ENHANCING WOMEN EMPOWERMENT THROUGH INFORMATION AND COMMUNICATION TECHNOLOGIES

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Abstract

Information and Communication Technologies (ICTs) play a growing role in the world's societies, and have the potential to help disadvantaged groups increase their participation in the civic, social, political, and economic processes critical to achieving change. However, women, particularly women in developing countries don't benefit from these new technologies, a reflection of the existing unequal power relations in societies as a whole. ICTs cannot create gender equality, or end poverty, but they can be tools for social action and positive social change. To this end, this paper examines the role of ICTs in women economic empowerment through an analytical study of data gathered in a two-paged structured questionnaire administered to a randomly selected group of working class female respondents, professionals and non-professionals alike. It was discovered that level of education has certain role to play in the determination of women empowerment, but its importance has been eroded by the nature of ICT, which, in some cases, requires only operant abilities to ensure the liberation of women from poverty, subjugation and disease.

Information and Communication Technologies (ICTs) permeate every aspect of our lives; from community radios in the most rural parts of the globe to cellular phones in the hands of women and men in every community on earth, to computers in almost every medium to large organization. The advancement of ICTs has brought new opportunities for both knowledge sharing and knowledge gathering for both women and men (Marcello, 2000). To the extent that the global community can reach heretofore unconnected individuals, families, and populations to better understand their needs and challenges, ICTs can provide unlimited opportunities for economic development and social engagement through new innovative thinking and tools.

However, a basic assumption is that all members of our global community benefit from and are part of the growing knowledge society. ICTs have been compared to a double edged sword - advancing the knowledge society on one hand and deepening gender and social divides based on pre-existing social divisions on the other (Nadamoto, 2005 & Jain, 2006). Leaving large portions of the global community both undeserved and unengaged remains the largest determinant of success for current development efforts.

Specifically, without a thoughtful policy, strategy, and execution plan to ensure women's full engagement in the knowledge society, the places in which they work, the families for whom they care, and the communities in which they live and serve will not thrive (Holmes, 2004). The belief that one policy fits all has clearly demonstrated a lack of effectiveness over the years with a loss of billions of dollars and millions of hours of labour leading to little achievement towards the millennium development goals (Huyer, 1997). By asking the question, how will women be impacted and engaged, unresolved challenges can be addressed in areas including e-learning, business development, and entrepreneurship. Overcoming these challenges will benefit women, but will also benefit their families, their communities, and ensure their full participation in the development and growth of society.

Conceptual Background: Status of Gender Equality and Situation of Women in Nigeria

- **Patriarchy**

Nigeria is a highly patriarchal society, where men dominate all spheres of women's lives (Aina, 1998). Women are in a subordinate position (particularly at the community and household

levels), and male children are preferred over the female (World Bank, 2005:6). The influence of the mother and the father are particularly significant in shaping and perpetrating patriarchy. The mother provides the role model for daughters, while the father demonstrates to sons what it means to 'be a man' (National Gender Policy (NGP), 2006).

As in other male dominated societies, Alumah (2005) states that the social relations and activities of Nigerian women and men are governed by patriarchal systems of socialization and cultural practices which favour the interests of men above those of women. Consequently, a high percentage of women's employment is restricted to low income-generating activities, concentrated within the lower levels of the unregulated, informal sector, which are not adequately represented in the National Accounting Systems (NAS). By comparison, men employed within the informal sector are located in the upper levels and are predominantly engaged in higher income-generating activities. The need to support initiatives that ensure financial independence for women is a critical step for mainstreaming gender into governance, especially with respect to politics and public life in order to liberate Nigeria's human capital resource for active participation in the vision for a free market economy (Gender Situation Assessment and Analysis (GSAA), 2006).

- **Constitutional Rights**

Despite a general commitment to the principle of non-discrimination as enshrined in section 2 of the 1999 Constitution of the Federal Republic of Nigeria, Nigeria falls short of the desired result of giving males and females equal opportunities to advance socially, physically, educationally, politically and economically. Evidences abound that several negative aspects of gender relations, such as gender-based division of labour, disparities between males and females access to power and resources, and gender biases in rights and entitlements, remain pervasive in Nigeria (NCAA, 2006).

- **Livelihoods**

Data indicates that a sharp contrast between the income generating and livelihood opportunities of women and men persists across multiple sectors in Nigeria. For instance, women's participation in the industrial sector is 11% as compared with 30% for men. Women represent 87% of those employed in the service sector, which involves predominantly informal and unregulated forms of employment. Women's participation in income generating activities that are predominantly characterized by intense manual labour, such as mining and quarrying is virtually nonexistent largely due to gender-related perceptions regarding the social construction of labour and production related activities (National Bureau of Statistics, 2004). In the Federal Civil Service, which is the largest single-entity employer in Nigeria, 76% of civil servants are men whereas 24% are women and women hold less than 14% of total management level positions. Women represent 17.5% and men 82.5% of those employed within the medical field, which generally involves highly skilled and relatively well-remunerated work (Canadian International Development Agency (CIDA) Nig., GSAA 2006).

- **Gender Roles and Division of Labour**

Institutional practices and perceptions of gender roles also have an impact on the equitable enjoyment of employment privileges and incentives, in both urban and rural settings. For example, tax authorities generally assume that male breadwinners bear the sole responsibility for meeting the financial and material needs of families and neglect to acknowledge the existence of female headed households. Accordingly, tax benefits related to child care are restrictively granted to male workers whereas female workers (including single mothers and divorced women with children in their care as well as married women, some of whom are family breadwinners), as a result of being denied access to these benefits, tend to pay relatively higher taxes. (CIDA Nig., GSAA 2006).

Gender-based norms also ascribe women the responsibility of carrying out tasks related to household management (i.e. domestic tasks, such as cooking, cleaning, caring for children and the elderly, etc.), which does not diminish when women engage in paid employment. According to Fafunwa (1974), the traditional roles of women in Africa are mainly that of childbearing, housekeeping and the sustenance of agricultural activities. This dual burden prevents women from

pursuing their careers as well as attaining management and decision making positions at the same pace and rate as their male colleagues in virtually all sectors and spheres.

- **Economy**

Gender inequalities within the overall society, and across all sectors, reflect the wide disparities between women and men which, in turn, contribute to uneven development and the feminization of poverty. Among the 70% of the population estimated to be living below poverty line, over 65% are projected to be women. Income and purchasing power is estimated to be US$1,495 for men as compared to US$614 for women and men have greater access to high-paying, secure employment. For example, according to the UNDP (2006) 76% of Federal Civil Service workers are men, whereas women make up 24% of the workforce and occupy less than 14% of the overall management positions, despite the appointment of women to the position of permanent secretaries (beginning in 2000 and in line with affirmative action initiatives). Other indications of gender inequalities include disparities in participation within the formal sector which stands at 87% men with 11% women compared to 30% men engaged in the industrial sector. The extractive industry with annual business volume of over US$42m has almost zero level participation of women. (CIDA Nig. GSAA 2006, & Swainson, 2003).

Women's Empowerment in Perspective

Empowerment refers to the ability of people to control their own destinies in relation to other people in society (Mason, 2005). There is no universal definition of women's empowerment as factors such as socio-cultural, geographical, environmental, political and economic, as well as many other aspects of countries and regions, influence it. Sharma (2001) offered a definition of empowerment as the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them. According to The World Bank (2008): empowerment is the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. So, one definition of women's empowerment could be a process that gives them control of power and resources, and changes women's lives over time through their active participation in that process.

Empowerment dynamics is a complex and multidimensional process linked at the macro, meso, and micro levels (Narayan-Parker, 2005). Macro level dynamics (i.e. global, national or regional level) directly affect the micro level (i.e. the individual or domestic level) as does the meso level (i.e. village or community). A connection between the levels is needed to ascertain women's empowerment intervention (Mason, 2005). The domestic or household level is the central point of gender-based discrimination and the goal of empowerment (Narayan-Parker, 2005) because of the power relation in the family hierarchy. Domestic power dynamics can be analysed by an individual's access to and control of different 'spaces' such as physical, economic, socio-cultural and political, and non-physical within the domestic level. A new space of women's empowerment is technological empowerment, which is as important as the other interrelated spaces (Lennie, 2002). Shifts in spaces are closely connected to changes in the micro, meso and macro environments, both backward and forward. For that reason, women's empowerment needs to be measured in all three dimensions and all spaces of women's life (Charmes & Wieringa, 2003). The mental space of women remains the most critical issue since it has a complex relationship with other non-mental spaces. Mental or psychological space consists of the feeling of freedom that allows a person to think and act. For example, it often happens that interventions that expand a woman's economic space with increased income do not empower her if she has no control over the income. Therefore, expansion in economic space alone will not bring about empowerment. If the interventions increase a woman's level of confidence and self esteem, then a process of empowerment has began. An expansion of this space implies a change in perception and leads to a feeling of strength. Hence, understanding the link with other spaces will help policy makers to understand why some interventions fail in spite of an increase in physical, economic and political spaces (Ranadive, 2005).

The Growth of ICTs in Nigeria and Impact on Economic Empowerment of Women

Information and Communications Technologies(ICTs) is an umbrella term that includes any communication device or application, encompassing radio, television, cellular phones, fax, computer and network hardware and software, satellite systems and all other emerging technologies that make it possible to generate, store, process and communicate information ever more conveniently across borders and cultures. With the proliferation of new technologies such as super computers, the Internet, Satellites, etc a communication revolution was unleashed on the world which gradually became a smaller village of a conglomerate of cultures and nationalities. This was aptly termed "globalization", that is, a global village where borders and boundaries are continually being eroded by factors beyond the control of any singular government or cartel (Obayelu, & Ogunlade, 2006).

Mobile telephony has become the most important mode of telecommunications in developing countries. While internet access has become a reality for many businesses and public institutions, and for individuals with higher levels of education and income, for the vast majority of low-income population mobile telephony is likely to be the sole tool connecting them to the information society in short to medium term. Countries like Nigeria were not left out of the ICT blitz. In 2001, Nigeria launched her entrance into the GSM telephony community and ever since then the number of subscribers have continued to surprise GSM analyst professionals.

GSM as a factor of ICT brought about marked improvement in the way many things are done in the country. As stated by Alumanah (2005) ICT manifests in all aspects of our lives, be it health, education, etc, and it is a pathway to achieving the Millennium Development Goals (MDG), which are consistent with Nigeria's National Economic and Empowerment Development Strategies (NEEDS) instituted in 2004. Most public services in advanced countries are ICT-oriented. Most offices, even homes are equipped with computers. These are expensive in terms of cost of materials, installation and maintenance. Irregular power supply and the relatively underdeveloped communication systems are also sources of worry in a country like Nigeria to make efficient and effective the use of ICT. It implies that developing countries in their quest for global integration will have a lot to contend with.

ICT has proven to be increasingly fundamental for social and economic development. Access to basic ICT infrastructure is a key to increasing the flow of information and improving communications and by extension increasing possibilities and opportunities. It has proven to be a great leveller between the developed and the developing countries of the world. A good example in this case is India. India's economy today is basically IT driven and it has attained, through this means, the position of the 4th biggest economy in the world by the end of 2007 (Zenith Economic Quarterly, 2008). One major reason that could account for this phenomenal growth is the empowerment of its citizens, especially women, through diverse ICT programs and training. An example is the "Nabanna" project which is putting a web-based information system to strategic use for the benefit of poor women of Baduria, a rural region in North-24 Parganas district in the Indian state of West Bengal. The project was a collaboration exercise among Change Initiatives, an NGO concerned about the lack of penetration of ICTs among the rural poor people, United Nations Educational, Scientific and Cultural Organization (UNESCO), National Informatics Centre, researchers of the London School of Economics and Queensland University of Technology, and the Baduria Municipality. It found that absence of information and an information-sharing mechanism among poor women thwarted their ability to fulfill basic needs, restricted their awareness and blocked their desire to break barriers that limit their participation in society.

On the other hand, mobile telephony, which has undoubtedly become the numero uno ICT factor in the developing world, has presented the average Nigerian with a means to make ends meet. Since 2001, when GSM was first launched in the country, a large number of unemployed youths have found solace in operating telecentres. Many of these infopreneurs are rural based, while many unemployed urban youths could be seen operating the ubiquitous call centres along most major streets

in the cities. Mobile phones are so wide spread in the developing countries that they now account for over 58% of phones in these parts of the world (World Bank, 2004).

Given the fact that of Nigeria's huge population, women constitute 49.96 per cent (1991census) with an estimated average growth rate of 2.4 per cent (ZENITH Economic Digest, 2008) of which women constitutes more than half (50.7%) (International Federation of Women Lawyers (FIDA), 2000), the potential for expansion of the labour force by the utilization of this immense population can not be over-emphasized. The utilization of the potentiality should be predicated on the provision of the Nigerian constitution, which gives equal right to both men and women.

However, one major limiting factor will be the attitude of the women themselves. The acquisition of education is only a means to expose and strengthen the intellectual and psychological resolve of the recipient. Where this fails to happen, inferiority complex and an obvious inability to tackle challenges sets in, thus limiting the ability to elevate oneself beyond the marginal economic and social relevance line. This, to some extent, aptly describes the situation of the collective psyche of most educated women today in the Nigerian society.

It could be argued that this was more as a result of long standing and internalized social stratification culture, an opinion strongly supported by Alumanah (2005), stating that discrimination and neglect in childhood can initiate a lifelong downward spiral of deprivation and exclusion from the social mainstream in the girl child. It is important to note at this point that the main perpetrators of these actions on the girl child may not only be male members of her family, but also fellow female members of the family including, in most cases the mother.

Research Design and Methodology

To understand the extent of the influence of ICT and education on women empowerment, an exploratory research was conducted based on the understanding that ICT is not gender sensitive and education is not the preserve of any sex.

The method used in this study was aimed at eliciting response from women who are participants in the use of the burgeoning ICT technologies. These ICT factors include computer, mobile telephony technology, the internet and other facets of the changing methods and means of communication available to man today.

Sample and Instruments for Data Collection

A total sample size of 1000 respondents was targeted on a random selection basis across Delta and Rivers states. The decision to restrict the coverage to these two states was for the reason that these states serve as economic nerve centres of the south-south geo-political zone. Some of the areas covered in this study could be classified as sub-urban or rural communities. Many women in these rural areas operate telephony services, the minimum educational requirement of which is just the ability to read figures and understand the operation of most commercial handsets.

The objective, as stated earlier, was to solicit response from female users of ICT across professions. Of the 1000 questionnaires prepared, 924 were actually administered and of these, 922 were returned / responded to. This gives a response rate of 99.78% of all administered questionnaires and 92% of the planned sample. Illiterate/semi-literate respondents were assisted in the filling of the questionnaires and this action represents a form of structured interview. The reason for this assistance is to safeguard any kind of deviation from the structure of the questionnaire, the content of which is applicable to all the respondents, and to keep within the objective of this study. The relative proportion (n=317) of this group to the total active sample size (N= 922) may serve as a pointer to the level of literacy/education of the female population.

The questionnaire was designed to extract demographic information about the age, educational level and size of family from the respondents. The second part of the questionnaire was

used to elicit information on the use of ICT factors, especially the GSM, the level of ICT awareness of the respondents and the primacy of ICT in their careers.

Data Analysis

The primary source of data for this study was the questionnaire which was supplemented with brief interviews of some respondents. Analysis of this data was predicated on the assumption that the levels of education and ICT awareness represent two correlated dependent variables while all other factors are considered independent. The overall response rate to the questionnaire was 99.78% and the ratio of those interviewed was 28.89% (see table 1).

Table 1: Administration of Questionnaire and Interview

	Questionnaire	Interview	%tage Interviewed
Administered	924	317	27.08
Responded to	922	317	28.89
Difference	2	0	
Response Rate	99.78%	100%	

Demography

The focus of the study is the economic empowerment of women through the use of ICT and education, therefore the demography of the study is uni-dimensional, as there is no interest in the male population.

Level of Education and Age

Almost half of the respondents (409 or 44.36 %) fall within the age bracket of 26 – 30 years and of this, 185 (45%) hold a tertiary certificate. For respondents between the ages of 18 – 25 years, 237 (67.91%) have at least attended secondary school while only 89 (25.50%) have obtained higher qualifications. None in this age bracket, however, possess a postgraduate certificate and all have one form of education or the other. Respondents within the age bracket of 31 – 35 have a high rate of uneducated women (33.70%) and also one of the highest rates of primary school leaving certificate holders (32.61). The group with the highest rate of uneducated women, however, is the above – 40 age group (50%). Of the whole groups, the 26 -30 age bracket possesses the highest number of post graduates; 60 (14.67%), incidentally, this group also produces the highest number of primary school leavers; 82 (20.05%).

Table 2: Level of Education and Age

Level of Education\ Age bracket	18-25	26-30	31-35	36-40	40-above	Total	%tage
No formal education	--	20	31	23	10	84	9.11
Primary education	23	82	30	10	6	151	16.38
Junior/senior secondary school	237	62	19	11	2	331	35.90
First degree/tertiary education (OND, NCE etc)	89	185	2	6	2	284	30.80
Postgraduate qualifications	--	60	10	2	--	75	7.81
Total	349	409	92	52	20	922	
	37.85	44.36	9.98	5.64	2.17		100

Level of Education and Computer literacy

Ranked against computer literacy, it was discovered that the level of education shows high positive correlation (correlation coefficient = 0.851) with ICT knowledge. ICT in this case is limited to the use of computer and from the study, it was discovered that the higher the level of education, the more likely it is for the subject to be computer literate. All respondents with postgraduate

qualifications (7.81%) are computer literate while all respondents with no formal education are computer illiterates. Overall, more than half of the respondents (73.97%) are computer literate.

Table 3: Level of Education and Computer Literacy

Level of Education\ Computer Literacy		Yes	No	%Computer Literacy
No formal education	84	0	84	0%
Primary education	151	57	94	37.75%
Junior/senior secondary school	331	280	51	84.59%
First degree/tertiary education	284	273	11	96.13%
Postgraduate qualifications	72	72	0	100%
Total	922	682	240	73.97%

Level of Computer Literacy and Age

It was discovered that age plays a major role in determining the computer literacy of the respondents (correlation = 0.95). the older the respondent, the higher the likelihood of his/her not being computer literate. 88.25% of respondents aged between 18 – 25 are computer literate, while only 21.15 % of respondents aged between 36 – 40 are computer literate. The level of computer literacy drop further for above 40 years olds with only 15% having knowledge of computing.

Table 4: Age and Computer Literacy

Age		Yes	No	%Computer Literacy
18 – 25	349	308	41	88.25%
26 – 30	409	327	82	79.95%
31 – 35	92	33	59	33.70%
36 – 40	52	11	41	21.15%
Above 40	20	3	17	15%
Total	922	689	240	73.97%

Private IT Business and Computer Literacy

Only 242 respondents (26.25%) claimed to operate private IT businesses. Of this, 81.53% (N = 222) operate telephone call centres, while 8.26% (N = 20) operate business centres. None of the respondents operates the other types of ICT businesses. 181 of the telephone business operators (81.53%) and all the twenty cyber cafe operators (100%) are computer literate. In all, 83.33% of the private IT business operators are computer literate.

Table 4: Private IT Business Operators and Computer Literacy

IT Business		Yes	No	
Telephone call centre	222	181	41	81.53%
Business centre	20	20	0	100%
Cyber cafe	0	0	0	0%
Computer engineering & networking	0	0	0	0%
Others	0	0	0	0%
Total	242	201	41	83.06%

Further findings indicate that of the total number of respondents, 696 (75.48%) are married and of this population 501 (71.98%) are computer literate. Of the 222 telephone call centre operators, 60 (27.03%) have less than secondary school education. On earning from their private telecom businesses, 20 (9%) of the telephone centre operators and the 20 cyber café operators claimed to earn between N2,000 – N3,000 a day, totalling anything between N42,000 – N66,000 a month, given a 21

day working month. The remaining 202 (91%) of the telephone operators claimed to earn between N1000 – N2, 000 a day (approximately N21,000 – N42,000 a month). In response to the question on the extent of their computer literacy, 521 (76.39%) of the respondents who claimed to be computer literate, claimed to possess computer skill only up to appreciation level, while the remaining 161 (23.61%) who claimed to be computer literate, have desktop publishing skill. All computer literate respondents wished to upgrade their skill at least to the level of desktop publishing with graphics. All respondents believed that women could be empowered through ICT and sizable percentage (97%) wished that such empowerment should be made possible through the use of micro-credit loan facilities.

Conclusion

For Nigeria to achieve what India and some other countries have achieved in the global labour market, then Nigeria must put in place policies that will ensure the acquisition of such IT skills as E-business skills, Information Security skills, Networking and Software Engineering skills among several others could make a graduate marketable not only locally but internationally as well. This will be best utilized if the women, who formed the country's largest reserve of a yet-to-be-fully-tapped labour, could be empowered and energized to pick up the gauntlet; from basic ICT factors such as the GSM to high-end certification skills.

Recommendations

Many developing countries are beginning to understand the beneficial role ICTs can have in reducing high poverty rates in both rural and urban areas. Using ICTs to create small and medium enterprises has resulted in numerous internet cafés, phone shops and community radio stations. However, these small and medium enterprises are largely owned and operated by men. Women are worst hit by high poverty levels. Access to ICTs provides women with economic empowerment, increased learning opportunities and improved market access for their products. Unfortunately, the majority of women in the developing world have limited access to ICTs, which hinders them from reaping the full benefits (dot-e-comment, 2007). There is no way ICT can totally be separated from education. This study has found that the higher the education level the more likely a woman would be ICT literate. Creating an enabling environment even for the illiterate woman to find her niche in the ICT range will not only empower her but it will also ensure that she contributes positively to the comfort of her family and community.

It is safe to state that ICT has a major role to play in the empowerment of women in Nigeria. The proliferation of GSM call centres and the fact that computer literacy is now an important demand of any skill requirement is a pointer to this fact. The girl-child is gradually assuming that position of competitiveness required for elevating women from their present status. In this study for instance, almost all respondents between the ages of 18 to 35 have one form of education or another. The major area to note here is that of all respondents between 18 – 25 none is totally illiterate, as all of them attended primary school and beyond.

This implies that further enlightenment on the benefit of education must be conducted by relevant authorities. Furthermore, financial assistance, or where necessary, scholarships should be made available to women willing to go further in acquiring ICT skills and competence. The liberalization of the communication sector should be maintained, while operators should be guided by a regulatory body, such as the National Communication Commission (NCC) to maintain the standard of service delivery by the operators.

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