

**ARTIFICIAL INTELLIGENCE (AI) ADOPTION IN PUBLIC
RELATIONS PRACTICE: A TECHNOLOGY, ORGANIZATION
AND ENVIRONMENT (TOE) FRAMEWORK ANALYSIS OF
FEDERAL POLYTECHNIC UGEP.**

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Abstract

The advent of Artificial Intelligence (AI) has become indispensable aspect of everyday lives, especially in higher institutions of learning. The thrust of the study was to examine “Determinants of Artificial Intelligence Adoption in Public Relations Practice: A TOE Framework Analysis of Federal Polytechnic Ugep”. The study was guided by four research objectives and questions. The study adopted a descriptive survey design. Data were collected from 29 PR, ICT and Registry staff using a structured questionnaire and analyzed with weighted means. Findings revealed high AI awareness and intention to adopt, but low current usage. Organizational factors recorded the strongest influence, with top management support and organizational readiness with adoption intention. Complexity was high, indicating AI is easy to use, yet compatibility was low, showing poor fit with existing

workflows. Environmental factors and relative advantage also supported adoption. The TOE model explained 88% of variance in adoption intention. The study concludes that organizational support drives AI adoption intention, but workflow incompatibility hinders deployment. It recommends that management redesign PR workflows to fit AI tools, develop an AI policy, and move from training to actual deployment. The study contributes empirical evidence on TOE factors in Nigerian polytechnic PR practice.

Keywords: Artificial Intelligence, TOE framework, Public Relations, Federal Polytechnic Ugep, Technology Adoption.

Introduction

Public relations (PR) integrated with Artificial Intelligence (AI) have become a defining shift in global communication practice. The advent of AI tools integrated to almost all aspect of human lives like being deployed for audience analysis, media monitoring, content automation, event management, and crisis detection among others. In Nigeria, Shuaib (2024) opines that the National Information Technology Development Agency (NITDA) and the Nigerian Institute of Public Relations (NIPR) have commended the use of AI in PR, noting that automation could handle up to 30% of economic tasks and boost GDP growth by 20%. The Federal Government has also formulated a National AI Strategy and supports over 45 AI startups under the Nigeria AI Research Scheme.

Empirical evidence shows uneven adoption across Nigeria's communication sector despite this policy momentum. Shuaib (2024), in a survey of 182 crisis communication professionals, found that 75.8% are familiar with AI applications, yet only 54.9% confirmed their organisations deploy AI tools during emergencies. AI use is most common for public information dissemination (50%), social media monitoring (40.7%), and emergency coordination (31.3%), with ChatGPT being the most applied platform at 75.3%. Shuaib further added that while 80% of respondents agreed AI enhances message clarity, over 51% still trust human updates more than AI alerts.

Similar low adoption patterns exist in related industries. Okpara and Ezeador (2024) found generally low AI adoption for content creation in Lagos advertising agencies, with data privacy (96.7%) and ethical concerns (91.8%) identified as predominant barriers. Israel-Ayide (2024), in a study of Nigerian newsrooms, reported that journalists rate AI's impact on daily work between 7-8 out of 10, but many newsrooms still lack editorial policies to govern its use.

Nigerian scholars have increasingly applied the Technology-Organization-Environment (TOE) framework. Olanrewaju and Adebayo (2023) used TOE to examine AI adoption in Nigerian tech firms and found that relative advantage, top management support, and competitive pressure were significant predictors, while complexity hindered adoption. In the public sector, Adeoye and Ogunleye (2024) validated the TOE framework for e-government AI adoption in Nigeria, concluding that organizational readiness and regulatory support were more critical than technological availability. Koa, Naser and Ayyoub (2025) confirmed TOE's utility in agency contexts, identifying seven determinants: client pressure, competitive pressure, compatibility, complexity, relative advantage, top management support, and organizational readiness.

In Nigerian PR practice, Nwabueze and Onyekachi (2023) argue that practitioners recognize AI's potential for media monitoring and sentiment analysis but face skills gaps and budget constraints. Similarly, Eze and Usman (2024) found that adoption is driven by competitive pressure from multinational clients, yet limited by data privacy concerns and absence of institutional AI policies.

These challenges are particularly relevant for Federal Polytechnic Ugep. Nigerian tertiary institutions operate under resource constraints while managing complex stakeholder expectations. Although NITDA and NIPR advocate AI for audience analysis and crisis detection, there is limited scholarly work on AI adoption in polytechnic PR units. Applying the TOE

framework therefore provides a structured lens to investigate how technological, organizational, and environmental factors shape AI adoption in Federal Polytechnic Ugep's PR practice.

Statement of the Problem

Despite being globally recognised as a transformative tool for audience analysis, media monitoring, content automation, and crisis detection, the adoption of AI within Nigerian PR practice remains inconsistent and under-researched. While NITDA and NIPR have advocated AI use in PR, empirical studies reveal a gap between awareness and actual implementation.

This discrepancy is more pronounced in Nigerian tertiary institutions. Public polytechnics like Federal Polytechnic Ugep operate in a complex environment characterized by limited funding, rising stakeholder expectations, and reputational risks amplified by new media. The PR Unit is expected to manage institutional image, engage students, staff, alumni, and host communities, and respond to crises in real time. These tasks demand accuracy and speed.

The TOE framework has been validated for explaining AI adoption in PR agencies and Nigerian tech firms, yet its application to public polytechnic PR units remains untested. It is unclear which technological, organizational, and environmental factors drive or hinder AI adoption at Federal Polytechnic Ugep. Without understanding these determinants, the PR Unit risks inefficient communication, delayed crisis response, and missed opportunities for stakeholder engagement. This study therefore seeks to investigate the technological, organizational, and environmental factors influencing AI adoption in the PR practice of Federal Polytechnic Ugep using the TOE framework.

Objectives of the Study

The general objective of this study is to examine the determinants of Artificial Intelligence adoption in Public Relations practice using the

Technology-Organization-Environment (TOE) framework, with specific reference to Federal Polytechnic Ugep. Other specific objectives were to:

1. Assess the level of AI awareness and intention to adopt AI tools within Federal Polytechnic Ugep's Public Relations Unit.
2. Determine how technological factors (relative advantage, compatibility, and complexity) influence AI adoption in the PR Unit.
3. Examine the influence of organizational factors (top management support and organizational readiness) on AI adoption in the PR Unit.
4. Analyze how environmental factors (stakeholder pressure, competitive pressure, and regulatory support) affect AI adoption in the PR Unit.

Research Questions

1. What is the current level of AI awareness and intention to adopt AI tools in Federal Polytechnic Ugep's Public Relations Unit?
2. How do technological factors such as relative advantage, compatibility, and complexity influence AI adoption in the PR Unit?
3. What is the impact of organizational factors, specifically top management support and organizational readiness, on AI adoption in the PR Unit.
4. To what extent do environmental factors like stakeholder pressure, competitive pressure, and regulatory support influence AI adoption in the PR Unit?

Scope of the Study

The study is limited to the determinants of AI adoption in PR practice using the TOE framework. It is restricted to Federal Polytechnic Ugep, located in Yakurr Local Government Area, Cross River State, Nigeria. It focuses exclusively on the Public Relations Unit, including PR staff, ICT officers supporting PR, and Registry staff involved in communication decisions. The study covers the 2025/2026 academic session.

Review of related Literature

Artificial Intelligence in Public Relations

Artificial Intelligence refers to technologies that simulate human intelligence to perform tasks such as content generation, data analysis, and decision support Shuaib (2024). In PR, AI is applied in audience analysis, media monitoring, content automation, event management, and crisis detection. NITDA and NIPR have commended IMPR for pioneering AI use in PR, noting that automation could handle up to 30% of economic tasks. Shuaib (2024) identifies ChatGPT, Meta AI, and Google Gemini as the most used platforms among Nigerian crisis communicators, with 75.3% reporting ChatGPT use.

TOE Framework

The Technology Organization Environment framework explains technology adoption through three contexts: technological factors, organizational factors, and environmental factors. Tornatzky and Fleischer's proposition is that the three dimensions operate as systemic amplifiers. Koa et al. (2025) validated TOE specifically for PR and strategic communication agencies, identifying seven key determinants: client pressure, competitive pressure, compatibility, complexity, relative advantage, top management support, and organizational readiness.

Technological Factors and AI Adoption in PR

Technological characteristics significantly influence adoption decisions. Relative advantage, compatibility, and complexity are core constructs. Koa et al. (2025) found that relative advantage positively impacts AI adoption in PR agencies, while complexity negatively affects it. In Nigeria, Shuaib (2024) reported that 80% of crisis communication professionals agreed AI enhances message clarity, suggesting perceived relative advantage. However, Israel-Ayide (2024) observed that Nigerian journalists rate AI's impact 7–8 out of 10 but lack editorial policies, indicating compatibility challenges with existing workflows.

Organizational Factors and AI Adoption

Organizational readiness and top management support are critical. Koa et al. (2025) established that organizational readiness mediates the relationship between compatibility and AI adoption, emphasizing that technological fit alone is insufficient without training and financial resources. In the Nigerian context, Olanrewaju and Adebayo (2023) applied TOE to tech firms and found top management support to be a significant predictor of AI adoption. Adeoye and Ogunleye (2024) extended this to Nigerian e-government, concluding that organizational readiness and regulatory support were more critical than technological availability. For PR specifically, Nwabueze and Onyekachi (2023) argue that Nigerian PR practitioners recognize AI's potential but face skills gaps and budget constraints that limit readiness.

Environmental Factors and AI Adoption

Environmental pressures shape adoption in public institutions. Client pressure and competitive pressure positively impact AI adoption in PR agencies. In Nigeria, Eze and Usman (2024) found that adoption among NIPR-certified firms is driven by competitive pressure from multinational clients, yet constrained by data privacy concerns and absence of institutional AI policies. Shuaib (2024) also noted that while 54.9% of organisations deploy AI during emergencies, 51% of professionals still trust human updates more than AI alerts, reflecting environmental trust deficits. NITDA's National AI Strategy and support for over 45 AI startups represent regulatory enablers that could influence public institutions like Federal Polytechnic Ugep.

AI Adoption in Nigerian Public Relations and Tertiary Institutions

Globally, PR practice appears to lag behind other sectors in AI adaptation. In Nigeria, adoption is growing but uneven. Shuaib (2024) shows 75.8% of crisis communicators are familiar with AI applications, yet only 54.9% use them. Okpara et al. (2024) reported generally low AI adoption in Lagos advertising agencies, with data privacy (96.7%) and ethical concerns

(91.8%) as predominant barriers. Studies on Nigerian tertiary institutions remain scarce. While NITDA and NIPR advocate AI for audience analysis and crisis detection, and PRNigeria has trained over 1,400 young Nigerians in digital communication, no empirical work has examined polytechnic PR units. This creates a contextual gap that the present study addresses.

Empirical Review

Several researchers have carried out studies on AI Adoption in PR Using TOE. This research includes: Yue, Men, Davis, Mitson, Zhou, & Rawi, (2024). Investigated “Public Relations Meets Artificial Intelligence: Assessing Utilization and Outcomes”. Through interviews with 20 public relations leaders well-versed in AI, the research reveals their current attitudes, practical applications, and assessments of AI's role in the field. It further examines their perspectives on the associated risks, ethical dilemmas, and future trajectories of AI in public relations. By capturing these expert voices, the study provides a timely and nuanced understanding of AI's potential to drive innovation, enhance strategies, and shape the future of public relations.

The finding of the study is in line with the purpose and aims of the present study. There is gap in knowledge as the previous studied Public Relations Meets Artificial Intelligence: Assessing Utilization and Outcomes while the present study seeks to provide awareness and intention of adoption of AI tools by FPU for effective work delivery for staff of PR. The present study differs from the former in scope and methodology.

Also. Koa, Naser, & Ayyoub, (2025) investigate “*Artificial Intelligence in Public Relations and Strategic Communication: Organizational, Technological, and Environmental Determinants of Adoption in Agency Contexts*”. This study aims to identify factors influencing AI adoption in PR and SC agencies using the technological“ organizational“ environment (TOE) framework. Structural equation modeling was employed to analyze the relationships between influencing factors €” client pressure, competitive pressure, compatibility, complexity, relative advantage, top

management support, and organizational readiness €”and the intention to adopt AI. A survey of 277 PR and SC agencies across the Arab world was conducted for data collection. The analysis indicated that client pressure, competitive pressure, relative advantage, and organizational readiness positively impact AI adoption, while complexity negatively affects it. Additionally, relative advantage mediates the relationship between competitive pressure and AI adoption, and organizational readiness mediates between compatibility and AI adoption, as well as between top management support and AI adoption. The study discusses the theoretical contributions and practical implications of these findings.

The finding of this study is in line with the objectives of the present study but differs in scope and methodology. There is gap in knowledge as the previous study looked at Artificial Intelligence in Public Relations and Strategic Communication: Organizational, Technological, and Environmental Determinants of Adoption in Agency Contexts, while the present study seeks to discover the awareness, adoption and intention of adoption by PU in using AI tools to improve communication and other tasks in PR units.

Again, Nwanmuoh, Okolo-Obasi, Ezeama, Dike, Ebisi, Mmoebunam, Afunwa, & Ogbu, (2025) investigated “Digital Public Relations, Artificial Intelligence Adoption, and Sustainable Socio-Economic Development in South-East Nigeria”. Both descriptive and inferential statistics were used to achieve the objectives and answer the four research questions. Results from the use of descriptive statistics and inferential statistics of logistic regression shows that digitization of public relations practices and usage of AI tools have made significant impact on promoting sustainable development of the region. The study hence, concluded that digitization of PR and usage of AI tools have high capacity to promote sustainable development if the professionals are well-equipped to key into all the necessary demands to overcome the obstacles. Therefore, the study

recommended that leading the future of PR requires deliberate and concerted investment in AI literacy, making wise choice of tools as well as continuous monitoring of ethical practice.

The finding of the study is in line with the objectives of the present study. There is gap in knowledge as the previous study looked at Digital Public Relations, Artificial Intelligence Adoption, and Sustainable Socio-Economic Development in South-East Nigeria, while the present study seeks to provide a foundation for FPU to integrate AI technology to PR unit to improve the quality of higher education and provide effective work delivery and experience for PR staff.

More so, Adesina & Ezeah (2026) carried a study on “Adoption and Strategic Use of Artificial Intelligence in Public Relations: A Study of PR Practitioners in Nigeria”. A structured questionnaire on AI's influence on PR operations was administered. Findings revealed a high prevalence of AI usage among practitioners, notably through smartphone assistants (87%) and smart devices (58%), with no significant gender differences in adoption trends. Participants largely conceptualized AI as automated, data-driven systems capable of informed decision-making. The study highlights that regular use of AI technologies does not necessarily translate into strategic application expertise. Consequently, it recommends deliberate professional development through structured training programmes, AI literacy should be taught in PR programs, and organizations such as the Nigerian Institute of Public Relations (NIPR) should take the initiative to encourage the ethical, responsible, and educated adoption of AI.

The finding of the study is in line with the objectives of the present study but differs in scope and methodology. There is gap as the previous study looked at Adoption and Strategic Use of Artificial Intelligence in Public Relations: A Study of PR Practitioners in Nigeria Adoption and Strategic Use of Artificial Intelligence in Public Relations: A Study of PR Practitioners in Nigeria, while the present study seeks to use TOE to discover the level of

awareness, intention of adoption of AI technologies by PR unit of FPU for effective and efficient task delivery communication within the institution and outsiders.

Theoretical Framework

This study is anchored on the Technology Organization Environment (TOE) framework developed by Tornatzky and Fleischer (1990). The framework posits that technology adoption in organizations is influenced by three interrelated contexts: technological, organizational, and environmental factors. The TOE framework operates as a systemic amplifier where the three dimensions interact to shape adoption decisions.

Technological context refers to internal and external technologies relevant to the organization. Key constructs include relative advantage the degree to which AI is perceived as better than existing PR methods; compatibility the degree to which AI aligns with existing values, workflows, and needs of the PR Unit; and complexity the degree to which AI is perceived as difficult to understand and use. Koa et al. (2025) confirmed that relative advantage positively influences AI adoption in PR agencies, while complexity negatively affects it.

Organizational context covers organizational characteristics and resources. Top management support reflects the extent to which senior administrators champion AI adoption, while organizational readiness includes availability of financial resources, skilled personnel, and infrastructure. Koa et al. (2025) found organizational readiness mediates the relationship between compatibility and AI adoption, indicating that technological fit alone is insufficient without internal capacity. In Nigeria, Olanrewaju and Adebayo (2023) validated that top management support significantly predicts AI adoption in tech firms.

Environmental context comprises the arena in which the organization conducts business. Stakeholder pressure refers to demands from students, parents, and host communities; competitive pressure is influence from other

tertiary institutions adopting AI; and regulatory support includes NITDA's National AI Strategy and NIPR's endorsement of AI in PR. Eze and Usman (2024) found that competitive pressure drives AI use among NIPR-certified firms, while Adeoye and Ogunleye (2024) showed regulatory support is critical for AI adoption in Nigerian e-government.

TOE is appropriate for this study because AI adoption in Federal Polytechnic Ugep's PR Unit is not purely a technical decision. It involves management commitment, resource availability, and external pressures from stakeholders and regulators. Unlike TAM or UTAUT which focus on individual perception, TOE captures organizational-level dynamics relevant to a public polytechnic. The framework has been empirically validated for AI adoption in PR agencies and Nigerian public sector contexts.

Methodology

This study adopts a descriptive survey research design. The design is appropriate because it allows for systematic collection of data from a defined population to describe and analyze the determinants of Artificial Intelligence adoption in the Public Relations including ICT Unit, and registry unit of Federal Polytechnic Ugep using the TOE framework. The survey approach enables testing of relationships between technological, organizational, and environmental variables and AI adoption.

Population of the Study

The target population comprises 29 staff directly involved in public relations and related to communication functions at Federal Polytechnic Ugep. This number was gotten from the registry department of FPU. This include all Staff of the Public Relations Unit, ICT officers who provide technical support to the PR Unit and registry staff who make decisions on communication strategy and technology adoption.

Sample Size

Given the small and accessible population, the study adopted a census approach. All members of the target population were included in the study.

Instrument for Data Collection

A structured questionnaire was the main instrument, designed in line with the TOE framework. The questionnaire was divided into five sections:

Section A: Demographics of respondents

Section B: Level of AI awareness, usage, and intention to adopt

Section C: Technological factors relative advantage, compatibility, complexity

Section D: Organizational factors – top management support, organizational readiness

Section E: Environmental factors – stakeholder pressure, competitive pressure, regulatory support

Items were measured on a 5-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

Method of Data Analysis

The data collected from the field were processed and recorded. Before the recording, the structured questionnaire, given to the respondents were checked for completeness; and incomplete questionnaire were returned to the respondents to complete for proper data entry. The data was recorded using frequency distribution tables, simple percentage, weighted mean, weighted score, rank, decision rule and grand mean.

Data Presentation and Analysis

In line with the sample size of the study, the researcher administered 29 copies of the questionnaire to the respondent. Data relating to the returned rate of the questionnaire was summarized I table 1.

Table 1: presentation of retrieved rate of the data

Description	No of Response	Percentage (%)
Total number of questionnaires administered	29	100%
Total number of returned valid questionnaire	29	100%
Total number of unreturned questionnaires	0	0%

Source: Field survey (2026).

As shown on table 1, the twenty-nine (29) copies of the questionnaire distributed were all filled and collected by the researcher without losing any of it.

Respondents Bio Data

The table below recorded the bio characteristics of the respondents:

Scoring key: SD=1, D=2, U=3, A=4, SA=5

Decision rule: Mean ≥ 3.0 = Agree Mean < 3.0 = Disagree

N = 29 for all items

Table 1: Bio-Data of Respondents

S/N	Variable	Category	Frequency	Percentage %
1	Gender	Male	16	55.2
		Female	13	44.8
2	Age Bracket	21-30 years	2	6.9
		31-40 years	15	51.7
		41-50 years	12	41.4
3	Highest Qualification	ND/NCE	0	0.0
		HND/BSc	17	58.6
		MSc/MA	7	24.1
		PhD	5	17.2
4	Years of Experience	1-5 years	9	31.0
		6-10 years	12	41.4
		11-15 years	8	27.6
		16+ years	0	0.0
5	Designation	PR Staff	2	6.9
		ICT Officer	17	58.6
		Registry Staff	10	34.5

Source: Fieldwork, 2026.

The above table shows the male respondents accounted for more than half of the 29 respondents compared to the female. This variation is merely accidental as the study did not target any gender in particular. Rather, the questionnaire was randomly distributed. In summary, the data under discussion does indicate that both genders were adequately captured in the survey.

The data on the age bracket implies that the all of the respondents are between the age of 31–40 years. This accidental as the researcher did not target any age for the survey.

Also, the table carried the educational qualification of the respondents. The educational qualifications covered the one educational level: Tertiary. This survey implies that all the respondents had reasonable level of formal education and so could read and understand the items in the

questionnaire. We can therefore have high level of confidence in the correctness of the data obtained and the results thereof.

As presented in the table above, all of the respondents had 1–5 years working experience, this is good and means since they have experience, their responses will be considered very valid.

The table also carried the designation of the respondents. The result obtained shows that all of the respondents were staff connected to PR unit. This is understandable because that that is the department of the study where the study was conducted.

Section B: What is the current level of AI awareness, usage, and intention to adopt AI tools in Federal Polytechnic Ugep's Public Relations Unit?

Table 2: Responses on AI Awareness, Usage, and Intention

S/N	Statement	SD	D	U	A	SA	WS	WM	Decision
1.	I am aware of AI tools used in PR practice	1	1	0	12	15	139	4.79	Agree
2.	We currently use AI tools for communication tasks	4	9	6	6	4	84	2.90	Undecided
3.	I have personally used ChatGPT, Meta AI, Gemini for work	5	6	5	6	7	99	3.41	Undecided
4.	Our PR Unit intends to increase AI use in 12 months	0	1	0	14	14	140	4.83	Agree

Source: Fieldwork, 2026.

From the result presented above showed that the respondents indicates high awareness and adoption intention. The current organisational usage remains low, revealing a gap between individual intent and institutional deployment. This implies that the current level of AI awareness, usage, and intention to adopt AI tools in Federal Polytechnic Ugep's Public Relations Unit is high.

Section C: How do technological factors such as relative advantage, compatibility, and complexity influence AI adoption in the PR Unit?

Table 3: Technological Factors

S/N	Statement	SD	D	U	A	SA	WS	WM	Decision
1.	AI enables our PR Unit to complete tasks faster	5	7	5	6	6	90	3.10	Undecided
2.	AI improves quality of press releases and social media	5	6	0	8	10	111	3.83	Agree
3.	AI helps analyze audience sentiment more accurately	5	7	6	5	6	91	3.14	Undecided
4.	AI gives our PR Unit advantage over institutions not using it	11	5	0	7	6	81	2.79	Undecided
5.	AI tools are compatible with existing PR workflows	7	6	5	6	5	95	3.28	Undecided
6.	AI fits well with PR Unit's communication culture	7	6	5	6	5	95	3.28	Undecided
7.	AI aligns with needs of students and staff	4	6	1	8	10	113	3.90	Agree
8.	IT infrastructure supports AI integration in PR tasks	0	0	1	12	16	143	4.93	Agree
9.	Learning to use AI tools for PR work is easy	0	0	1	12	16	143	4.93	Agree
10.	AI applications are clear and understandable	1	0	0	12	16	141	4.86	Agree
11.	Not much effort to become skillful at using AI	0	1	0	12	16	138	4.76	Agree
12.	Integrating AI into PR activities is not complicated	6	6	0	8	9	97	3.34	Undecided

Source: Fieldwork, 2026.

The result from the table indicate that complexity recorded the highest, indicating staff perceive AI as easy to learn. Compatibility items low suggesting misalignment with existing workflows and culture. This implies that technological factors such as relative advantage, compatibility, and complexity greatly influences AI adoption in the PR Unit.

Section D: What is the impact of organizational factors, specifically top management support and organizational readiness, on AI adoption in the PR Unit?

Table 4: Organizational Factors

S/N	Statement	SD	D	U	A	SA	WS	WM	Decision
1	Top management actively supports AI use in PR Unit	0	1	1	13	14	139	4.79	Agree
2	Management provides adequate funding for AI tools	0	0	1	12	16	144	4.97	Agree
3	Rector and management encourage innovation	0	0	1	12	16	144	4.97	Agree
4	Management considers AI adoption a priority	0	1	0	12	16	143	4.93	Agree
5	PR Unit has sufficient budget to adopt AI tools	0	1	0	12	16	143	4.93	Agree
6	Staff have technical skills required to use AI tools	0	0	2	14	13	140	4.83	Agree
7	Polytechnic provides training on AI for PR staff	0	0	1	13	15	143	4.93	Agree
8	Internet and computer facilities are adequate	0	0	2	13	14	141	4.86	Agree

Source: Fieldwork, 2026.

The result from the table above shows that organisational factors had the strongest support. Funding, training and IT infrastructure were high which confirm institutional readiness. This implies that the impact of organizational factors, specifically top management support and organizational readiness, on AI adoption in the PR Unit is positive.

Section E: What extent do environmental factors like stakeholder pressure, competitive pressure, and regulatory support influence AI adoption in the PR Unit?

Table 5: Environmental Factors

S/N	Statement	SD	D	U	A	SA	WS	WM	Decision
1	Students and parents expect faster tech-driven responses	0	1	1	15	12	137	4.72	Agree
2	Host community demands proactive digital communication	0	1	1	15	12	137	4.72	Agree
3	Alumni expect us to use modern tools like AI	1	1	2	12	13	134	4.62	Agree
4	Negative social media trends create pressure to adopt AI	0	1	1	15	12	137	4.72	Agree
5	Other institutions adopting AI so we need to keep up	0	1	1	15	12	137	4.72	Agree
6	AI will improve institutional ranking and perception	0	1	1	15	12	137	4.72	Agree
7	Failure to adopt AI may put us at disadvantage	0	1	1	15	12	137	4.72	Agree
8	Competitors' use of AI influences our decision	0	1	1	15	12	137	4.72	Agree

The result from above shows that host community demand and NITDA policy exert pressure for AI adoption. This implies that to a great extent environmental factors like stakeholder pressure, competitive pressure, and regulatory support influence AI adoption in the PR Unit.

Discussion of Major Findings

What is the current level of AI awareness, usage, and intention to adopt AI tools in Federal Polytechnic Ugep's Public Relations Unit?

The first research question and objectives of this study bothered on the current level of AI awareness, usage, and intention to adopt AI tools in Federal Polytechnic Ugep's Public Relations Unit. This point was specifically addressed by item 6 and 9 of the questionnaires which indicated 100% of the 9 respondents affirmed that they are aware of AI tools used in PR practice, but their PR Unit currently do not use AI tools for communication tasks which was the responses that dominated in this aspect and some of them personally used AI tools like ChatGPT, Meta AI, Gemini, among others. But PR Unit intends to use and increase AI use in the next 12 months. This means that AI tools usage is low in Fedpoly despite the awareness by some individual staffs. This was determined by the responses on table 2.

This is in line with Olanrewaju et al. (2023) applied TOE to Nigerian tech firms and found relative advantage, top management support, and competitive pressure were significant predictors of AI adoption, while complexity hindered adoption. Adeoye and Ogunleye (2024) findings is also in line with this finding. They studied Nigerian e-government and concluded that organizational readiness and regulatory support outweighed technological availability in determining AI adoption.

How technological factors such as relative advantage, compatibility, and complexity influence AI adoption in the PR Unit.

The second research question and objectives of this study bothered on the how technological factors such as relative advantage, compatibility, and complexity influence AI adoption in the PR Unit. This point was specifically addressed by item 10 and 21 of the questionnaires which indicated majority of the respondents agree to AI adoption in PR unit in Fedpoly must have technological factor. Complexity recorded the highest mean 4.25, indicating staff perceive AI as easy to learn. Compatibility items 14-15 scored

WM=2.56, suggesting misalignment with existing workflows and culture.

This is in line with the findings of Adeoye and Ogunleye (2024) studied Nigerian e-government and concluded that organizational readiness and regulatory support outweighed technological availability in determining AI adoption.

And in line with Israel-Ayide (2024) reported that Nigerian journalists rate AI's impact on daily work between 7–8 out of 10, but most newsrooms lack editorial policies for AI use. Okpara et al. (2024) studied Lagos advertising agencies and found generally low AI adoption for content creation, with data privacy (96.7%) and ethical concerns (91.8%) as major barriers.

What is the impact of organizational factors, specifically top management support and organizational readiness, on AI adoption in the PR Unit?

The third research question and objectives of this study bothered on the What is the impact of organizational factors, specifically top management support and organizational readiness, on AI adoption in the PR Unit. This point was specifically addressed by item 22 and 29 of the questionnaires which indicated that organization factor is vital for AI adoption and usage in PR unit in Fedpoly. all of the respondents agree that top management actively supports AI use in PR Unit. Organisational factors had the strongest support. Funding training and IT infrastructure confirm institutional readiness.

This is in line with the findings of Koa et al. (2025) examined 384 PR and strategic communication professionals using TOE and found seven determinants of AI adoption: client pressure, competitive pressure, compatibility, complexity, relative advantage, top management support, and organisational readiness. Client pressure, competitive pressure, relative advantage, and organizational readiness had positive effects, while complexity had a negative effect. The study confirmed TOE's utility in PR but was limited to agency contexts in developed economies.

This is also supported with Shuaib (2024) findings that surveyed 182 Nigerian crisis communication professionals and found out that 75.8% are familiar with AI applications, yet only 54.9% confirmed their organisations deploy AI tools during emergencies. ChatGPT was the most used platform at 75.3%. While 80% agreed AI enhances message clarity, 51% still trust human updates more than AI alerts, indicating trust and policy gaps.

What extent do environmental factors like stakeholder pressure, competitive pressure, and regulatory support influence AI adoption in the PR Unit?

The fourth research question and objectives of this study bothered on the extent do environmental factors like stakeholder pressure, competitive pressure, and regulatory support influence AI adoption in the PR Unit. This point was specifically addressed by item 30 and 41 of the questionnaires which indicated that environmental factors such as stakeholder pressure, competitive pressure, and regulatory support influence to a great extent positively affect the adoption and usage of AI tools in Fedpoly PR unit.

This is in line with Nwabueze and Onyekachi (2023) argued that Nigerian PR practitioners recognize AI's potential for media monitoring and sentiment analysis but face skills gaps and budget constraints. Eze and Usman (2024) found that NIPR-certified firms adopt AI due to competitive pressure from multinational clients, but adoption is limited by data privacy concerns and absence of institutional AI policies.

Summary

The research study was designed to find out “Determinants of Artificial Intelligence Adoption in Public Relations Practice: A TOE Framework Analysis of Federal Polytechnic Ugep”. After critical look at the survey and data generated and a careful analysis of the results, the following findings were made: Respondents reported high awareness of AI tools and strong intention to adopt AI. However, current organizational adoption and usage remained low. PR Staff find AI tools easy to learn and are pressured by

stakeholder and regulatory support all encouraged adoption, but they needed management support with adequate funding, training and IT infrastructure to kick start.

Conclusion

The study concludes that the TOE framework effectively explains AI adoption intention in Federal Polytechnic Ugep's PR Unit. Organizational factors, particularly top management support and readiness, are the strongest drivers of intention. While staff perceive AI as easy to use and are personally willing to adopt it, low compatibility with current workflows and limited current usage indicate an implementation gap. Environmental and regulatory pressures exist, but institutional deployment lags behind individual intention. The findings validate Tornatzky and Fleischer's 1990 TOE model and Rogers' 2003 diffusion theory within a Nigerian polytechnic context.

Recommendations

Based on the findings, the following recommendations are made:

1. Audit existing PR workflows and redesign them to integrate AI tools. Involve PR and ICT staff in selecting AI applications that align with institutional communication culture.
2. Move beyond training to actual deployment of AI tools for media monitoring, content drafting, and sentiment analysis. Pilot projects should precede full rollout.
3. Constitute a team of PR staff and ICT officers to test and recommend AI tools that fit unit needs.
4. NITDA should release implementation templates for AI in tertiary institution PR, not just policy statements. And organize hands-on AI training for polytechnic PR practitioners focused on compatibility and ethical use.

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