EMPLOYEE JOB SATISFACTION AND EMPLOYEE PRODUCTIVITY IN NIGERIA'S FEDERAL CIVIL SERVICE: AN EMPIRICAL EXAMINATION OF COMMUNICATION AS METRIC FOR JOB SATISFACTION

Musa Mohammed Rabiu, Bakare Akeem Adewale, Abubakar Hauwa Lamino, Akinbode James Olalekan, Oyelude Opeyemi Oluseun

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**Keywords:**

Communication; Employee Job Productivity; Employee Job Satisfaction; Sustainable Development Goal; Work Environment.

**ABSTRACT**

**Purpose:** The study examined the effect of employee job satisfaction on employee productivity, assessing the impact of communication as an indicator of job satisfaction in the Nigerian federal civil service. A part of efforts to achieve the eight Sustainable Development Goal of Decent Work and Economic Growth by 2030.

**Theoretical Framework:** Low performance and high turnover rates can result from job dissatisfaction which has been peculiar case in the public and private sector, attempt to deal with it has not been yielding positive result in the civil service in Nigeria (Rinny et al., 2020; Sadiq et al. 2020). Therefore, there is need to empirically investigate the impact of communication on employee productivity in Nigerian federal civil service which lacks sufficient research.

**Methodology:** The study used a survey research design and purposive non-probability sampling where the data are collected through the distribution of 2,836 questionnaires to the staff of 10 Nigerian federal civil services. In order to gather data for the study, Demographic data were analyzed using basic descriptive statistical methods like mean, percentages, and standard deviations, while inferential statistics were analyzed using econometric methods like multiple and logistic regression, as well as Karl Pearson's Product Moment Correlation Coefficients.

**Findings:** Finding of the study showed that employee productivity is strongly and favorably affected by (communication) as proxy for job satisfaction. Nonetheless, in the Nigerian Federal Civil Service, the interaction of work environment moderating between communication had no impact on employee productivity.

**Research, Practical & Social Implication:** The study recommends that organizations should establish transparent and accessible communication channels that involves implementing regular feedback mechanisms to ensure that employees feel heard and valued

**Originality/Value:** It is quite unusual with previous study using communication as proxy for job satisfaction as an independent variable, Also, none of the previous used work environment as mediating variable in the interplay between communication and employee productivity in civil service in Federal Capital Territory Abuja Nigeria.

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SATISFACCIÓN PROFESIONAL DEL FUNCIONARIO E PRODUTIVIDAD DO FUNCIONARIO NO SERVICIO CIVIL FEDERAL DA NIGERIA: UM EXAME EMPÍRICO DA COMUNICAÇÃO COMO MÉTRICA PARA A SATISFAÇÃO NO TRABALHO

RESUMO

Objetivo: O estudo examinou o efeito da satisfação no trabalho dos funcionários na produtividade dos funcionários, avaliando o impacto da comunicação como um indicador de satisfação no trabalho no serviço público federal nigeriano. Uma parte dos esforços para alcançar os oito objetivos de desenvolvimento sustentável do trabalho digno e do crescimento econômico até 2030.

Quadro Teórico: Baixo desempenho e altas taxas de rotatividade podem resultar de insatisfação no trabalho, o que tem sido o caso peculiar no setor público e privado, a tentativa de lidar com isso não tem produzido resultado positivo na função pública na Nigéria (Rinny et al., 2020; Sadiq et al. 2020). Portanto, é necessário investigar empiricamente o impacto da comunicação sobre a produtividade dos funcionários na função pública federal nigeriana, que carece de pesquisa suficiente.

Metodologia: O estudo utilizou um projeto de pesquisa de pesquisa e amostragem objetiva sem probabilidade, onde os dados são coletados através da distribuição de 2.836 questionários para o pessoal de 10 serviços públicos federais nigerianos. A fim de coletar dados para o estudo, os dados demográficos foram analisados utilizando métodos estatísticos descritivos básicos como média, porcentagens e desvios padrão, enquanto as estatísticas inferenciais foram analisadas utilizando métodos econômicos como regressão múltipla e logística, bem como coeficientes de correlação de momento do produto de Karl Pearson.

Constatações: O estudo mostrou que a produtividade dos funcionários é fortemente e favoravelmente afetada pela (comunicação) como indicador da satisfação no trabalho. No entanto, na função pública federal nigeriana, a interação do ambiente de trabalho moderando entre a comunicação não teve impacto na produtividade do funcionário.

Pesquisa, Implicação Prática e Social: O estudo recomenda que as organizações estabeleçam canais de comunicação transparentes e acessíveis que envolvam a implementação de mecanismos de feedback regular para garantir que os funcionários se sintam ouvidos e valorizados

Originalidade/Valor: É bastante incomum com o estudo anterior usando a comunicação como proxy para a satisfação no trabalho como uma variável independente, Além disso, nenhum dos ambientes de trabalho usados anteriormente como variável mediadora na interação entre comunicação e produtividade do funcionário na função pública no Território da Capital Federal Abuja Nigéria.


SATISFACCIÓN LABORAL DE LOS EMPLEADOS Y PRODUCTIVIDAD DE LOS EMPLEADOS EN LA ADMINISTRACIÓN PÚBLICA FEDERAL DE NIGERIA: UN EXAMEN EMPÍRICO DE LA COMUNICACIÓN COMO MÉTRICA PARA LA SATISFACCIÓN LABORAL

RESUMEN

Propósito: El estudio examinó el efecto de la satisfacción laboral de los empleados en la productividad de los empleados, evaluando el impacto de la comunicación como indicador de satisfacción laboral en la administración pública federal de Nigeria. Parte de los esfuerzos para alcanzar los ocho Objetivos de Desarrollo Sostenible de Trabajo Decente y Crecimiento Económico para 2030.

Marco Teórico: El bajo rendimiento y las altas tasas de rotación pueden ser el resultado de la insatisfacción laboral, lo que ha sido un caso peculiar en los sectores público y privado, y el intento de abordarlo no ha dado resultados positivos en la administración pública de Nigeria (Rinny et al., 2020; Sadiq et al., 2020). Por lo tanto, es necesario investigar empiricamente el impacto de la comunicación en la productividad de los empleados en la administración pública federal nigeriana, que carece de suficiente investigación.

Metodología: El estudio utilizó un diseño de investigación de encuesta y un muestreo no probabilístico intencional donde los datos se recopilan mediante la distribución de 2.836 cuestionarios al personal de 10 servicios civiles federales de Nigeria. Para reunir datos para el estudio, los datos demográficos se analizaron utilizando métodos estadísticos descriptivos básicos como media, porcentajes y desviaciones estándar, mientras que las estadísticas inferenciales se analizaron utilizando métodos econometricos como regresión múltiple y logística, así como los coeficientes de correlación del momento del producto de Karl Pearson.

Hallazgos: Los hallazgos del estudio mostraron que la productividad de los empleados se ve afectada de manera fuerte y favorable por la (comunicación) como indicador de satisfacción laboral. Sin embargo, en la Administración Pública Federal de Nigeria, la interacción entre la moderación del entorno de trabajo y la comunicación no repercutió en la productividad de los empleados.
Investigación, Implicaciones Prácticas y Sociales: El estudio recomienda que las organizaciones establezcan canales de comunicación transparentes y accesibles que impliquen la implementación de mecanismos de retroalimentación regulares para garantizar que los empleados se sientan escuchados y valorados.

Originalidad/Valor: Es bastante inusual con el estudio anterior que utiliza la comunicación como proxy para la satisfacción laboral como una variable independiente. Además, ninguno de los entornos de trabajo utilizados anteriormente como variable mediadora en la interacción entre la comunicación y la productividad de los empleados en el servicio civil en el Territorio de la Capital Federal, Abuja, Nigeria.

Palabras clave: Comunicación, Productividad Laboral de los Empleados, Satisfacción Laboral de los Empleados, Objetivo de Desarrollo Sostenible, Ambiente de Trabajo.

1 INTRODUCTION

According to studies conducted by Rinny et al. (2020), Sadiq et al. (2020), and DeNisi and Griffins (2018), job dissatisfaction is widespread in the Nigerian civil service, which leads to poor performance, unpleasant interactions, and high turnover rates among employees. Several factors such as poor communication, lack of reward and recognition, limited career advancement opportunities, long working hours, high workload, rigid organizational policies, and insufficient employee development opportunities contribute to this issue. Poor communication is one of the major factors that leads to employee dissatisfaction, particularly in the civil service. It often results in managers making poor decisions, conflicts, and unfair treatment of employees. It also disrupts workflows and impedes the flow of information, which can reduce team productivity. Therefore, it is necessary to conduct empirical research on the impact of communication on employee productivity in the Nigerian civil service.

Employee job satisfaction is a critical factor for every organization that wants to excel, organizations may establish a productive workplace that fosters employee motivation, success, and productivity by identifying the factors that affect employee job satisfaction and putting strategies in place to improve it. The eight (8) Sustainable Development Goal (SDG) cannot not be achieved without the likes of employee job satisfaction and thus it comes as no surprise that it deals with the issue of Decent Work and Economic Growth by 2030. Encouraging robust, equitable, and sustainable economic growth as well as full and fruitful employment and decent work for all. Goal 8 seeks to advance equitable and sustainable economic growth, full and productive employment, and decent work for all. This includes providing opportunities for everyone to obtain employment that is both productive and pays fairly, as well as job security, good communication and family-friendly benefits, improved opportunities for social integration and personal growth, and higher living standards.

As the most important source of differentiation for any organization in today's cutthroat business environment, the relationship between employee job satisfaction and productivity of
federal civil service employees in Nigeria is undeniable. However, regardless of industry, organizations can boost employee performance by enhancing employee satisfaction with communication. Consequently, the management of Nigeria's federal civil service has faced a difficult task in determining how productive each employee is and coming up with a plan that will inspire them to succeed and perform their jobs well (Shahzad et al., 2019). In general, research and practice in the Nigerian Federal Civil Service are crucial in understanding the connection between worker productivity and job satisfaction (communication).

In order to ascertain whether there is an empirically verifiable relationship between these two variables as well as the direction and strength of this relationship, the goal of this study is to investigate the relationship between employee job satisfaction (communication) and employee productivity of the federal civil service in Nigeria with a mediating variable (work environment). It is important to note that research on the relationship between employee job satisfaction (communication) and productivity is scarce, the relationship itself is complex, theoretical and empirical studies have not provided a clear explanation for the true nature and strength of the relationship.

2 OBJECTIVES OF THE STUDY

The major objective of this research is to investigate the effect of employee job satisfaction on employee performance of Federal Civil Service in Nigeria. The specific objectives include to:

a) Evaluate the impact of communication on employee productivity of Federal Civil Service in Nigeria.

b) Ascertain the impact of work environment in mediating the relationship between employee job satisfaction and employee productivity of Federal Civil Service in Nigeria.

3 LITERATURE REVIEW

3.1 EMPLOYEE JOB SATISFACTION

There has been a lot of research on employee job satisfaction in the literature, and different scholars have defined the concept differently. Oravee (2019) defines it as the feelings of individuals about their jobs. According to Milana (2018), it refers, in the broadest sense, to
an employee's overall attitude toward their job or certain aspects of it. According to Milana (2018), it is “an effective feeling that depends on the interaction of employees, their personal characteristics, values, and expectations with the organization and the work environment” while Milana (2018) defined employee job satisfaction as a favorable affective state that arises from an individual's assessment of their work experience, which is based on a comparison between their expectations and actual job outcomes.

Studies have indicated that job satisfaction or dissatisfaction among employees has several repercussions. It was revealed by many studies (Milana, 2018; Oravee, 2019) that satisfaction leads to more productivity, high quality of care and intent to remain in the organization. Conversely, it has been discovered that job dissatisfaction raises complaints, high levels of stress, absenteeism, and turnover (Aini et al., 2022).

Numerous studies also look at the factors that precede job satisfaction. Herzberg's two-factor theory of job satisfaction is among the reliable studies in this area. He made a distinction between what made people happy and what made them unhappy. Acknowledgment for accomplishments, the work itself, promotion, etc. are some of the elements that boost satisfaction. Dissatisfaction can be influenced by a variety of factors, including poor communication, supervision, pay, policies and procedures within the organization, and interpersonal relationships (Eka and Anik, 2020). Furthermore, empirical studies indicate that factors such as workload, compensation, and working conditions, as well as leadership style (autocratic or democratic), influence employees' job satisfaction. Conversely, a number of factors that influence job satisfaction have been identified by previous studies, including locus of control, individual differences, power dynamics within organizations, organizational reward structures, and self-esteem. Unsatisfied workers often move on to find happiness elsewhere (Mrak and Kvasić, 2021).

3.2 COMMUNICATION

According to Purwadi et al. (2020), communication is the process of transferring information, ideas, understanding from a person to another person and can interpret it according to the intended purpose. The aforementioned explanation makes it abundantly evident that communication is the process of informing individuals, either directly or through the media, so they can act in a way that advances the goals of the mediator. Two reviews of the influencing factors are presented by Oravee (2019), namely the sender's (also known as communicators)
and the recipient's (also known as communion) factors. Organizational communication, commonly referred to as communication in the workplace, has existed since antiquity and is arguably more crucial in today's sophisticated organizations. The communication process has undergone several changes, primarily due to technological advancements. The manner in which workers communicate has also evolved over the past few decades in comparison to how they communicate now. From the eras of industrialization, assembly lines, long-term employment, cross-functional work teams, early Internet and email usage, to the present, which is impacted by globalization, terrorism, climate change, and shifting demographics, we have come a long way (Mrak and Kvasić, 2021).

3.3 EMPLOYEE PRODUCTIVITY

According to Havens et al. (2018), employee productivity refers to the extent to which an employee is able to complete the tasks assigned to them effectively and efficiently. The degree to which a worker satisfies the requirements of their employer in terms of output quality, quantity, and timeliness is measured as worker productivity. Employee motivation and attitude toward work, along with their skills, knowledge, and abilities, all play a part in how productive an employee is (Hariyonyota et al., 2019).

Organizations and researchers have expressed concern about employee productivity. Researchers have been exploring various approaches to improve worker productivity for many years. According to Jadhav et al. (2021) and Geisler et al. (2019), behaviors or actions that are relevant to the goals of the organization in question are referred to as employee productivity. As a multifaceted variable, productivity has different performance components for each job (Kuzey, 2018). According to Meng and Berger (2019), attitudes have an impact on performance. For instance, Miah (2018), Oravee (2019), and Noercahyo et al. (2021) discovered evidence that the behavioral variable of employee productivity is influenced by the attitude variable of job satisfaction. Moges and Amentie (2022) found that "satisfaction of higher order needs would be the most closely related to employee productivity" in their empirical study. The average true correlation between worker job satisfaction and worker productivity was estimated to be 0.30 by Oravee (2019), despite the fact that the causal relationship between worker job satisfaction and worker productivity is still unclear.
3.4 WORK ENVIRONMENT

According to Lestari et al. (2018), the work environment is the culmination of the relationships that exist between employees and their surroundings. According to Oravee (2019), this environment involves the physical location as well as the immediate surroundings, behavioral procedures, policies, rules, culture, resources, working relationships, work location, all of which influence the ways employees perform their work. Commercial banks face numerous opportunities as well as a variety of challenges in dynamic environments. Among the competitive challenges that banks encounter are those related to the integration and management of both physical and psychosocial environments (Sidabutar et al., 2020). By creating a well-balanced work environment, the company is increasing profitability and elevating its reputation as a place to work; this helps to project the company as a cutting-edge corporate entity, which can help you draw in top talent. According to Yarhiansah et al. (2020), architectural designers have the ability to create environments that can guide, encourage, hinder, enhance, or support users’ behavior.

3.5 THEORETICAL UNDERPINNING

This study is anchored on Herzberg Two Factor theory and the Vroom Expectancy theory of work motivation/satisfaction were adopted in order to examine the effect of employee job satisfaction (communication) on employee productivity in the federal civil service in Nigeria. Examining these theories of satisfaction and motivation helps us better understand how both monetary and non-monetary rewards can spur workers to deliver results in an office environment. The need-based theory of employee motivation that has received the most attention is the Fredrick Herzberg Two-Factor theory. This is the result of a groundbreaking study that surveyed 203 engineers and accountants to ascertain the variables influencing their level of job satisfaction and discontent.

Werner and Desimone (2020) assert that Herzberg postulated that humans possess two distinct sets of fundamental needs, one centered around survival and the other around personal development. According to Herzberg, elements in the workplace that meet survival needs or hygienic requirements can only avert unhappiness, not bring about job satisfaction. These hygienic factors include compensation and security, supervision, company policy, interpersonal
relationships, and organizational culture. He regarded achievement, recognition, promotion, communication, advancement, and growth as motivating factors for personal growth.

According to Herzberg, although the motivator/satisfactory factors contribute to feelings of job satisfaction, their absence does not always result in job dissatisfaction. According to the Herzberg two-factor model, managers need to offer both motivators (intrinsic factors) so that the work itself has the potential to be motivating in addition to hygiene factors that prevent dissatisfaction. A strong framework for the validity of the claim that non-monetary incentives can motivate employees just as well as monetary ones is provided by the motivation-hygiene theory.

3.6 EMPIRICAL REVIEW

The researcher draws attention to earlier, related empirical studies that were conducted independently by other researchers.

Eka and Anik (2020) examined the effect of organizational communication and job satisfaction on employee engagement and employee performance at PT. Abyor International. The study employed primary source derived from questionnaires distributed to the all-employees of PT. Abyor International with nonprobability method as sample technique. The analytical method used in this study is the Partial Least Square (PLS) Structured Equation Model (SEM) using Smart PLS version 3.0. The results showed that organizational communication and job satisfaction had a positive and significant effect to employee engagement. Organizational communication and job satisfaction has a significant effect to employee performance. Employee engagement becomes mediator for organizational communication and job satisfaction variables in influencing employee performance.

Karsikah et al. (2023) examined determinants of job satisfaction: internal communication relationships in improving employee performance. Effective communication, especially internal communication between leaders and subordinates, is one of the initiatives being made to improve employee performance. In this study, the PLS-SEM method was employed. Employee performance is positively and significantly impacted by internal communication, according to the study's findings. Work satisfaction has a positive and significant impact on internal communication, and employee performance is positively and significantly impacted by job satisfaction. A good way to mitigate the impact of internal communication on worker performance is through job satisfaction. Increasing internal
communication amongst staff members and their level of job satisfaction are two ways to boost employee performance.

Lestari et al. (2023) examined the effect of Motivation, Communication and Job Satisfaction on Employee Performance. This study attempts to clarify whether the factors of job satisfaction, motivation, and communication affect the Rantau Prapat stone glass employees' performance. Interviews and questionnaires were used to collect the research data. Multiple linear regression analysis, validity and reliability testing, hypothesis testing, and descriptive quantitative analysis are the methods used in the analysis. The findings indicate that employee performance is positively and significantly impacted by motivation, communication, and job satisfaction.

Hadrian et al. (2023) explored the influence of participatory leadership style on employee performance through organizational commitment, internal communication and job satisfaction in Gowa district environmental service. 45 responders drawn from the sample where questionnaire was distributed. By putting theories to the test with a path analysis model, the research methodology employs a quantitative approach. The findings indicate a somewhat significant relationship between organizational commitment and participatory leadership style. On internal communication, a participative leadership style has a somewhat significant impact. Work satisfaction is partially impacted by a participative leadership style. Performance is partially affected by organizational commitment. The relationship between a participatory leadership style and employee performance is mediated to a considerable extent by organizational commitment, internal communication, and job satisfaction.

Tambunan et al. (2023) conducted a study on the impact of effective communication and the utilization of information technology on employee performance. The study was conducted in the Medan Mayor's office with a population and sample size of 131 workers from the Kantor Walikota Medan. The researchers used SEM (Structural Equation Model) analysis and descriptive analysis to analyze the data. The study's findings show that effective communication has a direct and significant positive effect on job satisfaction, as does the use of information technology. Moreover, effective communication and the use of information technology have a positive and significant impact on employee performance, and job satisfaction also has a positive and significant impact on employee performance.
3.7 LITERATURE GAP

The study bridges the gaps associated with geographical scope where in this study few studies have embarked on civil service in Nigeria where this study investigated on the impact of employee job satisfaction (communication) on employee job productivity in the federal civil service in Nigeria. Also, the majority of studies concentrated on the independent and dependent variables, and very few of them included mediating variables whereas this study used work environment as a mediating variable in the relationship between communication and employee performance. Finally, Partial Least Square regression analysis (PLS) structural equation modeling (SEM) was utilized in the majority of the reviewed studies to analyze the data. Karl Pearson's Product Moment Correlation Coefficients, descriptive statistics, logistic regression analysis using STATA version 14.0, and other statistical (descriptive and inferential) and econometric techniques were used for this study. Descriptive statistical tools were used to analyze the variables pertaining to the demographic features of the respondents. To assess the degree of correlation between each predictor, control variable, and outcome variable, the Karl Pearson's Product Moment Correlation Coefficient was employed.

4 METHODOLOGY

This study uses a survey research design because it is grounded in the constructivism point of view, which leans toward quantitative analysis. The study's population consists of Federal Civil Service employees in Nigeria's Federal Capital Territory. The target population for this study covered 17,082 people work in Nigeria's 10 federal civil service agencies in Nigeria where judgmental (purposive) non-probability sampling technique was used. The staff the sample size using Taro Yamane's sample size determination formula and 2,899 Ths study used primary sources to generate its data. A questionnaire was used to ensure the effectiveness of the research project by gathering all the data required. Information was sought from respondents using a questionnaire with a five-point Likert scale. Each question is graded on a Likert scale from 1 to 5, with 1 denoting (1) Strongly Disagree, 2 disagree, 3 disagree, 4 agree, and 5 strongly agree for efficient data analysis. The empirical models of Bhatti and Qureshi (2007), Balouch and Hassan (2014), Inuwa (2016), Alromaihi, Alshomaly, and George (2017), Razak et al (2018) were modified for this study in order to examine the effect of job satisfaction
(communication) on Federal Civil Service in Nigerian productivity. A functional statement of the empirical model is as follows:

\[ EJP_i = f(JSA_i) \] (3.1)

In this subsection, the first empirical hypothesis is developed in order to investigate the effects that communication has on the level of employee job productivity displayed by personnel working for the Federal Civil Service in Nigeria. Within the confines of this theory, the empirical model is described as follows:

\[ EJP_i = \beta_0 + \beta_1 CMM_i + \beta_2 SEX_i + \beta_3 CDR_i + \beta_4 EQF_i + \beta_5 MS_i + e_i \] (3.2)

Where

- \( EJP \) denotes employee job productivity;
- \( CMM \) denotes communication;
- \( SEX \) is sex of the respondents;
- \( CDR \) is cadre of the selected employees;
- \( EQF \) is educational qualification;
- and \( MS \) denotes marital status
- \( \beta_1, \beta_2, \ldots, \beta_5 \) are parameters of the variables
- \( i \) is surveyed employees
- \( e \) is error term.

The predicted signs and a'priori expectation of equation are presented in Table 3.5.

Table 1

<table>
<thead>
<tr>
<th>S/N</th>
<th>Explanatory variables</th>
<th>Dependent Variable</th>
<th>Expected signs</th>
<th>A'priori</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Communication (CMM)</td>
<td>Employees job performance (EJR)</td>
<td>+</td>
<td>( \beta_1 &gt; 0 )</td>
</tr>
<tr>
<td>2.</td>
<td>Sex (SEX)</td>
<td></td>
<td>+</td>
<td>( \beta_2 &gt; / &lt; 0 )</td>
</tr>
<tr>
<td>3.</td>
<td>Cadre (CDR)</td>
<td></td>
<td>+</td>
<td>( \beta_3 &gt; 0 )</td>
</tr>
<tr>
<td>4.</td>
<td>Education qualification (EQF)</td>
<td></td>
<td>+</td>
<td>( \beta_4 &gt; 0 )</td>
</tr>
<tr>
<td>5.</td>
<td>Marital status (MS)</td>
<td></td>
<td>+</td>
<td>( \beta_5 &gt; 0 )</td>
</tr>
</tbody>
</table>

Note: \( \beta_1, \ldots, \beta_5 \) are parameters.
Source: Author (2024).

For this study, statistical (descriptive and inferential) and econometric techniques such as descriptive statistics, Karl Pearson’s Product Moment Correlation Coefficients and logistic regression analysis using STATA version 14.0 were used. The variables related to the respondents’ demographic features were analyzed using the descriptive statistical tools. The Karl Pearson’s Product Moment Correlation Coefficient was used to examine the level of association between each of the predictors and control variables, and the outcome variables. Specifically, the methods of data analysis are discussed in details.

Furthermore, logistic regression model is utilized to estimate the parameters of equations (3.1) through (3.2). The estimation strategy is used because it has the capability of estimating the individual effects of categorical or continuous explanatory factors on categorical dependent variables (Wright, 1995). This is one of the reasons why the estimation strategy is used. The following is a specification of the logit model for objective one:

\[
\log\left(\frac{\pi}{1 - \pi}\right) = \phi_0 + \phi_i X_i + \mu_i \quad (3.3)
\]

Where:

- \(\pi\) is the probability of best performance of employee job productivity affected by job satisfaction proxied by communication;
- \(\pi/(1 - \pi)\) represents the odds of best performance of the staffs;
- \(X_i\) is a vector of independent variables;
- \(\phi_0\) denotes constant;
- \(\phi_i\) is vector of parameter estimates for the \(i\)th independent variables;
- and \(\mu_i\) is the error term of the \(i\)th explanatory variables.

The study began with empirical hypotheses on the effect of the work environment on the employee job productivity of Federal Civil Servants in Nigeria before moving on to the formulation of the empirical model. Specifically, this means:

\[
EJP_i = \lambda_0 + \lambda_1WEV_i + \lambda_2SEX + \lambda_3CDR_i + \lambda_4EQF_i + \lambda_5MS_i + \epsilon_i \quad (3.4)
\]

Where:

- \(EJP\) denotes employee job productivity;
- \(WEV\) denotes work environment;
SEX is sex of the respondents;
CDR is cadre of the selected employees;
EQF is educational qualification; and MS denotes marital status.
$\lambda_0, \lambda_{1-5}$ are parameters of the variables, $i$ is surveyed employees and $\varepsilon$ is error term.

The reason for testing the empirical model of equation (3.4) is to identify the specific role of work environment on employee job productivity without its interaction with the variables of employee job satisfaction (Communication). It is tested to verify if it is job productivity enhancing or retarding. Thus, the model for testing the contributory role of work environment in employee communication and employee job productivity relations in specified as:

$$EJP_i = \psi_0 + \psi_1 WEV_i + \psi_2 CMM_i + \psi_3 (WEV \times CMM)_i + \psi_4 SEX + \psi_5 CDR_i + \psi_6 EQF_i + \psi_7 MS_i + \nu_i \quad (3.5)$$

Where:

$EJP$ denotes employee job performance;
$WEV$ denotes work environment;
$JSA$ is a vector of employee job satisfaction measured by Communication ($CMM$);
$SEX$ is sex of the respondents;
$CDR$ is cadre of the selected employees;
$EQF$ is educational qualification;
$MS$ denotes marital status;
$\psi_0, \psi_{1-7}$ are parameters of the variables, $i$ is surveyed employees and $\nu$ is disturbance/stochastic term.

Table 3.7 displays the a’priori expectations of the equation as well as the expected signs.

**Table 2**

*A’priori Expectation of Objective VII*

<table>
<thead>
<tr>
<th>S/N</th>
<th>Explanatory variables</th>
<th>Dependent Variable (EJR)</th>
<th>Expected signs</th>
<th>A’priori</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Work environment (WEV)</td>
<td></td>
<td>+</td>
<td>$\psi_1 &gt; 0$</td>
</tr>
<tr>
<td>2.</td>
<td>Communication (CMM)</td>
<td></td>
<td>+</td>
<td>$\psi_2 &gt; 0$</td>
</tr>
<tr>
<td>3.</td>
<td>Interaction of WEV and JSA</td>
<td></td>
<td>+</td>
<td>$\psi_3 &gt; 0$</td>
</tr>
<tr>
<td>4.</td>
<td>Sex (SEX)</td>
<td></td>
<td>+</td>
<td>$\psi_4 &gt; / &lt; 0$</td>
</tr>
<tr>
<td>5.</td>
<td>Cadre (CDR)</td>
<td></td>
<td>+</td>
<td>$\psi_5 &gt; 0$</td>
</tr>
<tr>
<td>6.</td>
<td>Education qualification (EQF)</td>
<td></td>
<td>+</td>
<td>$\psi_6 &gt; 0$</td>
</tr>
<tr>
<td>7.</td>
<td>Marital status (MS)</td>
<td></td>
<td>+</td>
<td>$\psi_7 &gt; 0$</td>
</tr>
</tbody>
</table>

Note: $\alpha_{1-5}$ are parameters.
Source: Author (2023).
5 DATA ANALYSIS

The empirical results about the impact of communication on job productivity in Nigeria’s Federal Civil Service are presented in this part. Table 3 displays the results of the multiple regression. Standard errors in parenthesis, together with the coefficients’ probability values at 1%, 5%, and 10%, are presented in the table. The results demonstrated a positive relationship between communication and employee job performance, which was also determined to be statistically significant at the conventional level. The table demonstrates that the estimated parameter following augmentation is smaller than the coefficient of communication prior to its augmentation with additional demographic factors. This indicates that improved communication results in increased worker productivity within Nigeria’s Federal Civil Service. The productivity of an employee’s work increases by 0.868 and 0.834 before and after augmenting, respectively, for every unit increase in communication.

The table displays the parameter estimates of controlling factors, including age, gender, education level, and job experience, in relation to other explanatory variables. In the empirical analysis, respondents with less than a year of work experience, females, and participants with qualifications higher than a bachelor's degree are excluded from the models for gender, age, educational attainment, and working experience, respectively, and are used as the benchmark. The slope coefficients in the regression equation result indicate the degree to which the mean employee job productivity of gender (male), age (30–40 years and above 40 years), educational qualification (Bachelor Degree), and work experience (1-4 years and above 5-years) differs from the mean employee performance of the benchmarks. The intercept in the regression equation result represents the average value of the employee’s job productivity index of the benchmarks (female, people below the age of 30, participants with qualification higher than bachelor degree, and respondents with less than one year of work experience).
Table 3

Least Square Regression Result of Communication and Employee Job Productivity in Nigeria Civil Service

<table>
<thead>
<tr>
<th>Variables</th>
<th>Employee Job Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Communication</td>
<td>0.868***</td>
</tr>
<tr>
<td></td>
<td>(0.026)</td>
</tr>
<tr>
<td>Gender: Male</td>
<td>-0.036***</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
</tr>
<tr>
<td>Age: 30–40 years</td>
<td>0.043***</td>
</tr>
<tr>
<td></td>
<td>(0.013)</td>
</tr>
<tr>
<td>Above 40 years</td>
<td>0.033**</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
</tr>
<tr>
<td>Education qualification: B.Sc.</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
</tr>
<tr>
<td>Working experience: 1–5 years</td>
<td>0.051*</td>
</tr>
<tr>
<td></td>
<td>(0.029)</td>
</tr>
<tr>
<td>Above 5 years</td>
<td>0.043</td>
</tr>
<tr>
<td></td>
<td>(0.030)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.608***</td>
</tr>
<tr>
<td></td>
<td>(0.125)</td>
</tr>
<tr>
<td>Adj. R-squared</td>
<td>0.653</td>
</tr>
<tr>
<td>Fishers Test</td>
<td>114.51</td>
</tr>
<tr>
<td>Probability (Fisher Test)</td>
<td>0.000</td>
</tr>
<tr>
<td>Observations</td>
<td>2,836</td>
</tr>
</tbody>
</table>

Note: Standard errors (robust) are reported in parentheses; *, **, *** signify significance levels of 10%, 5%, and 1% respectively.
Source: Author’s computation from Field Survey (2023).

In terms of age, male employees’ mean job productivity is -0.036, which is lower than that of female employees. The results thus demonstrated that, in comparison to men, female employees had the highest mean employee job productivity. According to the empirical model, the gender-specific slope coefficient was statistically significant at 5%. Regarding educational qualifications, the bachelor's degree holders' performance level was investigated. For this attribute, employees with certifications above a bachelor’s degree serve as the benchmark. When employees’ mean job productivity was compared to a baseline of 0.708, workers with bachelor's degrees increased mean job productivity by approximately 0.005. In terms of statistics, the parameter is not significant. This indicates that there is no substantial association between employee job productivity and education level at the 5% level.

Regarding the employee age ranges, statistical disparities between staffs under 30 years old and those over 40 years old are statistically significant at the conventional level. This indicates that individuals who are between the ages of 30 and 40 and older than 40 are more productive at work than those who are younger than 30. The outcome also demonstrates that
there is no statistically significant variation in the productivity of Federal Civil Service employees in Nigeria based on their work experience.

Moreover, the Fishers test, which measures statistical significance at 5%, confirmed the overall significance of the predicted coefficients for the models. This suggests that employee job productivity in Nigeria's Federal Civil Service is significantly impacted by communication. Additionally, the models' moderate explanatory ability is demonstrated by the Adjusted R-square values. According to the coefficient of determination, communication accounted for almost 66% of the variation in employee job productivity in Nigeria's Federal Civil Service.

Table 4

<table>
<thead>
<tr>
<th>Logistic Regression Result of Communication and Job Productivity Measures in Nigeria Civil Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Communication</td>
</tr>
<tr>
<td>(0.320)</td>
</tr>
<tr>
<td>Gender: Male</td>
</tr>
<tr>
<td>(0.467)</td>
</tr>
<tr>
<td>Age: 30–40 years</td>
</tr>
<tr>
<td>(0.754)</td>
</tr>
<tr>
<td>Above 40 years</td>
</tr>
<tr>
<td>(0.872)</td>
</tr>
<tr>
<td>Education qualification: B.Sc.</td>
</tr>
<tr>
<td>(0.599)</td>
</tr>
<tr>
<td>Working experience: 1–5 years</td>
</tr>
<tr>
<td>(0.602)</td>
</tr>
<tr>
<td>Above 5 years</td>
</tr>
<tr>
<td>(0.808)</td>
</tr>
<tr>
<td>(1.443)</td>
</tr>
<tr>
<td>Wald Chi-Square</td>
</tr>
<tr>
<td>Pseudo R²</td>
</tr>
<tr>
<td>Log likelihood</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

Note: Standard errors (robust) are reported in parentheses; *, **, *** signify significance levels of 10%, 5%, and 1% respectively.
Source: Author’s computation from Field Survey (2023).

Table 4 presents the results of the logistic regression analysis of the impact of communication on the elements of organizational strategic goal, employees’ adherence to instruction, task completion, quality of results, and work organization in the Nigerian Civil
Service. This serves as a robustness check for our empirical findings. The coefficients, standard errors in parentheses, and statistical significance levels at 1%, 5%, and 10% are displayed in the table. The empirical model of employee work productivity indices is shown in columns 1-6. The findings demonstrated that in the estimated models of employee job productivity indices, the communication parameters are statistically significant. According to the results of the models of employee job productivity indices, employees' adherence to instructions, task completion, quality of output, and work organization are all positively impacted by communication. This demonstrates how the strategic aim of the organization, employee adherence to instructions, task completion, quality of output, and work organization all contributed to the positive influence of communication on employee job productivity.

According to the findings, there will be a corresponding increase in the organizational strategic aim, employees' adherence to instruction, task completion, quality of output, and work organization of 3.47, 3.207, 3.446, 2.822, and 3.090 for every unit increase in communication. The completion of tasks, employee adherence to instructions, organizational strategic goals, work organization, and the calibre of outputs are the areas where communication has a greater positive impact. While the Pseudo R-square values indicate that communication and other covariates have a sizeable explanatory power of organizational strategic goal, employees adhere to instruction, task completion, quality of results, and work organization, the Wald Chi-square values of the empirical models validate the overall significance of the estimated coefficients.

As regards the interactive impact of work environment and job satisfaction on employee’s job productivity, the results are presented in Table 5 which presents the effects of the interactions of work environment and communication on overall employee job productivity in Nigerian federal civil service. The outcomes of our empirical findings showed that job satisfaction and its measure (communication) have an unconditional negative and insignificant impact on employee job productivity all through the models. Similarly, the unconditional and insignificant effects of work environment on overall employee job productivity are shown in the table. It shows that both communication and work environment have no significant impact on employee job productivity when the interaction of both communication and work environment are taken into consideration. The marginal effects of interaction between work environment and job satisfaction indices (communication) on employee job productivity is positive and significant at 5% level. It implies that work environment influenced the positive effects of communication on employee job productivity of federal civil servants in Nigeria.
Table 5

Regression Result of the impact of Work Environment in mediating the link between Job Satisfaction (Communication) and Employee Productivity of Civil Servant in Nigeria

<table>
<thead>
<tr>
<th>Variables</th>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>-0.014</td>
</tr>
<tr>
<td></td>
<td>(0.188)</td>
</tr>
<tr>
<td>Work Environment</td>
<td>0.035</td>
</tr>
<tr>
<td></td>
<td>(0.229)</td>
</tr>
<tr>
<td>Communication × Work environment</td>
<td>0.102**</td>
</tr>
<tr>
<td></td>
<td>(0.044)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.296**</td>
</tr>
<tr>
<td></td>
<td>(0.917)</td>
</tr>
</tbody>
</table>

Adj. R-squared 0.753
F-Statistics 324.27***
Prob.(F-Statistics) 0.000
Observations 2,836

Note: Standard errors (robust) are reported in parentheses; *, **, *** signify of 10%, 5%, and 1% significance levels.
Source: Author computation from Field Survey (2023).

6 RESULTS AND DISCUSSIONS

The study found that effective communication is a cornerstone for enhancing employee job productivity within the Federal civil service in Nigeria. Thus, clear and transparent communication channels ensure that organizational strategic goals are well understood by civil servants at all levels. When employees are informed about the overarching objectives and their individual roles within those goals, they are more likely to align their efforts accordingly. This alignment promotes adherence to instructions, as civil servants comprehend the significance of their tasks in contributing to the broader organizational strategy. This supports the results of Djordjevic et al. (2021) that the bi-variate correlation between Communication and employee productivity is positive. Likewise, it aligns with the study of Syallow (2018), Eka and Anik (2020), Akpedeye (2023), and Oreoluwa et al. (2023) that organizational communication has a positive and significant impact on job satisfaction and performance.

Moreover, robust communication fosters an environment where task completion, quality of results, and work organization thrive. When civil servants are well-informed and can easily access the information they need, it streamlines their workflow and facilitates efficient task completion. Regular communication also provides a platform for feedback and clarification, reducing misunderstandings that may hinder productivity. A culture of open and
effective communication enhances the overall quality of results by ensuring that employees have the necessary information and resources to perform optimally. In a nutshell, communication serves as a catalyst for employee job productivity within the federal civil service, creating a work environment where strategic goals are communicated clearly, instructions are followed, tasks are completed efficiently, and the quality of results meets or exceeds expectations.

6.1 IMPACT OF WORK ENVIRONMENT IN MEDIATING THE RELATIONSHIP BETWEEN COMMUNICATION AND EMPLOYEE JOB PRODUCTIVITY OF NIGERIA FEDERAL CIVIL SERVICE

The study discovered that an environment that is suitable to work and has the capacity to greatly improve the employee job productivity of federal civil workers in Nigeria. The findings align with the study of Badrianto and Ekhsan (2020), Irwan et al. (2020), Milana (2018), Sultana et al. (2021), and Wahyudi et al. (2023) that work environment has a positive and significant effect on employee job productivity. An optimally structured and encouraging work environment cultivates a favorable ambiance, stimulating employee involvement, contentment, and general welfare. Elements like as ergonomically designed offices, sufficient amenities, and a favorable organizational culture play a role in the overall job contentment and morale of civil workers. When employees perceive themselves as being appreciated, have adequate access to essential resources, and encounter a favorable work environment, they are more inclined to be motivated and efficient in their positions. In addition, fostering transparent communication can further empower employees in public service, thereby establishing a favorable cycle that strengthens heightened job performance.

The positive and significant marginal effects of the interaction between work environment and communication indicate a robust synergy between the work environment and communication in driving employee job productivity. This implies that an improved work environment, coupled with effective organizational practices, leads to a substantial boost in employee productivity. The findings underscore the economic significance of fostering a conducive work environment and implementing organizational strategies that enhance employee communication for overall productivity gains.
7 CONCLUSION

Six years remain until 2030 arrives when all 17 Sustainable Development Goals are expected to have been achieved. This paper was particularly interested in the attainment of SDG 8, ‘Decent Work and Economic Growth’ in Nigeria with a specific emphasis on the achievement of effective communication in the Federal Civil Service of Nigeria. The eight (8) Sustainable Development Goal (SDG) cannot not be achieved without the likes of effective communication and thus it comes as no surprise that it deals with the issue of Decent Work and Economic Growth by 2030. The paper had two broad objectives: First to evaluate the impact of communication on employee productivity of Federal Civil Service in Nigeria. Secondly, ascertain the impact of work environment in mediating the relationship between employee job satisfaction and employee productivity of Federal Civil Service in Nigeria and to provide recommendations which Nigerian Government could utilize to ensure that all Nigerians become employee job satisfied in regards to communication, hopefully before the 2030 SDG deadline.

The study has concluded that job satisfaction (communication) has a significant impact on employee productivity in the Federal Civil Service of Nigeria. The study highlighted that communication significantly affect employee productivity in civil service operation. The study also found that the interplay between the moderating variable work environment and communication has an insignificant effect on employee productivity in the Federal Civil Service of Nigeria.

RECOMMENDATIONS

Based on the research findings regarding the effect of employee job satisfaction (communication) on employee productivity in federal civil service Nigeria (work environment mediating the dependent and independent variable), the following recommendations are proposed:

a) In order to enhance communication within the Federal Civil Service of FCT Nigeria, it is recommended to establish transparent and accessible communication channels. This involves implementing regular feedback mechanisms to ensure that employees feel heard and valued. Furthermore, leadership should invest in communication training to refine interpersonal skills and promote effective information dissemination.

b) To optimize the work environment within the Federal Civil Service of Nigeria, it is recommended to assess and enhance the physical workspace, addressing ergonomic considerations and providing a comfortable setting conducive to productivity. This
involves encouraging communication and acknowledging the diverse needs of the workforce. Investment in technology and infrastructure to facilitate remote work options, when applicable, contributes to flexibility and employee satisfaction.

REFERENCES


