Original Article

Office Electronic Communication Methods and Employee Timely Delivery in State-Owned Universities in Bayelsa State

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ABSTRACT: *The research inquiries into the connection between electronic communication practices in offices and prompt delivery of employees in state-owned universities in Bayelsa State. This research encompasses a cross-sectional survey research design, and the population of the research was permanent administrative employees of state-owned universities (Niger Delta University, University of Africa, and Bayelsa Medical University) in Bayelsa state. To constitute the study participants, a purposive sampling method was chosen; thus, 90 administrators (30 from each state-owned university) were chosen. This research paper was primarily based on primary data, which was gathered using structured questionnaires. The reliability of the instrument was estimated using Cronbach's Alpha and Pearson's Correlation Coefficient, as the inferential analysis was done using Statistical Package for the Social Sciences (SPSS) version 23. The results showed that the email services were significantly related to timeliness. Instant text messages were significant in terms of timeliness, and chat applications presented very high relationships with timeliness. In conclusion, the study shows that the implementation of office electronic communication techniques is of great importance in terms of timely delivery to employees in state-owned universities in Bayelsa State. It was suggested that Universities ought to modernise and leverage their email systems with improved user interfaces, quicker delivery times, and task management systems to improve their contribution towards timeliness.*

KEYWORDS: *Office electronic communication methods, Employee timely delivery, Email service, Instant text messages, Chat applications, Timeliness.*

1. INTRODUCTION

The high rate of information and communication technology (ICT) has greatly altered the way communication occurs in the workplace, which affects the ability of employees to deliver timely information and the entire organizational performance. Electronic communication tools, including emails, instant text messages, chat applications, and video conferencing, have become invaluable tools in information dissemination and collaboration in the present organizations. The implementation of electronic communication within an academic institution, especially in the areas where communication is important to administrative coordination, teaching, and research, is crucial in determining the responsiveness of employees.

The capability of employees to respond adequately and promptly to workplace communications is a phenomenon that has become a central factor in organizational success (Akpotu, 2020). Electronic communication is also used in universities where administrative and academic roles are strongly based on communication, as it provides an opportunity to improve the timeliness, speed, and quality of providing services to employees (Okon, 2022). The effectiveness of these communication mediums, however, can also be affected by the network availability, digital literacy, and the institutional policies that regulate the use of ICT.

The need to deliver employees on time is one of the leading components of organizational performance in contemporary organizations, especially at a time when there are more technological advancements, changing market conditions, and rising expectations of managers. Responsiveness is the fact that employees have the capability to react swiftly and suitably to the needs of customers, colleagues, and organizational stakeholders. It is a set of behaviors, including making communication on time, resolving problems, being flexible, and being proactive to satisfy the needs (Smith and Lewis, 2020). The organizations that value employee timely delivery will probably be able to obtain higher customer satisfaction, operational effectiveness, and sustainability in the modern competitive business world.

The ability of workers to deliver timely results is based on the greater organizational behavior and human resource management paradigm. It is directly related to the commitment of an organization, job satisfaction, and engagement of employees, which may make one willing to perform more than what he or she is expected to achieve in his or her workplace (Kahn, 1990). Workers who are engaged have a responsive behavior because they are likely to have a sense of ownership of the organization and a common goal. The role of delivering to employees in a timely manner has been enhanced further by the

rising trend of digital transformation and increased dependency on technology in workplaces. The development of digital communication software, social media platforms, and instant messaging tools made customers and other stakeholders demand a response to their concerns and complaints immediately (Grewal et al., 2017). This has exerted pressure on the workers to become responsive and agile in communication. In addition, it has also provided organizations with opportunities to use technology to facilitate timely delivery by employees and improve communication processes.

Electronic communication of office communication is a digital platform and tools through which information in an organization is sent and received easily. They improve the level of cooperation, computerize processes, and make the organization more efficient. Email is among the most popular approaches, through which appropriate and formal communication between employees and external stakeholders can be achieved (Dudovskiy, 2021). Quick decision-making and collaboration are made easy by instant messaging software developed by Slack and Microsoft Teams that support real-time communication (Turner and Reinsch, 2020). The software of video conferencing, like Zoom and Google Meet, helps to organize virtual meetings, which means reducing the costs of physical presence and travel (Nguyen et al., 2022). Examples of enterprise social networks that deepen internal collaboration are Yammer and Workplace by Meta, which allow sharing updates and insights among employees (Leonardi, 2018). Finally, the collaboration types of Google Drive and Microsoft OneDrive are cloud-based services that facilitate the sharing of documents and allow real-time edits, enhancing the efficiency of the workflow (Smith et al., 2019). The effectiveness of the organization is guaranteed by the digital channels of communication that provide an opportunity to facilitate the flow of information and enhance interactions in the workplace.

Although there are previous studies (Leonardi, 2018: Akpotu, 2020; Shahin, 2018; Westerman et al., 2019; Turner and Reinsch, 2020; Nwosu and Eze, 2021) that have used different facets of work-related communication, little has been done on the exact impact between the electronic forms of communication in offices and delivery of employees on time in the Bayelsa State owned universities. This paper, thus, seeks to fill this knowledge gap by examining the effects of various forms of electronic communication on timeliness, punctuality, and quality of service delivery among the personnel in universities. In this research, the researcher will be interested in office channels of electronic communication and employee prompt delivery in state-owned universities of Bayelsa State.

2. STATEMENT OF THE PROBLEM

Effective communication is an excellent driving force of a timely delivery among the employees and company success in the contemporary digitalized workplace. Although the current environment presents an explosion of electronic tools to facilitate communication, there are still gaps that allow public universities to experience communication inefficiencies that jeopardize the administrative effectiveness, academic performance, and the overall performance of the institution.

However, even though a formalized communication channel like email provides utility in communication, test message, and chat application, there is an increasing concern that the timeliness is slow as a result of message overload, absence of prompt messages, and poor real-time conversation. Also, the timeliness of the employees when applying email correspondence is mostly doubted since there is not always an immediate response or discussion. In the same way, its effect on responsiveness efficiency is yet to be understood. Text messages are timely, but it is questionable whether they would get the recipient to respond in a timely and comprehensive manner. Its use in schools and workplaces may be jeopardized by the limited space to be used in text messages, possible distraction, and the absence of formal documentation. In addition to this, the growing popularity of chat applications as a form of communication among university students as an informative but important method is also difficult and appealing. Although chat software can facilitate the speedy transfer of information, its connotation with respect to quality service delivery is questionable since it can contribute to informal communication practices, which are not necessarily the best in academic life. Second, regardless of its benefits, it is still unclear whether video conferencing can contribute to enhancing the delivery of employees on time in state-owned universities, considering that the long-standing issue of internet connectivity, technical disruption, and digital acclimatization of the university officials continues.

Internet functionality reliability is another probable problem that may limit the responsiveness of employees in this electronic communication channel; this is a major moderator on the power of electronic communication within the university. The availability of unpredictable networks may cause delays in the response, an inability to have real-time interactions, and the disruption of video conferencing sessions (Obasi and Chukwuma, 2021). Although other studies have focused heavily on the role of electronic communication tools in responsiveness in the workplace (Green et al., 2019; Stitch, Trafadar and Cooper, 2018), the literature has been vague in explaining how various communication tools like emails, instant messaging, chat applications, and video conferencing can help to ensure the timely deployment of the workforce in state-owned universities in Bayelsa State. The majority of previous studies have concentrated on overall administrative inefficiencies or problems related to the overload of messages and delays in the response to email communication (Okonkwo and Ajayi, 2022; Obi and Eneh, 2021). Nevertheless, the empirical data about the comparative efficiency of these tools to promote timely and high-quality responses are insufficient.

The other significant gap is the moderating role of internet functionality quality on the electronic methods of communications and responsiveness. Although in earlier studies, network reliability has been recognized as a possible challenge (Eze & Okon, 2020; Obasi & Chukwuma, 2021), the studies have not determined its direct impact on the effectiveness of digital communication tools in state-owned universities. It is based on this that the current research undertaking will examine how the office electronic communication practices are associated with employee on-time delivery within state-owned universities in Bayelsa State.

3. CONCEPTUAL FRAMEWORK

The study examines the relationship between office electronic communication methods, which serve as the independent variable, and employee responsiveness, which acts as the dependent variable. Office electronic communication methods encompass various digital tools and platforms that facilitate workplace interactions, information exchange, and collaboration among employees.

The dimensions of office electronic communication methods are grounded in scholarly contributions from multiple researchers. Specifically, email service, text messaging (SMS), and chat applications are drawn from Shahin (2018). On the other hand, the dependent variable, employee responsiveness, is measured using key indicators that reflect the effectiveness and efficiency of employees in reacting to communication and work-related engagements. The measures of the dependent variable (employee responsiveness) are timeliness (Akpotu, 2020).
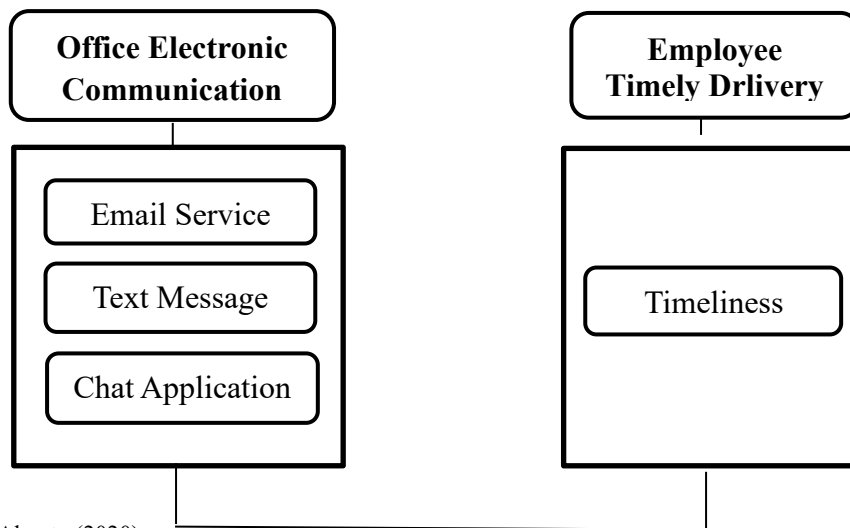
Source: Shahin (2018); Akpotu (2020)

FIGURE 1 Flowchart of the framework

4. AIM AND OBJECTIVES

The general aim of the study is to investigate the relationship between office electronic communication methods and employee timely delivery in state-owned universities in Bayelsa State. However, the specific objectives of the study are to;
1. Determine the relationship between email services and timeliness in state-owned universities in Bayelsa State.
2. Find out the relationship between instant text messages and timeliness in state-owned universities in Bayelsa State.
3. Examine the relationship between chat applications and timeliness in state-owned universities in Bayelsa State.

5. HYPOTHESES

The following null hypotheses was formulated to guide the study.

H_{01}: There is no significant relationship between email services and timeliness in a state-owned universities in Bayelsa State.

H_{02}: There is no significant relationship between instant text messages and timeliness in a state-owned universities in Bayelsa State.

H_{03}: There is no significant relationship between chat applications and timeliness in a state-owned universities in Bayelsa State.

6. CONCEPTUAL REVIEW
6.1. OFFICE ELECTRONIC COMMUNICATION METHODS

Electronic communication modes have become irreplaceable in the modern workplace in ensuring effective and efficient communication. The emergence of digital technology has transformed the internal and external interactions within organizations, allowing organizations to communicate instantly, work together, and share information. This reading discusses different ways of electronic communication in the office, its advantages, difficulties, and best practices to implement them.

Email, instant messaging, video conferencing, intranets, and collaborative platforms are among others that will be discussed (Radicati, 2020).

Since the transmission of information does not occur in a vacuum, communication in organisations has been subject to academic research. Both the senders and the recipients of any message have a social structure that drives and controls communication (Kossinets, 2008; Ruesche, 2017). Due to this reason, organisational communication is inherently complex. Even when organisations adopt various communication frameworks, they continue to find it difficult to identify the most effective strategies to communicate with stakeholders (Allen, 2016; Aula, 2016). Munene and Nyaribo (2013) explored the correlation between employee engagement on social media and productivity by examining workers with access to the internet to determine the influence of internet connectivity on productivity. With the replacement of manual labour with knowledge-based labour, more and more businesses are relying on digital technologies as a means of enhancing the performance of workers.

The internet has changed human interaction. Online communication has become less costly and more indispensable to daily existence due to modern developments, whereas it was costly and challenging in the past (O'Dell, 2011). A major milestone in the history of the internet was the invention of the Bulletin Board System (BBS) in 1978, which allowed users to share files, messages, and information (Crowly and Heyer, 2015; Khanna and Kaur, 2019).

Gonzales (2014) notes that mobile devices are currently owned by 85% of the global population, and, therefore, it is easier to keep in touch with stakeholders such as staff members through the mobile device. Short Message Service (SMS) allows sending brief messages up to 160 characters in a short time, at a relatively low cost, and in a successful way between mobile devices (Bertel, 2012; Kaya, 2016). SMS used to be a signalling system of mobile communications originally introduced in 1984 by the Franco-German GSM partnership (Cole, 2010). Acker (2014) opines that the popularity of SMS is due to its affordability compared to traditional telephone calls.

Although emails are necessary, they must be short since they do not give the same face-to-face contact as real-life communication (Gloor, 2016). In order to minimize time disruption of their primary duties and maintain productivity, employees are advised to check their emails periodically, say two or three times every two hours. Email has an editing, organising, storing, and forwarding capability combined with its simplicity of use; this has made it a medium of communication in many organisations (Ducheneaut and Watts, 2005). Its use has enhanced the intra-organizational communication and reduction of misconceptions that are caused by social or professional differences (Lucas, 1998). However, despite these advantages, email is not always the most suitable way to work with sensitive employee issues such as work dissatisfaction. Gupta (2000) opines that uncontrolled email traffic may lead to information overflow and loss of productivity. Callahan and Shapiro (2001), in their research in the United States and the United Kingdom, found that email overload negatively influences the well-being of employees, even though 100% of the sample indicated their satisfaction with email (Ingham, 2003). Too many messages in inbox boxes lead to cognitive load, whereby it is difficult and time-consuming to retrieve (Mahony and Barley, 1999).

Although the use of email is widely accepted as a successful communication method, face-to-face communication among workers remains the most preferred (Drago, 2015; White, 2010). Although it is time-consuming, meeting physically is still desirable as a way of giving feedback, especially in the presence of top managers, since it fosters more interaction. The modern digital tools can enhance the traditional communication channels that would ensure all workers have access to first-hand information (Karjaluoto, 2015).

Kaplan and Haenlein (2010) define social networking sites (SNS) as sites that allow users to create profiles, befriend and connect with other users, as well as send and receive emails and messages. The SNSs have, therefore, proven to be very useful communication tools. They enable the exchange of media and personal information, and through this, users are able to have socio-online and offline interaction on these platforms (Kuss and Griffiths, 2011). Consequently, the previous forms of communication have been replaced by digital forms that are facilitated by computers and cell phones.

6.2. EMAIL SERVICE

Email was first developed by Ray Tomlinson in the 1960s and was popular in the 1970s. It was often used after the 1995 amendments to the law permitting commercial use. The rapid use of email in academic, professional, and personal settings was because of its ease of use, flexibility, and asynchrony (Barley, Meyerson, and Grodal, 2011; Byron, 2008). Email is a vital communication tool in a professional communication scenario as it provides an opportunity to share information efficiently and exhaustively. It supports numerous types of work with enhanced teamwork and relationships inside and between both individuals and teams.

Scholars have studied email use in many ways, such as the frequency, content, and psychological effects, including stress and distraction. The email was initially meant to substitute the previous time-consuming paper-based communication, but since the introduction of the internet, email has become part and parcel of operations within organisations (Jackson, Dawson and

Wilson, 2003). OKane and Hargie (2007) have indicated that its benefits are improved interaction with peers, sharing of documents, and quick access to knowledge. Nevertheless, Nowak et al. (2018) have shown that extensive use of email may lead to cognitive overload, which reduces performance in performing tasks and elevates stress.

6.3. INSTANT MESSAGING (SMS AND IM)
Instant messaging (IM) was first introduced in the 1980s, and it was used by internet users to carry out real-time communication using text. It started to transform communication at the workplace in the early 2000s and was a common substitute for ordinary telephone calls (Cameron & Webster, 2005). Enterprise (MS Teams, Yammer, DingTalk) and public (WhatsApp, Telegram, WeChat, Signal) messaging apps are becoming a vital part of organisational functioning these days (Chen et al., 2022; Hong et al., 2023). By the 2020s, instant messaging (IM) was the critical method of internal communication in many businesses (Millard, 2020).

The applications facilitate productivity of individuals and groups by offering such features as file sharing, screen captures, video and audio conversations, and collaborative editing (Chen et al., 2020). Instant messaging (IM) promotes the sharing of knowledge and problem remedies by maintaining message histories and communication logs, which help users access past information when they need it (Cheng et al., 2019; Li et al., 2011). In a bid to enhance collaboration, certain companies go to the extent of investing in an internally hosted communication system (Ng et al., 2019).

6.4. CHAT APPLICATIONS
There has been a proliferation of chat programs that have used rapid technology to provide quick and interactive communication. The free texting services can be used on many devices such as tablets, PCs, iPhones, and Android phones. They also allow users to send voice notes, multimedia files, voice and video conversations, and communicate their emotions with the help of stickers and emojis.

Chat programs like WhatsApp, Facebook Messenger, Telegram, Skype, Instagram, Twitter, Yahoo Messenger, BBM, and 2go are improved in terms of interactivity. Usernames may be personalised, files and locations shared, messages shared between groups, and groups personalised with names and descriptions are all supported. Such applications have grown to be social networking tools where it is hard to differentiate between social interaction digitally or through text messages.

Ajewole and Fasola (2012) attest that there were more than 1.5 billion users of social media across the globe between 1997 and 2010, of which more than 900 million were using Facebook. Swartz (2014) reported that Facebook users are 1.35 billion worldwide, and Nigeria has 12.6 million users or 0.93 percent of the total population (Sesan, 2014). These numbers indicate the popularity of chat applications in the world. Asogwa and Ojih (2013) argue that the current generation of young men is the most technologically aware in history.

6.5. EMPLOYEE TIMELY DELIVERY (TIMELINESS)
Timeliness (employee delivery) is an intrinsic element of organizational efficiency, as it affects productivity, morale in the workplace, and the overall business performance. The concept of timeliness at the workplace is usually related to the timeliness in reporting to the workplace and the timeliness in executing the assigned tasks within the stipulated deadlines. Criticality in timeliness is upheld by organizations in different industries because it increases the working flow, minimizes delays, and leads to a community of accountability among staff members (Nguyen and Evans, 2021).

It is hard to overestimate the significance of the timeliness of employees, as it is closely associated with the capacity of the organization to achieve its goals. A smooth working process with employees reporting to work punctually and delivering their duties within the agreed time limit ensures that the process is not interrupted by delays that may disrupt productivity (Osei et al., 2020). Conversely, constant lateness or failure to meet the targets of performing certain tasks may result in inefficiencies, default, and deterioration of the general performance of the organization. Some of the policies and strategies that managers usually put in place to ensure punctuality are setting expectations, having incentives, and disciplinary actions when a person becomes late on several occasions (Jones and Smith, 2019).

Workplace culture is one of the determinants of timeliness in employees. Organizations that develop a culture of punctuality and time management are likely to have greater employee commitment to timeliness (Bello and Adekunle, 2021). Staff members working in these locations understand the importance of punctuality as they consider this part of professionalism and work ethics. Also, leadership is instrumental in establishing timeliness overture. Employees will be more inclined to become punctual when managers and supervisors set a role model (Thomas and Green, 2018). On the other hand, a softened leadership style can cause more laxity among the workers, such that they become more likely to be late and inefficient.

7. THEORETICAL UNDERPINNING
7.1. USES AND GRATIFICATION THEORY
This research is based on the Uses and Gratifications Theory, which was first developed in 1974 by Katz, and assumes that individuals use media to fulfill some of their needs. A variety of studies have been conducted based on this theory, among which Whiting (2013) evaluated the motivations behind the consumption of the media and the desire to find information in the media sources. The theory has increasingly been applied to research the motivation of social networking sites, including Facebook, Twitter, instant messaging, and social networking sites (Lit, 2018).

Over time, scholars have been keen on learning how different people use media to fulfill their psychological and social needs. In that regard, the Uses and Gratifications Theory by Katz (1974) can be used to formulate the causes of media utilization in order to fulfill both personal and community needs. When people make a choice, they tend to consider what level of their own psychological or social needs a particular medium will fulfill. In particular, Gao and Feng (2016) discovered the distinction between the gratification sought and gratification obtained. According to them, gratification received is actual pleasure that the consumers obtain using a medium, whilst the gratification sought is what the consumers expect to get prior to using the medium. The distinction between the two needs to be drawn, as people will make use of media when they consider it to fulfill their needs.

8. EMPIRICAL STUDIES
Empirical research also supports the objectives of this study using the principles that were initiated in Chapter One. Hurbean et al. (2023) have carried out one of such studies in which they investigated the relationship between work performance and the use of Instant Messaging (IM). The paper covered the mediation of this relationship by work overload and complexity, and interruptions, which are the two best indicators of technology-related stress. PLS-SEM is the structural equation modelling employed by the researchers to analyse the survey responses of 416 professionals. The findings indicate that despite the fact that technological complexity is escalating tremendously with the adoption of IM, it does not play a major role in job interruptions. These two mediators, namely interruptions and complexity, are sufficient to explain the impact of instant messaging on technology overload. They also both directly and indirectly influence the effectiveness of the performance of employees at work. The research furthers the theoretical understanding of the operation of instant messaging (IM) in the workplace and argues that the advantages of using IM outweigh any drawbacks in instances where businesses and employees are well-equipped to handle it. The middle level of stress associated with the use of instant messaging (IM) shows that, though there are some technological challenges, the use does not cause a lot of implications for work-related tasks. Thus, in case management and employees are prepared, it is possible to successfully integrate instant messaging (IM) into organisational communication practices. Also, employees often carry with them their personal experience and expertise on using instant messaging on the job, and thus may be encouraged to have intrinsic motivation to fully utilize these tools.

Zhang and Thompson (2023) analyzed the impact of text messaging (SMS) on the productivity of remote teams in distant learning institutions in Ontario, Canada. Survey strategy incorporating a controlled experiment involving 100 members of a remote team to see the level of productivity before and after using text messaging (SMS) equipment. T-tests were used to analyze productivity, with the results that teams who used instant messaging to accomplish tasks were 20% quicker and reported greater satisfaction with communication. Results indicated the importance of instant messaging in enhancing cooperation and productivity among distant groups. The paper found text messaging (SMS) to be one of the enablers of effective remote work, and should be embraced by organizations, with training being the best way of maximizing its benefits.

A study conducted by Chen and Adams (2022) on the effectiveness of email notification systems in improving response time in Australia utilized a controlled experiment of 150 remote team members, who were used to ascertain the level of effectiveness of real-time email notification systems. The data were compared with t-tests, the results of which demonstrated that notifications in real-time shortened the response time by half, but a high number of notifications caused distractions. The results indicated that email notification systems enhance faster response rates, but should be tailored to prevent productivity losses. It was concluded that customizable notification settings are necessary to balance timeliness and have user focus, meaning that customizable systems should be adopted and users taught on how to optimize their notification settings.

Within the framework of a comparative study of the time of responding to emails in industries in the United States and Canada, Johnson and Williams (2021) gathered information on 1,200 organizations representing five industries (healthcare, finance, education, retail, and technology) through the use of surveys and email response logs. Statistical analysis comparatively showed that the healthcare and finance industries had the highest response times, whereas the retail and technology sectors had the lowest response times. The results showed that workloads and regulatory limitations play a major role in determining the response time of emails. The research deduced that industry-specific conditions are vital in influencing email response efficiency, and the application of tiered email support systems and predictive analytics to enhance response time is advisable.

Song et al. (2019) carried out a qualitative study in one of the leading financial service companies in China. The study examined how the use of social media affected the performance of the team and workers. Through the research findings, it is evident that social and work-oriented social media use are complementary resources that can be used to improve the

performance of individual workers and team members. Nonetheless, the research concentrated on two social media platforms, DingTalk and WeChat, which are very applicable at the workplace in China but not across the world, thereby restricting the study result to the said social media platforms and rendering the findings less generalisable.

In their study, Wushe and Shenje (2019) investigated the impact of the use of social media on the productivity of workers in the public sector in Zimbabwe. The study results demonstrated that social media use in the workplace due to social reasons reduces the productivity of workers to a significant degree. Nevertheless, despite the study being undertaken in the public sector, it involved a limited number of government departments in Harare, and therefore, it did not give an outlook of all the government departments in the country.

9. METHODOLOGY

The research design employed in the study is a cross-sectional survey research design, which is suitable for investigating the relationship between office electronic communication methods and the responsiveness of employees. This research sample was a population composed of permanent administrative staff in state-owned universities (Niger Delta University, University of Africa, and Bayelsa Medical University) in Bayelsa State. They used a purposive sampling method to sample 90 administrators (30 in each state-owned university). Primary data was the major study tool used in this study, and it was collected using structured questionnaires. The reliability was calculated with the help of Cronbach's Alpha and complied with Nunnally's 1978 threshold value of 0.7. The correlation between the timely delivery of employees and the methods of office electronic communication was tested with the help of inferential statistics (Pearson Moment Correlation Coefficient) (Gujarati and Porter, 2020; Pallant, 2020). Data analysis was done using Statistical Package of Social Sciences (SPSS) version 23.

9.1. ANALYSIS, RESULTS, AND DISCUSSIONS

Data collected was coded, input, and analysed using Pearson Product-Moment Correlation to test the hypotheses. Each hypothesis was tested at a 0.01 significance level to establish statistical relevance, enabling a clear interpretation of the correlation between the variables under study.

TABLE 1 Correlational outcome between email service and timeliness in a state-owned university in Bayelsa State

Correlations			
		Email Service	Timeliness
Email Service	Pearson Correlation	1	.431**
	Sig. (2-tailed)		.000
	N	90	90
Timeliness	Pearson Correlation	. 431**	1
	Sig. (2-tailed)	.000	
	N	90	90
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: SPSS Output, 2025.

The results above in Table 1 showed a correlation of 0.431, which is considered significant and positive at the 0.01 level. This suggests email use does affect how timely employees are at state universities, which is kind of unexpected. The outcome goes along with what Chen and Adams (2022) found when they looked at how email alerts affect response times for remote teams. Their work showed email alerts can speed things up, but only if they're set up right to not mess with productivity. Basically, the study said it's important to tweak alert settings to keep things on schedule without distracting people.

TABLE 2 Correlational outcome between instant text messages and timeliness in a state-owned university in Bayelsa State

Correlations			
		Instant Text Messages	Timeliness
Instant Text Messages	Pearson Correlation	1	.677**
	Sig. (2-tailed)		.000
	N	90	90
Timeliness	Pearson Correlation	. 677**	1
	Sig. (2-tailed)	.000	
	N	90	90
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: SPSS Output, 2025.

The correlation coefficient of this relation was r =.677 (p < 0.01), and this value was found statistically significant, proving that there was a positive relationship between instant text messaging and timeliness. This observation implies that even though text messages do not bring the largest effect of timeliness, they play a positive role. Text messages are delivered instantly and are in the form of short messages, which can be utilized as reminders to complete the tasks and hence increase timeliness by a slight margin. This comes in handy, especially in a learning institution where one may be required to stay updated in a brief period. This finding has been observed earlier by Zhang and Thompson (2023), who investigated the impact of text messaging (SMS) on the productivity of remote teams in distant learning institutions. The result pointed out the importance of instant messaging in enhancing productivity and collaboration in remote teams. The article found that text messaging (SMS) stands out as a primary facilitator of effective distant working and suggests that organizations should be advised to embrace such tools and offer some training to ensure that they can obtain the highest benefits. Moreover, Taylor and Martinez (2020) carried out research on the effect of text messaging (SMS) on the effectiveness of communication in the workplace in educational establishments. They disclosed that text messaging (SMS) was found to cut down the response time by 40 percent for responses to email, and 85 percent of respondents cited better communication efficiency. The results showed that text messaging allows faster decision-making and better collaboration, especially within a fast-moving environment.

TABLE 3 Correlational outcome between chat applications and promptness in a state-owned universities in Bayelsa State

Correlations			
		Chat Applications	Timeliness
Chat Applications	Pearson Correlation	1	.576**
	Sig. (2-tailed)		.000
	N	90	90
Timeliness	Pearson Correlation	. 576**	1
	Sig. (2-tailed)	.000	
	N	90	90
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: SPSS Output, 2025.

The result of the analysis showed that there was a moderate positive correlation between chat applications and timeliness, and the Pearson correlation coefficientwas r =.576 (p < 0.01). This demonstrates that chat applications have moderate effects on timeliness in universities. Chat applications facilitate informal, fast, and sometimes group-based communication where employees are able to receive and use information rapidly, contributing to improved timeliness in conducting tasks. This fact is in line with the results of Akintola et al. (2016), who studied WhatsApp as a social media platform to be used as an educational resource. The results showed that Facebook employees in universities prefer WhatsApp as the social chat application. Nyamanya (2017) also carried out a study to investigate the impact of the use of social media on EP. The results indicate that the use of social media has a positive influence on the performance of the employees by virtue of characteristics related to teamwork and knowledge exchange. Finally, Song et al. (2019) emphasized the usefulness of chat applications in shortening response time.

10. CONCLUSION

This paper examined how electronic communication techniques (email services, instant text messaging, and chat applications) in offices relate to actual delivery (timeliness) by employees in state-owned universities in Bayelsa State. The results showed that email services were found to be significantly related to timeliness. Instant text messages were significant for timeliness, and chat applications had very strong associations with timeliness. In summary, the paper has shown that the adoption of office electronic communication technology, which profoundly enhances the timely delivery of employees in state-owned universities in Bayelsa State, is significant.

11. RECOMMENDATIONS

According to the findings, the research proposes that:

- To improve their contribution to timeliness, universities should improve and optimize their email systems with improved user interfaces, improved delivery times, and incorporate task management tools.
- To ensure that the email services provide maximum benefits in terms of promptness and quality of services, staff should be provided with periodical training on email etiquette, prioritization, and handling of responses.
- The use of SMS in urgent and time-sensitive messages, such as administrative messages and emergency alerts, is something that the management should promote.
- Colleges ought to implement institutionalized instant messaging systems that have real-time communication tools, a secure message system, and document management.

- WhatsApp, Teams, or Slack are examples of chat applications that should be formalized to hold group discussions, academic collaborations, and administrative meetings to take full advantage of their high impact on timeliness and quality of service.

12. CONTRIBUTION TO KNOWLEDGE

This paper presents novel empirical data that illustrates the impact of certain electronic communication devices (email, SMS, and chat applications) on the timely delivery (timeliness) of employees in institutions of higher learning. Moreover, as opposed to other past studies that consider communication technologies as a unitary construct, this study offers a comparative analysis of the effects of chat applications and video conferencing on timeliness and service delivery, which are stronger when compared to email or SMS.

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