The Role of Strategic Public Relations in Promoting Solar Energy Innovation for Sustainable Development in Sokoto, Nigeria

Basiru Saidu
Department of Mass Communication
Usmanu Danfodiyo University,
Sokoto Sokoto, Nigeria
baasheersaidu@gmail.com

***Abstract*— This study examined the role of strategic public relations in promoting solar energy innovation for sustainable development in Sokoto, Nigeria. The research was motivated by the persistent energy challenges in the region and the need to understand how effective communication strategies can foster the adoption of renewable energy technologies. Guided by the** Diffusion of Innovations Theory **and** Stakeholder Theory**, the study explored how public relations influences awareness, perception, and behavioral change toward solar energy among key stakeholders. A** qualitative case study design **was adopted, involving semi-structured interviews with eight participants, including PR practitioners, policymakers and solar entrepreneurs, as well as focus group discussions with community members. Document analysis of media reports, PR campaigns, and policy materials complemented the field data. Using** thematic analysis**, findings revealed that strategic PR practices such as community engagement, storytelling, and the use of trusted local influencers played a critical role in increasing public awareness and acceptance of solar energy. However, challenges such as inadequate communication infrastructure, cultural resistance, and weak stakeholder collaboration hindered progress. The study concludes that integrating culturally sensitive PR strategies into renewable energy initiatives can enhance adoption and sustainability outcomes in Sokoto. It recommends that government agencies, NGOs and solar firms strengthen community based PR programs, promote trust-building communication and include PR experts in policy planning for renewable energy**

Keywords: **Public Relations, Solar Energy, Innovation, Sustainable Development, Sokoto**

I. INTRODUCTION

A. Background

Nigeria's electricity system suffers from persistent supply failures, many citizens have no reliable access and those who do still experience regular outages (Global Energy Monitor, 2025; IRENA & AfDB, 2023, pp. 6–7). Over 92 million Nigerians live without reliable electricity access and even those connected often endure frequent blackouts (Ojomo et al., 2023, pp. 3–4). Sokoto State feels this strain especially businesses, households, universities and hospitals often depend on petrol and diesel generators, all of which are costly, polluting and inefficient. Meanwhile, Sokoto lies in a region with high solar potential, studies estimate daily solar radiation in the North-West at about 5.7-6.5 kWh/m²/day and Sokoto itself among the states with the highest irradiance (IRENA & AfDB, 2023, p. 5; Global Solar Atlas figures). This suggests that solar power could be a viable part of the energy solution but installed capacity and community uptake lag behind what the resource would allow.

The federal and state governments have attempted to harness this potential through pilot solar projects. One major initiative is the proposed 55 MW solar PV farm in Sokoto State, which is currently in pre-construction (Global Energy Monitor, 2025). The Usmanu Danfodiyo University, Sokoto (UDUS) now operates a 2 MW hybrid solar-powered plant under the Federal Government's Energizing Education Programme (EEP), incorporating solar power, street lighting and training facilities (REA, 2022; Vanguard, 2022). Another is the 80 kWp solar mini-grid project in Kurudla Village, Gudu LGA, intended to supply power to over 500 households and reduce reliance on diesel generators (Federal Ministry of Works, 2018). Additionally, the Sokoto state government recently distributed solar equipment kits to 5,000 small businesses as a response to power instability (Vanguard, 2025). However, many of these are still pilot-scale, or located in limited areas and struggle with issues like funding delays, maintenance, and limited community awareness (Eyemark, 2024; Global Energy Monitor, 2025).

Most studies of solar energy in Nigeria focus on technical and economic barriers: high capital cost, inadequate financing, weak regulation and limited infrastructure (Ojomo et al., 2023, pp. 5–7); Onuh et al. (2024) also highlight limited awareness and technical skills as key obstacles (Onuh, 2024, p. 3). Yet, fewer works looks into the communication, perception and public relations dimension how communities perceive solar energy, how

information flows and how messaging might build trust or dispel myths. In other sectors (health, infrastructure, public policy), strategic public relations (PR) has proven vital in shaping attitudes, managing resistance and promoting behavioral change. PR could play a bridging role translating technical information, engaging stakeholders, aligning expectations and creating social legitimacy around solar innovations. Without deliberate PR interventions, even well-designed technical projects may fail to gain broad acceptance.

This study differs from existing work by centering PR and communication as the primary mechanism rather than treating them as secondary concerns. It integrates technical, financial and social dimensions, but highlights how PR can help overcome perceptual and communicative bottlenecks. It will collect primary data from local communities, solar firms, government agencies, and media practitioners in Sokoto South, Kware and Dange Shuni Local Government as the scope, to map the communication landscape and propose context-sensitive PR strategies. The significance of this research is multi-fold. Practically, it can guide policymakers, NGOs, and solar firms in designing effective awareness campaigns, stakeholder engagement plans, and media relations utilize to Sokoto's context. Theoretically, it fills a gap in the literature on renewable energy adoption in Nigeria by emphasizing public relations as a lever of diffusion. Socially, it supports equitable energy access by ensuring marginalized communities are reachable and included in communication designs, thereby helping to translate solar potential into sustainable development for all.

II. LITERATURE REVIEW

A. Theoretical Review

Solar Energy in Nigeria and Sokoto

Nigeria is richly endowed with solar energy potential, particularly in its northern states. For example, Sambo (2020) notes that in regions like Sokoto, Kano, and Maiduguri, solar intensity can reach as high as **7.0 kWh/m²/day**, among the highest globally, yet solar contributes less than 2% of Nigeria's total energy mix. The discrepancy arises despite governmental initiatives such as the *Solar Power Naija Program* which aims to increase solar home systems and off-grid solutions (Aliyu et al., 2018; Shaaban & Petinrin, 2014). One of the tangible initiatives is the *2.0 MW solar electrification project* at Usmanu Danfodiyo University, Sokoto, which is part of the Federal Government's *Energizing Education Programme (EEP)*. Commissioned in 2022, this intervention underscores both the promise and challenges of institutional solar deployment. It has, among others, training components (e.g. for female interns) and infrastructure such as workshop and street lighting included, which reflect efforts to not just install systems but build capacity (Vanguard, 2022).

Nevertheless, multiple barriers slow down broader solar adoption in Nigeria and specifically Sokoto. Financial barriers are among the most significant high upfront cost of panels, inverters, batteries, limited access to finance or loans and high risk perception among consumers (Mmuo, 2024; *Despite Massive Government Investment…*, 2025). Additionally, institutional and policy-related challenges such as weak standardization, lack of quality control, vagueness in regulatory frameworks and erratic political support further complicate project execution and investor confidence (Abdullahi et al., 2022; Mmuo, 2024). Cultural and awareness-related barriers also loom large. Many rural or underserved communities are unaware of solar energy's long-term benefits, some may mistrust or be unfamiliar with solar technology cultural norms, beliefs and local languages may make communication of technical benefits less effective (Mmuo, 2024; *Rural Areas Hesitant…*, 2025). In Sokoto State, specific documentation is sparse, but issues like low public awareness, lack of after-sales support and maintenance constraints have been cited in broader Nigeria contexts and likely apply locally (Mmuo, 2024; Barriers for Implementing Solar… Abdullahi et al., 2022).

Public Relations and Sustainable Development

Public relations (PR) is increasingly recognized as a critical tool for sustainable development because it can shape perceptions, encourage behavior change and help communicate policy. Globally, renewable energy campaigns have leveraged PR to increase awareness, address misinformation and build stakeholder trust. For example, many solar campaigns in parts of Asia and Latin America include community outreach, local influencer partnerships and participatory workshops to ensure that messages resonate culturally and socially (e.g. case studies in India's solar rooftop programs though not Nigeria-specific, useful models) these show that PR strategies can be more than advertising, acting as bridges between technical actors and communities. Nigeria and similar developing economies, strategic communication often under the banner of PR or public awareness has been used in renewable energy policy discourse.

Campaigns such as *Solar Power Naija* combine legislative support with public communication efforts. Nonetheless, these PR elements often remain general (billboards, media announcements) rather than deeply strategic in message framing, stakeholder feedback, language/cultural adaptation, or trust building (Nigeria media reports; *Despite Massive Government Investment…*, 2025). Case studies outside Nigeria further illustrate PR-driven renewable energy efforts. For example, in Kenya, Solar Sister used local women ambassadors to promote solar lamps and clean cooking devices. Their PR approach included storytelling, peer influence and community meetings, which helped in reducing skepticism and increasing adoption.

Theoretical Framework

Diffusion of Innovations Theory

The Diffusion of Innovations (DOI) theory, as developed by Everett M. Rogers (2003), explains that innovations (new ideas, technologies, practices) spread through a social system over time via certain

communication channels among individuals. The key elements are innovation, communication channels, time and the social system (Rogers, 2003, pp. 5-13). In this view, the role of communication (including media, interpersonal communication, peer influence) is central people must first learn about the innovation (knowledge), then form attitudes (persuasion), decide, implement and finally confirm their decision. Communication channels are especially critical in Rogers' model. Mass media (e.g., radio, television, newspapers) are more effective at spreading awareness early in the diffusion process (knowledge stage), while interpersonal channels (face-to-face meetings, word-of-mouth, peer networks) are more effective at later stages such as persuasion or decision (Rogers, 2003, pp. 19-25). Also, the social system (norms, social networks, opinion leaders) influences how quickly and how fully an innovation is adopted. If there is trust in sources, cultural compatibility, peer endorsement, then diffusion tends to be smoother.

Another relevant component is *adopter categories* (innovators, early adopters, early majority, late majority, laggards) and the *innovation-decision process* (knowledge, persuasion, decision, implementation, confirmation) (Rogers, 2003, pp. 22-25, 169-171). For this study, these categories help you understand which groups in Sokoto might adopt solar energy first (for example, educated urban households or SMEs), and which will lag behind and how PR strategies might differ across those groups. DOI theory also points out that perceived attributes of the innovation relative advantage, compatibility, complexity, trialability and observability affect adoption rate (Rogers, 2003, pp. 15-23). Thus, how solar energy is presented (its cost savings, reliability, ease of maintenance, cultural compatibility) will influence adoption in Sokoto. PR strategies that highlight tangible benefits (advantages) and reduce perceived complexity (through demonstration, testimonials, pilot projects) align with DOI's guidance.

Stakeholder Theory

Stakeholder Theory, originating with R. Edward Freeman (1984), holds that organizations do not operate in isolation but are embedded in a network of relationships with various groups or individual's stakeholders who can affect or be affected by the organization's actions. Key groups typically include government, private sector actors, NGOs, local communities, customers, suppliers, etc. The theory asserts managers or organizational actors have obligations to consider the interests and influences of all relevant stakeholders, not only shareholders. In the context of renewable energy and sustainable development, stakeholder theory helps explain how inclusion of diverse actor's shapes both policy and adoption. For example, *Stakeholder Perspectives on Community Energy Contributing to the Use of Renewable Energy Sources and Improving Energy Security in Nigeria* (Ogunleye, Coenen & Hoppe, 2022) shows that households, regulatory bodies, and community stakeholders need to be involved for community renewable energy initiatives (CREIs) to succeed. These stakeholders influence awareness, acceptance, technical feasibility and sustainability of renewable projects.

Another example is *Investigating the Role of Non-Governmental Organisations in Green Energy Innovations and Sustainable Practice in Lagos State, Nigeria* (Olajide, Walker & Ojakorotu, 2024) which uses a qualitative design, interviewing NGOs to show how they act as intermediaries or facilitators between government, communities and private sector in promoting renewable energy adoption. These NGOs help communicate benefits, address concerns, mobilize communities and engage local leader's functions very similar to PR actors in innovation diffusion. Stakeholder theory also contributes normative guidance that successful sustainable development efforts (including solar energy adoption) must meaningfully engage multiple stakeholders not just top-down technical or financial interventions. Engagement includes feedback loops (communities' inputs), trust building, shared ownership, transparency. These help ensure adoption is socially acceptable, culturally compatible, and sustained. In a place like Sokoto, recognizing local stakeholders (traditional leaders, community associations, SMEs, local governments) and their roles will be critical.

Relevance of the Theories to the Study

The Diffusion of Innovations (DOI) Theory is particularly relevant to this study because it provides a framework for understanding how solar energy innovations spread through social systems like those in Sokoto. According to Rogers (2003, pp. 5–12), adoption of an innovation depends on how information about it is communicated through media, opinion leaders and interpersonal networks. In a region where cultural norms, literacy levels and economic constraints shape people's choices, public relations (PR) can serve as the communication channel that accelerates awareness and persuades communities about the benefits of solar energy. Effective PR campaigns in this context can play the role of "change agents," promoting understanding, addressing doubts, and fostering trust in renewable technologies (Zhai & Williams, 2012, p. 22). DOI theory also explains why some individuals or groups are quick to adopt while others resist change. Rogers (2003, pp. 169–173) identifies adopter categories innovators, early adopters, early majority, late majority and laggards each requiring different communication approaches. In Sokoto, innovators may include educated youths or local business owners who understand solar technology, while late adopters may be rural dwellers influenced by traditional beliefs. Public relations professionals can tailor messages to these segments using trusted voices, storytelling, and community demonstrations.

Furthermore, the integration of these two theories strengthens the foundation of this study. While the DOI explains *how* innovation spreads, the Stakeholder Theory explains *who* should be involved to make that spread sustainable. Olajide, Walker, and Ojakorotu (2024, p. 219) demonstrated that in Lagos, NGOs and community leaders were instrumental in communicating the value of green energy and mobilizing public trust. Applying this logic to Sokoto, effective PR must not only inform people about solar technology but also connect them to credible

stakeholders who reinforce the message such as local energy agencies, traditional rulers and SMEs. Together, these theories highlight that communication and collaboration are essential pillars for achieving solar adoption and long-term sustainable development in Sokoto.

Review of Empirical Studies

Over the past few years there has been increasing scholarly focus on how communication, trust, risk, and perceived benefits influence fintech adoption in developing economies. For example, *"Making mobile financial services stick: an empirical investigation into user attitudes and intentions for sustainable adoption"* (Isiaku, Muhammad, Oluwajana & Kwala, 2024) uses a mixed method design (382 survey respondents + semi-structured interviews) to explore factors influencing mobile financial services (MFS) adoption in Nigeria. It concludes that perceived service quality, perceived usefulness, and attitude significantly drive adoption; ease of use and credibility were less influential (Isiaku et al., 2024). While the study includes qualitative insights, it does not center on how PR strategies are formulated, nor the content and framing of the communication, nor deep stakeholder / cultural perspectives in specific local contexts.

Another study, *"The interplay of perceived benefit, perceived risk, and trust in Fintech adoption: Insights from Sub-Saharan Africa"* (2025) published in *Heliyon*, examines fintech adoption across multiple SSA countries using quantitative tools (survey, PLS-SEM, and fuzzy-set qualitative comparative analysis). The findings show that economic benefits, performance expectancy and effort expectancy encourage fintech adoption, while legal risk, security risk, and privacy concerns inhibit it trust mediates between risk and intention (Heliyon, 2025). This adds breadth and cross-country evidence, but still mostly addresses perception variables not how communication / message framing / public relations practices are being used or how they are received in specific cultural settings.

A somewhat different approach is found in *"A Qualitative Evaluation of the Factors Influencing the Adoption of Electronic Payment Systems (SMEs) by SMEs in Nigeria"* (Igudia, 2017). This is purely qualitative: the researcher interviewed SME owners/managers and bank officials to explore perceptions, barriers, opportunities around electronic payment systems (EPS). The study reveals that issues such as trust, costs, ease of operation and bank policies matter a great deal also that policy-communication and public awareness are weak (Igudia, 2017). However, even this study does not deeply address PR as a formal discipline (stakeholder mapping, message design, media channels, local cultural adaptation), and it is limited in geographic scope and often does not focus on less urban or under-studied regions.

Also relevant is *"The Dark Side of FinTech in Financial Services: A Qualitative Enquiry into FinTech Developers' Perspective"* (2022). This study interviewed 23 Nigerian Fintech developers, using semi-structured interviews and thematic analysis. It surfaces themes of customer vulnerability, technical inability, data privacy issues and regulatory gaps (Developer perspective) (2022). This gives insight into what developers think, but the focus is less on how fintech firms or public relations practitioners communicate outwardly to users, which messages are effective or not, or how users interpret messages, especially in rural or less connected states.

From a broader perspective, *"Communication, Awareness and Acceptance of Digital Banking Amidst Cash Crunch in Southeast and South-South, Nigeria"* (Onuegbu, Agbamu, Anyakoha & Anunike, 2025) examines how communication affected digital banking adoption during a crisis (cash crunch). Using a survey of 385 respondents, it finds that communication significantly contributed (59%) to awareness and acceptance of digital banking in those zones. While informative, this study is quantitative, with little qualitative depth on PR message framing, stakeholder roles, trust narratives etc.

How Recent Studies Are Attempting to Fill Gaps & What Gaps Remain

In recent works (Isiaku et al., 2024; Heliyon, 2025), there is a movement toward including qualitative insights to explain why certain perception variables do or do not have strong effects. These allow some room for understanding trust, service reliability and credibility areas directly relevant to PR. However, they stop short of a full qualitative exploration of *how PR practitioners* design messages, how users interpret them, what communication channels are trusted, or how cultural, linguistic, social variables in particular localities (e.g. northern Nigeria, rural vs urban) shape adoption.

Another gap is that many studies focus on consumers / end-users in relatively developed urban or semi-urban contexts. Less attention is given to SMEs nor to under-studied geographic and cultural regions such as Sokoto State. Often, "communication" is treated broadly awareness campaigns, information provision, service notifications all aggregated, rather than parsed into PR strategies, message content, framing, stakeholder engagement. Moreover, there are few studies that explicitly name "public relations" as the function being studied most look at general communication, marketing, trust, or attitudes. Thus the role of professional PR (media relations, public outreach, stakeholder mapping, message framing, public relations ethics etc.) remains underexplored.

Gap Identified by the Current Study and How It Intends to Fill It

Given that landscape, the **current study** identifies the following gap there is no (or very limited) qualitative, context-specific empirical research on how **public relations practitioners** in a region like Sokoto State design, implement and evaluate their communication strategies around fintech / solar energy or similar innovation and how local SMEs, community members, media, stakeholders receive and respond to those PR messages.

III. RESEARCH METHODOLOGY

This study adopted a case study design to gain a deep understanding of how strategic public relations influenced

solar energy innovation and adoption in Sokoto, Nigeria. The design was chosen because it allowed the researcher to explore real-world experiences and perceptions of stakeholders within their natural context (Yin, 2018, p. 15). The qualitative approach was appropriate as it focused on meanings and interpretations rather than numerical data (Creswell & Poth, 2018, p. 45). The research was carried out in Sokoto State, located in northwestern Nigeria, a region with abundant solar potential but low adoption rates. Participants were drawn from government agencies, NGOs, solar energy firms, community leaders and households. These groups were selected using purposive sampling, which ensured that only individuals with relevant knowledge and experience in solar energy promotion and communication were included (Palinkas et al., 2015, p. 534).

Data were collected through semi-structured interviews, focus group discussions, and document analysis. Semi-structured interviews were held with PR practitioners, policymakers and solar entrepreneurs to explore their communication strategies and experiences. Focus group discussions helped capture community perspectives on solar adoption, while document analysis of PR campaigns, media content, and policy reports provided contextual understanding. This combination of methods ensured data triangulation and enhanced the depth of findings (Patton, 2015, p. 316). The data were analyzed using thematic analysis following Braun and Clarke's (2019, p. 593) six-step model, which included familiarization, coding, theme development, and interpretation.

To ensure trustworthiness, the study applied Lincoln and Guba's (1985, p. 301) criteria credibility, transferability, dependability and confirmability. Member checking and triangulation enhanced credibility, while thick descriptions supported transferability. Dependability was maintained through detailed documentation and confirmability was achieved by grounding interpretations in participants' voices. Ethical standards were carefully maintained. Participants gave informed consent and their confidentiality and anonymity were guaranteed. Cultural sensitivity was observed throughout, respecting local customs and gender norms in Sokoto. These ethical practices aligned with the British Sociological Association's (2017, p. 6) guidelines and broader ethical principles of respect, beneficence, and justice (Orb, Eisenhauer & Wynaden, 2001, p. 93).

IV.RESULTS AND DISCUSSION

Data were collected through semi-structured interviews, focus group discussions and document analysis. Eight semi-structured interviews were conducted with PR practitioners, government officials, NGO representatives and solar entrepreneurs, while eight focus group discussions were held with community members and small business owners across Sokoto. Document analysis included media content, PR campaign materials and renewable energy policy reports. This triangulation strengthened validity and provided a deeper understanding of PR's role in solar energy adoption in Sokoto (Patton, 2015, p. 316).

The analysis followed Braun and Clarke's (2019, p. 593) thematic model and was guided by Lincoln and Guba's (1985, p. 301) principles of credibility, transferability, dependability, and confirmability. The findings are presented under three major themes, each aligned with the study's research questions and theoretical framework.

Theme One: Public Relations and Public Awareness of Solar Energy in Sokoto Semi-Structured Interviews

The eight interviewees included three PR practitioners (Respondents 1–3), two government energy officials (Respondents 4–5), two solar company executives (Respondents 6–7), and one NGO communications officer (Respondent 8). Most agreed that public awareness was the foundation of solar energy adoption, yet awareness campaigns were still inconsistent and often urban-focused.

Respondent One, a PR officer from a local solar firm, stated, *"Before people accept solar energy, they must first understand how it helps them. We use storytelling, community radio, and social media to show its benefits in real life."*

Respondent Four, a government energy officer, added, *"Most people in rural Sokoto still don't trust solar systems because they think it's only for the rich. We need to communicate that it can serve everyone."*

This reflects Rogers' Diffusion of Innovations Theory, which highlights that awareness and compatibility with cultural values are key to early adoption.

Respondent Eight emphasized that language was another major barrier: *"Many campaigns are done in English, but the target audience understands Hausa. That weakens the message."*

This aligns with Stakeholder Theory, showing that effective communication requires adapting to local contexts and stakeholder needs.

Focus Group Discussion

The eight focus group participants included community members, traders and women leaders from Wamakko, Dange-Shuni, and Sokoto North. Most participants reported hearing about solar energy through local radio or neighbors rather than official campaigns.

A female participant from Dange-Shuni noted, *"We hear about solar lights on the radio, but nobody came to show us how they work. We only see them in the city."*

Similarly, a small business owner from Sokoto North said, *"We want solar power for our shops, but we don't know who to talk to. The government adverts don't explain the process."*

These responses demonstrate limited two-way communication, consistent with Freeman's Stakeholder Theory, which emphasizes that sustainable projects depend

on dialogue and continuous engagement rather than one-off campaigns.

Document Analysis

The analysis of PR campaign materials and government energy reports (2019–2024) revealed that most communication efforts focused on information dissemination rather than community participation. For example, the 2023 *National Renewable Energy Communication Strategy* mentioned awareness creation but lacked clear mechanisms for feedback or local engagement.

This confirms that PR efforts exist but remain top-down, which restricts the diffusion of innovations in rural areas. The absence of community-based communication channels suggests that awareness strategies have yet to mature into interactive stakeholder models.

Theme Two: PR Strategies for Promoting Solar Energy Innovation and Adoption

Semi-Structured Interviews

All eight interview respondents identified specific PR strategies such as media engagement, partnerships with local leaders, demonstration projects, and public events.

Respondent Two, a senior PR consultant, explained, *"We found that using respected community leaders as advocates is more powerful than corporate adverts. When they endorse solar products, people listen."*

Respondent Seven, a solar entrepreneur, described organizing open demonstrations: *"We let people see how solar panels light a house or charge a fan. When they experience it, they believe it."*

These practices align with Rogers' trialability concept, which suggests that people adopt innovations faster when they can test them firsthand.

Respondent Five, a policymaker, added, *"We also use local radio dramas in Hausa to explain maintenance and benefits. Storytelling works better than technical terms."*

Such participatory approaches reflect Stakeholder Theory, as they involve multiple actor's community leaders, firms, and consumers working together to build trust.

Focus Group Discussions

Focus group participants generally agreed that engagement through local influencers and demonstrations helped demystify solar energy.

A youth leader from Wurno community said, *"When the local chief supported the project and attended the launch, everyone paid attention. It gave the program credibility."*

Another participant, a tailor from Sokoto South, observed, *"We like seeing practical examples. If my neighbor's shop is powered by solar and works well, I'm ready to try it too."*

These remarks correspond with the observability and social influence elements in Rogers' theory people are persuaded by what they can observe within their networks.

Document Analysis

Document review indicated that the most effective campaigns combined traditional media and interpersonal engagement. A 2022 campaign by *Solar for All Africa* used radio talk shows, community theatre, and local leader endorsements, resulting in a notable rise in community inquiries. However, the report noted that follow-up activities were minimal, meaning trust and engagement faded over time.

This finding indicates a major communication gap PR campaigns often spark initial interest but lack long-term relationship management, weakening the sustainability of adoption efforts.

Theme Three: PR Contributions to Sustainable Energy Development in Sokoto

Semi-Structured Interviews

Respondents viewed PR as essential in connecting diverse actor's government, private sector, NGOs, and citizens in achieving energy sustainability.

Respondent Three, an NGO communication director, stated, *"PR is what bridges the gap between the policy documents and the people on the ground. Without communication, sustainability remains just a plan."*

Respondent Six, a solar company manager, added, *"We see PR as more than publicity. It's education, trust-building, and ongoing dialogue."*

However, several respondents highlighted funding constraints, as communication components are often underbudgeted in renewable projects. This observation reinforces Stakeholder Theory, which stresses that sustainable collaboration requires equitable resource allocation and engagement among all actors.

Focus Group Discussions

Community members perceived PR efforts as beneficial for awareness but lacking continuity.

A woman leader from Gwadabawa community commented, *"They came two years ago to tell us about solar panels, and we were excited. But no one returned to teach us how to maintain them."*

Another participant, a farmer from Bodinga, said, *"We need regular meetings or radio updates. When communication stops, people lose interest."*

These sentiments illustrate Rogers' confirmation stage of innovation diffusion the point at which users need reassurance and continuous information to sustain adoption.

Document Analysis

Policy and campaign documents reviewed between 2020 and 2024 showed that PR was mentioned as a communication tool but rarely integrated into long-term

development plans. The *2023 Renewable Energy Progress Report* by the Ministry of Power listed "awareness activities" but had no indicators for impact assessment.

This gap indicates that PR's potential as a driver of sustainable behavioral change has not been fully institutionalized. Rather than being a strategic pillar, it is often treated as an afterthought.

V. CONCLUSION

This study examined how public relations influence awareness, innovation and sustainable adoption of solar energy in Sokoto, Nigeria. The findings revealed that while awareness of solar technology is gradually increasing, public relations strategies are still not being fully utilized to drive meaningful engagement and long-term behavioral change. Many campaigns remain one-way and information-based, rather than participatory and community-driven. The study showed that when communication is localized using familiar languages, trusted messengers and relatable examples it becomes far more effective in shaping public understanding and acceptance of solar energy. Community involvement and transparency were also found to build trust, which is essential for innovation adoption. These insights reflect Rogers' Diffusion of Innovations Theory, which emphasizes compatibility, observability and trust as key factors in spreading new ideas and Stakeholder Theory, which underscores collaboration among government, NGOs, private firms and communities in achieving sustainable outcomes.

Public relations, therefore, go beyond publicity; it serves as a bridge between technical innovation and social acceptance. In Sokoto, PR practitioners have the potential to transform solar energy communication from short-term awareness campaigns into long-term partnerships that promote resilience and sustainable development. The study established that effective public relations when rooted in cultural understanding, inclusivity and continuous dialogue can significantly enhance the adoption and sustainability of solar energy in Sokoto State. To achieve lasting impact, communication must be seen not as a final step but as a continuous process that empowers communities to take ownership of renewable energy initiatives and contribute meaningfully to Nigeria's sustainable future.

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