

2019

Information Needs and Access among Women in Sagnerigu District of Northern Region, Ghana

Beatrice Arthur Ms

Kwame Nkrumah University of Science and Technology, barthur.lib@knust.edu.gh

Kojo Bawa Dukper Mr

Tamale Technical University, kbdukper@yahoo.com

Sakibu Bawa Mr

Tamale Technical University, sakibubawa@yahoo.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>

Part of the [Library and Information Science Commons](#)

Arthur, Beatrice Ms; Dukper, Kojo Bawa Mr; and Bawa, Sakibu Mr, "Information Needs and Access among Women in Sagnerigu District of Northern Region, Ghana" (2019). *Library Philosophy and Practice (e-journal)*. 2180.
<https://digitalcommons.unl.edu/libphilprac/2180>

*Information Needs and Access among Women in Sagnerigu District of Northern Region,
Ghana*

1) Beatrice Arthur

Assistant Librarian, Kwame Nkrumah University of Science and Technology

barthur.lib@knust.edu.gh

2) Kojo Bawa Dukper

Assistant Librarian, Tamale Technical University

kbdukper@yahoo.com

3) Bawa Sakibu

Librarian, Tamale Technical University

sakibubawa@yahoo.com

Abstract

The aim of this study was to assess the information needs, sources and the challenges of information access among women in Sagnerigu district in Northern Ghana. Data was collected through questionnaire and interviews from 150 women participants in different geographical zones in the district. The study discovered that majority of women in the Sagnerigu district often need information that is related to agriculture, health and family planning issues. However, it was clear from the analysis that, the women do not have access to the required information that would alleviate poverty among them. There were two critical access gaps between the women with formal education and those without formal education. For their information needs, majority of the women trusted interpersonal networks which they are comfortable with such as family, friends, neighbours and social groupings as against formal sources of information such as internet and the newspapers which are less reliable and used. It was also revealed that access to information by women is affected by lack of skills, financial resources and the existence of rural and urban differences as well as gender and other inequalities. The study suggested the establishment of information systems and centres such as libraries, internets, information and communication technology centres by integrating it into a wider educational programmes in the district.

Keywords: Information Needs, Information Access, Information Sources, Sagnerigu

Introduction

Women's development and empowerment is centred on availability and accessibility of quality information. Information penetrates every aspect of our daily lives; from television, radios to mobile phones in every community, to computers in almost all organisations (Baweja, 2000, p.23; Bosamia, 2013). The advancement of information and communication technologies (ICTs) has provided women with several opportunities for the acquisition of knowledge and literacy development to the extent that, globalisation has reached isolated women groups and families to better understand their needs and challenges. Access to information by women can provide unlimited privileges for economic growth and social engagement through critical thinking and ingenuity (Huyer & Hafkin, 2007).

The assumption has always been that everybody is part of the emerging information society, however, majority of the society seems to be left out of the path. Though information and communication technology is good in promoting the knowledge society, it has also deepened gender and social divides based on pre-existing societal divisions. This has left large portion of the global society who are mostly women not catered for in the current developmental efforts (Huyer, 2005). Justifiably, if there is no considerable policy and strategic plan to guarantee women's full participation and assimilation in the information society including their places of work, families and their communities, then the focus on a sustainable knowledge society will not thrive (Huyer, 2008). Whiles information society is where the creation, distribution, use, integration and manipulation of information are significant determinant of economic, social, political and cultural activity (Carmody, 2012) it is imperative that the information society makes provision for everybody to have access to and use of information. There is a concern that some people including women, children, and disables lack access to information (Hafkin, 2008). Thus they are more distant than others from the information opportunities created by information and communication technology revolution.

In developing countries, women's empowerment in terms of access to internet is very rare, even when they do have the opportunity to be provided with internet, they often do not have the skills to access the information in it. Interestingly however, in Ghana, many uneducated youth in the cities irrespective of educational background, religion, ethnicity and gender, use internet to access health information (Coraggio, 2011). Analysing the information needs of rural women in Africa, it is obvious that women need information on various areas of life, including health, economy, farm practices, financial management, marketing strategies, and post-harvest losses (Alemna, 1995; Munyua, 2000; Momodu, 2002, 2012). Information access is equally important for promoting agri-businesses and also facilitating rural development that yields to social and economic change. The importance of information to women cannot be over emphasised as it is an irreplaceable asset in today's socio-economic environment (Okpala, 2010). Women need information to develop their potential and empower themselves through education, training and businesses. In other to strengthen the grass roots development, with exceptional focus on women, information initiatives and policies should therefore be the focused and be developed in places without information resources. This can be achieved by setting up functional integrated information systems in the communities that could allow women to access them. These information systems and centres can mitigate the information needs of women through access to relevant information.

Easy access to information has the potential of helping women to contribute and participate effectively in the national economic development. Unfortunately, despite the economic and social importance of information, it appears that most women in Sagnerigu district lack

access to relevant, accurate and timely information which will contribute greatly to their social and economic wellbeing. Furthermore, relevant literature on the information needs of women in Ghana and particularly Sagnerigu district is insufficient. As a result, this study seeks to investigate the information needs of women in the Sagnerigu District of Northern Region of Ghana.

Objectives of the study

The main objectives of the study are as follows:

- To identify the information needs of women in the Sagnerigu district
- To ascertain sources of information available to women in the Sagnerigu district
- To identify factors that hinder women's access to information in the Sagnerigu district

Background of the study site (Sagnerigu District)

The Sagnerigu district is one of the newly created districts in the Northern Region. The population of Sagnerigu district, according to the 2010 Population and Housing Census, is about 148,099 representing 6% of the region's total population. Males constitute 50.6% and females represent 49.4%. The district has an urban population of 93,550, representing 63.2%. The population of the district is youthful (0-14 years) representing 37.5% and depicting a broad base population pyramid, which tapers off with a small number of elderly persons (60+ years) 5.9 % (Ghana Statistical Service, 2012). The district has a household population of 146,291 with a total number of 23,447 households. The average household size in the district is 6.3 persons per household. Of the population 11 years and above, 60% are literate and 40% are non-literate. The proportion of literate males is higher (68.3 %) than that of females (52.0%). About 59.1% indicated they could speak and write both English and Ghanaian languages. Of the population 3 years and above (135,846) in the district, 33.7% has never attended school, 44.7% are currently attending and 21.5% have attended in the past (Ghana Statistical Service, 2012).

About 59% of the population aged 15 years and older are economically active while 41% are economically not active. Of the economically active population, 92.1% are employed while 7.9% are unemployed. Of the employed population, about 27% are engaged as service and sale workers, 22% craft and related trade, 21.5% engaged as skilled agricultural forestry and fishery workers and 16% are engaged as managers, professionals, and technicians. Of the population 15 years and older 57.2% are self-employed without employees, 25.6% are employees and 6% contributing family workers. The private informal sector is the largest employer in the district, employing 77.5% of the population followed by the public sector with 15.9% (Ghana Statistical Service, 2012). The recognition of the importance of ICT is reflected in policies such as the development of communication infrastructure, and institutional regulatory framework to promote the use of ICT in transforming the economy, by implementing, e-governance, community information and ICT centres. The district has two FM radio stations which provide information to the people in both the local dialect and in English language. Of the population 12 years and above, 48.4% have mobile phones. Among the men, those who own mobile phones constitute 54.9% as compared to 41.9% of females. Less than 10% (9.0%) of the population 12 years and older use internet facilities in the district while only 13.4% of the total households in the district have desktop/laptop computers. On agriculture, only 3 out of ten 36.5% of households in the district are engaged in agriculture. In the rural localities, 47.9% of the households are agricultural households while in the urban localities, 29.9% of households are into agriculture. Most agricultural households in the district 84.2% are involved in crop farming. Poultry is the dominant husbandry in the district (Ghana Statistical Service, 2012).

Literature Review

Information is necessary because it has an effect on individual's livelihood. The need for information arises when an individual is confronted with a problem or a situation that requires a solution which is not immediately available or the mechanism put in place towards the resolution is not suitable (Mooko & Aina, 2006). Information need is the gap between what an individual knows and what that person is expected to know (Ozioko as cited in Okpala, 2010). The way and manner people look for information varies from each other in terms of culture, religion, age, gender, occupation, location, status, education, experience and exposure. Likewise, the level of need for the same information may differ in people from the same socio-economic and political background, or in terms of availability and awareness of information and ease of use of that information (Aina, 2004). Adequate information has the potentials of broadening the minds of people, transforms lives, and allows for greater sense of independence. For instance, most women particularly in developing countries need information in reproductive health issues and are very much concerned about the health information of their children (Martin, 1996; Momodu, 2002). Access to information is seen as major instrument in taming health issues that affects women's progress and their reproductive health challenges (Nwagwu & Ajama, 2011; Ezema & Ugwuanyi, 2014). The best way of tackling reproductive health problems is women's access to health information. There are so many diseases and deaths that can be prevented and avoided if medical information is made accessible to families and health care providers (Lince-Deroche, Hargey, Holt & Shochet 2015; Ezema, 2016). Studies indicates the lack of available reproductive health information to many rural women in Africa and even what is available is often verbal or put in a language that cannot be understood by the local people (Nwagwu & Ajama, 2011). The evidence of disregard for the importance of libraries and information centres in enhancing health related information is prominent in developing countries.

The role of women in the production and distribution of food within the globe chain is highly significant. The effects of access to prices and products information by women in the supply chain option and other links to any information that enables them increase their power of competition and improve earnings will result into enhancing prosperity and economic growth. In the perspective of agricultural industrialisation, information becomes very relevant from the point of production and marketing of agricultural produce. According to Organisation for Economic Co-operation and Development-OECD (2001), the relevance of information dissemination and application of such information in agricultural production will significantly boost the development of farm settlements. Consequently, women in small-scale farming activities must have significant and efficient training on newly information and technological skills to maximize their production capacity. Munyua (2000) observed that the inability to obtain reliable information by rural women farmers is a major challenge on agricultural development. This is because rural women farmers require information on agricultural inputs, market, transportation systems, new agricultural technologies; food processing and preservation, trade laws and trends in food production.

According to Kaninki (1994) sources of information to most women especially in the rural African setting are through friends, colleagues, neighbours, relatives and family. Women standard of living could be improved by understanding the types and techniques associated with the kind of information channels. Majority of women cannot read and write and as such the common source of their information may include; radio, television, market associations, health care providers, audio-visuals, churches and mosques, friends, local associations, posters and billboards (Nicholas & Marden, 1998). Adegbule-Adesina (1991) also reiterated that rural public libraries must provide basic information to rural women in a form of non-

print and audio-visual materials for them to appreciate and understand information better. Okwilagwe and Opeke (1998) identified certain basic communication tools available to rural folks such as interpersonal interactions such as open public discussions and meetings; the mass media; and others such as exhibitions, displays photographs, and billboards.

The very important cause of poverty among women is the limited access to information. Availability of electronic information is a serious concern to many rural dwellers in Africa due to lack of electricity or unstable power supply. This is compounded with the problem of inaccessible internet connection and high level of poverty among the people making it impossible for them to afford electronic communication tools such as smart mobile phones. This problem has been highlighted in the studies of Okuboyejo and Eyesan (2014). Socio-cultural issues limit women's access to information facilities such as cybercafés or information centres which often becomes a common place for young men, and hence deter women's ability to access information and knowledge. In developing countries, because most women do not control their own finances, they may not have the money to buy for themselves radios, televisions, and computers or pay for internet services. Again, majority of African women are employed in the informal sector, where the possibility of using computers to access internet or use radios to listen to news and other information is not available, a possibility that is more accessible to people in the formal sector jobs (Alumah, 2005).

Access to the needed information by women is strongly influenced by access to education. Information literacy among women determines their capacity to utilise the available information resources. Access to education remains a greater obstacle for women access to information in developing countries and an estimated two thirds of the world's illiterates are women. A lot more of women do not really avail themselves to education and training in information and communication technology because they consider education in science and technology as a male domain. Knowledge of basic computer skills, including the ability to create an email account, communicate through the email, search through the internet, download important and useful information as well as ability to interact effectively with the web are basic skills needed for women to have access to information (Kramarae, & Taylor, 1993; Tannen, 1994; Spender, 1997; Kennedy, Wellman, & Klement, 2003). On the other hand, there is substantial evidence that suggest that women's utilisation of information systems such as the internet and use of cell phones have had greater impact on their participation in information and knowledge society. For instance, some women are now able to access electronic banking facilities that are able to secure family income as well as linking up to medical experts for health care services. New form of employment formulas facilitated through ICT now gives both women and men broad base opportunities that can be run alongside domestic chores. Regrettably however, the truth is that woman's potentials in ICT development is marginalised as they are not adequately represented in almost all ICT infrastructural development policies and frameworks (Melhem, & Tandon, 2009).

According to the World Summit on the Information Society (WSIS, 2009), development of ICT brings greater prospects for women who should be important partners in the information society. The information society must facilitate women's empowerment and active participation in terms of equality in all aspects of the decision making processes by using ICT as a tool. Initially the emphasis on girls and women in ICTs was envisioned to propel millennium development goal 3, which targets the removal of gender differences in education by 2015 (WSIS, 2009). Information and communication technology provides new framework for information and knowledge distribution, dissemination and establishment that would remedy recurring problem of access to education and empowerment. However to be able to

take advantage of the new information society, women must have the education and literacy needed to access and use ICTs. Yet, women and girls are not properly placed to take advantage of the knowledge society because they have less access to education, particularly technical education (Huyer, & Westholm, 2005). Normally the internet content is in English and most women in developing countries cannot speak, read and write in English language. The effect of few women in ICT in developing countries has affected the information content relevant to women's needs and interest. Women constitute more than half of the total population in Ghana and its related communities, while 78% of them reside in rural areas (Ghana Statistical Service, 2012) traditional socio-cultural practices limit their opportunities in formal education, skills development, employment and participation in the overall development process. If adequate amount of information is necessarily accessible to women it can help them positively in various productive systems and other income generating activities since they sufficiently perform their roles and responsibilities in their families (Bakar, 2011).

Methodology

Descriptive survey design was used in this study to determine the information needs and access among women in Sagnerigu district. This design became very relevant to the study because of its unique nature in controlling the outcome of the findings. The population of the study consist of women groups drawn from various businesses like vegetable sellers, maize sellers, grocery shop owners, food venders, charcoal sellers, tailors and cosmetic dealers. The participants were stratified according to their activities which really addressed different scopes of the people's daily needs. The communities were zoned into different segments and a convenient sampling was adopted in order to get a representation from the various categories of the population since it was not possible to tract the participants within one particular place. Krejcie and Morgan (1970) table was used to select (150) participants from the population. The instruments used for the study included questionnaire and interviews. Interviews were conducted to elicit information from participants who could not read and write in English language. The questionnaire was made up of structured and unstructured questions, and complemented with interview schedule that supported the research topic. The study also relied on field notes taken sequentially through descriptions during interviews and this was in line with Lofland and Lofland (1984) assertion that capturing field notes serves as a recall guide when full notes are created. As a result comparison was made to validate data gathered using both questionnaire and interviews. The data was categorized according to goals, information needs, sources, access and challenges. The data relating to each question was summarised according to the objectives of the study and condensed into frequency distribution which is presented into tables and figures, and generated using the Statistical Package for Social Scientist (SPSS) for further analysis.

Findings and Discussions

The discussion of the findings was made based on the participants' information needs, sources and challenges encountered in obtaining information.

Age of Participants

The ages of the participants' ranges between 23 and 65 years. It can be observed that majority of the participants' 56% are in the age group of 34 years and 55, while 24% of the participants' are in the age group of 23 and 33 years. The remaining 20% of the participants were within the age category of 56 and 65 years. The age ranges suggest that majority of the participants are within the active working class and who may need varied form of information for their daily routines.

Table 1: Age of Participants

Age	Frequency	Percentage (%)
23-33	36	24
34-55	84	56
56-65	30	20
Total	150	100

Researchers' survey: 2018

Educational Level of Participants

It was discovered that 40% of the participants had completed junior high school, 27% had completed senior high school and 13% had completed tertiary school, while 20% have not had formal education. This finding therefore suggests that the information needs and behaviour of these women may be varied considering the varied nature of their educational background.

Table 2: Educational Level of Participants

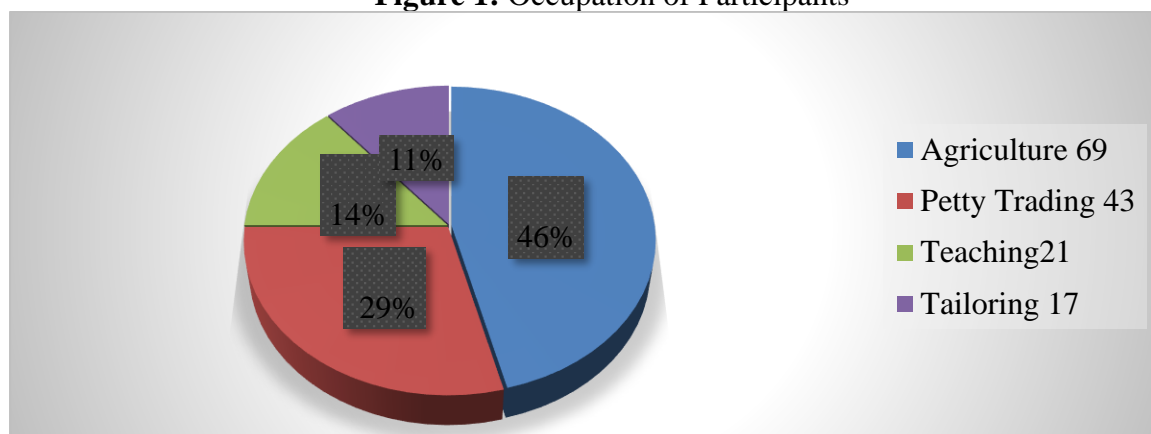
Educational Background	Frequency	Percentage (%)
Junior High School	60	40
Senior High School	40	27
Tertiary	20	13
No Formal Education	30	20
Total	150	100

Researchers' survey: 2018

Occupation of Participants

Under the occupational status of women in the Sagnerigu district, the findings indicated that majority of women representing 46% were highly engaged in all forms of agricultural activities. These included subsistence farming, animal husbandry, agri-business and post-harvest activities. 14% of the participants were into teaching, while 29% and 11% were engaged in petty trading and tailoring respectively. This finding clearly suggests that majority of the participants are into agriculture, and whose information needs may be directed towards that area.

Figure 1: Occupation of Participants



Researchers' survey: 2018

Information Needs of Women in Sagnerigu District

The participants were asked to indicate the kind of information they need in their daily lives. All the participants classified the following types of information as most important in their daily routines: agriculture, health, family planning, marketing, education, nutrition, politics and religion. The study showed that majority of the participants representing 87% needed information on agriculture, followed by health 83%, family planning 76%, marketing 72%, education 51%, nutrition 36%, politics 24% and religion 15% on a multiple response basis. This finding affirms the facts that, in many African countries, a large number of the population including women are stacked in remote communities and are engaged in subsistence farming. This supports the findings of Hossain and Islam (2014) when they indicated that a large number of women who live in rural or sub-urban areas are engaged in farming and will necessarily need information that will help them improve upon their farming practices. Equally important to women is about their health and wellbeing, and as such women would like to have knowledge about their reproduction health, diseases, family planning and even nutrition. This finding again fit into the study of Sachs, (2005); Amwata, Nyariki, and Musimba (2008) where they revealed that poor people know they are poor because they are not able to control access to information on basic issues such as health, education, water and sanitation.

Table 3: Information Needs of Women in Sagnerigu District (Multiple Responses)

Information type	Frequency	Percentage %
Agriculture	130	87
Health	124	83
Family planning	114	76
Marketing	108	72
Education	75	50
Nutrition	54	36
Politics	36	24
Religion	24	16
Total	150	100

Researchers' survey: 2018 *Multiple responses

Sources of Information to Women in Sagnerigu District

Access to information is normally dependent on the individual's ability to manipulate through the information sources as well as the understanding of the system through which the information is transmitted. In view of this, the participants were inquired to show the channels or sources to which they obtain information in their daily lives. The findings revealed that majority of the participants representing 35% obtain their information through interpersonal communication such friends, neighbours, relatives, peers and social groupings. 25% of the participants indicated television as their sources of information while 23% use the radio as their sources of information. The remaining participants representing 10% and 7% use newspapers and internet respectively.

It is very clear from the findings that, these women do not have access to dependable and modern sources of information to meet their information needs. The participants recognise the importance and usefulness of communication medium, but the only source of information that are available to the women are interpersonal communication networks, radio and television because they are comparatively cheap, affordable and accessible. Since there are no libraries, information centres or information repositories in the communities, the women perhaps are compelled to rely on friends, neighbours, peers and families to obtain information. From the analysis, it suggests that majority of the participants are not well equipped with ICT and as such do not have knowledge of the internet, although there seems to be relatively high possibility of literacy rate among these women.

Table 4: Sources of Information to Women in Sagnerigu District

Sources	Frequency	Percentages%
Interpersonal communication	52	35
Television	37	25
Radio	34	23
Newspapers	15	10
Internet	5	7
Total	150	100

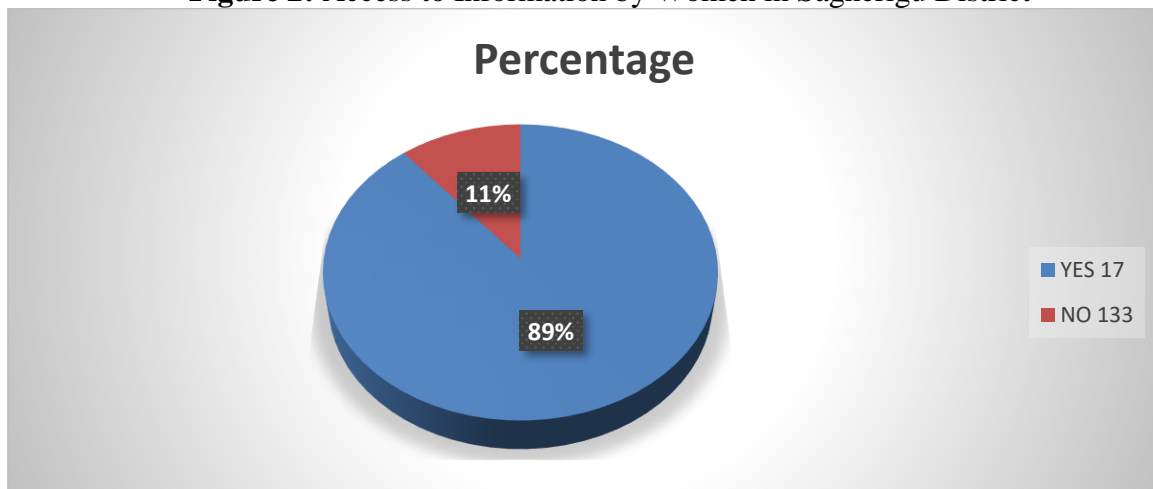
Researchers' survey: 2018

Access to Information by Women in Sagnerigu District

Participants were requested to indicate whether they have access to quality information which will help them engage in productive ventures in live. Out of the 150 participants, an overwhelming majority of the women representing 89% pointed out they do not get quality information to function well in society. The remaining 12% of the participants indicated the information they obtained was not satisfactory and insufficient to meet their needs. This finding is a clear manifestation of the disparity that exists between women in rural and urban dwellings in Africa and how it affects their livelihood. This result supports the study of Kayani and Dymond (1997), when they indicated that, for many individuals in sub-Saharan Africa, the opportunity of having access to information and communication technology was dependent on the location of the person. According to Kayani and Dymond, the difference in

access to information between urban and rural communities in Africa in terms of ICT access for example is often as high as 20 to 1 person.

Figure 2: Access to Information by Women in Sagnerigu District



Researchers' survey: 2018

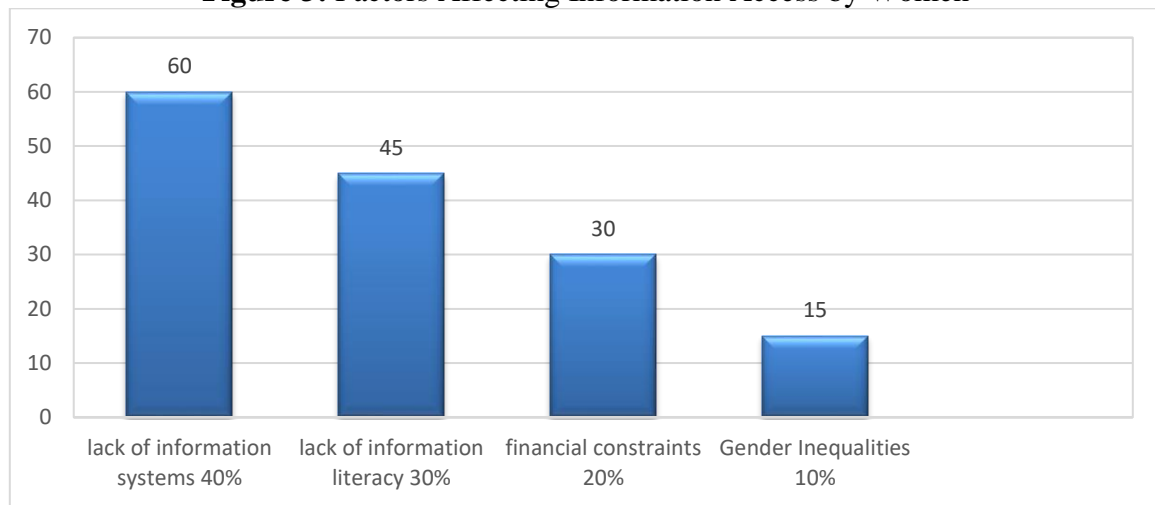
Factors Affecting Information Access by Women

Access to information has become a global challenge to many especially women in Sub-Saharan Africa. Thus, the participants were inquired to indicate the factors that affect their ability to access information. The findings revealed that 40% of the participants indicated lack of information systems such as libraries, computers, internet connectivity and social media networks as a challenge among women in the Sagnerigu district. 30% mentioned lack of information literacy and skills, 20% said financial constraints, while 10% indicated gender inequalities. This implies that information skills or literacy for instance, gives people the opportunity to interact with the information systems by manipulating, installing and accessing information to enhance their quality of life. The findings however revealed that, there is extremely lack of literacy among the women in accessing the required information. It is also obvious from the findings that computer assisted information for women in Sagnerigu district may remain with the educated elite for long time unless the women is given a greater participation through formal education. This findings support the assertion of Mansell and Wehn (1998) where they asserted that a wide range of skills are needed to enable women obtain quality information. These skills however seems to be in short supply among different gender groups in developing countries.

It is unfortunate that the women do not have access to information on social media. Thus, they cannot link up to social networking sites such as whatsapp, facebook and twitter. These women equally cannot finance the costs associated with information such as internet, social media, newspapers and electronic library services. Gender inequality is another hindrance to women's ability to have access to information. This experience of inequality in access is driven by a reasonably high illiteracy rate among the women population as well as their low level of participation in society. Women are normally marginalised in terms of access to ICTs including compelling demands on their efforts in keeping household responsibilities and formal work. For ICTs to become important in reducing poverty among women, it has to be reasonably priced. Innovative improvement within the area of software, may perhaps contribute to overcoming some of the challenges that women face in terms of access. Their ability to access information will depend on the level of development that would be sustained

to increase incomes among women and create the needed investment in national information infrastructure networks.

Figure 3: Factors Affecting Information Access by Women



Researchers' survey: 2018

Conclusion

The aim of the study was to discuss the information needs and access among women in Sagnerigu district. The focus was to comprehend the information channels used by women and to evaluate the kind of information being accessed. The sample included 150 women participants located in predominantly rural areas, which were reached through questionnaire and interviews. This included women in education, marketing, and services. A little above half of the women own their businesses and have had some form of education to secondary level and above. As a result they are conscious of their basic needs such as health and family planning issues. Majority of the women are engaged in farming of all kinds and this suggests that they are mostly rural dwellers who perhaps need information pertaining to agriculture as well. The women's information needs included agriculture, health, family planning, marketing, education, nutrition, politics and religion. Participants' responses showed a deeply seated information gap. Thus, there is high demand for information that is not yet met across all women groups. The vast majority of the participants indicated they attempt to satisfy their information needs by relying on information obtained through the informal interpersonal communication links such as family, friends, neighbours, social groupings and peers. Formal sources of information such as newspapers and internet seems to be important to only women in the formal sector of the economy.

Women especially those in rural areas are likely to be denied the privilege of education, job opportunities and socio-economic advancement due to lack of access to information. The study discovered that poor information skills and awareness which leads to lack of access to information, are perhaps the main factors stifling women's development in the Sagnerigu district. Hence, the need to address these problems by empowering women with accurate and timely information.

Recommendations

Information is a tool for human development. Access to information facilitates people's decision making process and reduces uncertainty among them. However, the information needs and literacy of women has been overlooked. Thus women need to be equipped with

relevant and timely information for continues development into the various sectors of the economy. Government and non-governmental organisation must come in to support the establishment of functional community information centres that would help spur in women participation and development in Ghana. All these would be possible if there is a conscious effort to accelerate education and literacy among women through non-formal education and advocacy. There should be community based programmes to educate women about the appropriate channels of seeking information. Training and development programmes on the use of information and communication technology by women can be encouraged. This will facilitate the use of mobile phones to access information through social media platforms like whatsapp, facebook, twitter and the internet. This is feasible because almost all women in the district have access to mobile phones.

The role of community health personnel and agriculture extension officers will be of great help to these women if they are deputed into the communities to sensitise them about reproduction health issues including family planning, pre-and post-maternal issues as well as modern agricultural practices. There should be practical approach to implementing policies and strategies aimed at improving women literacy in health care issues. Government should help increase access to twofold methods of contraception at clinics that should be available to all women who need them. There should also be women friendly services and support programmes to enable women detect early risks associated with biological changes and to improve quality of life through counselling programmes.

The media should have a huge role to play in advancing the course of women in the district by contributing towards the efforts of bridging the information gap through their local radio and television programmes. The only way to alleviate poverty among women especially in rural areas is to reduce illiteracy and enhance information access. Hence the government of Ghana is mandated to ensure that policies are directed towards community development and economic empowerment of women that can address and reduce the incidence of poverty.

References

- Aina, L.O. 2006. *Information provision to farmers in Africa: the library extension service linkage*. Paper presented at the World Library and Information Congress: 72nd IFLA general conference & council. 20 – 24., Korea.
- Adegbule-Adesina, E. K. 1991. *Basic Information Needs of Rural Community*: Paper Presented at a Seminar Organized by Ondo State Library Board, Akure. 5-6
- Alermna, A. 1995. Community libraries: an alternative to public libraries. *African Library Review* 44 (7), 40 – 44.
- Alumah, J. N. E. 2005. “*Access and use of information and communication technology for the African girl-child under cultural impediments.*” Paper presented at the conference Women and ICT, Association for Computing Machinery, Baltimore, Maryland.
- Amwata, D.A, Nyariki, M .A. & Musimba, N.R.K. 2008. *Climate factors as determinant of food security in semi-arid Kenya: a longitudinal analysis*. Paper presented at the 5th

International Conference of the African Association of Agricultural Economists, September 23-26, 2016, Addis Ababa, Ethiopia

- Bakar, A. B. A. 2011. Information seeking behaviours of rural women in Malaysia; *Library Philosophy and Practice (e-journal)*, Retrieved Dec 4, 2018 from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1479&context=libphilprac>
- Baweja, A. 2000. *Information technology and development*, Gyan books
- Bosamia, M. 2013. *Positive and negative impacts of information and communication technology in our everyday life*; International conference on “disciplinary and interdisciplinary approaches to knowledge creation in higher education: Canada & India \At: Swami Sahajanand Group of Colleges, Bhavnagar,
- Carmody, P. 2012. A knowledge economy or an information society in Africa? The integration and the mobile phone revolution, Available from: <https://www.researchgate.net/publication/262289982> (accessed Dec 04 2018).
- Coraggio, F. 2011. Women’s information needs in developing countries. Available <http://www.slideshare.net/fcoraggio/information-needs-of-women-in-developing-countries>, (accessed Dec 6, 2018)
- Ezema, I. J. 2016. Reproductive health information needs and access among rural women in Nigeria: A study of Nsukka Zone in Enugu State. *The African Journal of Information and Communication (AJIC)*, 18, 117-133. <https://doi.org/10.23962/10539/21788>
- Ezema, I. J., & Ugwuanyi, R. N. 2014. Access to information and implications for healthy ageing in Africa: Challenges and strategies for public libraries. *Library Philosophy and Practice, (e-journal)*. Paper 1157. Available at <http://digitalcommons.unl.edu/libphilprac/1157>
- Ghana Statistical Service, 2012. *2010 population and housing census final results*. Available at http://www.statsghana.gov.gh/docfiles/2010phc/2010_pdf. (Accessed Nov 25, 2018)
- Hafkin, N. 2009. “Enabled women in knowledge societies.” i4d. <http://i4donline.net> (accessed July 16, 2018).
- Hossain, A. & Islam, S. 2012. Information needs of rural women: a study of 3 villages in Bangladesh. *Library Philosophy and Practice*. <http://unlib.unl.edu/lpp/>
- Huyer, S. 2008. “Gender and the Core ICT indicators;” Paper presented to Global Event for measuring the information Society, Geneva, Switzerland, May 27-29.
- Huyer, S. 2005. “Women, ICT and the Information Society: Global Perspectives and Initiatives.” Paper presented at conference on Women and ICT, Association for Computing Machinery, Baltimore, Maryland.
- Huyer, S. & Hafkin, N. 2007. *Engendering the knowledge society: measuring women’s*

- participation*; Montreal: Obicom and NCR Press, 2007.
- Huyer, S. & Westholm, S. G. 2005. *Toolkit on gender indicators in engineering, science and Technology* (Paris:UNESCO/GAB,).
- Kaniki, A. M. 2004. Information needs for basic research: an African perspective. Available <http://www.codata.info/archives/2003/03march/papers/kaniki.pdf>. (Accessed Dec4, 2018).
- Kayani, R. & Dymond, A. 1997, "Options for Rural Telecommunications Development", *World Bank Technical Paper No.359*
- Kennedy, T. Wellman, B. & Klement, K. 2003. "Gendering the digital divide,"1(5) in *IT&SOCIETY*.
- Kramarae, C. & Taylor, J.1993. "Women and men on electronic networks: a conversation or a monologue?" In *Women, Information Technology, and Scholarship*, edited by H.J. Taylor, C. Kramarae, & M. Ebben. (Urbana: Centres for Advanced Study).
- Lince-Deroche, N., Hargey, A., Holt, K., & Shochet, T. 2015. Accessing sexual and reproductive health information and services: a mixed methods study of young women's needs and experiences in Soweto, South Africa. *African Journal of Reproductive Health*; 19 (1):73
- Lofland, J. & Lofland, L. 1984. *Analysing social settings: a guide to qualitative observation and analysis*; Wadsworth Publishing Company.
- Mansell, R. & Wehn, U. (eds) 1998.*Knowledge societies*; Oxford University Press for UNCSTD, Oxford.
- Martin, G. 1996. Women and children's health: Programme needs and priorities for th 1990s.*In Population and women: Proceedings of United Nations expert group meeting on population and women, Gaborone, Botswana, 2-26 June 1992*(pp. 180-188). New York: United Nations.
- Momodu, M.O. 2002. Information needs and information seeking behaviour of rural dwellers in Nigeria: A case study of Ekpoma in Esan West local government area of Edo. *Library Review*, 51 (8), 406-410.
- Mooko, N. P. 2005. The information behaviours of rural women in Botswana; *Library & Information Science Research*, 27, 115–127.
- Mooko, N. P. & L. O. Aina 2006. *Information Needs and Information-Seeking Behaviour of Artisan Fisher Folk of Uganda*. Available from: https://www.researchgate.net/publication/248545149_Information_Needs_and_Information-Seeking_Behavior_of_Artisan_Fisher_Folk_of_Uganda (Accessed Dec 4, 2018).
- Munyua, H. 2000.*Application of information communication technologies in the agricultural sector in Africa: a gender perspective*. In: Rathgeber, E, and Adera, E.O., Eds., *Gender and Information Revolution in Africa*, IDRC/ ECA, 85-123.

- Nicholas, D. & Marden, M. 1998. Parents and their Information needs. *Information development* 30 (1)
- Nwagwu, W. E., & Ajama, M. 2011. Women's Health Information Needs and Information Sources: a study of a rural oil palm business community in South-Western Nigeria. *Annals of Library and Information Studies*, Vol. 58, pp. 270-281
- OECD, 2001. *Agricultural policies in emerging and transition economies: special focus on non-tariff measures*; 75775, Paris Cedex16, France
- Okpala, H.N. 2010. *Information needs and information seeking behaviour of commercial motorcycle operators in Nsukka metropolis Inenugu State, Nigeria*. Available at <https://www.researchgate.net/publication/282506998> (Accessed Dec 4, 2018)
- Okwilagwe, O.A. & Opeke, R. O. 1998. Information needs and Utilization by women Organization in Nigeria. *Journal of Information Communication for Education in Africa* 2 (1) 110-112
- Sachs, J. 2005. *The end of poverty: economic possibilities for our time*. New York: the penguin press.
- Savritit. B. 2004. "Towards a more equitable information society: how and why of gender mainstreaming." Paper presented at the Third Meeting of the Working Group on Gender Issues, International Telecommunication Union.
- Spender, D. 1997. "The positions of women in information technology - or who got there first and with what consequences?" *Current Sociology* 45 (2):135-147.
- Tandon, N. 2008. "Information and communication technologies, thematic note 4" and "community e-centres in Malaysia, Activity Profile 3, Module 9," in *Gender and Agricultural Livelihoods Sourcebook* (Washington, D.C.:World Bank and FAO).
- Tannen, D. 1994. "Gender Gap in Cyberspace," *Newsweek*. 40-41.
- World Summit on the Information Society (WSIS), 2009. "Declaration of Principles: Building the Information Society: a Global Challenge in the New Millennium," Document WSIS-03/GENEVA/DOC/4-E, <http://www.itu.int/wsis/docs/geneva/official/dop.html>.