

BRIDGING THE DIGITAL DIVIDE: THE RELEVANCE OF LIBRARIES AND OTHER INFORMATION AGENTS IN FOSTERING KNOWLEDGE GROWTH AMONG FARMERS IN NIGER DELTA

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Abstract

Bridging the digital divide and the relevance of librarians and other information agents in Niger Delta is investigated in this study. The study explores the areas the public librarians and agric extension advisors provide information services to the rural dwellers in Niger Delta to foster knowledge growth that will improve agricultural productivity and enhance their economic and social life. Questionnaire is the instrument used for collection of data. The population of the study comprises the 348 Farmers selected from major ethnic groups in Niger Delta region namely: Ijaw, Itsekiri, Isoko and Urhobo. The questionnaire was administered to farmers in Ofagbe, Ellu and Aviara in Isoko North and Isoko South. Olomu, Ewu and Otokutu were the communities visited in Urhobo cultural area. The communities visited in Ijaw area were Burutu, Patani and Egbema, while the communities visited among Itsekiri settlement areas include Ugborodo, Ugbegungun and Obodo. The role of public librarian's healthcare delivery personnel and agric extension advisors will help to bridge the digital divide in Niger Delta region.

Keywords

Digital Divide, Public Libraries, Agric Extension Services, Digital Knowledge, Farmers.

Introduction

The state of inequality as regards access to use of knowledge about Information and Communication Technologies (ICTs) among diverse settlements in Niger Delta region is of great concern hence this study. The digital divide connects the disparities in access to the use of Information and Communication Technologies (ICTs) among different professionals including farmers in Niger Delta. The application of information and communication technologies in this era of technology driven world is absolutely indispensable. Despite the significant role of digital technologies and information technology skills world over, a large number of rural dwellers in Niger Delta region lack digital knowledge (Oyemiiran, 2023). This study is therefore posed to explore the role of librarians and other information agencies in bridging the digital divide by growing the knowledge of the farmers particular in Niger Delta. When this vision is effectively and successfully executed, access to treated seedlings for planting, knowledge about the application of fertilizer and marketing of their agricultural

products will be made easy because of access to online information and marketing activities (Omojola & Ilo, 2020).

Librarians and other information agencies such as local government healthcare delivery officers and agric extension advisors have a critical role in bridging this digital divide by providing resources, organizing seminars at the grassroots, training the farmers on the application of farm implements healthcare issues and how to access the internet with their mobile phones. Librarians can facilitate knowledge growth that will improve the agricultural productivity and enhance the farmers economic and educational standard. By assisting farmers in navigating the complexities of digital information systems (Garrison & Sweeney, 2021).

The digital divide refers to the state of being unequal in access to use of knowledge about information and communication technologies (ICTs) among different populations in Niger Delta. This region characterized by its rich diversity and variety of species of plant and animal's life which enhances economic potential. This divide poses significant challenges to local farmers who struggle to access vital information for the improvement of their farming occupation (Omojola & Ilo, 2020). Despite the advancement of information communication technologies (ICTs) in Nigeria, many farmers in Niger region are conspicuously severed from digital media, preventing the farmers from receiving vital information regarding modern farming techniques, advent of treated seeding's, market access especially online marketing, newly invented farm implements, weather forecast and improved agricultural systems (Omojola & Ilo, 2020).

Librarians and other information agencies have a notable role in bridging this digital divide by providing resources, training and support to enable farmers to effectively utilize ICTS. The emphasis on the promotion of knowledge growth in digital literacy and fostering greater engagement with available information technologies is inevitable (Garrison & Sweeney, 2021). The necessity of developing the farmers in Niger Delta region by the public librarians cannot be over emphasized. This is because it will facilitate knowledge growth that improves agricultural productivity and enhances socio-economic development of Niger Delta region (Chavan & Sain, 2021). Moreover, agric extension services and public libraries paves way for targeted interventions that can empower farmers in this region (Fitzgerald et al, 2022). These services by the public librarians, and agric extension agents should be acknowledged to promote the support mechanisms in ensuring that farmers gain access to relevant and timely information that would enhance farmer's food security, high level agricultural productivity and economic development in Niger Delta.

Remarkably, from the context of the above narratives, this study aims to explore the relevance of librarians, and agric extension advisors in fostering knowledge growth among farmers in Niger Delta. Their role and impact in information dissemination will help to bridge the digital divide in this critical agriculture in Niger Delta region.

Literature Review

In this information age, inability by information seekers to access digital libraries and electronic information poses a real hindrance to the library users from making the best use of the available electronic information resources. However, the government of Nigeria has taken bold steps towards digitization of the manufacturing companies, economic activities, academic libraries and information centers. To this end, digital literacy has become indispensable in order to enhance the economic and knowledge growth in Nigeria according to Akpan and Ojo (2023). Bridging the digital divide is not only or the purpose of knowledge growth, but the adoption of various technology driven solutions such as e-commerce, e-government and e-banking to mention few, will not only help to check mate corrupt politicians but will promote knowledge growth but enhance economic activities. The increased application of technology in various aspects of library services in Nigeria is regarded as a positive move towards achieving global standard of library operations with the advent of information Technology for the attainment of

the sustainable developmental goals in education (Nwafor and Iwu, 2022). However, there are insurmountable constraints that must be surmounted before library services will be of great help to farmers in Niger Delta and other researchers in various fields of knowledge. One of the problems confronting the librarians in discharging their duties to get the host communities informed especially in Niger Delta is the attitude of farmers towards digital platforms. Another constraint is lack of digital competencies particularly those with no formal education. This has further widened the digital divide in Niger Delta region. Adeyemi and Oni (2021) Opined that the concept of digital divide goes beyond the inability to access technology, ironically, those who acquired formal education up to secondary school level have not got the required level of knowledge and skills to make use of the available electronic information resources.

Some of the farmers in Niger Delta are actually eager for digital knowledge hence the only way to be updated with the newest farm implements, new seedlings and current market prices is I the social media. The Delta state government, through ministry of agriculture is making frantic efforts to educate Niger Delta farmers on digital knowledge for self – development. The public library in Nigeria is supposed to be the major source of information to the rural farmers according to Odukoya and Arigbabu (2023). But the public library is gradually going extinct. The farmers in Niger Delta solely depend on the agric extension staff of the ministry of agriculture for productive information. The relevance of the librarians to farmers in Niger Delta in bridging the digital divide can be viewed in the following ways.

Electronic Information resources promotion by the Librarians:

The library has many electronic and non – electronic information resources that it can promote to enhance the knowledge of the farmers. Promotion is all about bringing awareness to client of existing resources and determining their appropriateness. Akpan and Ojo (2023) once stated that the promotion of available resources especially for farmers usually enhances maximum agricultural productivity.

Access to global online research on agriculture:

This online research on agriculture started by the Food and Agriculture Organization of the United Nations (FAO) with a number of publishing partners to provide developing countries access to scientific information of food, agriculture, environmental science and related social science (Erhiegiuren and Gbigbi, 2025). Remote use of libraries has increased enormously as tens of thousands of electronic journals and electronic books become available and accessible from home or the farm (Nwafor and Iwu, 2022). Many librarians understudy library users including farmers to know what their needs really are in order to satisfy all of them with the available resources. Stephens (2005) declared that some libraries are using information technologies for making their electronic reserves available have identified a variety of library applications.

The current generation of library users including farmers have no much time to search through the catalogue cards for information but rather prefer electronic information via the digital library, internet or any other social media. With the advent of information technology, the farmers can receive articles online – either directly through web – based information services, or through online library journal subscriptions.

The relevance of librarians and other information agents in fostering knowledge growth among farmers in Niger Delta is the ability to market agricultural produce online. Easy access to online information helps the farmers to advertise their farm produce and also receive deliveries from agricultural extension advisors and other suppliers of farm implements and seedlings (Odukoya Arigbabu, 2023). It was opined by Osinulu (2021) that online transactions are difficult to process, this is because many libraries cannot afford to take full advantage of library automation. Another way the librarians can bridge the digital divide is to mail electronic information resources to farmers. Okolie and Igbokwe (2021) asserted that some libraries have begun to do this for distance education students and farmers at the rural areas in Niger Delta

region of Nigeria. Oyeniran (2023) postulated that with the availability of web – based information services like google, librarians should offer more highly – qualitative and services to farmers, whether library – based or not. Librarians have patron’s preferences for library resources and services, but technical and financial constraints and indifference of farmers towards the use of electronic information resources have militated against the application of information technologies in agricultural sector in rural areas in Niger Delta. In order to meet the information needs of farmers, librarians should urge the state government to acquire information technology facilities for the rural areas where serious farming is taking place. The challenges experienced by the librarians in bridging the digital divide in order to be relevant to farmers in Niger Delta include: Frequent electricity interruption, lack of internet connectivity in the libraries at rural areas in Niger Delta, low bandwidth and poor telecommunication infrastructure. Though the challenges appear to be insurmountable notwithstanding the librarians have been able with the collaboration of the agric extension officers in ministry of agriculture, many farmers have increased their efficiency in agricultural productivity and maximize the utilization of electronic information resources.

Methodology

Questionnaire is the instrument used for the collection of data. The questionnaire is divided into sections. The first session seeks demographic data while the second section contains structured items that are developed through extensive review of literature. In order to ensure content validity of the instrument. The population of the study comprises of 348 farmers from major ethnic groups in Niger Delta region namely the ijaw, itsekiri, isoko and urhobo. The researcher administered the questionnaire to rural areas in the isoko region of Niger Delta, include different towns and villages across the two Isoko Local Government Areas: Isoko North and Isoko South. The communities visited are Ellu, Ofagbe and Aviara. The communities visited in Urhobo cultural area of Niger Delta include: Olomu, Ewu and Otokutu. The communities visited in Ijaw area in Delta State include Burutu and Patani. While the communities visited among the Itsekiri settlement areas include Ugborodo, Ugbegungun and Obodo.

Findings and Discussion

Table 1: Frequency Distribution of respondents according to their age.

Ages in Years	Frequency	Percentage(%)
20-25	45	12.3
26-30	102	29.3
31-35	78	22.4
36-40	72	20.7
41-45	26	7.5
45 and above	25	7.2
Total	348	100

Table 1 reveals that the highest respondents are ages ranging from 26-30 years 102(29.3) indicating that middle age farmers are more pronounced in farming occupation even with their post-secondary school education certificates such as National Diploma Certificates (ND), Higher National Diploma Certificates (HND) and BSC certificates. When they were asked to known the reason why majority of the middle age young men settled for farming, it was revealed that it was as a result of the moving away of most of the oil companies and oil servicing companies from Niger Delta region to other countries in West Africa because of insecurity problems and economic depression. More so, the local government, state government and federal government have not organized open recruitment for civil service jobs for the past twenty years.

Table 2: Frequency Distributed of respondents according to their marital status.

Marital Status	Frequency	Percentage(%)
Single	174	50.0
Married	154	44.3
Widow	12	3.4
Divorced	8	2.3
Total	348	100.0

Table 2 shows that majority of the respondents 174 (50.0%) are unmarried because of economic depression, inflation and devaluation of Nigerian currency. 154 (44.3%) are married but they are not finding the economic situation easy with the current high cost of living. 12 (3.4%) are widows while 8 (2.3%) are divorced.

Table 3: Education attainment of the respondents

Educational Attainment	Frequency	Percentage (%)
No formal education	10	2.9
Primary school only	120	34.5
Secondary school only	144	41.4
Tertiary institution	74	21.2
Total	348	100.0

Table 3 shows that the majority of the respondents 144 (41.1%) are secondary school graduates with West African Examination Council (WAEC) certificates. 120 (34.5%) of the respondents are holders of First School Leaving Certificate, 10 (2.9%) of the respondents are with no educational attainment while 74 (21.2%) of the respondents are graduates of different tertiary institutions with diverse certificates such as National Diploma Certificates (ND), Higher National Diploma Certificates (HND) and BSc.

Areas of needs of digital knowledge among farmers in Niger Delta Region

Table 4: Distribution of respondents by desired areas of needs of digital knowledge

S/N	Digital knowledge	Frequency	Percentage(%)
1	Access to online agricultural information	96	27.5
2	Ability to market agricultural produce online	87	25.0
3	User services/ networking	80	22.9
4	Communication skills	23	6.6
5	Healthcare preventive and curative information	41	11.8
6	Access and use of social media for adverts	21	6.3
	Total	348	100.0

Table 4 reveals that 96 (27.5%) of the respondents desired knowledge access to online agricultural information, 87 (25.0%) of the respondents wish earnestly for digital knowledge on ability to market agricultural products online. 80 (22.9%) of the respondents were eager to acquire digital knowledge on user services/networking 41 (11.8%) of the respondents were highly interested on health information online because local government healthcare delivery services are far from most of the communities, while only 21 (6.3%) of the respondents opt for knowledge on access and use of social media for adverts.

Conclusion

Despite relevant roles played in the time past by the public librarians, agric extension advisors and public healthcare delivery systems to promote good health, commercial activities, intellectual and economic growth through bridging the digital divide, there is a limit to the

achievement of the above information agents in developing digital skills among the rural dwellers in Niger Delta region. Surmountable barriers have made it difficult to transfer digital skills unto most of the community members. One of the problems is inability of the librarians, agric extension advisors and healthcare delivery officers to demonstrate and manipulate the Information Computer Technologies (ICTs) systems to impact knowledge (Osinulu, 2021). Other challenges include lack of internet connections, poor telecommunication infrastructure and lack of network (Oyeniran, 2023).

Notwithstanding, it was discovered that the farmers have benefited from the few seminars/workshops organized, in the time past by the public librarians, agric extension advisors and healthcare delivery officers. The farmers have been exposed to the trending cash crops with high potentials. These crops include specialized, quick turnaround items like microgreens, mushrooms, along with high-demand commodities like cocoa, coffee, palm oil and sesame seeds, ginger, cashew, pawpaw etc. other profitable options include avocado, organic herbs and coconut which benefit from growing health and wellness trends and increasing the economic value of the agricultural practice in the Niger Delta region (Adeyemi & Samuel, 2021).

Recommendation

The state government should as a matter of urgency increase budgetary allocation to the public librarians, agric extension division of the ministry of agriculture, healthcare delivery system in ministry of health towards the provision of training and professional skills development opportunities of their staff. This will help them to impact digital knowledge on the farmers in Niger Delta.

The local government and state government should facilitate the location of telecommunication infrastructures at the rural areas in Niger Delta to alleviate the problems of network failure.

The farmers that are literate should take advantage of the opportunities available online and acquaint themselves with professional associations to enhance digital competence skills for online marketing of their farm produce.

Relevance of the study

The study has increased the knowledge of the farmers and helped to boost their confidence in farming with the application of digital knowledge to promote economic activities and development in Niger Delta.

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