AFRICAN JOURNAL

OF SOCIAL & BEHAVIOURAL SCIENCES



VOLUME 9 NUMBER 2 DECEMBER, 2019

GENDER AND OTHER INFLUENCES ON WATER TRANSPORTATION SERVICE PROVISION ON THE OGUTA LAKE, IMO STATE, NIGERIA

Okechi Dominic Azuwike^{1*} & Emmanuel Eboh²

¹Department of Geography and Environmental Management, Imo State University, Owerri

²Department of Sociology, Imo State University, Owerri, Nigeria

*okedazuwike@yahoo.com

ABSTRACT: This study on Gender and other Influences on Water Transportation Service Provision on the Oguta Lake, Imo State, Nigeria, assesses sustainability of the transport mode that prominently features wooden boats against the background of gender expressed in competition for ferry service enterprise on the Oguta Lake. It is focused on finding out the market share of commercial water activities on the Oguta Lake held by women; reasons for identified level of women's role in the industry; market share held by various water crafts; strength of women in the enterprise over the years; and profiling of ferry service women in the context of change. The investigation took place around the Oguta Lake in Imo State in the course of three months between August and October 2016. A total of 10 women canoe operators and 46 passengers were interviewed. Observation station was mounted at the embarkation/disembarkation point on the Oguta II end of the lake. Results show diurnal dominance of women in the commercial (passenger/goods) canoe mode at 71.8 percent and this dominance is held by 100 percent of respondents to be of a cultural/traditional motivation. Among crafts in operation, canoe is also dominant, not only in number of units but also in number of passengers ferried per day. In the face of increased affordability of speed boats, the canoe women and their enterprise are of questionable sustainability in terms of competitiveness.

Keywords: Sustainability, Women, Canoe, Oguta Lake, Transportation.

INTRODUCTION

The Oguta Lake as a facilitator of transportation is significant not only in supporting the regional economy of its immediate Oguta vicinity of Imo State but also in the sustenance of the entire oil palm economy of much of the South-east and export trade in oil palm going back to the pre-colonial times. It became a palm produce base for the Royal Nigeria Company from 1885.

It has played major roles in evacuating agricultural produce from areas like Nkwesi, Izombe, Mgbele, Nnebukwu and Awa while it has served as a conduit for palm produce, all the way through the Orashi River to Abonema from trading firms in Oguta (Ndupu, 2001).

The lake has an impressive presence with a maximum depth of 8.0m and a mean depth of 5.5m. The length of the shore is about 10km while it covers a total area of 1.8km² in the dry season and 2.48km² in the peak of flooding around October (SAFRRED, 2008). With these figures, it is Nigeria's largest and longest internal lake. Effectively, it separates the indigenous Oguta I area from other areas such as Oguta II. While separating the two areas, the lake is also an important link between the two areas considering the role played by transportation facilities on the lake.

The lake area and Oguta in general is agriculturally viable having got alluvial low lying areas of the Niger basin that as reported in CNN (2012) floods. The floods also give a high yield of tubers, vegetables and grains.

Transportation for evacuation of these agricultural produce has been a long-standing concern and activity. As Ndupu (2001.) observed, 'a good number of Oguta farmers travel to their farm settlements (*ubi*) in canoes'. This is because their residential areas are, most of the time, separated from the major productive wetlands by water bodies. Thus Mockler (1892) quoted in Ndupu (2001) had observed in his visit to the lake in 1889, 'numbers of tiny canoes, each containing a single paddler, sometimes male and sometimes female'. The conquest of the lake in terms of transportation therefore has a long history and this history has for long featured women. It could be considered strange that women play a key role in such a strenuous industry as water transport relying essentially on physical exertion in canoe paddling. The investigation here is therefore concerned with understanding the factors that have produced the phenomenon of women's visibility in water transport on the lake as well as factors that affect their participation and possible dominance.

The Problem

Water transportation on the lake can be seen to have been around from colonial times. The phenomenon of females paddling canoes on the Oguta Lake also has a long history. The activity has remarkably endured till the present leading us to questions of what share of commercial transport on the Oguta Lake is controlled by women, what motivates female involvement in commercial transportation on the lake and its sustainability in today's world. Currently, modern technology ferry service operated by young males has sprung up on the lake further raising the question of continued sustainability of the enterprise of canoe women who ply the lake waters in long wooden canoes, engaging in commercial water transportation activities. The continued operation of the women also raises questions about the viability of efforts that have been made in the past to upgrade ferry service on the lake. While these efforts are usually bogged down by problems of funding, government bureaucracy and a plethora of management issues, the women's enterprise seems to be immune to these obstacles. The study contemplates the sustainability of the women's canoe services on Oguta Lake against the background of gender influences and such other influences on statistics of the water transportation provision. It does this in the light of constraints arising from inter-modal competition and potential abuse of market power in terms of unhealthy price wars as observed in Organization for Economic Cooperation and Development (2011) which shows debilitating side of price wars in transportation enterprise.

Aim and Objectives

The study aims at defining the sustainability of commercial water transportation on the Oguta Lake as it relates to issues of intermodal competition linked to gender.

Objectives: To

- 1. Find out the market share of commercial water transportation activities on the Oguta Lake held by women.
- 2. Identify reasons for the level of women's role identified in the industry.
- 3. Identify the market share held by various water crafts.
- 4. Track strength of women's participation in the enterprise over time.
- 5. Profile ferry service women in the context of change.

THEORETICAL FRAMEWORK

Arguments advanced here go all the way back to theory of Technological Determination of Heilbroner (1967) as reprinted in 1994, in which he argued that the technology of a society imposes a determinate pattern of social relations on that society. Heilbroner extended his argument by maintaining that technological change is the prime mover of social history given that medieval technology brought feudalism and capitalism was brought about by industrial technology. If Heilbroner's arguments are extended to the discourse here, it can be said that the power relations between males and females in the study area find expression in and are produced by technology (in this case water craft technology), access to it that is gender-constrained and changes in the technology. If a certain technology produces a certain social relationship, such relationship among social groups would certainly require adjustments as the very technology that produced it evolves.

The evolution of technology can, in a sense, be regarded as innovation. Schumpeter (1911) in his theory of Economic Development argued for five forms of innovation in terms of new products, processes, markets, resources and organizations. The transportation industry on the lake has been developing. It has witnessed the arrival of new products in terms of faster engine boats as against paddled canoes; new processes in terms of government interventions and regulations; new markets in terms of modal diversity on the lake, new resources in terms of arrival of new personnel and materials; and new organization in terms of management systems. The idea of 'new' implies production of obsolesce in a dialectical sense. Scaling up to new technologies may go the entire course identified in diffusion trajectories.

In his theorizing on Diffusion of Innovation, Rogers (2003) showed that innovation uptake assumes an 'S' curve in which there are early adopters and late adopters.

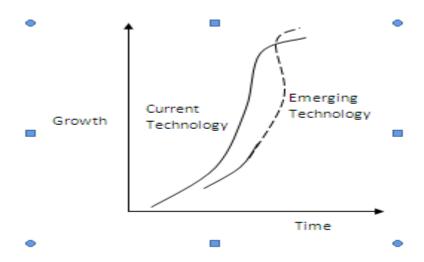


Fig.1: Innovation Diffusion following the S curve (after Everett M. Rogers, 2003).

The participation gap between the current technology and the emerging one can be readily seen in the figure. The laggard behaviour can be conditioned by a number of factors all exhibiting weakness, disadvantage or manifesting deprivation of the laggards. If weakness is constructed in gender terms, gender becomes a factor in scaling up to new technologies or otherwise. This brings us to another theory of technology, Wajcman (2010) feminist theories of technology. Wajcman contends that "gender and technology are related in such a way that they mutually shape each other and technology is both a source and consequence of gender relations". This brings to mind the case of conservative societies that restrain women from driving cars as a way of putting them in check. Gender-technology relations are, as identified by Wajcman, dynamic and situated in specific contexts.

The question is, if technology is generally of a masculine construction, are there feminist technologies? Johnson (2010) holds feminist technologies as those that have the attributes of, being good for women, guaranteeing gender equitable social relations, being favourable to women, presenting social relations that are more equitable than those from a prior technology and those experienced in the society. Assessing the emergent technologies on the lake through Johnson's prism may show an anti-feminist quality that has prevented the women from scaling up to them.

Methods

The investigation took place in Oguta and around Oguta Lake. The study lasted for 3 months, between August and October, 2016. It required observation of commercial crafts landing at the embarkation and disembarkation points of the Oguta II end of the Oguta Lake in 8 hour duration between 9am and 5pm.

Passengers were interviewed in short interview sessions as allowed by their journeys.

The canoe operators were interviewed. There were 10 of them identified in the period. All 10 were interviewed. Of the passengers, 46 were interviewed in all following a random order. The first passenger to arrive in the canoe was interviewed since the relatively longer waiting time afforded time for the interview. Focus Group discussion with the canoe women helped to clarify issues in a social learning environment.

RESULTS

1. Market share of Commercial Water Transportation on the Oguta Lake

The market share of commercial transportation held by women was observed to be as shown in Table 1.

Table 1: Observed commercial crafts at points of embarkation on Oguta Lake and number controlled by women

Month	Total craft observed at point	Number controlled by	%
	of embarkation	women	
August	68	46	67.6
September	59	42	71.2
October	64	49	76.5
Average mean	191	137	71.8

Source: Field survey, 2011

It can be seen that women dominate the commercial ferry service.

2. Reasons for women's dominance. Cultural, economic, social and labour issues feature in reasons for women's prominent role in commercial water transport. Respondents gave the reasons as shown in Table 2.

Table 2: Reasons for women's dominance of ferry service

Reason	Frequency of Occurrence	% of Respondents
Cultural/traditional	46	100.0
Poverty/poor income opportunity	28	60.4
Men's leisure activities	36	78.3
Women's involvement in related trade and agric activities	27	55.1
Few alternative engagements	30	65.2

Source: Field Survey, 2011

Tradition plays a very important role even in the present. All respondents see women's role in this enterprise as a cultural artifact.

3. Modal Split: The Canoes Market Share

On Oguta Lake, a number of alternative crafts can be used. There is the canoe, the engine boat and the pontoon.

The daytime commercial canoe is operated by women, the engine boat by young men and the pontoon is a State government initiative managed under public-private partnership by a private operator who pays royalties to the government. Between August and October, the average daily passenger traffic was distributed among the different crafts in the order shown in Table 3.

Table 3: Passenger distribution among craft types (August to October)

Type	Average Number of Passengers Per Day	Total Number in Operation
Canoe	306	11
Engine boat	215	4
Pontoon	183	1

Source: Field survey 2011.

As can be seen canoe has remained dominant in the course of daily transport.

4. Strength of ferry women operating on the lake

The introduction of such alternative crafts as the pontoon and the engine boat has also rubbed off negatively on the canoe women. Increasingly, their number has reduced as shown in Table 4.

Table 4: Estimates of the number of ferry women operating on the lake over a 40 year period

Period	Average estimate	Percentage reduction from 1970s
1970s	38	0
1980s	25	34.2
1990s	17	55.2
2000s	11	71.05

Source: Field survey, 2016.

The number of women operating the ferry service has gone down by about 71 percent since the 1970s.

5. A Profile of the Women

The women involved in the ferry service have the following statistics.

Table 5: A Profile of Canoe Women of Oguta Lake

Average Age	66
Retirement status (from other activities)	100% of women retired
Average monthly income from ferry services	N9,600
Average monthly income from	N5,400
relations/remittances	
Occupational multiplicity/diversity	Single (only ferry service)
Average work week	54 hours
Education	Only 20% completed primary education
Average number of years on the job	18.6

Source: Field survey, 2011

The statistics show artisan engagement that is best classified as peasantry. Average age of the women is 66 years showing an aged population.

Discussion

1. Women's Share of the Ferry Service Market:

Gendered compartmentalization of roles in Igbo traditional society has not been known to be absolute. Rather what have always prevailed are dual-sex roles (Anyanwu, 2011). Activities such as trading strongly featured women leading early historians like Basden (1924) as noted by Anyanwu (2011) to conclude that only women took part in Igbo trade or markets. The point of early Igbo women being property owning and trading class has been made by Adichie (2018).

Culturally, given the legendary capacity of Oguta women for hardwork (Agorua, 2011), the men have traditionally left daytime commercial canoe ferry service to the women while taking over at nighttime when the women would have retired for the day to face domestic chores and when men's leisure occasions are over. Men are held to take over because of a greater disposition to handle higher levels of risk associated with nighttime. A gendered diurnal allocation of ferry service on the lake is therefore part of the social evolution of transport operations on the Oguta Lake and a way of managing labour resources and competition. It is however different from the gender segregation observed by Hesmodhalgh and Baker (2015) which identified the sexes with specific rigid work types. Beyond typology, differences abound in gender-role nuances.

In male-dominated societies however, it is always a fact that women dominate mainly sectors or work periods men consider to be of marginal socio-economic significance. In some riverine communities of Anambra, Ezenwaji (2010) had identified environmental constraints of water weeds, economic constraints of poor public expenditure and low charges and rural market constraints of periodicity-occasioned low traffic as major problems for water transport. These factors combine to make water transport an activity of marginal economic profit for its operators. Generally in the world, inland water transport has been on the decline with its share of total passengers decreasing from 16 percent in 1975 to 8 percent in 2005 (World Bank, cited in IFRTD, 2008). Nigeria's 10,000km of inland waters is not yet well developed.

2. Women's Dominance:

Women's dominance of this highly tasking activity may be seen to derive from their inferior position in gendered power relations in Oguta community. Thus it is not like the usual form of economic domination known to dysfunctional capitalism but rather, the labouring of an underclass. Similarly Munslow, Katerere, Ferf and O'Keefe (1988) noted the observation of Olivia Muchena in rural Zimbabwe where male migration induces women's takeover of previously male roles. In these circumstances women's agency rather than reflecting proactive negotiation of livelihood manifests opportunistic reaction to male default. It further buttresses the argument that differentiation in gender roles may not necessarily manifest in terms of typology but even in terms of differential timing to the fulfillment of male priority in choice of role performance period. Women may be left with the 'dregs' or men may yield space to women in some form of deference or recognition of their need for affirmative action.

3. Canoe Market Share:

While the canoe operates without exorbitant overhead cost and is able to move with as few as 2 to 3 passengers on lake crossings, the engine boat operators try to maximize use of the fuel resources and therefore have longer waiting time to pick up enough passengers to justify a trip. The pontoon was not operational for about 3 weeks in the period as poor management has reportedly consistently given it long down times.

While the engine boat may be considered safe by most non swimmers the waves produced by passing high speed boats create anxiety in canoe users that can make non-swimmers prefer engine boats.

What the canoe may lack in terms of speed and safety, it tries to make up by reducing its waiting time to the barest minimum and with a more flexible routing as it has more harbours than the fixed pontoon.

The canoes' competition with engine boats has also assumed the dimensions of a prize war. To cover costs, the engine boats operators raised the cost of lake crossing for a passenger without luggage to N100 from N50. Rather than keep to the N50 regime the canoe women

had to also raise their fare to N100 to cover for the passengers they are losing to the newly introduced engine boat. Women will naturally lose market share in the event of technological change that has occasioned new watercrafts in line with the arguments of Burrus (2013) that technological change torpedoes leadership and thrusts up new leaders. This is more worrisome for women who have shown a tendency to be technology-shy or vulnerability to technology access denial.

4. Women's Strength:

Attrition in number of canoe women has occurred even as the population of passengers to be served must have naturally increased in the period. The Oguta population moved from less than 10,000 in the 1970s to more than 20,000 in 2012 (National Population Commission, 2012). The attrition of canoe women possibly reflects increased activity of alternative modes.

5. The Women's Attributes:

Though the women average 66 years of age, they are however remarkably agile at this average age indicating the physiological rewards of long periods of engagement in the strenuous activity of paddling canoes. The women are all retirees from other lines of business who are now totally occupied with the ferry service. None of them combines this activity with any other as they have to be on the lake from about 7am to 6pm daily. The long hours spent do not however reflect on their income status. Most of them are actually poor with average monthly income of N9,600. Additional income usually comes from relations/remittances but this is also poor at an average of N5, 400 per month. Citing the case of India, Wisner (1988) has noted that informal sector employment for women and their integration into even male-oriented jobs does not necessarily translate to poverty alleviation. Hence though people in rural Nigeria struggle with a multiplicity of enterprises, rural poverty levels have moved from 29.3 percent in 1980, 51.4 percent in 1985; 46.1 percent in 1992 to 69 percent in 1996 (Federal Office of Statistics, 1999). Overall, poverty moved from 61 percent in 2010 (BBC, 2012) to 72 percent in 2016 (Fitch, 2016)

The women's income capacity is claimed by them to have been compromised by the introduction of engine boats. This is similar to the problem of feminization of poverty in the wake of privatization programmes in Nigeria (Mahdi, 2008). Poverty increasingly becoming a feminine phenomenon is also global (Carter Centre, 2017). Women are usually not visible in activities that demand application of technology such as the Engine Boat. The usual social and economic rigidities known as 'tradition' have therefore constrained the women from making the transition from paddled boats to engine boats. On the contrary Article 14b and c of the Convention on the Elimination of all forms of Discrimination against Women (CEDAW) as carried in Nwankwo (2004) prescribes provision for equal access to economic opportunities through employment or self employment and access to appropriate technology respectively.

6. The Women's Attributes as Facilitators of Transportation on the Lake

The singularity of occupational pursuits of the women, contrary to the multiplicity of economic activities per capita that obtains in rural areas, guarantees the specialization, consistency and the reliability of their service.

They are also experienced with average number of years of experience of 18.6 years. This elicits .the confidence of passengers - a critical element in such a risky transport system where canoes are usually leaky and passengers have to continuously drain it and also help in paddling. The women are generally poor. They therefore accept the low fares, passengers, who are also usually poor rural people, are willing to pay for the lake crossings. The women are usually within the age range of retirement from child rearing implying they have enough time for the business and do not also have a lot of pressure from dependent children and relatives. On the other hand their children and husbands are usually not financially stable enough to make provisions that will encourage them to take retirement from the enterprise. Thus they have to stay on the job. These attributes encourage the women to continue their ferry service careers.

Another attribute that has enabled the women to sustain their ferry service enterprise is the visibility of Oguta women in agriculture and trading. With a high level of involvement in these activities, women consider transportation as a felt need and support service to help their kind. Among his identified 55 examples of women's rural employment initiatives, Carr (1984) identified a 'women's bus service' in Kenya that emanated from women's special transportation needs for market and health service commutes. This measure reflects the situation in Oguta. A special Bus Service for women is operating in Papua New Guinea (abc.net, 2018); women only Bus Service in China (usatoday.com, 2016), and Pakistan (BBC.com) and Turkey (BBC.com)

7. The Women's Attributes as Impedance to Transportation on the Lake

The earning capacity of the women is too low to allow them to upgrade their service. There is poor enlightenment and business orientation among them. They have therefore not changed the conduct of their trade in any significant way from what it has been since the pre-colonial times. Failure to move with the times might endanger the continued activity of the women.

Competition is muzzled in the canoe category of water transportation. This is because the riparian villages allow only a licensed few to operate on their ramps. This control has created a cartel among the women which has tended to retard innovativeness.

As reported by Watkins, Christensen, Kraemer and Porter (2015:259), "artificial barriers to new business formation may stunt competition and retard innovation and specialization". The women's average age of 66 years and their low level of education with only 20 percent completing primary education make it difficult for them to innovate and to form cooperative bodies for the purposes of attracting funding and upgrading their services. It would

have been possible for the women to buy and operate or rent out engine boats of their own. None of them have invested in engine boats because they have not saved enough money even as 100 percent of them would love to.

RECOMMENDATIONS

- 1. The women as an occupational group should be organized in cooperatives so that they can access services and government co-operation.
- 2. Loans should be made available to the women group so that they can scale up to the new technology of engine boats.
- 3. There is need to stem the trend of attrition by providing incentives such as life jacket.
- 4. Authorities involved should boost the tourism potential of the area by making the women official tour guides on the lake since the canoe is, for some people, a preferred tourist vehicle for its slow pace that allows better appreciation of nature.

CONCLUSION

Oguta Lake is of great inland water transportation value to the Oguta community and particularly to the canoe women who have ferried passengers across the lake for hundred of years.

While the women's activities are generally of low technology and therefore free from many management challenges, they are as yet of questionable sustainability given the demands of modern times for safer and faster transportation and the arrival of engine boats and pontoon on the lake.

While some of the women's attributes such as long years of experience facilitate transportation on the lake, attributes such as poverty impede sustainable transportation by retarding innovativeness. The ferry women are therefore losing market share while their number is also declining even as they dominate transportation on the lake. The dominance of daytime commercial transportation on the lake and male takeover of night transportation shows a diurnal work regimentation which suggests that gender differentiation in specific industries may not be all about rigid ascription of work typologies to specific sexes. It could amount to realization of other possibilities such as time, geographical or other forms of segmentation to manage competition, hazards, regulate labour supply or to simply secure spaces for a gender from transgression by its opposite.

REFERENCES

Adichie, C.N. (2018). Memory, Culture and Community. Remembering the Past, Imagining the Future. Keynote Speech for 7th Annual International Igbo Conference. Sat. 21st April, 2018.

Agorua, E. (2011). Personal Communication at CSDP Office, Owerri.

- Anyanwu, U.D. (2011). 'For the Sake of History, Culture and Development' Imo State University Inaugural Lectures Series No. 3. Imo State University Press, Owerri.
- BBC (2012). Nigerians Living in Poverty Rise to Nearly 61%, 13 February 2012. https://www.bbc.com/news/worldafrica-17015872. Retrieved 10 Dec 2015
- BBC (2014). Will Pakistan's Women only Bus Service Reduce Harassment. www.bbc.com>world-26663618. Accessed 17th April, 2018.
- BBC (2017). 100 Women: The Pink Bus Designed to Protect Women from Harassment. 19 Oct. 2017. www.bbc.com>world-41673552. Accessed 17th April, 2018.
- Burrus, D.(2013). When Technology Platforms Change, the Old Leaders are Seldom the New Ones. Published 18 February, 2013. https://www.linkedin.com/pulse/20130218/80054-48342529. Accessed 18th Dec. 2018.
- CNN,(2012). Flooding in Oguta, Nigeria. http://ireport.cnn.com/docs/DOC.853319. Accessed 14th Dec. 2017.
- Ezenwaji, E.(2010). Constraints to Effective Water transportation in some riverine communities of Old Anambra Local Government Area, Anambra State, Nigeria. Paper presented at Rural Development Seminar held at Imo State University, Owerri. 31st March 1st April, 2010.
- Federal Office of Statistics,(1999). 'Poverty Profile for Nigeria' FOS Abuja and Federal Projects Management Unit of the Ministry of Agriculture.
- Fitch Report quoted in Editorial, *Ripples Nigeria*,(2016). Nigeria's Poverty Level Index Hits 72% in 2016. https://www.riplesnigeria.com/nigeria'spovertylevelindexhits72%. 2016 September 14, 2016. Accessed 10tth March, 2018.
- Gardner, H. (2016). China Introduces Female-only bus Service. *USA Today News*. April 29, 2016.
- Heilbroner, R. (1994). Do Machines Make History? In L. Marx (Ed) *Does Technology Drive History? Dilemma of Technological Determinants*. Pp. 53-65, Cambridge M.A., London: MIT Press.
- Hesmondhalgh, D. and S. Baker (2015). Sex, Gender and Work Segregation in the Cultural Industries. *Sociological Review*, May 2015 Vol. 63 (Suppl 1.) pp. 23-36 Published online John Wiley. Published online May 26, 2015.

- Johnson, D.G. (2010). Sorting out the Question of Feminist Technology, *Feminist Technology*, 6, Retrieved 4, May 2013.
- Mahdi, S. 'Gender and the Privatization Programme in Nigeria'. In Onyekpere, E. (ed) *Readings on Privatization*, Socio-Economic Rights Initiative, Lagos.
- Mockler, A.A. (1892). Ferryman, Up the Niger, London.
- Munslow, B.Y, Katerere, A, Ferf and P. O'Keefe(1988). *The Fuelwood Trap.* A study of the SASCC Region Earthscan, London.
- National Population Commission (2012). Population of Imo State Nigeria, NPC Abuja.
- Ndupu, A.O. (2001). A Short Cultural History of Oguta, Onitsha: Varsity Industrial Press..
- Nwankwo, O, (2004). *CEDAW Made Simple*, CIRDDOC Publication Series, Peculiar Instincts.
- Organization for Economic Co-operation and Development (2011). Competition in Ports and Ports Services. OECD Policy Roundtables. Directorate for Financial and Enterprise Affairs. Competition Committee DAF/COMP(2011)14.
- Rogers, E.M. (2003). Diffusion of Innovations. Fifth Ed. New York: Free Press.
- SAFRRED Consultancy Services Nig. Ltd;(2008) *The Strategic and Baseline Study/Survey of Oguta Lake Watershed*. Report submitted to the National project co-ordination, National Fadama Development Office, Abuja. 30th June 2008.
- Schumpeter, J.A. (1911) Rept. 1983. The Theory of Economic Development. An Inquiry into Profits, Capital, Credit, Interest And The Business Cycle (Translated), New Brunswick and London: Transaction Publishers.
- The Carter Centre (2017). Understanding the Feminization of Poverty. The Forum on Women, Religion, Violence and Power. March 15, 2017. http://forumwomenblog.cartercenter.org/2017/03/15.
- Wajcman, J. (2010). Feminist Theories of Technology, *Cambridge Journal of Economics*, Volume 34, Iss. 1, Jan 2010, pp. 143-152.
- Watkins, M.D., C.M. Christensen, K.L. Kraemer, M.E. Porter 20 *Harvard Business Review Leadership Library:* The Executive Collection (12 Books). Harvard Business Press. USA.
- Wisner, B. (1988). Power and Need in Africa. Basic Human Needs and Development Policies, London: Earthscan.