Impact of Effective Communication on Institutional Performance: Higher Learning Institutions as a Case Study

Abstract

In recent times, Information technology has significantly improved how employees and employers interact with each other. This research empirically tests the impact of effective communication on institutional performance in the educational sector, specifically in Bayelsa Medical University and University of Benin. A total of 420 respondents from different departments/units participated in this study. The findings revealed that effective communication via the studied variables has a significantly positive effect on employee performance. Four key variables (Communication Process; Culture/Climate; Verbal and Non-verbal Cues; and Communication Techniques. Based on the results of this study, we provided recommendations to help educational institutions in Nigeria develop effective communication strategies that will help reduce conflict and improve cordial relationship among management and workforce.

Keywords: Effective Communication, Institution, Organization, Performance, Strategies

Introduction

In today's environment, doing business is quite difficult. All production components (people, machinery, and materials) must be skillfully handled in order to remain profitable. To effect desired change, communication is necessary. It is essential for motivating and steering the workforce in the direction of achieving the organizational goals or objectives (Stephen, 2011). Most institutions, including private and public entities rely on some form of communication to convey their messages to their target audience, or inform them of the vision and mission of their entity.

In any organization, the success of achieving its goals depends largely on the manager's communication ability and skills (Magnus, 2009). Today's most successful managers are those who comprehend the importance of communication and apply it to their workplace. Effective interpersonal communication skills are also essential to social interaction, and to the building and maintenance of all relationships. Poor communication skills on the other hand can cause irrevocable damage to relationships; affecting productivity, satisfaction, performance, morale, trust, respect, self-confidence, and even physical health (Un ange passé, 2008).

Essentially, Communication is a perceptual process. To produce communications, the sender must encrypt the intended meaning. The message is subsequently decoded by the receiver to produce the desired meaning. The sender and the receiver must both understand the rules that are used to encrypt messages with meaning in order for communication to be effective. As shown in Figure 1, effective communication between individuals (the sender and the receiver) involves many steps, including encoding, decoding, and feedback (Stroh; Northcraft; and Neale, 2002).

According to Mckinney et al. (2004), effective team performance is dependent on communication, which they compare to blood flow in the body. Thus, communication is used in the workplace by every institution that recognizes its significance. So it guarantees the coordination of the production variables and, most significantly, the material and human components of the organization as a successful network for change and advancement. When a message is sent effectively, the sender receives the expected response from the recipient (Peter, 2016). Effective communication begins with the sender and ends with the receiver decoding it. When the intended meaning of the sender cannot be deciphered by the recipient, communication is said to be ineffective. It is said to be ineffective communication when receiver of the message did not decode the intended of the sender (Berrels, 2010). It is through feedback that information achieves its desires results.

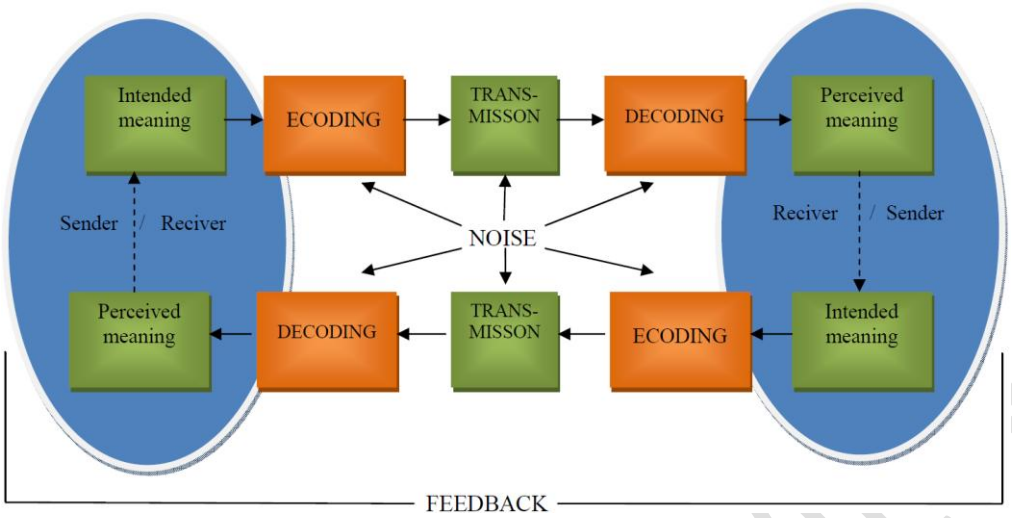

Figure 1: Communications Model (Source: Banihashemi, 2011)

Communication typically comes in one of three forms (See Table 1). Top-down communication is used to impersonally direct, control, and instruct at its simplest level. Top-down communication is frequently linked to hierarchically structured, centrally managed organizations where decisions are made at higher operating levels within the hierarchy with little to no input from lower operating levels. Although team briefings are typically handled by middle managers, feedback is not required. Two-way communication, as opposed to top-down communication, aims to foster an environment where individuals can freely contribute more to the accomplishment of the organization's objectives. The alignment of project goals and individual goals, as well as best practices, are all related to two-way communication.

Table 1: Types of Communication

SN	Types	Explanation
1	Downward communication	The procedure is owned and managed by management, and it is used to pass information throughout the organization.
2	Downward and upward communication	Management and operational workers communicate in both directions, and ownership of the process is occasionally shared.
3	Downward, upward, and lateral communication	Information is freely exchanged within the company.

Puth (2002) believed that by informing employees and including them in policy making, performance within an organization could be considerably enhanced. This also increases an organization's overall employee satisfaction and productivity. However, lack of communication between employers and employees causes workers to feel generally unappreciated, undervalued, or unreliable as professionals. In addition, it was asserted that personnel constitute an entity's most valuable resource. As a result, managers have a duty to promote two-way information flow in order to maximize organizational performance and worker productivity. As a result, communication is crucial for all parties involved because it supports the majority of managerial goals. Internal communication is required ethically to start planning for growth, to consolidate resources efficiently and cheaply, and to choose, develop, and evaluate team members.

Significantly, as the world becomes a Global village, the impact of communication keeps growing. Many times, the utilization of technology for communication purposes is beneficial, especially in saving cost and time for bulk messages. In situations where communicating is made difficult by barriers, technology comes in handy to minimize or eliminate the challenges by making communication easier. In cases when faced with such barriers, organizations should seek solace in technology. Therefore, use of technology in communication should be encouraged as long as the positive outcomes are desirable.

Several firms have adopted technological innovations to improve institutional performance as a result of the requirement to be seen by the world. BMU and UNIBEN are one of such institutions, as it explores blended learning and e-training to empower its students and employees in using the internet to communicate policies, staff development, lectures, and much more. This would be a turning point for the university's overall networked approach to performance and communication. In order to maintain high performance rates, it is crucial to emphasize on innovation and effective use of communication channels. So, any breakdown in the communication process or chain can have a significant negative impact on the effectiveness of an institution.

In the view of Okoye (2004), communication goes beyond reception of information but understanding and feedback. Most organizational conflict has been traced to breakage in communication as supported by (Scott, 2004). Notwithstanding, the great contributions that efficient communication makes to enhancing institutional performance, it is sad that certain faculties only speak plausibly about the maintenance of successful communication systems. Also, staff members' persistent delay in accessing information appear to have an impact on their productivity, which could lead to poor coordination of organizational tasks (Chudi-Oji, 2013). As a result, how well employees perform in relation to their responsibilities and tasks raises doubts about the effectiveness of their communication strategies in the context of university performance.

Supporting this, Lepsinger and Luacia cited in Nebo et al, (2015) noted that the most significant reason why people do not develop in their careers, as said, is inadequate communication. Thus, how effectively personnel carry out their jobs and responsibilities tends to call into question how well they communicate within the institution. In order to provide its staff or students with useful and encouraging feedback, the Governing Council of the both learning institutions must decide the best "channel" to use. Even so, there are several obstacles to communication, including filtering, selective perception, information overload, personal bias, linguistic and communication anxiety. In order to achieve effective results, management must attempt to overcome these obstacles. In light of these circumstances, this study used the educational and healthcare sectors as a case study to investigate the effects of good communication on institutional performance.

Objectives of the Study

The main objective of this study is to examine the impact of effective communication on institutional performance, using Bayelsa Medical University and University of Benin as case studies. The specific objectives includes to:

1. Assess the effect of the communication process amongst employee performance.
2. Determine the impact of culture and climate on employee performance.
3. Evaluate the effectiveness of verbal and non-verbal communication cues on employee performance.
4. Examine the impact of communication techniques on employee performance.

Research Questions

1. Does the process of communication among staff have an impact on employee performance?
2. How can culture and climate have an impact on employee performance?
3. How effective are verbal and non-verbal communication cues on employee performance?
4. Do techniques of communication have an impact on employee performance?

Hypothesis

H_0^1: There is no significant relationship between the process of communication and employee performance.
H_0^2: There is no significant relationship between Culture/climate and employee performance.
H_0^3: There is no significant relationship between Verbal & non-verbal communication and employee performance.
H_0^4: There is no significant relationship between Communication technique and employee performance.

Methods

A study design provides a framework for gathering and analyzing data (Mejabi et al., 2017). Descriptive survey design was chosen as the research method for this study because it enables generalization of the findings from the sample to the total population. A descriptive survey research method is a study that tries to gather data from a population and describe the data acquired in a systematic manner, according to Nworgu (2006), referenced in Obienu and Amadin (2018). Hence, as this study involves the collecting of data from a population and the methodical description of the data acquired, this research design was chosen. Bayelsa Medical University, Yenagoa, Bayelsa State and University of Benin, Benin City, Edo State, served as the study locations.

The questionnaire with the designation “Effective Communication Questionnaire” (ECQ) served as the research tool for the survey (See Table 2). There were two sections to the questionnaire. Section A asked about demographics which included; age, gender, job experience, faculty/unit, and department. Section B asked about the factors being studied and included thirty (30) items. Six subcategories were used to further segment the questions in Section B. Verbal and non-verbal cues (VC), Communication Techniques (CT), Work Efficiency (WE), Organizational Performance (OP), and Communication Process (CP), each of which covered five questions. The respondents' responses were solicited using a five-point Likert scale, with 1 denoting "strongly disagree," 2 denoting "disagree," 3 denoting "undecided," 4 denoting "agree," and 5 denoting "strongly agree." The five-point scale was used to reduce the social desirability bias and is consistent with earlier IS research studies (Hariri and Roberts 2015; Obienu and Amadin, 2021). Some of the items were taken from earlier studies and changed to fit the context and goals of the current study.

Table 2: The Communication Measures

Construct	Item Code	Item
Communication Process (CP)	CP_1	The communication process among colleagues establishes interpersonal connection and establishes bridges among employees.
	CP_2	Through proper communication process management are able to plan and coordinate the activities effectively.
	CP_3	The institution communication process ensures a concise and precise information rapid transmission of the message among colleagues.
	CP_4	The communication process in my institution encourages fluency, reversibility of communication and assurance of a common language among colleagues.
	CP_5	Effective communication in the work place ensures that conflict that arises are resolved.
Culture/Climate (CC)	CC_1	Through effective communication staff in my institution are able to connect with other staff and students.
	CC_2	The culture and climate of my institution ensures inward and outward communication.
	CC_3	The information transmitted through the communication process triggers the accomplishment of employee's activities.
	CC_4	The management of my institution provides a climate of proper strategic direction and vision, which motivate and build team spirit and mutual respect among staff.
	CC_5	The communication culture of my institution encourages free interaction and creates synergy and creativity.
Verbal and Non-Verbal Cues (VC)	VC_1	My institution encourages media (phones, teleconferencing) and verbal cues (words, orders, instructions) to convey information among employees
	VC_2	My institution encourages face-to-face medium of communication, for it generate timeliness of feedback and encourages capacity for natural expression.
	VC_3	When communicating, staff members at my institution use a variety of non-verbal clues, including body language (such as tone of voice and facial expression), to convey emotions.
	VC_4	Video conferencing, phone interactions, chat (instant messaging), email, text message is encourage among staff in my institution.
	VC_5	Written documentation involving notes, memo, and letter is encouraged in my institution.
Communication Techniques (CT)	CT_1	My institution encourages a two-way horizontal or vertical communication or conversation between and among employees.
	CT_2	At all levels, all employees are free to engage and exchange opinions, ideas, and even criticism in my institution's open communication environment.
	CT_3	My institution encourages formal and informal communication among employees.
	CT_4	My institution encourages written, visual and Audio visual means of communication among staff.
	CT_5	My institution adopt an interactive model of communication
Work Efficiency (WE)	WE_1	My institution ensures a transaction of ideas, directory command and guide in oral and written messages.
	WE_2	My institution clearly set and communicates performance standards that meet the expectations of workers and improve their work efficiency.
	WE_3	Through effective communication employees in my institution are able to develop and sustain a competitive edge in their industry.
	WE_4	The communication process among employees' in my institution ensures that messages sent and feedback responses are efficiently implemented.
	WE_5	My institution has in place effective strategies, system and practices that directly affect the work efficiency of employees' learning and innovation.
Organizational Performance (OP)	OP_1	My institution business environment is open and encourages effective communication among employees.
	OP_2	My institution ensures that communication is facilitated by exchange of information and operational efficiency.
	OP_3	The communication process adopted by my institution is effective and shows a signal of care of well-being and values among employees.
	OP_4	In my organization, encouraging team communication is greatly facilitated by frequent face-to-face meetings, emails, and phone calls.
	OP_5	Employees in my institution are satisfied with the communication culture, technological

system used and distributed work setting and allocation.

Scale labels: "1 - Strongly Disagree, 2 - Disagree, 3 - Undecided, 4 - Agree, 5 – Strongly Agree"

A sample size of four hundred and twenty (440) was selected using stratified random sampling method. A total of 440 questionnaires was administered to staff members in both institutions. To ensure that subsequent analysis is based on a comprehensive dataset void of any issues like missing answers, a multi-step screening process was used to filter the data.

Model Specification

In order to test the hypotheses of the study, models were formulated. The generalized model depicting relationship between independent (Communication Process, Culture/Climate, Verbal and Non-verbal Cues, Communication Techniques, Work Efficiency (WE)) and dependent variable (Organizational Performance) are expressed mathematically (see equation 1 – 5) as follows;

H_0^1: There is no significant relationship between the process of communication and employee performance.

$$OP = f(CP) \quad (1)$$

$$OP = \alpha + \beta_1 CP_{1-5} + \varepsilon \quad (2)$$

Where:

OP = Organizational Performance
CP = Communication Process
$\boldsymbol{\alpha}$ = constant;
$\boldsymbol{\beta_1, \beta_2}$ = Estimate of parameters;
$\boldsymbol{\varepsilon}$ = Error Term

H_0^2: There is no significant relationship between Culture/climate and employee performance.

$$OP = \alpha + \beta_1 CC_{1-5} + \beta_2 WE_{1-5} + \varepsilon \quad (3)$$

Where:

CC = Culture/Climate
WE = Work Efficiency

H_0^3: There is no significant relationship between Verbal & non-verbal communication and employee performance.

$$OP = \alpha + \beta_1 VC_{1-5} + \beta_2 WE_{1-5} + \varepsilon \quad (4)$$

Where:

VC = Verbal and Non-Verbal Cues

H_0^4: There is no significant relationship between Communication technique and employee performance.

$$OP = \alpha + \beta_1 CT_{1-5} + \beta_2 WE_{1-5} + \varepsilon \quad (5)$$

Where:

CT = Communication Techniques

Data Analysis

The IBM version 25 of the Statistical Package for Social Scientist (SPSS) program was used to study the relationship between the effective communication and Institutional performance. Specifically, simple percentage, statistical frequency tables were used to analyze demographic characteristics of respondents and background information of the institution. The confirmatory factor analysis, mean, standard deviation; correlation and regression analyses were used to analyze the items of the research instrument involving communication process, culture/climate, verbal and non-verbal, communication techniques, employee work efficiency and organizational performance.

The research hypotheses were tested using regression analysis to identify the significant level of the dependent variable (organizational performance) on the independent variables (communication process, culture/climate, verbal and non-verbal, communication techniques). R, R^2, F-statistic, T-test and ANOVA were conducted.

Results

Reliability Test for Core Construct

Coefficient alpha method was used to perform reliability analysis so as to measure the internal consistency of the five-point Likert scale used in this study. Coefficient alpha, as shown in equation 6 below, is widely accepted as suitable for reliability testing (Obienu and Ejodamen, 2019). Furthermore, most studies assume that an alpha score greater than .70 is acceptable (Amadin et al. 2018; Wong, et al., 2014; Oye, et al, 2012; Amadin and Obienu, 2016). Hence, as shown in table 3, majority of the model constructs are reliable since computted statistics is above 0.7, which shows that the questions related to the employee performance are highly reliable.

$$\alpha = \left(\frac{n}{n-1}\right)\left(1 - \sum_{i=1}^{k} \sigma_i^2/\sigma_s^2\right) \quad (6)$$

Where:

n = the number of items in the scale, while

σ_i^2 and σ_s^2 = the variance of item, i and of the scale, s respectively.

Table 3: Reliability Coefficients of Constructs.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
.869	.908	30

Study Sample Characteristics

Out of 440 participants contacted (175 academic staff and 265 non-academic staff members) who started the questionnaire, only 169 academic staff and 262 non-academic staff members completed it, making a total of 431 respondents. Some of these answers were only partially complete. They were therefore dropped. After the research data were successfully collected, several statistical analyses were carried out using the 420 complete and usable responses to look at the underlying relationships in the research model.

By analyzing the responses of section A of employees' productivity questionnaire, it can be determined that the study sample is appropriately diverse in terms of gender, age, and department. According to the data in Table 4, the majority of participants were the Faculty of Science, who made up 80 participants (19.1%), followed by Registry staff, who made up 41 participants (9.8%). The respondents' average age was 34.63. The majority of participants (66.1%) were new employees with less than six years of work experience, while 6.1% were highly experienced employees.

Table 4: Study Sample Characteristics

Factors	Frequency	Percentage (%)
Institution		
Bayelsa Medical University	180	42.86
University of Benin	240	57.14
Total	420	100.00
Faculty/Unit		
Arts	23	6.61
Basic Medical Sciences	30	7.14
Bursary	26	6.19
Clinical Science	30	7.14

Foreign Languages	15	3.57
Foundation Studies	18	4.29
General Studies	21	5.00
Humanities	22	5.24
Health Sciences	34	8.10
ICT	15	3.57
LAW	20	4.76
Library	21	5.00
Pharmacy	11	2.62
Registry	41	9.76
Science	80	19.05
Vice Chancellor Office	15	3.57
Works	21	5.00
Total	420	100.00
Category		
Academic	155	36.90
Non-Academic	265	63.10
Total	420	100.00
Gender		
Male	156	37.14
Female	264	62.86
Total	420	100.00
Age		
< 30years	55	13.10
30-40 years	302	71.90
>40years	63	15.00
Total	420	100.00
Work Experience		
< 6 years	238	56.67
6 - 10 years	101	24.05
11 - 15 years	65	15.48
> 15years	16	3.81
Total	420	100.00
ICT Compliance		
< 1 year	84	30.00%
1 - 3 years	200	45.50%
4 - 7 years	95	16.70%
> 7years	41	7.80%
Total	420	100.00%

Source: Field Survey, March, 2023

Test of Hypotheses

H_0^1: There is no significant relationship between the process of communication and employee performance.

Table 5: Multiple Regression Model of Communication Process and Organizational Performance.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.424[a]	.180	.157	.844	1.612

a. Predictors: (Constant), CP_5, CP_3, CP_1, CP_4, CP_2
b. Dependent Variable: OP

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	27.194	5	5.439	7.644	.000[b]
	Residual	123.800	174	.711		
	Total	150.994	179			

a. Dependent Variable: OP

b. Predictors: (Constant), CP_5, CP_3, CP_1, CP_4, CP_2

Table 5 shows that coefficient of determination R = .424; R^2 =.180 and adjusted R^2 = 0.157 which gives proportion of variance (Adjusted R^2 x 100) = 15.7 %. This suggests that the communication process (cp), an independent variable, explained 15.7% of the variance in organizational performance, a dependent variable (op).

The F-statistic was calculated to see if there is a meaningful link between the dependent variable and independent variable. The model regression Sum of Square = 27.194, df = 5, calculated F= 7.644, p = .000 is significant at 5% level. There is a significant effect between communication process (cp) and organizational performance (op).

Table 6: Relative Contribution of the Dependent Variables (Organizational Performance) to the Independent Variable (Communication Process)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.786	.446		4.003	.000
	CP_1	.061	.077	.068	.796	.427
	CP_2	.196	.086	.193	2.268	.025
	CP_3	.180	.067	.229	2.668	.009
	CP_4	.253	.090	.248	2.818	.006
	CP_5	.035	.072	.043	.485	.628

a. Dependent Variable: OP

Source: Field Survey, March, 2023

The t-statistic was used in an economic model to assess the significance of the coefficient of the independent variable (see table 6). The calculated t for communication process is t = 4.003, β = 1.786, p = 0.00. This implies that there is a strong connection between organizational effectiveness and the communication process. As a result, the alternate hypothesis is accepted.

H_0^2: There is no significant relationship between Culture/climate and employee performance.

Table 7: Multiple Regression Model of Culture/Climate, Work Efficiency and Organizational Performance.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.596[a]	.355	.317	.918	1.952

a. Predictors: (Constant), WE_5, CC_1, WE_1, CC_2, WE_2, CC_5, WE_4, CC_3, WE_3, CC_4

b. Dependent Variable: OP

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	68.300	10	7.830	9.291	.000[b]
	Residual	142.428	169	.843		
	Total	220.728	179			

a. Dependent Variable: OP

b. Predictors: (Constant), WE_5, CC_1, WE_1, CC_2, WE_2, CC_5, WE_4, CC_3, WE_3, CC_4

Source: Field Survey, March, 2023

Table 7 shows that coefficient of determination R = .596, R^2 = .355 and adjusted R^2 = .317 which gives proportion of variance (Adjusted R^2 x 100) = 31.7%. This implies that the independent variable culture/climate (cc) accounted for 31.7% of the variance in the dependent variable organizational performance (op).

The F-statistic was calculated to see if there is a meaningful link between the dependent variable and independent variables. The Regression sum of square = 68.300, df = 10. The model calculated F= 9.291, p = 0.000 is significant at 5% level. There is a significant effect between culture/climate, work efficiency and organizational performance.

The t-statistics (see Table 8) was calculated to ascertain the significance of the coefficient of independent variable in the econometric model. The calculated t for mobile advert tools is t = 3.316, β = 1.483, p = .001.This implies that there is a significant relationship between culture/climate, work efficiency and organizational performance. Thus the alternate hypothesis is accepted.

Table 8: Relative Contribution of the Dependent Variables (Organizational Performance) to the Independent Variable (Culture/Climate)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.483	.447		3.316	.001
	CC_1	.279	.087	.314	3.219	.002
	CC_2	.123	.104	.112	1.184	.239
	CC_3	-.205	.094	-.241	-2.187	.031
	CC_4	-.045	.080	-.052	-.559	.577
	CC_5	-.084	.086	-.094	-.976	.331
	WE_1	.085	.133	.065	.639	.524
	WE_2	.140	.097	.122	1.447	.151
	WE_3	.212	.074	.257	2.818	.006
	WE_4	.249	.096	.247	2.585	.011
	WE_5	.069	.077	.085	.905	.367

a. Dependent Variable: OP

Source: Field Survey, March, 2023

H_0^3: There is no significant relationship between Verbal & non-verbal communication and employee performance.

Table 9: Multiple Regression Model of Verbal and Non-Verbal Cues, employee work efficiency and organizational performance.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.575[a]	.331	.291	.773	1.872

a. Predictors: (Constant), WE_5, VC_5, WE_1, VC_3, VC_4, WE_2, VC_2, VC_1, WE_4, WE_3

b. Dependent Variable: OP

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	49.988	10	4.999	8.363	.000[b]
	Residual	101.007	169	.598		
	Total	150.994	179			

a. Dependent Variable: OP

b. Predictors: (Constant), WE_5, VC_5, WE_1, VC_3, VC_4, WE_2, VC_2, VC_1, WE_4, WE_3

Source: Field Survey, March, 2023

Table 10: Relative Contribution of the Dependent Variables (Organizational Performance) to the Independent Variable (Verbal and Non-verbal Cues)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.832	.423		1.990	.047
	VC_1	.274	.085	.310	3.207	.002
	VC_2	.152	.099	.143	1.527	.129
	VC_3	-.220	.094	-.256	-2.322	.022
	VC_4	-.053	.080	-.062	-.661	.510
	VC_5	-.099	.086	-.111	-1.149	.253

WE_1	.089	.130	.068	.677	.500
WE_2	.138	.097	.122	1.428	.156
WE_3	.218	.075	.265	2.888	.005
WE_4	.246	.096	.244	2.571	.011
WE_5	.079	.076	.098	1.041	.300

a. Dependent Variable: OP

Source: Field Survey, March, 2023

Table 9 indicates that coefficient of determination R = .575, R^2 = .331 and adjusted R^2 = 0.291 which gives proportion of variance (Adjusted R^2 x 100) = 29.1%. This shows that the independent variables (verbal and non-verbal cues) accounted for 29.1% of the variance in the dependent variable moderating variable work efficiency (we) and organizational performance (op).

The F-statistic was calculated to see if there is a meaningful link between the dependent variable and independent variable. The regression sum of square = 49.998, df= 10. The model calculated F= 8.363, p = 0.000 is significant at 5% level. There is a significant effect of verbal and non-verbal cues on employees work efficiency and organizational performance.

The t-statistics (see Table 10) was calculated to ascertain the significance of the coefficient of independent variable in the econometric model. The calculated t for developing competitive strategy is t = 1.990, β= .832, p = .047. This implies that there is a significant relationship between verbal and non-verbal cues, work efficiency and organizational performance.

H_0^4: There is no significant relationship between Communication technique and employee performance.

Table 11: Multiple Regression Model of Communication Techniques, Work Efficiency and Organizational Performance.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.556[a]	.309	.268	.788	1.734

a. Predictors: (Constant), WE_5, WE_1, WE_2, CT_2, WE_3, CT_4, CT_1, WE_4, CT_3, CT_5

b. Dependent Variable: OP

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	46.718	10	4.672	7.527	.000[b]
	Residual	104.277	168	.621		
	Total	150.994	178			

a. Dependent Variable: OP

b. Predictors: (Constant), WE_5, WE_1, WE_2, CT_2, WE_3, CT_4, CT_1, WE_4, CT_3, CT_5

Source: Field Survey, March, 2023

Table 11 indicates that coefficient of determination R = .556, R^2 = .309 and adjusted R^2 = 0.268 which gives proportion of variance (Adjusted R^2 x 100) = 26.8%. This implies that the independent variable communication techniques (ct) accounted for 26.8% of the variance in the dependent variable, organizational performance (op).

The F-statistic was calculated to see if there is a meaningful link between the dependent variable and independent variable. The regression sum of square= 46.718, df =10. The model calculated F= 7.527, p = .000 is significant at 5% level. There is a significant relationship between communication techniques and organizational performance.

Table 12: Relative Contribution of the Dependent Variables (Organizational performance) to the Independent Variable (Communication Techniques)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.808	.355		5.092	.000
	CT_1	-.009	.103	-.009	-.089	.929
	CT_2	-.045	.098	-.043	-.466	.642
	CT_3	-.016	.108	-.015	-.150	.881
	CT_4	.175	.091	.187	1.934	.056
	CT_5	.804	.635	.617	1.266	.208
	WE_1	-.587	.621	-.451	-.945	.347
	WE_2	.179	.097	.158	1.836	.069
	WE_3	.232	.075	.280	3.038	.003

WE_4	.216	.101	.214	2.139	.034
WE_5	.013	.076	.017	.176	.860

a. Dependent Variable: OP

Source: Field Survey, March, 2023

The t-statistics (see Table 12) was calculated to ascertain the significance of the coefficient of independent variable in the econometric model. The calculated t for communication techniques is $t = 5.092$, $\beta = 1.808$, $p = .000$. This implies that there is a significant relationship between communication techniques, work efficiency and organizational performance. Thus the alternate hypothesis is accepted, which states that there is a significant relationship between Communication technique and employee performance.

Discussion

The need for deliberate and effective communication in an institution is essential. As staff members frequently deal with students, colleagues, and management, interpersonal communication has become an essential skill for today's workforce. Employers now look for quality skills in interpersonal communication, critical thinking, and problem-solving, not just the ability to complete job duties (Un ange passé, 2008). Consequently in the absence of effective communication, institutional goals will succumb to individualistic and personal goals (Magnus, 2009). Also, it could lead to unease, trepidation, and dissatisfaction, all of which have a negative impact on productivity.

The finding revealed that effective communication process were significantly related to organizational performance ($t = 4.003$, $\beta = 1.786$, $p = 0.00$). This finding is in line with several researchers (Peter, 2015; Keith, 2014), who were of the view that effective communication process is strategic for organizational goal achievement. It starts from the sender to the receiver in a feedback means. Through effective communication process, employees establish interpersonal connections, coordinate activities effectively and ensure concise, precise and rapid transmission of information and messages amongst employees.

The findings also revealed that organizational culture and climate has a significant effect on employees work efficiency and organizational performance ($t = 3.316$, $\beta = 1.483$, $p = .001$). The result upholds that practice of communicating with employees within the organization gives room for better connection with colleagues, students. The climate of the organization also provides a strategic direction, motivation and fosters team building, free interaction and mutual respects among staff. Supporting this, several researchers including Nnamani and Ajagu (2014); Pace, et al., (2013) and Pollock (2010) were of the view there is in existence sufficient relationship between employees, corporate culture, climate variables and work environment and an organization's performance. This means that efforts should be made to raise employee knowledge of corporate culture through the development of strong working relationships, the formulation of values that will be passed down to employees, and the creation of an environment conducive for learning. With these three factors in place, employees' understanding of corporate culture will advance and begin to represent normal behavior in carrying out duties and responsibilities.

The majority of organizations, including public and private entities, rely on some form of communication to transmit their messages to their target audience or to inform them of the goal and vision of their organization. When effective communication is present, employees tend to exaggerate their performance. For instance, when the information about an organization's policies and procedures are at its optimum level with openness and accuracy; and also when the information provided is adequate, factual and has good feedback (Kacmar et al, 2003; Neves and Eisenberger, 2012). The findings also revealed that verbal and non-verbal cues has a significant effect on employees work efficiency and organizational performance, ($t = 1.990$, $\beta = .832$, $p = .047$). This result finding is in line with the study of Gabbot and Hogg (2001). They emphasis that verbal and non-verbal communication takes place in every interaction among employees in an organization. Also the study carried out by Salmor and Joiner (2005), was in support of social media as a means of communication. These include Microsoft teams, emails, interactive chats, instant messaging, telephones, and video conferencing which help to promptly convey information.

Finally, the finding revealed that interactive communication of two-way means (horizontal or vertical) has a significant impact on employees work efficiency and organizational performance, ($t = 5.092$, $\beta = 1.808$, $p = .000$). The study confirms that institutions must adopt techniques such as audio, telephone, video conferencing that are effective in transmitting information among employees through a horizontal, vertical, upward and downward means, across all levels in the institution. This study is supported by that of Banihashemi (2011), Omoregie (2004). The importance of communication may appear intuitively obvious when employees' needs are addressed through satisfying communication. They are more likely to form productive working relationships. This implies that the manner in which information travels within an institution affects how employees see their roles in and relationships with the organization.

Findings

The findings of this study are as follows:

1) The study affirmed that effective communication improves the performance of employees in learning institutions.

2) From the findings of the study it can be considered that channels of communication plays a key role in effective management of learning institutions.

3) There is a significant positive relationship between Communication Process; Culture/Climate; verbal/non-verbal cues; and communication techniques with institutional performance.

4) Interactive communication of two-way means (horizontal or vertical) are important in determining both the variance explained in employee productivity and employee performance ($t = 5.092$, $\beta = 1.808$, $p = .000$).

5) Most importantly, the study found that significant relationship between communication process and employees' commitment.

Conclusions

Communication is a means of bringing about change. It is the cornerstone of any organization's expansion. This current study examined the influence of good communication on employee performance, a case study of Bayelsa Medical University. Four key variables (Communication Process, Culture/Climate, Verbal and Non-verbal Cues, and Communication Techniques) were determinants of employee effective communication in an institution. It becomes clear that channels of communication are one of the most productive ways to build a relationship, and qualified managers must navigate through all phases of communication in order to stay productive. The researchers therefore recommend that every institution should make an effort to incorporate effective communication into its management strategies, as doing so will help reduce organizational conflict, clear up misunderstandings, and improve employee performance.

Again, a downward, upward, and lateral communication environment is one in which everyone in the organization feels free to offer suggestions, ideas, and even criticism at every level. This encourages employees to openly express their opinions without fear of retaliation from management. The researchers also recommend that all cadres of staff should be involved in choices and issues that affect their performance since doing so will promote healthy organizational development, as well as the cordial relationship between management and workforce.

The use of technology has revolutionized all aspects of human communication. If properly implemented, technological advancements have significant potential to improve communication and transform employment opportunities. Consequently, all staff members should key into the technological innovations provided by the University to aid effective communication. Apps like Microsoft Teams, Kaizala, and email address, will enable them be at abreast with the happenings within their institution. This should be backed up with trainings to enlighten them on the importance of technology for effective communication. As they learn the importance, adoption will be seamless.

Table 13. Summary of Hypotheses

#	Hypothesis	*t*-value	*p*-value	Result
H_1	Employee performance and the communication process are significantly correlated.	4.003	0.00	Accepted
H_2	Employee performance and culture/climate have a substantial relationship.	3.316	0.01	Accepted
H_3	Employee success is significantly correlated with verbal and nonverbal communication.	1.996	0.04	Accepted
H_4	There is a significant relationship between Communication technique and employee performance.	5.092	0.00	Accepted

In conclusion, this study was limited to Bayelsa Medical University and University of Benin, a higher learning institutions in Southern Nigeria. Therefore, it is advised that more research be done in other parts of the world with contexts that differ from the one being examined (colleges of Education, polytechnics, and conventional Universities). This would give a comprehensive picture of how efficient channels of communication are being used in educational institutions and provide the baseline information required for planning in learning institutions.

List of abbreviations

ANOVA - Analysis of variance; BMU - Bayelsa Medical University; ECQ - Effective Communication Questionnaire; VC - Verbal and non-verbal cues; CT- Communication Techniques; WE - Work Efficiency (WE); OP - Organizational Performance; CP - Communication Process; SPSS - Statistical Package for Social Scientist; IBM - International Business Machines; ICT - Information and Communication Technology.

Declarations

Ethics approval and consent to participate

Approval for this study was granted by the Institutional Ethics Review Committee, Bayelsa Medical University. Consent form describing the study was sent alongside the questionnaire to participants. Written informed consent was obtained from study participants.

Consent for publication

Not applicable.

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

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