Use of Mobile Instant Messaging Applications for Readers Service Delivery in University libraries in South-South, Nigeria.

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Abstract
This study investigates librarians' use of mobile instant messaging applications for readers' service delivery in university libraries in South-South Nigeria. The study adopted a descriptive survey research method. The population of the study is 324 librarians from both federal and state university libraries in south-south zone, Nigeria. The sample size for the study is 324, due to the manageable size of the population, the study employed total enumeration sampling technique. Method of data analysis was done using mean and standard deviation to answer all the research question. The study revealed that readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria include; user education, loan services, book reservation, announcement/public relation, current awareness services for library resources, selective dissemination of information, reference services, extension services, indexing and abstracting among others. On the second objective, the study also revealed the extent to which the use of Mobile Instant Messaging Applications contributes to effective readers' service delivery in university libraries in South-South Nigeria is high. The findings will inform other University libraries in developing countries to see the need to integrate mobile instant messaging application in their readers' services delivery to increased accessibility to a wide range of readers and extending the reach of library services beyond physical boundaries.

Keywords- Mobile instant messaging Apps, University libraries, Readers services, Librarian, Nigeria

Introduction

With the rapid evolution of communication technologies, librarians can increasingly rely on mobile instant messaging applications (MIM) to streamline communication, collaborate with colleagues, and assist patrons. The quality of service rendered by university libraries can go a long

way to determine the success level of users (students and academics) as well as the quality of the university rating. With the use of mobile instant messaging applications, librarians can transfer texts, photographs, audio, videos, and other multimedia files virtually instantly to library users. They can provide a means of secure, effective, and efficient transfer of information and data. Overall, in the current digital age where mobile connectivity is growing more prevalent, librarians need to be proficient in the use of mobile instant messaging apps to facilitate improved reader services. Mobile instant messaging apps can help librarians increase productivity in their daily operations, and market and promote library services successfully. This is an invaluable tool for any modern library, and will certainly help to make the library more effective, efficient, and customer-oriented. University libraries can be efficient in service delivery when they deploy real-time communication and service delivery channels like the Mobile instant messaging applications that enhance users' access to services and meet users' needs promptly. This in essence means that the use of, Mobile instant messaging apps by librarians will lead to improved reader services.

Reader services, often referred to as library reader services or library patron services, encompass a range of activities and resources provided by libraries to meet the needs of their users (readers or patrons). These services are designed to enhance the user experience, facilitate access to information, and support the educational, informational, and recreational pursuits of library users (Singh & Singh, 2017). The Readers Services Division is a branch of a library or other institution that is responsible for providing services to readers (University of Lagos Library, 2023). It is responsible for ensuring that readers have access to the library's resources, helping them to locate the necessary materials, and providing assistance in the use of the material. It is also responsible for providing readers with information on library policies, procedures, and services (Okoro & Bamidele, 2019). This shows that the services are user centered.

In recent years, the use of mobile instant messaging applications (MIMA) has been increasingly embraced in almost every aspect of life, especially in the professional and educational spheres. In the library and information science field, the use of MIMAs has proved to be advantageous in terms of improved information delivery and services to patrons in libraries. It's glaring that the use of these applications provides readers with fast and efficient services, and also promotes ease of interaction. South-south Nigeria, being the oil producing region, have more financial backing to

fund their universities and their university libraries, Also, government and most of the universities administrations in South-south Nigeria have tried to computerize academic libraries.. They have all adopted different library computerisation software at one time or the other.

Purpose of the Study

The general purpose of the study is to explore librarians' use of mobile instant messaging applications for library service delivery in university libraries in South-South Nigeria. The specific objectives of the study are to:

1. ascertain the readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria.
2. find out the extent to the use of Mobile Instant Messaging Applications contributes to effective readers' service delivery in university libraries in South-South Nigeria.

Research Questions

The following questions was answered in the present study:

1. What are the readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria?
2. What is the extent to the use of Mobile Instant Messaging Applications contributes to effective readers' service delivery in university libraries in South-South Nigeria?

Literature Review

Theoretical Framework

From the theoretical perspective, the study was based on key theories capable of exposing the factors that lead to librarians' adoption and use of mobile instant messaging applications for service delivery. These theories are the Technology Acceptance Model by Davis 1989 and the Diffusion of Innovation Theory by Rogers 1962. The Technology Acceptance Model emphasized the perceived usefulness and perceived ease of use of mobile instant messaging tools that can influence librarians' decision to accept or reject the technology for service delivery. While the diffusion of innovation theory was based on how relative advantage, compatibility, complexity, of mobile instant messaging tools can influence librarians' decision to adopt them for service delivery.

Effective Readers' Services rendered using Mobile Instant Messaging Applications in university libraries.

Ansari and Tripathi (2017) studied the use of WhatsApp for effective delivery of library and information services. The study focuses on the use of WhatsApp in various types of libraries around the world, although the data gathering is confined to people from India. Students, research academics, working professionals (including librarians and library employees), and library interns (new graduates in library and information science) were among those who took part in the study. A structured online questionnaire was created and disseminated using the Google Forms platform. The sample size is 150 people, and the questionnaire was provided to the responder by email. 134 responses were obtained, with an 89.33 percent response rate. The findings revealed that WhatsApp can be used to render the following library services; sharing the list of new books, sharing library news and events, helping in catalog search, information literacy, and library instructions, and providing the list of e-journals and e-resources databases, among others. It was concluded from the findings of the study that the several features of WhatsApp like multimedia sharing, instant message delivery, real-time audio recording conversation, and group messaging can be used to project library services.

Similarly, Stephen (2019) studied the effective use of WhatsApp Messenger among library and information science professio-nals in the North East Region, of India. The purpose of this study is to identify the effective use of WhatsApp messenger usage among Library and Information Science professionals in North East Region of India. The study was guided by seven research questions. A survey research design was adopted for the study. The number of Library and Information Science Professionals (LIS) who completed and returned surveys was 171 (84.24%). Out of 171, 109 (64%) respondents are male and 62 (36%) respondents are female. The instrument used for data collection was a structured questionnaire. The data collected via the questionnaire were analysed using descriptive statistics method. The result shows that the services that can be rendered using the WhatsApp platform include; Ask a Librarian, User discussion forum, reminders, and notifications library news services are 100% responses from the LIS professionals. Followed by Reference service 90%, E-book searching & Mobile collections link 83%, current awareness service 89%, SDI 77%, library instruction 75%, and only 32% of the respondents are responses for possible Abstract service. No one opts the option for the Reprography service. The

efficiency and effectiveness of WhatsApp Messenger in library services make it a great tool used by LIS professionals in the North East Region of India for the success of providing relevant and timely information services to library users. This study is similar to the present study as it has shown the services that can be rendered using WhatsApp which is a mobile instant messaging app. This study was done in Indian while the present study is in Nigeria

However, Quadri and Idowu (2016) studied social instant messaging tools use by Librarians for Information Dissemination in Three Federal University Libraries in Southwest Nigeria. For the study, four research questions were established. Because it is the most popular method used in library and information science research, the study used a descriptive survey method. Academic librarians at three federal university libraries in Nigeria's southwest geopolitical zone: University of Ibadan, Obafemi Awolowo University, and the Federal University of Agriculture Abeokuta were the target population. In the three university libraries that made up the study's sample, there were a total of 82 professional librarians. The findings revealed that a majority of the respondents, 73.3%, indicated that they provided Current Awareness Services (CAS) to the users. Sixty-three and three-tenths percent of the respondents indicated reference services, while document delivery received the fewest responses. Librarians in Nigerian universities and other tertiary institutions need to imbibe the culture of technology application and adoption to promote the use of social mobile instant messaging tools for information dissemination, and bring the services closer to their users. This study differs from the study because it based on three universities in the South West Zone, while the present study is based on South-South, Nigeria.

Perceived benefits of the use of Mobile Instant Messaging Applications for service delivery in university libraries

Kerkar, Dhuri, and Lobo (2021) analysed the use of WhatsApp services by College Library Professionals to connect with Patrons during the COVID-19 Pandemic. The research paper discusses how college librarians might make the most of WhatsApp to provide users with fast and effective service. Four research objectives were formulated for the study. The study was conducted using a survey research method. The participants in the study are librarians who work in academic college libraries. To collect data from library professionals, a structured online questionnaire was created using Google Forms. In June 2021, the online questionnaire was given to Academic

College Librarians via WhatsApp. The survey received 112 responses from college librarians. For easier interpretation and understanding of the results, the data was examined using frequency tables and percentages. The study highlighted the benefits of WhatsApp including; its cost-effectiveness and ease to use, efficient communication tool, great awareness tool, delivery status feature, and End-to-End Encryption which ensures all the conversions between people are encrypted and can't be accessed by anyone except the participants. The study has shown the benefits of Whatsapp which is one of the mobile instant messaging tools. The population of this study is college librarians while the present study is based on librarians in university libraries. This is the major difference between both studies.

Furthermore, Dookhani, Asnafi, Hariri, and Nooshinfard (2020) studied the need for mobile messaging tools in libraries. The study was aimed at investigating the level of familiarity of librarians and users of the Central Library of Islamic Azad University of Tehran with Web 2.0 services. The study was conducted using a survey research method. The population of the study consists of 21 librarians working in the central library of the Tehran Science and Research branch and over 18500 library users (students and lecturers). An online questionnaire was formulated for the study and the data was analysed using descriptive statistics via the SPSS Software. The findings revealed that librarians can use Telegram and Whatsapp to share files of books, articles, and images of their collections, workshops and conferences. Electronic library educational videos and other related videos such as conferences and workshops can be shared via Telegram, WhatsApp, and Line. Via training channels on Telegram, the library can educate users on access to databases, among others. This study is based on Web 2.0 tools while the present study is centered on mobile instant messaging tools. This is the major difference between both studies.

From the literature review, it can be observed that most previous studies were centered on the use of social media for service delivery, the use of Web 2.0 for service delivery, the use of video conferencing tools for service delivery, and the application of information communication technologies for service delivery. There are only a few studies on the use of mobile instant messaging applications for service delivery in university libraries. There are only a few empirical studies centered on the objectives of the study. This great gap in knowledge prompted the need for

the present study, as the survey is expected to fill the lacuna in knowledge and serve as a reference to researchers carrying out similar studies.

Research Methodology.

The study employed a descriptive survey design, focusing on the South-South region of Nigeria. The population consisted of 324 participants, librarians from federal and state university libraries in the region. A total enumeration sampling technique was utilized due to the manageable size of the population. Data collection instruments included a structured questionnaire, it comprises of two clusters that addressed various aspects of mobile instant messaging applications, including their requirements, usage, services rendered, and perceived benefits. The reliability analysis for each cluster yielded coefficients ranging from 0.82 to 0.89, with an overall reliability coefficient of 0.95. The data collected were analyzed using mean and standard deviation to answer the research questions.

Results and discussion of findings

Research Question One

What are the readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria.

Table 1: Mean and standard deviation of respondents on the readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria

S/N	Item Statement	Qualification						Overall Mean		Remark
		B.Sc, B.LIS, B.Ed		MLS, M.Sc., M.Ed		PhD				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
1	User Education	2.99	.96	3.08	.99	3.07	.85	3.04	.94	Agree
2	Loan Services	3.12	.86	3.36	.90	3.24	.87	3.31	.87	Agree
3	Book Reservation	3.09	.98	2.95	1.02	2.96	.93	3.01	.98	Agree
4	Announcement/Public Relation	3.01	.98	3.13	.91	2.97	.88	3.04	.93	Agree
5	Current Awareness Services for Library Resources	3.25	.78	3.08	.85	3.15	.99	3.17	.87	Agree
6	Selective Dissemination of Information	3.07	.82	3.17	.88	3.08	.92	3.11	.86	Agree
7	Reference Services	3.18	.95	3.20	.85	3.34	.91	3.23	.91	Agree
8	Research Help Services	2.96	.81	2.80	1.02	2.84	.85	2.87	.90	Agree
9	Interlibrary Loan Services	2.26	.97	2.30	.88	2.73	.88	2.40	.94	Disagree
10	Extension Services	3.24	.98	3.27	.92	3.18	.91	3.23	.94	Agree
11	Ask the Librarian Services	2.95	1.01	3.20	.85	2.84	.97	3.00	.96	Agree
12	Indexing and Abstracting	3.07	.93	3.13	.80	3.14	.93	3.11	.88	Agree
13	Outreach Services	2.38	.96	2.39	1.00	2.61	1.02	2.44	.99	Disagree
14	Book Displays	3.08	.78	3.16	.85	3.08	.92	3.11	.84	Agree
15	Referral Services	3.21	.95	3.25	.91	3.20	.79	3.22	.89	Agree
	Cluster Mean	**3.00**	**.31**	**3.03**	**.31**	**3.03**	**.31**	**3.02**	**.31**	

The result in Table 1 shows the readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria. The result revealed that the readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria are those in items 1-8, 10-12, and 14-15. These items were considered as the readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria because they recorded a minimum mean value of 2.50 and above set for decision making. Some of these readers' services include; user education, loan services, book reservation, announcement/public relation, current awareness services for library resources, selective dissemination of information, reference services, extension services, indexing and

abstracting among others. The result in Table 1 also revealed that the standard deviation of the 15 items ranged from .84–.98; indicating that the respondents were homogenous in their responses.

Research Question Two

What is the extent to the use of Mobile Instant Messaging Applications contributes to effective readers' service delivery in university libraries in South-South Nigeria?

Table 3: Mean and standard deviation of respondents on the extent to the use of Mobile Instant Messaging Applications contributes to effective readers' service delivery in university libraries in South-South Nigeria

S/N	Item Statement	Age						Overall Mean		Remark
		18-35 yrs		36-55 yrs		56 yrs +				
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
1	Makes library resources more visible	2.66	.78	3.00	1.00	2.85	1.00	2.82	.93	HE
2	Provide access to the library professionals	2.99	1.06	3.12	1.01	3.19	.87	3.08	.99	HE
3	Enhances communication between librarians and users	2.99	.99	2.87	.95	3.07	.93	2.97	.96	HE
4	Saves time in rendering library readers' services	3.17	.98	3.01	1.06	3.08	.82	3.10	.97	HE
5	The End-to-End Encryption feature makes sure all the conversions between people are encrypted without by accessed by anyone	3.09	.83	3.16	.79	2.96	.97	3.08	.86	HE
6	Swift sharing of information to users	3.22	.92	2.91	.99	3.03	.79	3.06	.92	HE
7	Increases patronage of the resources	2.56	.74	2.84	.98	3.28	.79	2.84	.86	HE
8	Makes it easy to carryout user education routines	3.01	.98	3.13	.97	3.20	.95	3.10	.97	HE
9	Makes it easy to reach users as regards overdue notices	3.23	.89	3.17	.85	3.04	.90	3.04	.88	HE
10	Marketing library services and resources becomes easy	3.01	.98	3.21	.97	3.03	.89	3.03	.95	HE
11	Gives opportunity to share content in a cost-effective manner	3.06	.98	3.06	.92	3.05	.89	3.05	.94	HE
12	Enable sharing of reading tips and book recommendations	3.17	1.00	3.16	1.01	3.08	.82	3.08	.96	HE
	Cluster Mean	**3.01**	**.35**	**3.05**	**.30**	**3.07**	**.27**	**3.04**	**.32**	**HE**

Result in Table 3 shows the extent to the use of Mobile Instant Messaging Applications contributes to effective readers' service delivery in university libraries in South-South Nigeria. The result revealed that all the items as well as the cluster mean had their mean values ranged from 2.82-3.10. These values were within the real limit of 2.50-3.49; indicating that the extent to which to the use of Mobile Instant Messaging Applications contributes to effective readers' service delivery in university libraries in South-South Nigeria is high. The Table also revealed that the standard

deviations of the 12 items ranged from .86-.99; indicating that the respondents were homogenous in their response.

Discussion of the Findings

The findings regarding the readers' services rendered using mobile instant messaging applications in university libraries in South-South Nigeria indicate a range of services, including user education, loan services, book reservations, announcements/public relations, current awareness services for library resources, selective dissemination of information, reference services, extension services, and indexing and abstracting. The results align with the findings of Ansari and Tripathi (2017), which highlighted various library services that can be effectively delivered through WhatsApp. Their study emphasized that WhatsApp facilitates sharing information about new books, library news and events, catalog searches, and providing lists of e-journals and databases. This supports the current study's assertion that mobile instant messaging applications can enhance a wide array of library services. Similarly, Odu and Omini (2017) found a significant relationship between the use of WhatsApp and the utilization of library services in their study at the University of Calabar Library. Their findings indicated that WhatsApp was among the key applications that improved service delivery, reinforcing the idea that mobile instant messaging tools are essential for effective communication within libraries. This further validates the current study's emphasis on the importance of these applications in providing various reader services. Stephen (2019) also identified multiple services rendered using WhatsApp among library and information science professionals in India.

The study reported that features such as user discussion forums, reminders, notifications, and reference services were effectively utilized through WhatsApp. This aligns with the current study's findings that librarians in South-South Nigeria are leveraging similar functionalities to enhance their service offerings. Moreover, Quadri and Idowu (2016) studied social instant messaging tools used by librarians for information dissemination. They found that Current Awareness Services (CAS) were frequently provided through these platforms. This finding complements the current study's results regarding the provision of current awareness services as one of the key offerings through mobile instant messaging applications.

The findings of this study also indicate that the extent to which mobile instant messaging applications contribute to effective readers' service delivery in university libraries in South-South Nigeria is high. These findings support that of Akagha (2021), who found that such tools enhance communication between librarians and users, making library resources more visible and accessible. This aligns with the current study's assertion that mobile instant messaging applications significantly contribute to effective service delivery. Similarly, Kerkar, Dhuri, and Lobo (2021) highlighted the benefits of WhatsApp as an efficient communication tool for college librarians during the COVID-19 pandemic. Their findings indicated that WhatsApp facilitates fast and effective service delivery, reinforcing the current study's conclusion about the high contribution of

mobile instant messaging applications to readers' services. Furthermore, Chan, Lam, and Chiu (2020) found that effective communication via these platforms improves visibility and accessibility to library services. This supports the current study's findings regarding the positive impact of mobile instant messaging applications on enhancing library services. Additionally, Dookhani et al. (2020) emphasized that librarians can utilize mobile messaging tools like WhatsApp and Telegram to share educational resources and enhance user engagement. Their research underscores the potential of these tools to improve service delivery, aligning with the current study's focus on their contributions.

Therefore, the findings from this study not only affirm existing empirical evidence regarding the positive impact of mobile instant messaging applications on library services but also highlight their critical role in enhancing effective readers' service delivery in South-South Nigeria.

Conclusion

The readers' services rendered using Mobile Instant Messaging Applications in university libraries in South-South, Nigeria.

The findings regarding the readers' services rendered using mobile instant messaging applications in university libraries in South-South Nigeria indicate a range of services, including user education, loan services, book reservations, announcements/public relations, current awareness services for library resources, selective dissemination of information, reference services, extension services, and indexing and abstracting.

Therefore, the findings from this study highlight a variety of readers' services rendered using mobile instant messaging applications in university libraries across South-South Nigeria. The alignment with existing literature underscores the effectiveness of these tools in enhancing communication and service delivery within academic libraries. The absence of significant differences based on librarians' qualifications indicates a collective recognition of the value these applications bring to library operations, regardless of individual educational backgrounds.

The use of Mobile Instant Messaging Applications can lead to effective readers service delivery in university libraries in South-South Nigeria.

The findings of this study indicate that the extent to which mobile instant messaging applications contribute to effective readers' service delivery in university libraries in South-South Nigeria is high. Further analysis revealed no significant difference in the mean responses of librarians regarding this contribution based on age, suggesting a shared recognition of the value these applications bring to service delivery across different age groups.

Therefore, the findings from this study not only affirm existing empirical evidence regarding the positive impact of mobile instant messaging applications on library services but also highlight their critical role in enhancing effective readers' service delivery in South-South Nigeria. The absence

of significant differences based on age further emphasizes a shared understanding among librarians of the importance of these tools in modern library practices. Addressing infrastructural challenges and providing adequate training will be essential for maximizing the benefits of mobile instant messaging applications in academic libraries.

The study highlights the significant potential of mobile instant messaging applications, such as WhatsApp, Telegram, and Facebook Messenger, in enhancing readers' service delivery in university libraries across South-South Nigeria. The findings indicate that these applications contribute to improved communication between librarians and users, facilitate timely access to information, and enhance the visibility of library resources.

Recommendations

1. Libraries should develop and implement a range of readers' services that leverage mobile instant messaging applications. Services such as user education, loan management, and current awareness notifications can be effectively delivered through these platforms to better meet the diverse needs of users.

2. University libraries should recognize the high extent to which mobile instant messaging applications contribute to effective readers' service delivery. This acknowledgment can drive libraries to invest more resources in training librarians on how to use these tools effectively.

References

Akagha, N. (2021). Use of social media in delivery of reference services by librarians in FUTO Library. *Library Philosophy and Practice (e-journal), 6611*. https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=12602&context=libphilprac

Ansari M. & Tripathi A. (2017). Use of WhatsApp for effective delivery of library and information services. *DESIDOC Journal of Library & Information Technology*,. 37, (5), 360-365, DOI : 10.14429/djlit.37.11090 □ 2017, DESIDOC

Dookhani, F., Asnafi, A., Hariri, N., & Nooshinfard, F. (2021). Why do mobile messaging tools in libraries. *Journal of Studies in library and information science, 11*(4), 1-12.

Kerkar, P.S., Dhuri, K.R., & Lobo, J. (2021). Analyzing the Use of WhatsApp Services by the College Library Professionals to Connect With the Patrons during Covid-19 Pandemic. *Library Philosophy and Practice (e-journal), 6135*. https://digitalcommons.unl.edu/libphilprac/6135

Okoro, C.C., & Bamidele, I.A. (2019). *Readers' Services in Nigerian University Libraries*. https://www.researchgate.net/spublication/354600957_Readers'_Services_in_Nigerian_University_Libraries

Quadri, G.O., & Idowu, O.A. (2016). Social Media Use by Librarians for Information Dissemination in Three Federal University Libraries in Southwest Nigeria. *Journal of Library & Information Services in Distance Learning, 10*(1-2), 30-40

Rogers, E.M. (1962) *Diffusion of Innovations*. Free Press, New York.

Singh, P. K., & Singh, R. K. (2017). *MIM Apps as a Library Tool : A Conceptual Overview for Academic Libraries*. https://www.researchgate.net/publication/321998687_MIM_Apps_as_a_Library_Tool_A_Conceptual_Overview_for_Academic_Libraries

Stephen, G. (2019). The effective use of Whatsapp messenger among library and information science professionals in North East Region, India: A Study. *Library Philosophy and Practice (e-journal), 2328*. https://digitalcommons.unl.edu/libphilprac/2328

University of Ilorin. (2023). *Readers' Services Division*. https://universitylibrary.unilorin.edu.ng/readers.html

University of Lagos Library. (2023). *Departments & Units* – UNILAG LIBRARY. Unilag.edu.ng. https://library.unilag.edu.ng/?page_id=772

Uzuegbu, C., & Arua, U. (2013). *Using Information Communication Technology for Readers' Services Routine Jobs in Academic Libraries*.https://www.researchgate.net/publication/292906689_Using_Information_Communication_Technology_for_Readers'_Services_Routine_Jobs_in_Academic_Libraries