

Gender Influence on the Internet: Usage in Southwestern Nigeria

Boniface Kayode Alese¹ S. O. Owoyemi² M. O. Ajayi³
Federal University of Technology
Nigeria

Abstract

Information and Communication Technology (ICT) is the vehicle for productivity, improvement and innovation. In every sector of life – private, public, health, economy, education, social and political etc, ICT is now perceived as a tool for potentially transforming relationships among all the stakeholders. In this article we study gender influence on Internet usage. Nine factors were identified from female usage profiles while eight factors were extracted from male usage profiles. However, three attributes were found to be common to both sex usage profiles, though with varying degree of strength.

Keywords: Male, female, network usage, usage factors, sex disparity.

Introduction

Gender concerns involve women as well as men. Understanding gender means understanding opportunities and constraints as they affect both women and men (UNFPA, 2000). In his submission Riley (1997) opined that gender affects both

- (i) “power to” go to school, inherit land, or enter or refuse marriage which often requires access to social resources such as education, money, land, or time; and
- (ii) “power over” which provides ability to assert one’s wishes and goals even in the face of opposition from others.

It has been noted that gender disparities were closely associated with poverty, and that the gap between women and men in education, and health was greater in poor countries than in rich ones. Such countries have had to pay a notable price for it in greater poverty, slower economic growth, weaker governance, and a lower quality of life (Daily Times, 2001).

Around the world, men have been found to dominate the economy and most social institutions. Potentials of women are often under-utilized and where they contribute, their contributions are undervalued. According to Riley (1997), women are less likely to develop individual characteristics (such as higher levels of education) that would give them access to better paying jobs or political office or enhance their power.

World Bank (1994) affirmed that women make up 40% of the world's work force in agriculture, a quarter in industry, and a third in services. Women farmers in the developing countries grow at least 50% of the world's food – as much as 80% in some African countries. In Nigeria, in addition to income generating activities (in cash and kind), women's household activities are of vital importance to subsistence and existence. However, their level of productivity remains low on both sides.

According to Gilligan (1982), females commonly interpret the various stages in hierarchies as problematical way stations of separation; Positions dangerously poised at the far reaches of the social web. Whereas men often strive to be in total control of all resources ranging from people and situations to institutions and global events.

Gone is the stark frontier society, where survival depended upon an aggressive ability to wrest one's sustenance from a strange and hostile environment. In its place, we have a different, complex environment, transformed by technology and the threat of mutual annihilation into a global community. Modern institutional arrangements link groups separated by time and space into interdependent economic, social industrial and political networks. Without the opportunity provided by Internet, people will have a difficult time adjusting and benefiting from the new world community. There is therefore a dire need to foster the full capacity of all citizens; especially women. This calls for advancement of gender equality and effective empowerment with ICT awareness and Internet usage in Southwestern Nigeria.

IT is the universal vehicle for productivity, improvement and innovation. In every sector of life – Private, Public, health, economy, education, social and political, etc IT is now perceived as a tool for potentially transforming relationship among all the stakeholders.

Most of the requirements that individuals, be it male or female, need to compete favorably globally can easily be made possible by ICT. In other words, everyone, regardless of the gender, must be ICT – driven to be able to fulfill his/her vision and mission. ICT literacy should therefore move beyond the ways delineated by rule – bound, hierarchical structures, and the traditional masculine ego ideals to an interdependent world. However, the standard achiever image that characterizes this century is dominated by behaviors focused on task mastery, competition and power, encapsulated in “direct achieving styles” (Lipman – Bluemen, 1992).

The study is out to find out whether gender differentiations apply to the level of Internet usage among males and females in South Western Nigeria. This is with a view to providing timely and accurate data that will guide policy makers and other agencies in the realm of eliminating gender-based and ignorance, achieving equitable economic development or attaining equal rights for both men and women.

The study tried to identify factors that aid or constrain Internet usage among males and females, areas of usage and the level of consistency in usage of Internet in the various areas. Areas of usage examined include Web Development, Real-time Communication, Teaching and Research, Building Design, Aviation and Weather, Merchandising and Pornography, Sports and Chatting, Internet Studies and Grants, Planning and Emigration and E-mail.

According to Gilligan (1982), females commonly interpret the various stages in hierarchies as problematical way stations of separation. Positions dangerously poised at the far reaches of the social web. Whereas men often strive to be in total control of all resources, from people and situations to institutions and global events.

There is no gain saying that improving women's productivity through Internet usage can contribute to growth, efficiency and poverty reduction in South Western Nigeria. Therefore, awareness campaign and functional policies aimed at making women IT literate and avail themselves of the developmental opportunity provided by Internet will go a long way in enhancing sustainable development in South – Western Nigeria.

Presentation

The Survey results were separated into two according to sex. The responses on frequency of usage of Internet were then factor analyzed.

Table 1.0 is the extracted Commonalities for the two distributions of Female and Male Internet usage profiles. Tables 2 - 5 give the results of the factoring and rotation by Varimax criterion for both data.

Tables 3 & 5 show that 9 and 8 factors were extracted from the correlation matrices. The factors were rotated to the terminal solutions for female and male Internet usages respectively. The rotation converged in 10 iterations for the female data while it converged in 19 iterations for the male usage profile.

Table 1. Commonalities for Females And Males Internet Usage Profiles

Variables	Female Usage Profile		Male Usage Profile	
	Extraction	% Variance by the other variables	Extraction	% Variance by the other variables
ADVERT	0.576	57.6	0.575	57.5
AIDS	0.627	62.7	0.632	63.2
AVIATION	0.631	63.1	0.637	63.7
BUILDING	0.715	71.5	0.716	71.6
DEBATES	0.590	59.0	0.504	50.4
EMAIL	0.678	67.8	0.511	51.1
EMIGRANT	0.630	63.0	0.540	54.0
EMPLOY	0.724	72.4	0.386	38.6
ENGINEERING	0.585	58.5	0.668	66.8
ENTERTAIN	0.485	48.5	0.645	64.5
EXAM	0.596	59.6	0.604	60.4
FTP	0.615	61.5	0.512	51.2
HACK	0.603	60.3	0.565	56.5
HEALTH	0.607	60.7	0.548	54.8
HOTEL	0.653	65.3	0.630	63.0
KNOWLEDGE	0.625	62.5	0.561	56.1
LEGAL	0.786	78.6	0.476	47.6
LIBRARY	0.582	58.2	0.574	57.4
LOTTERY	0.561	56.1	0.569	56.9
MILITARY	0.549	54.9	0.644	64.4
NEWS	0.624	62.4	0.534	53.4
PERIODICAL	0.500	50.0	0.558	55.8
PHONE	0.563	56.3	0.530	53.0
PORNO	0.468	46.8	0.536	53.6
PURCHASE	0.718	71.8	0.721	72.1
RELIGIOUS	0.618	61.8	0.421	42.1
RESEARCH	0.656	65.6	0.656	65.6
RETAIL	0.704	70.4	0.604	60.4
SCHOOL	0.736	73.6	0.622	62.2
SPORTS	0.601	60.1	0.650	65.0
TEACH	0.599	59.9	0.635	63.5
TELE	0.638	63.8	0.629	62.9
TELNET	0.702	70.2	0.630	63.0
TOUR	0.515	51.5	0.556	55.6
WEATHER	0.617	61.7	0.632	63.2
WEB	0.714	71.4	0.634	63.4

Extraction Method: Principal Component Analysis.

Table 2. Total Variance Explained For Female Internet Usage

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.916	27.544	27.544	4.976	13.823	13.823
2	3.155	8.764	36.308	3.473	9.648	23.470
3	1.949	5.414	41.723	3.119	8.663	32.133
4	1.489	4.135	45.858	2.293	6.371	38.504
5	1.311	3.643	49.501	2.063	5.730	44.234
6	1.293	3.592	53.093	2.046	5.685	49.919
7	1.135	3.153	56.246	1.627	4.518	54.437
8	1.081	3.002	59.248	1.448	4.023	58.460
9	1.059	2.942	62.190	1.343	3.729	62.190
10	.981	2.726	64.916			
11	.916	2.546	67.461			
12	.825	2.290	69.752			
13	.791	2.196	71.948			
14	.782	2.173	74.121			
15	.698	1.938	76.058			
16	.674	1.873	77.931			
17	.640	1.779	79.710			
18	.614	1.704	81.414			
19	.566	1.571	82.986			
20	.536	1.488	84.473			
21	.515	1.430	85.903			
22	.511	1.419	87.323			
23	.475	1.320	88.643			
24	.455	1.264	89.907			
25	.408	1.134	91.040			
26	.378	1.050	92.091			
27	.364	1.010	93.100			
28	.353	.981	94.081			
29	.328	.911	94.992			
30	.323	.898	95.890			
31	.308	.857	96.747			
32	.281	.781	97.528			
33	.243	.675	98.203			
34	.235	.652	98.855			
35	.225	.626	99.481			
36	.187	.519	100.000			

Extraction Method: Principal Component Analysis.

Table 3. Rotated Component Matrix^a For Female Internet usage Profile

	Component								
	1	2	3	4	5	6	7	8	9
ADVERT		.517							
AIDS						.738			
AVIATION	.590								
BUILDING	.677								
DEBATES									.548
EMAIL				.582					
EMIGRANT								.511	
EMPLOY						.621			
ENGINEERING	.667								
ENTERTAIN			.658						
EXAM		.445							
FTP		.698							
HACK		.666							
HEALTH				.643					
HOTEL	.560								
KNOWLEDGE			.695						
LEGAL									.865
LIBRARY			.641						
LOTTERY	.665								
MILITARY	.614								
NEWS							.656		
PERIODICAL									
PHONE								.597	
PORNO	.455								
PURCHASE					.735				
RELIGIOUS		.477							
RESEARCH			.736						
RETAIL					.793				
SCHOOL						.773			
SPORTS							.656		
TEACH			.660						
TELE		.722							
TELNET		.769							
TOUR									
WEATHER	.690								
WEB		.788							

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 A Rotation converged in 10 iterations.

Table 4. Total Variance Explained For Male Internet Usage

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.613	29.479	29.479	4.286	11.905	11.905
2	2.480	6.888	36.367	3.394	9.427	21.332
3	1.926	5.349	41.716	3.013	8.370	29.702
4	1.435	3.987	45.703	2.937	8.159	37.861
5	1.330	3.694	49.397	2.452	6.812	44.673
6	1.198	3.327	52.724	2.145	5.959	50.631
7	1.047	2.907	55.631	1.547	4.297	54.929
8	1.018	2.828	58.459	1.271	3.530	58.459
9	.950	2.640	61.098			
10	.916	2.545	63.644			
11	.860	2.388	66.032			
12	.826	2.293	68.325			
13	.793	2.204	70.529			
14	.755	2.098	72.627			
15	.741	2.059	74.686			
16	.683	1.897	76.583			
17	.636	1.767	78.350			
18	.591	1.642	79.992			
19	.549	1.524	81.516			
20	.537	1.492	83.009			
21	.504	1.400	84.409			
22	.492	1.368	85.777			
23	.485	1.348	87.125			
24	.473	1.314	88.438			
25	.436	1.211	89.650			
26	.419	1.163	90.813			
27	.408	1.132	91.945			
28	.379	1.052	92.997			
29	.370	1.027	94.024			
30	.354	.982	95.006			
31	.335	.930	95.936			
32	.320	.889	96.825			
33	.300	.834	97.659			
34	.293	.814	98.473			
35	.287	.796	99.270			
36	.263	.730	100.000			

Extraction Method: Principal Component Analysis.

Table 5. Rotated Component Matrix^a for Male Internet Usage Profile

	Component							
	1	2	3	4	5	6	7	8
ADVERT	.661							
AIDS				.744				
AVIATION			.640					
BUILDING			.722					
DEBATES						.581		
EMAIL								.674
EMIGRANT				.445			.464	
EMPLOY								
ENGINEERING		.518						
ENTERTAIN						.460		
EXAM	.454			.475				
FTP	.596							
HACK	.490							
HEALTH								
HOTEL			.590					
KNOWLEDGE	.639							
LEGAL						.447		
LIBRARY		.628						
LOTTERY								
MILITARY	.627							
NEWS						.510		
PERIODICAL		.576						
PHONE							.568	
PORNO					.618			
PURCHASE					.744			
RELIGIOUS								
RESEARCH		.780						
RETAIL					.651			
SCHOOL				.744				
SPORTS						.670		
TEACH		.693						
TELE	.713							
TELNET	.718							
TOUR			.449					
WEATHER			.636					
WEB	.723							

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization. **a** Rotation converged in 19 iterations.

Commonalities for Females and Males Internet Usage Profiles

Discussion

Table 1 gives the commonalities of both the female and male usage profiles. A comparative study of the usage profiles shows that the variances accounted for by the 9 factors of female usage profile and 8 factors of the male usage profile are almost the same for the variables Advert, AIDS, Aviation, Building, Taking Examination, Library Research, Teleconferencing and Weather Information. This means that the obtained latent factors have almost the same strength of influence on the usage of Internet by both females and males for these purposes. For example the 9 latent factors of females explained 57.6% in the same variable in the variable Advertising on the Internet while the 8 latent factors of the male data accounted for 57.5% in the same variable. It thus means that both male and female have the same attitude towards the usage of the Internet for these said purposes.

Moreover, the usage pattern of the Internet for Music, Movies and General Entertainment (48.5%), Design and Engineering Information (58.5%), Military (54.9%) Reading and Consultation of periodicals (50.0%) and Watching of pornographic films (46.8%) are more stable and less influenced by the constructs in female than males with variances 64.5%, 66.8%, 64.4%, 56.8% and 53.6% for the same variable respectively in males. The direct import of this is that males are more erratic in their usage of Internet for these purposes.

Also the results show a high degree of consistency in males' usage of E-mail (16.751%), Emigrant Information (54.0%), Seeking for Employment (38.6%), FTP (51.2%), Legal Consultation (47.6%), Religious Information (42.1%) and Web Development (63.4%) than females with 67.8%, 63.0%, 61.5%, 78.6%, 61.8% and 71.4% for the variables respectively in female usage profiles.

This implies that males are more consistent and steady and unswerving in seeking employment information. A corollary of this is that males would write more letter than females. This is quite evident in the communalities of E-mail. The result also indicates that males are more involving in technical areas like Web Development. Interestingly too males are more steady and stable in surfing the Net for Religious information.

Factor Results

The rotated factor matrices of female and male profile do not have simple structure like the general combined data of both sexes. Apart from the fact that the numbers of extracted factors differ, 9 in female and 8 in male usage profiles new constructs emerged while some constructs disappear. The 9 factors in female usage profile explained 62.190% of the total variance while the 8 constructs in male usage profile explained 58.459% of the total variance.

Out of the 9 factors extracted from female usage correlation matrix, only 3 were common to both sexes (Table 23). Also 5 others came in conjoint with one or more other influential variable in either of the two profiles.

In the female profile, the unwholesome activities combined with Building, Design and Engineering whereas the same Building, Design & Engineering combined with Aviation and Weather in the male profile.

Identification of Factors

Identified factors names for female Internet usage profile

Table 6. Factor 1 - Building, Design, Engineering And Unwholesome Activities

Variables	Loadings	The Usage of the Internet
AVIATION	.590	Browsing for Aviation Information
BUILDING	.677	Building and Construction Information
ENGINEERING	.667	Design and Engineering Information
EXAM	.445	Taking Examination
HACK	.666	Hacking for top Secrete Information
HOTEL	.560	Hotel Bookings (Reservations)
LOTTERY	.665	Gambling/Lottery
MILITARY	.614	Military
PORNO	.455	Pornographic films
WEATHER	.690	Weather Forecast

Table 7. Factor 2 - Web Development And Real-Time Communication

Variables	Loadings	The Usage of the Internet
ADVERT	.517	Advertising on the Internet
FTP	.698	File Transfer
RELIGIOUS	.477	Religious Information
TELE	.722	Teleconferencing
TELNET	.769	Telnet
WEB	.788	Web development

Table 8. Factor 3 - Teaching and Research

Variables	Loadings	The Usage of the Internet
ENTERTAIN	.658	Music, Movies and general Entertainment
KNOWLEDGE	.695	Learning and Broadening of Knowledge
LIBRARY	.641	Use as Library
RESEARCH	.736	Research Work
TEACH	.660	Collecting Information for the purpose of teaching

Table 9. Factor 4 - Health and E-mail

Variables	Loadings	The Usage of the Internet
EMAIL	.582	E - mail
HEALTH	.643	Health

Table 10. Factor 5 - Merchandising

Variables	Loadings	The Usage of the Internet
PURCHASE	.735	Online purchase from shops (Merchandising)
RETAIL	.793	Seek for information in Retail Stores

Table 11. Factor 6 - Studies, Grants and Employment

Variables	Loadings	The Usage of the Internet
AIDS	.738	Seek for Aids, Scholarship or Assistantships
EMPLOY	.621	Seek for employment
NEWS	.656	Use for News items
SCHOOL	.773	Seek Information for Admission into Schools

Table 12. Factor 7 - Sports

Variables	Loadings	The Usage of the Internet
SPORTS	.656	Watching Sports

Table 13. Factor 8 - Internet Phoning and Emigration

Variables	Loadings	The Usage of the Internet
EMIGRANT	.511	Emigrant Information
PHONE	.597	Internet Phoning

Table 14. Factor 9 - Legal Consultation

Variables	Loadings	The Usage of the Internet
DEBATES	.548	Discussion and Debates on News groups
LEGAL	.865	Legal Consultation

Identified factors names for male internet usage

Table 15. Factor 1 - Web Development & Real-Time Communication

Variable	Loadings	Internet Usage
ADVERT	0.661	Advertising on the Internet
EXAM	0.454	Taking Examination
FTP	0.596	File Transfer Protocols (FTP)
HACK	0.490	Hacking for top Secret Information
LOTTERY	0.415	Gambling/Lottery
MILITARY	0.627	Military
TELE	0.713	Teleconferencing
TELNET	0.718	Telnet
WEB	0.723	Web development

Table 16. Factor 2 - Teaching and Research

Variable	Loadings	Internet Usage
KNOWLEDGE	0.639	Learning and Broadening Knowledge
LIBRARY	0.628	Use as Library
PERIODICAL	0.576	Reading & Consultation of Periodicals
RESEARCH	0.780	Research work
TEACH	0.693	Collecting information for the purpose of teaching

Table 17. Factor 3 - Building design, Aviation and Weather

Variable	Loadings	Internet Usage
AVIATION	0.640	Browsing for Aviation Information
BUILDING	0.722	Building and Construction Information
ENGINEERING	0.518	Design and Engineering Information
HOTEL	0.590	Hotel Bookings (Reservation)
TOUR	0.449	Tourism Information
WEATHER	0.636	Weather Forecast

Table 18. Factor 4 - Studies And Grants

Variable	Loadings	The Usage of the Internet
AIDS	0.744	Seek for Aids, Scholarships or Assistantships
EMIGRANT	0.445	Emigrant Information
EXAM	0.475	Taking Examination
SCHOOL	0.744	Seek Information for Admission into School

Table 19. Factor 5 - Merchandising & Pornography

Variable	Loadings	The Usage of the Internet
PORNO	0.618	Watch Pornographic Films
PURCHASE	0.744	Online Purchase from Shops (Merchandising)
RETAIL	0.651	Seek for Information in Retail Stores

Table 20. Factor 6 - Sports and Chatting

Variable	Loadings	The Usage of the Internet
DEBATES	0.581	Discussion and Debates on Newsgroup
ENTERTAIN	0.460	Music, Movies and General Entertainment
LEGAL	0.447	Legal Consultation
NEWS	0.510	Use for News items
SPORTS	0.670	Watching Sports

Table 21. Factor 7 - Internet Phoning & Emigration

Variable	Loadings	The Usage of the Internet
EMIGRANT	0.464	Emigrant Information
PHONE	0.568	Internet Phoning

Table 22. Factor 9 - E-mail

Variable	Loadings	The Usage of the Internet
EMAIL	0.674	E-mail

Table 23. Comparison of total variance

FEMALE			MALE		
Factor	Name	% Variance	Factor	Name	% Variance
1	Building Design, Engineering and Unwholesome Activities	13.823	1	Web Development & Real-time Communication	11.905
2	Web Development And Real-time Communication	9.648	2	Teaching and Research	9.427
3	Teaching and Research	8.663	3	Building Design, Aviation and Weather	8.370
4	Health and E- mail	6.371	4	Studies & Grants	8.159
5	Merchandising	5.730	5	Merchandising and Pornography	6.812
6	Studies, Grants and Employment	5.685	6	Sports and Chatting	5.959
7	Sports	4.518	7	Internet Phoning & Emigration	4.297
8	Internet Phoning and Emigration	4.023	8	E - mail	3.530
9	Legal Consultations	3.729			

Factor 1 - Building, Design, Engineering and unwholesome Activities

This factor explained 13.823% of the total variance in the female data. The factor has the strongest influence on the female usage profile. The highly loaded variables on the factor are Building and Construction Information (0.677), Design and Engineering Information (0.667) and Weather forecast (0.690). The high correlation of Weather forecast with this factor is quite understandable since weather has strong influence on the timing of building and civil construction. Also other uses such as Hacking for top secret information, Gambling and Lottery, and Watching of Pornographic films have correlation of 0.666, 0.665 and 0.445 respectively.

However, in the male usage data the factor ranked third. Its correlation with Building and Construction increased to 0.722 and the influence on Browsing for Aviation information increased to correlation of 0.64 and it accounted for about 40.96% of the variation in the variable. (Table 17)

Factor 2 - Web Development And Real – Time Communication

In the female usage profile this factor explained 9.648% and it is the second factor. However, in male profile it is the most influential factor and it accounted for 11.905% of the total variance explained. The factor has strong correlations with Web Development, Telnet, Teleconferencing and FTP in both data.

The factor explained 62.09% of the variance in Web Development in the female data but 52.27% of the variance in the same variable in Male profile. This further reinforces the result of the communalities that shows that males engage in Web development than females.

Factor 3 - Teaching and Research

All the highly loaded variables on this factor are mostly educative uses that deal with learning, research and teaching in both gender profiles. While it is ranked 3rd with total variance explained of 8.663% in female usage, its influence ranked 2nd in male usage profile with total variance explained of 9.427%. The loaded variables have correlations $r: 0.641 \leq r \leq 0.736$ in female while the correlation is $r: 0.576 \leq r \leq 0.780$ in males.

These results show that the usage by females is more stable and consistent whereas the dispersion from average use is higher in males. The degree of prediction of the usage of each function that can be associated with the factor is as follows

Variable Use	Female % variance	Male % variance
Knowledge	48.3	40.8
Library	41.1	39.4
Research	54.2	60.8
Teach	43.6	48.0
Entertainment	43.3	-
Periodicals	-	33.2

On the average it appears that the pattern of Internet usage by females and males for teaching and research are similar.

Factor 4 - Health and E-mail

This factor accounted for 6.371% of the total variance explained in female. This factor is one of the factors that make the rotated factor matrix a complex structure and difficult to name unlike the general profile. While it has a correlation of 0.643 with Health it is $r = 0.582$ with E-mail and accounted for 41.3% and 33.9% of the total variance in Health and E-mail respectively.

However, the factor ranked 8th in male usage profile and does not account for any significant variance in Health. Factor 8 in male is a specific factor.

Factor 5 - Merchandising

This is the 5th pattern that accounts for the greatest regularity in both profiles. It accounted for 5.730% of the total variance explained in females and 6.812% in males' usage. However, the same factor loads significantly high on watching pornographic films (0.618) in male profile.

In male profile the common factor accounted for 38.19% of the individual differences in watching pornographic films. This is a clear indication that some males deal in the business of

pornography materials than their counterpart females. Tucker and McCallum (1997) averred that variables are correlated if they are both influenced by the same common factor. Hence pornography and online purchasing and retail are correlated in Male. This further lends credence to the non-simple structure of the gender matrices.

Factor 6 - Studies, Grants and Employment

The factor has correlation $r: 0.621 \leq r \leq 0.773$ with the variables that load on it in the female data. 38.6% of the variation in Employment is accounted for by this factor in female distribution. However, in male Employment does not surface at all.

This result is not strange at all because the rate at which males seek admission and foreign aids as well as employment outside Nigeria is higher than that of female. It is thus expected that there will be a high degree of consistency in the males' usage than females. In male two other variables Emigrant and Exam surfaced. These two variables did not appear in Factor 6 in the female profile.

Also the strength of influence of this factor is higher in male profile as it ranks 4th as Factor 4 with a total explained variance of 8.159% whereas Factor 6 in Female accounted for 5.685% of the total variance.

Moreover, there is a peculiarity in two variables of Factor 4 in male profile. Two of the variables, Emigrants and Exam load moderately on two factors indicating factorial complexity of two. (Table 5.5). Emigrant for example loads (0.445) on Studies and Grants as well as Internet Phoning & Emigration (Factor 7 male profile, 0.464). This implies that the desire for Aids, Grants, Admission and making Internet phone calls contributes significantly to propensity to seek for Emigrant Information and vice versa.

Factor 7 - Sports

In female profile this factor is a specific factor while it is a common factor in males. The common factor (Factor 6 in male profile) correlates with a cluster of variables such as Debates, Entertainment, Legal consultation, News items and sports. Thus the structure is simpler in female than male. In male the factor is actually Sports and Live Chatting.

Factor 8 - Internet Phoning and Emigration

This factor is common to both female and male usage profiles. The factor is the 7th orthogonal construct in male profile. It explained 4.023% of total variance in female and 4.297% in male profile. This is a clear indication that Internet phoning and Emigration has similar influence in the lives of both male and female in this target population.

Factor 9 - Legal Consultation

Factor 9 in female profile accounted for 3.729% of the total variance in the data. The variable that loaded high on the factor legal consultation has a correlation of 0.865 with the factor. This factor

explained 74.82% of the individual differences in Legal Consultation by females. This factor does not surface at all in Male profile. This means that males are more stable and consistent in the usage than female.

Conclusion

The study found that there are significant differences in Internet usage due to sex. Of the 9 factors that dominate Internet usage in the female profile only three are common to both sexes. Though with various degrees of comprehensiveness and strength, Web Development and Real –time Communication, Teaching and Research, and Internet phoning and Emigration has strong influence on both sexes. Five other variables combine one variable or the other in their factors.

E–mail is a specific factor in male profile while sports is also a specific factor in female profile. All these portray the degree of importance and influence of these variables in the lives of males and females respectively.

References

- Adebayo, A. A., (2002). New Trend In Access To Information Communication Technology: Its Implication To The Continent of Africa, *43rd Annual Conference Proceedings*, STAN, 551-553
- Barry M. L., Vinton G. C., David D., Clerk, R.E., Kahn, Kleinrock, L. Lyneh., D.C, Posted, J. Roberts L.G., & Wolff, S. (2000). *A brief History of the Internet*, Retrieved from Internet Society Web site: <http://www.iso.org/internet/history/brief.html>
- Crumlish, C. (1998). *The Internet Sybex*, San Francisco p. 204
- Orhuozee E. (2002, August). More Promising E-Governance Strides in Nigeria, *PC World West Africa*, 6-7.
- Daily Times of Nigeria, (2001, March 12).
- Ellis, K. (2001). *International Information Programs*, African Issues. Retrieved from US Department of State's Office Web site: <http://www.usinfor.state.gov>
- Estabrook, N. (1999). *Teach Yourself the Internet in 24 Hours*. USA: Macmillan Computer Publishing, 1, p. 1.
- Gilligan, C. (1982). *In a Different Voice: Psychological Theory and Women's Development*, Cambridge: Harvard University Press.
- GVU, Graphics, Visualisation and Usability Center, (2002). Retrieved from <http://www.cc.gatech.edu/gvu/user-surveys>
- IME, (2002). *Internet Made Easy*. Paragon Publishing Ltd, Paragon House, 36-70.

- Inyiama, H. C. & Nwodo, T. O., (2002). *The Internet – A Superhighway For The Third Millennium*
- Lipman-Bluemman J., (1992). *Female leadership styles in the 21st century workplace, Sociological perspectives*. USA: Pacific Sociological Association.
- National Population Commission, (2001). *Gender and sustainable development*, Abuja, Nigeria
- Ned, S., (1995). *Curious About the Internet*. USA: Sams Publishing, USA, 2-5.
- NUA, (2001). *Information Drives the Internet*. Scope Communication Group
- Otokhine E. (2002, January). Nigeria Moves Forward with E-Banking, *PC World West Africa*, 4-7.
- Riley, M. (1997), Gender, Power and Population Change, *Population Bulletin*, 52(1).
- Turker, L. R., & MacCallum, R. C. (1997). *Exploratory Factor Analysis*, Illinois, 1-20/
- Wadchington, A. (2002). Safer Surfing, Internet Made Easy, Paragon Publishing Ltd, p. 22
- World Bank (1994). *Enhancing Women participation in Economic Development*, A World Bank policy paper, Washington DC.
- Zetter, K. & Twenty, D. F. (2003, April). Internet Fixes, *PC World West Africa*, 34-43.

¹ Dr. Boniface Kayode Alese is a Lecturer II in the Department of Computer Science, Federal University of Technology, Akure, Nigeria. He can be reached at: Department of Computer Science, Federal University of Technology, P. M. B. 704, Akure, Nigeria. Email: kaalfad@yahoo.com; Phone 234(0) 803 454-0465.

² Mr. S. O. Owoyemi is The Director Unix Computer, Isinkan, Akure, Nigeria. He can be reached at: Unix Computer, Isinkan, Akure, Nigeria.

³ Dr. M. O. Ajayi is a Deputy Registrar in the office of the Vice Chancellor, Federal University of Technology, Akure, Nigeria. She can be reached at: Office of the Vice Chancellor, Federal University of Technology, P.M.B. 704, Akure, Nigeria.