



Communication as a Panacea for Resolving Crises in Energy Industry: The Case of Ikeja Electricity Distribution Company

Olawale Olaniyi Emmanuel AJIBOLA^{1,2}, Rasaki Idowu ADENIJI³, Abolade David OMIYALE⁴

¹Department of Systems Engineering, University of Lagos, Akoka, Lagos
oajibola@unilag.edu.ng

²National Centre for Energy Efficiency and Conservation, University of Lagos, Akoka, Lagos
director@nceec.gov.ng

³Department of Physics, Federal College of Education (Technical), Akoka, Lagos
rskadeniji@yahoo.com

⁴Department of Computer Science Education, Corona College of Education
abolade.omiyale@coronaschools.org

Corresponding Author: oajibola@unilag.edu.ng, +2348023025053

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Abstract: Communication is the process by which people exchange information through a common set of symbols. It is appropriate to describe modern society as a knowledge society, in which ideas and information enabled by engineering are highly valued and knowledge has a big impact on the development process, including engineering education. However, the key to acquisition of knowledge is communication, thus the importance of communication in any ecosystem cannot be overemphasized; it is the life upon which an institution derives its existence. Without adequate communication, goals and aspiration of an organization will be difficult to achieve. The purpose of this research study which targets Ikeja Electricity Distribution Company (IKEDC) is to re-emphasize the importance of communication in resolving crisis, most especially in the energy sector where every effort made by the federal government of Nigeria to ensuring smooth delivery of uninterrupted supply of electricity for the consumption of hoi polloi to adequately facilitate engineering education. The results revealed that horizontal communication is an effective tool for crisis resolution. It also revealed that employees of IKEDC do not receive sufficient horizontal information to perform their duties successfully, and upward communication has not helped in resolving the energy issues. The study's objective is to ensure a steady power supply for the efficient operation of engineering education by encouraging the best possible use of IKEDC's current infrastructures through horizontal communication.

Keywords: Horizontal Communication, Upward Communication, Energy Crisis, Knowledge Society, Engineering Education, IKEDC

1. INTRODUCTION

Engineering education is the study and training of engineers to initiate, facilitate, and implement a country's technical growth [1]. Regardless of the level of economic development attained, engineering is essential to the development, growth, and maintenance of any nation's economy. This is where the importance of engineering education to human endeavor begins [2]. In order to maintain their competitive advantage over regional economies, most nations are looking to increase the quality of their higher education institutions as a result of the globalized world. The use of Information and Communication Technology (ICT), e-Learning and Virtual/Digital Libraries for the purpose of evolving excellent management practices institution-wide and at all levels which are concerned with processes relating to teaching, learning and assessment, including acting on student feedback, engaging e-learning initiatives, linking research and teaching effectively, leading learning organisations, implementing innovations in education, developing outcome-based courses and applying peer review principles to teaching in different national contexts require adequate supply of electricity [3].

In the exact words of Dayton [5]; "so vital is communication that it has been described as the glue that holds the organization together". Hoffman described communication as the 'lifeblood' of an organization [6]. It is the process of creating, transmitting and interpreting ideas, facts, opinions, and feelings. Christensen defines communication as the process by which individuals try to convey meaning through symbolic messages [7]. To achieve both individual fulfilment and the general objectives of the organisation, personnel and their actions can be coordinated through the exchange of ideas, attitudes, sentiments, and information. Accordingly, communication serves as the network that connects all of an organization's members and operations [8, 9, 10, 11]. An organization's ability to successfully plan its communication strategy for both internal and external stakeholders determines its level of success. High levels of customer satisfaction and productivity can arise from an organization's information flow being efficient. If IKEDC, for instance, signs a 200-

megawatt productivity pact, the workers must be made aware of it. Planning and its application depend on how well this information is communicated. The effectiveness of the various communication channels inside the company and the significance of communication in resolving Nigeria's energy crisis are the main topics of this study, which is also concerned with the critical examination of organisational communication within IKEDC.

The research therefore aims to further understand the concept of communication, evaluate how well IKEDC's information flows are working, and suggest ways to make them better. It also seeks to make recommendations on building communication flow with regards to resolving issues in the energy sector. In pursuit of these goals, the study attempts to answer the following questions: Do IKEDC personnel receive enough information to enable them to perform their jobs effectively? Are IKEDC's communication channels efficient and open for the delivery of information? How can IKEDC's communication be enhanced to live up to the standards? Which communication channels are suitable for IKEDC's information delivery?

To provide answers to these questions, the study tests the following hypotheses: There will be a significant higher number of participants agreeing that horizontal communication in IKEDC is effective than those that disagree. There will be a significant higher number of participants agreeing that employees are receiving sufficient information to carry out their job successfully than those that disagree. There will be a significant higher number of participants agreeing that upward communication could help to resolve energy issues than those that disagree.

2. LITERATURE REVIEW

During this research work, the following literatures were critically analysed for in-depth study and understanding of the highlighted subject matter presented below:

2.1 Communication

In this context, organizational communication is a crucial component of organizational climate; it is the transfer of information from sender to recipient, provided that the recipient comprehends the message [12]. Communication is the sending and receiving of messages through symbols. There are two types of business communication: internal (inside the organization) and external (within the organization). In contrast to exterior communication, which involves only a select few employees, internal communication involves every employee. It has recently been acknowledged that communication culture has a fundamental influence on the entire development question [13], [14]. The foundation for raising awareness, reaching consensus, making wise judgements, settling disputes, and encouraging involvement in change and development processes is communication [15]. Population concerns, violence, food security, and the use and preservation of natural resources are just a few of the factors that affect how people coexist in an organization when discussing any development environment [16].

Effective communication takes place in both official and informal groups of individuals. At its most basic level, communication occurs intra-personally, or as a continuous stream of deliberate discussion within an individual. Interpersonal communication can occur between individuals, small groups, formal organisations, political units, local, regional, national, and international networks or coalitions, and other groups of people [17]. According to each author's work, communication is a procedure that brings together different system organs. Communication issues have been broken down into three categories for ease of diagnosis: technical issues with accurately transmitting symbols; the efficacy problem is how well the message received influences behaviour in the desired and expected way; the semantic problem is how accurately the symbols transmit the desired and expected message [18].

2.2 Types of Communication Based on Purpose and Style

There are two primary categories of communication based on style and intent, each of which possesses its own unique characteristics. These are:

- i. Formal Communication
- ii. Informal Communication

Formal communication takes place in an official and formal manner, typically used in conferences, corporate meetings, and professional contexts. Certain guidelines, customs, and precepts are adhered to when conveying messages in formal communication. Correct pronunciation is necessary, and uncultured languages like slang and profanity are discouraged. It is necessary to adhere to authority lines in formal communication.

Unlike formal communication, informal communication takes place through different routes. It is created to facilitate conversations among members of an organisation based on their societal ties. It happens with family and friends. Slang and profanity are not prohibited in casual discussion. Informal communication is typically conducted verbally and through sign languages. Additionally, authority lines are not required, in contrast to formal communication. In an organisation, it facilitates the discovery of employee complaints since informal communication allows people to express themselves more effectively. Building relationships is facilitated by informal conversation.

A contemporary method in the study of communication was established by [37] model of the communication process. For the first time, it offered a broad framework for understanding the communication process that could serve as a foundation for a variety of academic fields, including linguistics, rhetoric, journalism, and speech and hearing sciences. Its structuralised breakdown of communication into a collection of fundamental components, which not only explained how communication occurs but also why it occasionally fails, is partly responsible for its success. Another important factor in any successful communication was the availability of information in real time. The world had just entered the era of mass

radio, which had arguably sparked a global conflict, and television, which was much more potent, was about to make its mark. The moment had come to establish communication as a single discipline, and Shannon's model served as a useful guide. It is easy to see the model's lasting value in beginning textbooks. It is a fundamental component of an introductory communication course and serves as the theoretical foundation for fields like interpersonal and mass communication. Figure 1 illustrates Shannon's model, which divides communication into eight distinct parts:

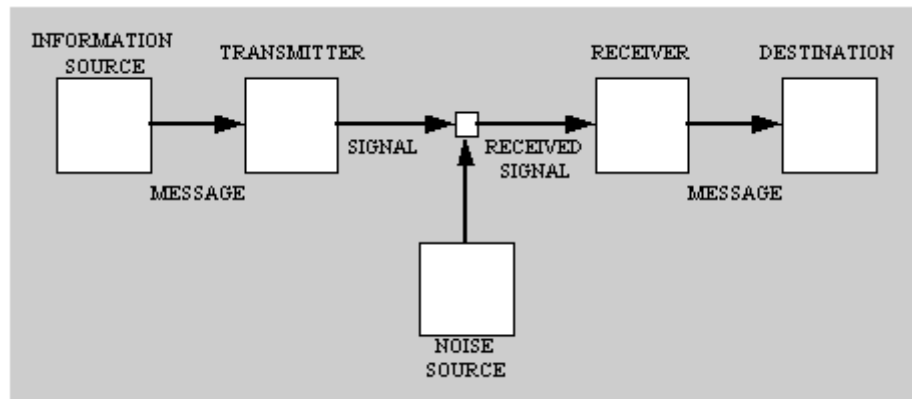


Figure 1: Shannon model of the communication process.

The following are Shannon's (1948) model's eight elements:

- i. An information source, most likely a message creator.
- ii. The message that the information source sends and the destination receives.
- iii. For Shannon's immediate use, a transmitter is a telephone device that records an audio signal, transforms it into an electronic signal, and then amplifies it before sending it across the telephone network. Within Shannon's information theory, transmission can be easily extended to include a variety of transmitters.
- iv. The signal that travels along a channel. As in face-to-face interaction, where sound and gesture entail distinct signal systems that rely on various routes and ways of transmission, there may be several concurrent signals.
- v. The tiny unlabelled box in the centre of the model represents a carrier or channel. Air, light, electricity, radio waves, paper, and postal systems are the most often utilised channels.
- vi. Secondary signals that obfuscate or confound the signal being carried constitute noise. It should come as no surprise that Shannon's concentration on telephone transmission, carriers, and reception limits noise to anything that obliterates or obscures a portion of the signal within the channel.
- vii. A receiver is the receiving telephone instrument, according to Shannon's theory. A pair of ears (sound) and eyes (gesture) are used in interpersonal communication. A television set and an antenna are two of the receiver's several layers.
- viii. A destination is most likely a person who receives and interprets the communication.

3. METHODOLOGY

The Statistical Package for the Social Sciences (SPSS) software was utilised to analyse the data using the Pearson correlation technique, as it is appropriate for primary research involving quantitative data. A response rate of approximately 83% was achieved, with 150 of the 180 questionnaires successfully retrieved. The results were analysed using Pearson correlation coefficients and descriptive statistics, with percentages (%) reported to two decimal places. The analysis is summarized in Tables 1 to 6 as follows:

Table 1: Respondents' rating on flow of information

Response	Number of Respondents	% Number of Respondents
Agreed	107	71.33
Disagreed	42	28.00
Undecided	1	0.67
Total	150	100

Table 2: Respondents' rating on upward communication

Response	Number of Respondents	% Number of Respondents
Agreed	115	76.67
Disagreed	32	21.33
Undecided	3	2.00
Total	150	100

Table 3: Respondents' rating on horizontal communication

Response	Number of Respondents	% Number of Respondents
Agreed	98	65.30
Disagreed	40	26.70
Undecided	12	8.00
Total	150	100

The hypotheses were tested against correspondent alternative hypotheses as follows:

Hypothesis I

H₀: There will be a significant higher number of participants agreeing that horizontal communication in IKEDC is effective than those that disagree.

H₁: There will not be a significant higher number of participants agreeing that horizontal communication in IKEDC is effective than those that disagree.

Table 4: Pearson correlation analysis of respondents' rating for horizontal communication in IKEDC

		Number of Respondents	% Number of Respondents
Agreed	Pearson correlation	1	0.813
	Sig. (2 – tailed)		0.068
	N	149	149
Disagreed	Pearson correlation	0.813	1
	Sig. (2 – tailed)	0.068	
	N	149	149

Hypothesis II

H₀: There will be a significant higher number of participants agreeing that employees are receiving sufficient information to carry out their successfully than those that disagree.

H₁: There will not be a significant higher number of participants agreeing that employees are receiving sufficient information to carry out their successfully than those that disagree.

Table 5: Pearson correlation analysis of respondents' rating for adequacy of communication in IKEDC

		Number of Respondents	% Number of Respondents
Agreed	Pearson correlation	1	0.188*
	Sig. (2 – tailed)		0.045
	N	149	149
Disagreed	Pearson correlation	0.188*	1
	Sig. (2 – tailed)	0.045	
	N	149	149

Hypothesis III

H₀: There will be a significant higher number of participants agreeing that upward of communication could help to resolve energy issues than those that disagree.

H₁: There will not be a significant higher number of participants agreeing that upward of communication could help to resolve energy issues than those that disagree.

Table 6: Pearson correlation analysis of respondents' rating of upward communication in IKEDC

		Number of Respondents	% Number of Respondents
Agreed	Pearson correlation	1	0.187*
	Sig. (2 – tailed)		0.055
	N	149	149
Disagreed	Pearson correlation	0.187*	1
	Sig. (2 – tailed)	0.055	
	N	149	149

4. RESULTS AND DISCUSSION

It is impossible to overstate the value of communication in any organisation. The object of this research project was to establish which channel of communication is the most effective in resolving crisis in the energy sector of the economy from the experience of the staff of IKEDC. Combination of forms of communication channels will assist in resolving issues in any organization. And irrespective of the preferred channel, other communication channels should be readily available and deployed where necessary especially for the purpose of educating staff. During emergencies, the

communicator needs to be fully aware of which channel to use. The lack of channels should not be an excuse for withholding information [19]. According to the later authors, communication channels should be kept clear of impediments in order to facilitate more efficient communication at all organisational levels.

According to our study, Table 1 above shows that 71.33% of the respondents agreed that free flow of information translates to effective crisis management in IKEDC, while 28% disagreed, and 0.67% were undecided on the issue. The implication of the result is that workers require sufficient information to carry out their work successfully as a team. The purpose of communication is often to educate the staff, eliminate any form of misunderstandings and receive feedback on disseminated information [20], [21], [22]. In Table 2 however, 76.67% of the respondents agreed with the view that upward communication channel could not help to resolve energy issues, while 21.33% disagreed, and 2% were undecided. Lack of feedback at IKEDC accounted for the majority of respondents' worries about upward communication. The employees were not given feedback on the issues brought up by the managers and supervisors. An efficient feedback system would improve performance and address current and upcoming crises. Supervisors and first line managers are essential in communicating policies to lower-level employees, where ongoing feedback is crucial [23].

It is possible to accomplish effective downward communication by integrating written and spoken information, consistently wanting to interact with subordinates, and keeping an eye on the subordinate feedback process. Managers or supervisors frequently impede communication between lower and higher levels of authority [25]. Effective communication inside the organisation may be promoted by managers and supervisors using the competent application of sympathetic listening [26]. Supervisors who foster a culture of stoically taking both positive and negative news would visit their staff members frequently to evaluate performance, meet with different groups on a regular basis to talk about issues and development, and practise listening to their workers.

Table 3 above also revealed that 65.3% of the respondents agreed with the view that horizontal communication is effective in IKEDC, while 26.7% disagreed, and 8% were undecided. This implies that workers at all levels must have a positive attitude towards knowledge sharing. IKEDC will fail to achieve its goal if they are unable to exchange information. Managers, for instance, are hired to perform certain tasks that enhance one another. The managers would lose the spirit of teamwork that may help them accomplish the objectives of the organisation if they do not interact with one another. Table 4 above showed that there will be significant higher number of participants agreeing that horizontal communication in IKEDC is effective than those that disagree. ($r = 0.813$, $P < 0.05$). The correlation coefficient of 0.813 indicates a weak positive correlation, thus higher number of participants agree that horizontal communication in IKEDC is effective.

From Table 6 above, it is observed that there will be significant higher number of participants agreeing that upward communication could not help to resolve energy issues than those that disagree. ($r = 0.188$, $P < 0.05$). The correlation coefficient of 0.188 indicates a weak positive correlation, thus higher number of participants agree that upward communication could not help to resolve energy issues. The more layers of power in an organisation, the greater the levels the communication must go through. In order to maintain the credibility of the information and support the ultimate objective of the organisation, each level of authority should make sure that the message is communicated to the next level in real time [19], [27]. Trust is the foundation for determining how effective each communication medium is. Providing correct information and being transparent helps increase confidence among IKEDC personnel.

5. CONCLUSION

The study has revealed that communication is quite important in resolving arising crises within organizations in the energy sector. The study found that managers prefer to speak with their peers over superiors, which makes horizontal communication more effective at IKEDC. Horizontal communication's advantages include a support network, but its drawbacks include a lack of trust among employees, which makes them reluctant to share helpful information with one another. Additionally, managers would turn to their colleagues for help rather than their bosses. Employees develop a feeling of community as a result, and team members and management enforce rules and procedures. The study considered the communication flow pattern and how it affected the IKEDC employees' productivity. The set goal was to improve on the efficiency of information flow strategies through strong communication base to guide against non-performance of employees in the energy sector. One major conclusion of the research work is that employees at the lower levels feel that upward communication channel does not provide them with adequate information that is required to motivate them to generate their own ideas. Upward communication is characterized by lack of trust, fear of intimidation and victimization by their superiors who do not take time to receive feedback from staff. However, it is believed that if horizontal communication is encouraged, a hybrid of various channels will enhance performance, adequate management of resources will be achieved, and power supply will be more stable.

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