP of Nigeria (Statista, 2020). The telecommunication industry in Nigeria in recent times has recorded unprecedented

growth and development with tremendous improvement in the qualities and quantities in different types of services provided to customers. The deregulation of the industry led to the increase in the number of providers of the telecommunication services and of the numbers of subscribers or customers (Akingbade, 2014).

In the wake of unprecedented changes to our work landscape, IFC (2020) demonstrated the critical importance that telecommunications infrastructure plays in keeping businesses, governments, and societies connected and running. Because of the economic and social disruption caused by the pandemic, people across the globe rely on technology for information, for social distancing, and working from home. The telecommunications sector has seen tremendous technological advances over the past few decades, with mobility, broadband, and internet services growing in capability and reach across the globe. The IFC further observed that many telecom players have benefitted from a surge in the traffic of data and voice. As a result, the telecom sector is performing well compared to other infrastructure sub-sectors. In sharp contrast to many other industries, the telecommunication sector has been generally exempted from major pandemic related restrictions, such as stay-at-home orders and quarantine requirements, as it is recognized as an essential service. Some telecom companies have been strengthened by the short-term spike in data traffic and increased use of broadband services, as more people are working from home and rely on video conferencing to hold meetings. Thus, traffic growth has, in fact, demonstrated increased reliance on connectivity and digital services (Adegite, 2020).

Interestingly, employee wellbeing being a well-defined general work is the feeling of health, happiness and wealth. It includes the sense of life satisfaction, mental health and feeling of being purposeful (Liyanage, 2020). Psychologically it is attached to the purpose of life, mastery, positivity optimism and life satisfaction (Rudel-Fitzgerald, 2019). It is generally termed as a combination of a positive affective state of happiness and functioning with optimal effectiveness in personal, professional and social life. (Kiconco et al., 2021 citing Huppert, 2009). Sadly, during pandemic, the new normal has majorly hit the organizational work culture and lifestyle, keeping the work progress, production and other work at hold, organizations have born lots of losses and anticipating the unseen future and in order to beat the uncertainty every organization has started to work amidst the external crisis with the increased certainty of risk. The pandemic has centered the issue of physiological and mental health of people in organizations and these organizations suddenly have to steer through the unprecedented and are forced to find out the solution to new challenges arising. Thus, keeping various factors in mind, the Human Resource (HR) can contribute a lot to employee well-being and according to Sarah (2018), clarity of the work, responsibilities, variety of tasks, training and support, working hour's flexibility in work scheduled and fairness and transparency are the major factors affecting the well-being of the employees.

Therefore, in the midst of the above, employee well-being in the new normal and the role of (HR) becomes the critical issue. As established earlier wellbeing is related to the feel of someone concerning their health, home-life, personal and professional relations at home, and job or inhabits. At the workplace, well-being is being referred to the health and safety in regards to psychological and psychical measures and goes beyond happiness and job satisfaction as well (Beer, Boselie & Brewster, 2015). The wellbeing of an employee is not only the task of the HR but the employee itself, as it is seen that employee wellbeing and organization growth are based on mutual gain, optimistic perspective while the role of HR becomes very crucial to make the 'new normal well for employee wellbeing.

At this backdrop, the crux of the study is to assess the effect of workplace flexibility and employee engagement in telecommunication industry in South East Nigeria.

By contrast, work and work conditions for corporate workers have largely remained unchanged outside of social distancing, sanitation, and related health measures. Many workers now work from their workspace of choice which includes home, office, and co-working spaces (depending on the work tasks they are entrusted with). Also, the likelihood is high for a number of employees to experience increased working hours, as well as increased work-life conflict. For example, in today's hyper-connected world, many remote working employees are expected to respond to urgent tasks as well as after-work emails, resulting in a blur between work and leisure. A recent study revealed that employees WFH during the pandemic experienced an increase in work-related fatigue and overlap between work and non-work life (Palumbo, 2020). Similarly, Newman and Ford (2021) study found that working from home also includes downsides as employees had issues with loneliness and work motivation when they work from home. For the employers, there were issues related to controlling and supervising employees, which forced managers to trust their employees to a greater extent. Furthermore, the study also found that remote work diminishes the employees' connections to the fundamental principles, beliefs, and standards of the corporate culture, which could have long-term issues in employee motivation and loyalty (Newman et al., 2021). In this context, the existing complementarity between new technologies and high-paid professions may be a key factor in wage polarization, which in turn is the key variable to understand, predict, and manage some of the possible long-run consequences of COVID-19 in terms of working modality changes (Luca, Giovanni & Sergio, 2020).

The objectives of the study are to:

i. Evaluate the relationship between workplace flexibility on employee engagement of telecommunication industry in South-East, Nigeria.

ii. Explore the relationship between asynchronous collaboration on employee productivity of telecommunication industry in South-East, Nigeria.

Review of Related Literature

Conceptual Review

6 Workplace Flexibility

The workplace and employees have agreed on workplace flexibility. According to this agreement, better employee accommodations can change the standard work arrangement. Changes in working hours, location, and pattern have dominated workplace flexibility and a business values this strategic option because it changes employee working conditions and expectations. Thus, flexibility in the workplace has helped boost employee attraction (Dunmade, Aderibigbe, Asa & Obadare, 2024). Flexibility is the opportunity to customize work in different manners, being attractive to most employees. The most common flexible working practices are flexible working location and hours (Weideman & Hofmeyr 2020). Workplace flexibility is an employer tool used to reduce employee stress and improve employee performance and job retention. Workplace flexibility arrangements, such as part-time jobs, shift jobs, work-sharing, shortened 24-hour per day, work-from-home for nursing mothers, five-day jobs a week, sabbatical leave, career flexibility, leave, and so on, if taken into account by the human resources department of an organization will help minimize the work-life conflict of employees, motivate employees and improve their performance.

Flexibility includes a range of possibilities related to an employee's choice to do work and its related tasks in the time and location that better fits their arrangements (Botrel-Vilela, 2021). According to Avadhani and Menon (2022) job flexibility entails not only variability in time and place of employment, but also sharing of jobs, career breaks (maternity/paternity leave), part-time and term job. Austin-Egole, Iheriohanma and Nwokorie (2020) addressed three broad categories of flexible work arrangement (FWA) which are flexi-time (flexibility in scheduling), tele-homework (flexibility in location), and part-time (flexibility in the duration of work). Although each structure may be used individually, it is mostly combined to complement each other (Dorigo, Wagner, Albergel, Albrecht, Balsamo, Brocca & Lecomte, 2017). Idowu (2020) proposed that flexibility in work would offer ease in planning, not in reducing working time. Therefore, flexibility in the job may be defined as the ability of the employee to control both the length of his/her working time and the location of his/her job (remotely from the office). This ability in scheduling work should be provided by the employer. Several researchers suggest that flexible work practices promote work and family harmony, and that changing family patterns are advantageous for both women and men (Saxena, 2018).

Employees prefer flexibility in working time and location to suit their preferred, more individualized lifestyles and to be able to better combine paid work with other life activities (Čiarnienė, Vienažindienė & Adamonienė, 2018). Workplace flexibility has important implications for individuals, organizations, and society, and attracts attention from researchers analyzing the different intersections of work and family domains (Kossek&Lautsch, 2018), benefits, and risks of implementing flexible work practices. Employees who previously had to deal with traffic in their daily commute, particularly in large cities, might benefit from workplace flexibility arrangements. With greater control over their personal lives outside of the workplace, workers can increase their level of job satisfaction. Employees who arrive on time, who are not weary, who are focused on their tasks, and who are devoted to their work all contribute to a company's ability to function efficiently (Morgan & Liker, 2020).

Workplace flexibility pertains to arrangements enabling employees to modify their work schedules, locations, or patterns to align with their personal and professional requirements (Kim, Henly, Golden & Lambert, 2020). This may encompass flexible hours, telecommuting, compressed workweeks, or job sharing. Employers can enhance employee satisfaction, decrease absenteeism, and increase productivity by providing flexibility (Halinski & Duxbury, 2020). Operations management depends on work flexibility to regulate labour capacities and competences, therefore alleviating system imbalances resulting from uncertainties and changes (Qin, Nembhard & Barnes, 2015). In the workplace, flexibility serves as a coping strategy for employees, enabling them to establish temporary possibilities for adaptability within a regimented setting (Root & Young, 2011). It correlates with improved self-reported health, while it may not effectively decrease organizational healthcare expenditures (Root et al., 2011).

Jeffrey-Hill, Grzywacz, Allen, Blanchard, Matz-Costa, Shulkin and Pitt-Catsouphes (2018) defined workplace flexibility as a process in which an organization permits employees to select work-related activities. The capacity for remote work has become a significant factor in employment decisions. Hybrid work is now essential: over 70% of candidates demand that organizations implement a flexible work policy (International Workplace Group, 2022). Contemporary organizations emphasize hyper flexibility, part-time commuting, environmental benefits, suburban renewal, virtual collaboration, productivity measurements, workforce distribution, experience design, minimized overheads, and innovative organizational frameworks. From an organizational standpoint, various strategies exist to coordinate disparate remote work

elements that can be integrated; personnel segregated (some employees on-site, others remotely); temporal divided (individual work during optimal times, maintaining personal and professional equilibrium, multiple shorter work intervals); or remote-first (remote work as the default, with in-person interactions occurring as needed) (Kossek, Perrigino & Lautsch, 2023).

2.1.6.1 Nature of workplace flexibility

Personality: These are personal demographics unrelated to employment (e.g., age, gender, ethnicity, education, and income). They're control variables. They may also be independent variables in primary research questions. Piszczek and Pimputkar (2020) examined the association between organizational flexibility and employee engagement. Hill et al. (2003) discovered that both men and women are interested in job flexibility, but different ways. Gender and age are crucial to investigating concerns concerning flexibility at various life phases (Hill et al., 2008).Family and home: Marital/partner status, household composition (e.g., dual-earner vs. single earner), presence, age, responsibility for children, and caregiving arrangements are employed in workplace flexibility research (Brown, 2017).

Workplace traits: Workplace variables affect when, where, and how long activities are accomplished. Formal flexible work rules (e.g., flextime, flex place, leaves, and reduced-hours work alternatives) improve workplace flexibility but aren't enough. Because of assumptions that workplace flexibility is connected with negative punishments, the company culture must openly embrace flexible alternatives to achieve workplace flexibility (Bouncken & Reuschl, 2018). Fostering organizational support requires a culture that values the full individual, not just "the bottom line." Community traits. Community factors affecting workplace flexibility include infrastructure and social interactions (Bouncken et al., 2018). Community infrastructure is its physical environment. Transportation, utilities, buildings, and child care are examples of community infrastructure. This infrastructure's limits or possibilities affect workplace flexibility. A vast body of research has linked commute distance, unpredictability (e.g., traffic delays), and lack of choice (i.e., just one route to work) to greater personal stress and poorer job motivation. Long commutes are linked to children's internalizing behavior among welfare-leaving single moms (Bruns & Pilkauskas, 2022). This lower stress is likely linked to a stronger work-life balance, which affects other outcomes.

Vitality: There is minimal research on employment flexibility and community vitality (and none on this issue). Small but considerable literature has established this relationship. Research shows that occupational flexibility affects volunteerism. Participation in community groups is favorably connected with part-time employment for women, schedule flexibility), and self-directedness in work (Zacher & Froidevaux, 2021). This voluntary engagement is vital because many groups give services to community members and because social interactions may foster a healthier neighborhood environment. Several international and national studies have indicated that community involvement improves overall health (Yuan, Ye & Zhong, 2021). To truly capture workplace flexibility's entire effects, studies should include community consequences.

2.1.6.2 Flexible work arrangements

Part-time jobs: Part-time work or a part-time job is a flexible work arrangement which means working less than fulltime hours. It usually means working fewer days per working week and employees are normally considered to be part-time if they commonly work fewer than 30 hours

per week. Part-time employees receive the same employment entitlements as full-time workers on a pro-rata basis (Adias, 2025).

Part-time work is especially convenient for young moms and dads, students, retirees, people who want to start their own business and need more time, and all other workers who can't work, or don't need, a full-time job. Part-time work leaves employees more time and energy for other activities, so it's especially appropriate for family-oriented people. From the employee's point of view, there are a number of factors to consider when looking at part-time rather than full-time employment. Employees might consider absolute income first, but there are other important factors involved, such as: family time, overall stress and health, transportation costs etc. There are of course some key advantages and disadvantages for employers and employees when it comes to part-time work. However, in most cases the pros outweigh the cons, so it's definitely worth a try for both parties (Adias, 2025).

Remote work: Flexible working location is the flexibility given to employees to conduct work from home, offering a range of benefits such as time management and work-life balance (Wheatley 2017). Although, Kim et al. (2020) extend that remote working may positively or negatively affect employees' personal and professional lives. This depends on the resources, adequate space to work, distractions, and other challenges and difficulties that may appear while working from home Ugargol and Patrick (2018) found that flexible working practices significantly influence employees' engagement and, as a result, their productivity. These findings are similar to the encountered in this study, which indicates that most participants considered satisfied with their productivity while working from home. In addition, the employees in the age group 25-35 were the most satisfied with their levels of productivity, having a slight difference from the other age groups. Employees can face many challenges and difficulties while working from home (Klopotek 2017). This study shows that employees identified lack of communication, appropriate space to work, and social distancing/isolation as their principal challenges working remotely. These results partially agree with Klopotek (2017), who identified that employees consider the main challenges on remote working: work-life balance, social distancing and isolation, and difficulty executing tasks. It shows the need for practices to reduce the effects of social distancing and isolation within workers that were used to residential work. Sellers (2021) suggests that organizations have to provide ways to minimize the drawbacks of remote working, such as social isolation and lack of communication with colleagues by implementing more social events to improve the interaction between co-workers. Within those practices could be video hangouts, outdoor activities, mental health resources, etc. Employers must keep employees' well-being within the organization, even more after the pandemic outbreak (Sellers 2021).

Even though employees may face challenges with remote working, they also might identify some gains and benefits with the flexibility to work from home. For example, the participants of this study indicated an increase in productivity and facility to execute tasks as main gains with remote working. However, Klopotek (2017) encountered different perspectives, as employees identified flexible working hours, not travelling to work, and influencing the workplace as the main benefits of working from home. Prodanova and Kocarev (2021) outline that employee's willingness to work remotely might differ depending on the sector, working area, and organizational culture. Those factors may also influence employee's job satisfaction and productivity. Botrel-Vilela, (2021) extend that individuals from different cultures may have a distinct view of flexible working arrangements. Besides that, the Covid-19 pandemic possibly also influenced the findings of this study.

Flexi-time: Flexibility-time is a scheduling programmed for full-time employees which allows them to choose their starting and finishing times daily, provided they complete a stipulated number of hours start and/or end the work day earlier (or later) than usual, where workers can set their own starting and stopping times (Mary, 2024). Employees are required to be present during certain "core hours", which is usually fixed at a period between the latest permissible starting time and earliest permissible finishing time (Mary, 2024). A company has core hours between 9:00 a.m. and 3:00 p.m. The employees then have the choice to start anytime between 6:30 a.m. and 9:00 a.m., and the choice to leave anytime between 3:30 p.m. and 6:00 p.m., provided they work eight hours. Another variation has employees arrive 7:00 a.m. and 9:00 a.m., have a minimum one-half hour lunch break between 11:00 a.m. and 1:00 p.m., and finish between 3:30 and 6:30 p.m., again provided eight hours are worked (Youngstedt, Elliott & Kripke, 2019). Flexible work options are more likely to be successful when an organization encourages managers and employees to view flexibility as a mutually beneficial business process for determining the best approach to how, where and when work is done. Organizations provide the traditional flexi time offer. The flex time offer allows the worker to work around the rush hours and then they have been provided a flexibility to take some break to go home or to take lunch or take children from school etc. The employees are also given a daily flextime offer. Daily flexi time offer allows them to meet the requirement of unanticipated works and helps then in saving their job and keep the all parities (employee and employer) happy. There is also a concept of shift in the organizations where the workers are offered with different shifts to choose on that fit to him/her to have balanced life. There are no policies for the flexibility in most of the organizations and the flexibility is offered at informal basis so this causes a big problem in the management of the human resource. There are much of the chances that the higher income people can accommodate the personal matters during work even the flexible time offers are not there and they can informally take the advantage of being on the higher posts. So, there must be some equal base for all the workers to give them ease on work place (Adias, 2025).

Compressed workweek: A compressed workweek is defined as a method of reducing the working week by extending the working day, so that people work the same number of hours but on fewer days. An alternative method is to make the working day more concentrated by reducing the length of mid-day meal break. The now commonplace four-night week on the night shift in engineering was introduced in Coventry as a result of absenteeism on the fifth night being so high that it was uneconomical to operate. A compressed workweek is the scheduling of the normal 40hours of weekly work in less than five days. The typical compressed workweek follows a four-day 40-hour schedule (Jeptoo, Lagat & Kwonyike, 2015).

Jeptoo et al., (2015) continue that research on the effect of compressed workweeks is uneven some studies concluded it has positive effects on productivity, absenteeism and other behavior. Others concluded it does not. One pattern in the negative studies suggested that positive results occur shortly after (one year) the introduction, and then they decline. Individual and job differences may explain many of the contradictions in the research findings. In general, taxing physical or mental work probably is not suitable for compressed workweek schedule.

According to Harrison and Kessels (2014), the 1970s saw an increased interest by employers in developing shorter workweeks for employees. Experiments have generally covered workweeks of three twelve-hour days, four nine- hour days and four ten-hour days, and the latter receiving the greatest attention. A four-day workweek provides employees with more leisure time; decreased

commuting time, decreased request for time off for personal matters, makes it easier for organization to recruit employees, and decrease time spent on tasks such as setting up equipment. There's a decrease in workers' productivity near the end of the longer workday, low job satisfaction and underutilization of equipment. While evidence does generally support that the shorter workweek increases employee enthusiasm and morale and reduces turnover and absenteeism, the evidence is mixed on the issue of productivity (Harrison et al., 2014).

Telecommuting: Milkovich and Boudreau (2013) explain that with the wide spread use of computer terminals and advanced telephone technology, some companies are beginning to contract out routine forms processing on computer terminals in their homes. Other work that can be done this way includes processing catalog sales, transcribing tape dictation, key boarding, and computer programs or even writing software.

Job sharing: Job sharing occurs when a single job is divided between two people. Because it requires schedule compatibility between the two people sharing the job, as well as roughly equivalent or complementary skills, employees initiate most job sharing (Milkovich et al., 2013). Harrison et al., (2014) define job sharing as a specialized form of part-time working where two people split a full-time job between them so that the employer has a full-time service and the employee has only a half-time commitment.

Technology acceptance theory (TAT) (Davis, F. 1989)

The technology acceptance theory (TAT) was propounded by Fred Davis in 1989**.** Developed from his 1986 PhD dissertation at MIT. The technology acceptance theory (TAT) is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it. That is, the model focuses on two key determinants; perceived usefulness and perceived ease of use to explain user acceptance of information technology systems.

1. **Perceived usefulness (PU):** This was defined by Fred Davis as the degree to which a person believes that using a particular system would enhance their job performance. It means whether or not someone perceives that technology to be useful for what they want to do. That is, it is denoting an individual's belief that a technology enhances performance,
2. **Perceived ease-of-use (PEOU):** Davis defined this as "the degree to which a person believes that using a particular system would be free from effort. If the technology is easy to use, then the barrier is conquered. If it is not easy to use and the interface is complicated, no one has a positive attitude towards it. Also, it is indicating the notion that using the technology requires little effort and these factors influence perceptions of technology, affect behavioral intentions, and dictate actual adoption rates.

TAT is particularly significant when examining employee acceptance of hybrid work arrangements that prioritize technology. The Technology Acceptance Model (TAM), developed from the TAT, assesses employees' perceptions of digital technology regarding its utility and ease of use, influencing their likelihood to embrace hybrid work arrangements (Khaksar, Chu, Rozario & Slade, 2023). Employees who see these systems as intuitive (high perceived ease of use) and beneficial for work-life balance, productivity, and flexibility (high perceived usefulness) are more inclined to adopt and implement them (Sjarifudin, Widyastuti & Suroso, 2023). The Technology

Acceptance Model (TAM) examines the impact of sustained technology utilization and experience on employee performance and long-term adoption (Worthington, Burke, Shirazi & Leahy, 2020). Critics assert that the theory is constrained, but the consensus among several scholars about TAT's proposition that perceptions of utility and simplicity of use influence technology adoption (Bhattacharyya, Verma & Sampath, 2020; Oamen, 2023). Critics contend that the Technology Acceptance Theory (TAT) inadequately considers the cultural, organizational, and environmental factors influencing technology acceptance while some contend that the premise of rational decision-making is flawed, asserting that social dynamics, intuition, and emotions substantially impact technology adoption (Oamen, 2023). The theory's predictive capacity is significantly undermined in complex technological systems when human behavior is influenced by irrational factors. Notwithstanding these issues, TAT remains a crucial element in contemporary company environments, particularly for leaders and managers seeking to enhance technology utilization in hybrid workplaces. Leaders may enhance adoption rates and workplace performance by deliberately demonstrating the benefits of technology to employees and organizations (Kim & Chang, 2022).

Methodology

The study adopted a mixed method research design which involves collecting, analyzing, and integrating both quantitative (numerical) and qualitative (contextual) data in a single study to provide a comprehensive understanding of a research problem. Primary and secondary data were adopted for the study. For the purpose of this study, the target population consisted of one thousand, one hundred and twenty-eight (1,128) management and non-management staff of the twenty (20) selected physical spectrum and base stations of Mobile Network Operators (MNOs) in South-East, Nigeria. Therefore, in determining the sample size, the study adopted Godden (2004) statistical formula which is given as:

$$SS = \frac{Z^2 \text{ X } (P) \text{ X } (1\text{-}P)}{C^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots \text{ Infinite (equation 1)}$$

Where;

SS= Sample size
Z = Z-value expressed (at 1.96 for a 95% confidence level)
P = Percentage of population picking a choice expressed as decimal$^{\beta}$
C = Confidence interval expressed (at .04 = +/- 4% points)

Therefore, the sample size of the study was three hundred and ninety-two **(392).**

A stratified sampling method was adopted to give every member of the staff' equal chance of being selected. The study used questionnaire from dependent and independent variables as the instrument for data collection. The instrument was therefore subjected to face and content validity.

In this study, a test-re-test approach of reliability was used and the pilot study was carried out using twenty (20) copies of the questionnaire that were administered to the selected MNOs under study proportionately on different time interval. Both descriptive statistics and inferential statistic were adopted in this study and in analyzing the objectives of the study, hypotheses) were tested using Pearson Correlation Coefficient to evaluate the relationship between workplace flexibility on employee engagement, explore the relationship between asynchronous collaboration on employee productivity.

Table 1: Evaluate the relationship between workplace flexibility on employee engagement of telecommunication industry in South-East, Nigeria.

N=311

RESPONSES	SA 5	A 4	UN 3	D 2	SD 1	TOTAL	MEAN	Std. Dev.
Offering flexible, paid time off or unlimited PTO policies improves employees' productivity DMBs superior performance	98	181	28	-	4	1302	4.2	.698
Working from home or splitting time between home and the office boost employees' job satisfaction.	110	171	24	6	-	1318	4.2	.673
Allowing employees to choose their start and end times, rather than a rigid 9-to-5 enhance work flexibility	134	155	20	2	-	1354	4.4	.630
Two employees sharing one full-time role or reducing total hours promote employee's efficiency	102	185	22	2	-	1320	4.2	.605

Source: Field Survey, 2026.

Table above showed the relationship between workplace flexibility on employee engagement. Majority of the respondents with the highest mean scores of 4.4, 4.2, 4.2 and 4.2 respectively strongly agreed that allowing employees to choose their start and end times, rather than a rigid 9-to-5 enhance work flexibility, two employees sharing one full-time role or reducing total hours promote employee's efficiency, working from home or splitting time between home and the office boost employees' job satisfaction and offering flexible, paid time off or unlimited PTO policies improves employees' productivity DMBs superior performance. Therefore, since the mean of all the responses is ≥ 3.5 this shows that there is a significant relationship between workplace flexibility and employee engagement of telecommunication industry in South-East, Nigeria.

Table 2: Explore the relationship between asynchronous collaboration on employee productivity of telecommunication industry in South-East, Nigeria.

N=311

RESPONSES	SA 5	A 4	UN 3	D 2	SD 1	TOTAL	MEAN	Std. Dev.
Team members working at different times, without requiring presence or immediate responses improves performance	83	199	25	4	-	1294	4.2	.612
Team members managing their own time, increasing productivity by reducing disruptions.	140	148	10	12	1	1347	4.3	.747
Coordinating schedules and allowing work to move forward 24/7 enhance work flexibility	124	165	20	2	-	1344	4.3	.622
Relies heavily on written updates, shared documents, and recorded media to ensure everyone has necessary information boost employee's efficiency	134	161	12	4	-	1358	4.4	.623

Source: Field Survey, 2026.

Table above showed the relationship between asynchronous collaboration on employee productivity. Majority of the respondents with the highest mean scores of 4.4, 4.3, 4.3 and 4.2 respectively strongly agreed that relies heavily on written updates, shared documents, and recorded media to ensure everyone has necessary information boost employee's efficiency, team members managing their own time, increasing productivity by reducing disruptions, coordinating schedules and allowing work to move forward 24/7 enhance work flexibility and team members working at different times, without requiring presence or immediate responses improves performance. Therefore, since the mean of all the responses is ≥ 3.5 this shows that there a significant relationship between asynchronous collaboration and employee productivity of telecommunication industry in South-East, Nigeria.

$H0_1$: There is no significant relationship between workplace flexibility and employee engagement of telecommunication industry in South-East, Nigeria.

Table 4.17: Correlation coefficient between workplace flexibility and employee engagement

Correlations

		WF	EE
WF	Pearson Correlation	1	.801**
	Sig. (2-tailed)		.000
	N	311	311
EE	Pearson Correlation	.801**	1
	Sig. (2-tailed)	.000	
	N	311	311

Sources: Field Data, 2026.

Table above showed the relationship between workplace flexibility and employee engagement, r = .801** with p-value = .000 <.05 significant level. We therefore reject the null hypothesis and uphold the alternative hypothesis that there is a significant relationship between workplace flexibility and employee engagement of telecommunication industry in South-East, Nigeria.

$H0_2$: There is no significant relationship between asynchronous collaboration and employee productivity of telecommunication industry in South-East, Nigeria.

Table 4.18: Correlation coefficient between asynchronous collaboration and employee productivity

Correlations

		AC	EP
AC	Pearson Correlation	1	.823**
	Sig. (2-tailed)		.000
	N	311	311
EP	Pearson Correlation	.823**	1
	Sig. (2-tailed)	.000	
	N	311	311

Sources: Field Data, 2026.

Table above showed the relationship between asynchronous collaboration and employee productivity, r = .823** with p-value = .000 <.05 significant level. We therefore reject the null hypothesis and uphold the alternative hypothesis that there is a significant relationship between asynchronous collaboration and employee productivity of telecommunication industry in South-East, Nigeria.

Summary of Findings

1. There is a positive and significant relationship between workplace flexibility and employee engagement of telecommunication industry in South-East, Nigeria (r = .801** with p-value = .000<.05 significant level). This showed that the more workplace flexibility MNOs adopt, the more their employee engagement.
2. There is a positive and significant relationship between asynchronous collaboration and employee productivity of telecommunication industry in South-East, Nigeria (r = .823** with p-value = .000<.05 significant level). This showed that the more asynchronous collaboration MNOs adopt, the more their employee productivity is enhanced.

Conclusion

Pandemics have been reported in the world since centuries and the most devastating effects have been seen by the multiple plague outbreaks throughout the world. These pandemics have out rightly changed the society, culture and even thinking of the general population. The political, economic and many strategically adversities faced by the globe call for preparedness and vigilance by the government and other stakeholders to lessen human sufferings as much as possible. Regarding new normal and employment relations, there are many methods and methodologies each of which according to their approaches have definite steps and approaches to adopt. To this effect, the study deduced that new normal approaches contributed to enhanced employment relations of telecommunication industry in South-East, Nigeria. Hence, based on the research objectives, supported materials, data analyses and findings, this study observed that all the proxies of new normal adopted in this study were directly linked to the employment relations of MNOs. The study therefore concludes that new normal had a positive and significant effect on employment relations of telecommunication industry in South-East, Nigeria.

Recommendation

i. The MNOs management should regularly establish a definitive flexi-time policy that delineates the eligibility criteria, core hours and approval procedures. Ensure the policy is clearly communicated to all staff to avoid confusion and misconceptions. Telecommunication firms in South-East, Nigeria ought to furnish robust leadership and assistance to their staff, enabling them to exercise initiative and make judgments. Urge managers to exhibit flexibility and adaptability in their team management strategies and consistently evaluate the efficacy of flexible work schedules and implement required modifications.

ii. Management of MNOs should continuously adopt asynchronous work practices and identify additional powerful tool for generative ideas and productivity. Also, asynchronous collaboration provides both flexibility and a permanent record of ideas, decisions, and discussions. Thus, MNOs should encourage their teams to adopt asynchronous collaboration for deeper exploration of topics, and ideas to enhance employee productivity.

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