

Assessment of the Extent of Utilization of ICT for Commercial Purpose by Nigerian Women in Purdah

Odesanya Akeem Dele

Department of Computer Science, Federal Polytechnic Bali, Taraba State

Email: deleodesanya@yahoo.com

Abstract

The emphasis of this paper is to assess the degree of utilization of Information and Communication Technology (ICT) for commercial purposes by Nigerian women in purdah in carrying out their commercial activities from the comfort of their homes. The women in purdah in Osun and Oyo States were used for the study because of the high concentration of them in those states and the presence of large markets. One hundred and fifty women were carefully chosen for the study, and they were accessed through their husbands. One hypothesis was formulated for the study. The data collected for the study were analysed through Arithmetic Mean and Chi-Square techniques. The study revealed that ICT was utilized for commercial purposes to a very high extent among women in purdah. It was discovered that those women in purdah utilize ICT highly for marketing their products and services, making and receiving payments from customers and attending business meetings online from their homes. The study concluded and provided recommendations to further encourage the use of ICT for carrying out commercial activities by women in purdah for better performance and profitability.

Keyword: ICT, Women, Purdah, Commercial Activities, South-West.

ARTICLE HISTORY

Received: October 14, 2021

Revised: October 18, 2021

Accepted: November 20, 2021

Citation

Odesanya, A.D. (2021). Assessment of the Extent of Utilization of ICT for Commercial Purpose by Nigerian Women in Purdah. *International Journal of Women in Technical Education and Employment (IJOWITED), The Federal Polytechnic, Ilaro Chapter*, 2(2), 53-62

1. Introduction

Information and Communication Technology (ICT) is a powerful tool for achieving greater success in almost all aspects of human life. The extent to which this ICT is being utilized will determine the level of success that will be recorded (United Nations Conference on Trade and Development (UNCTAD), 2011; Huang, 2011). ICT has the potential to enhance entrepreneurship as it is now the mother and promote commercial activities (Chris, 2012). Moreover, economic development goals can be achieved through the potential offer by ICT. It also has the power and potential to make communication and exchange of information better because its roles cannot be overemphasized (Odigbo, 2011). Today, communication through ICT is the core of every business and the heartbeat of many organisations.

Panos (2010) stressed that ICT is a global connection of several types of computer networks connected. ICT is usually related to the most powerful and sophisticated computer-based technologies. It comprises Computer components (hardware and software), many applications of projection devices, Local Area and Wide Area Networks and telecommunication technologies, satellites and all other computer components devices. However, UNESCO (as cited in Shahryan, Nor & Tengku, 2016) defined Information and Communication Technology as a science, technology and engineering subject as well as management methods used in information management and application with socio-economic and cultural problems. According to Onasanya, Shehu, Oduware & Shettu (2010). Information and Communication Technology is defined as the application of Information and Communication Technology tools including computer networks, software and hardware required for internet connection. Ifueko (2011; Ezemoyih and Okafor, 2010; Hassan, 2011) also sees ICT as the digital processing and utilization of information by the use of electronic computers and gadgets.

In recent times, entrepreneurship is viewed as an invaluable tool for ensuring women empowerment as it leads to economic independence for women (Singer, 2012). In India, empowering women through entrepreneurship has become an important part of the development efforts as it leads to women development, economic growth and social stability as noted by Wamala (2012). Most women involved in one business, or the other are not too exposed to the benefits of using ICT opportunities to expand their business scope and make more profit. They are more concerned with going out for commercial activities on various market days to transact business and interact with their customers. However, today ICTs allow women entrepreneurs to sell their products in the most profitable markets and determine the optimum timing of scale (Wamala, 2012; Olanmi, Ayoola and Kareem-Ojo, 2012; Uluma, 2012; Sajuyigbe and Alabi, 2012; Deebom and Goma, 2018; Inije, Utoware and Kren-Ikidi, 2013; SitiHaniah, 2015; Dwivedi and Mishra, 2013; Mpogole, Usanga and Tedre, 2010; Uluma, 2012).

The integration of ICT in transacting businesses have made the cost of transaction and business performances in general easy for women (Ukpere, Slabbert and Ukpere, 2014). ICT assisted the availability of information on prices of commodities thereby enhancing planning and budgeting (Komunte, Rwashana and Nabukenya, 2012). This breaks down the middle wall of partition that existed between the brokers and the market women (Wamala, 2012). However, there are many barriers to the use of ICT for commercial purposes by women (Nsegimana, 2017; Mordi and Okafor, 2010). Some of these barriers include lack of access, inadequate training, and cost of equipment, poor connections, unreliable hardware and software packages. Another challenge facing women entrepreneurs is inadequate skilled ICT personnel (Dube, 2010; Mugoshi, 2013; Motilewa, Onakoya and Oke, 2015). Equally, differences in communication channels pose another challenge to many small and medium scale business owners (Badran, 2014). The English Language is the major language configured for most sites which are unfamiliar for most business owners.

Putting women in purdah is a common religious and social practice of secluding women from the public and other social interactions. Pardah or purdah is a word from Persia meaning “curtain” and the practice is very common and prevalent among some Muslim and Hindu communities (Vyas, Sugandha and Pradeep, 2014). It usually takes two forms: physical segregation of the sexes and the requirement that women cover their bodies with a veil to cover their skin and conceal their form. Most times, the use of walls, screens and curtains are used to separate homes and compartments where the women were with a physical building. Purdah usually restricts the personal, social and even economic activities of the females outside the conferment of their homes. Women mobility and behaviour outside their homes are seriously restricted.

Though there are many reasons and benefits put forward by various religious leaders for the practice of putting women in purdah among which are for protection, dignity and honour. However, one of the effects of the Purdah practice is that it confines women's mobility, purdah places severe limits on women's ability to participate in gainful employment and to attain economic independence (Khazan, 2013). The ideology of purdah constricts women in the domestic sphere for the reproductive role and places men in the productive role as breadwinners who move through public space (Haque, 2010). Therefore, due to economic needs in the present day and shifts in gender relations, some women are compelled to break purdah to gain income (Khazan, 2013). But, it is interesting to know that nowadays, in the presence and availabilities of ICT facilities, women in purdah can gainfully participate in economic activities right from the comfort and conferment of their homes.

Most women in purdah in the south-west Nigerian are exposed to the use of ICT for commercial purposes as most of them are businesswomen. These they were able to achieve through the utilization of various ICT facilities media such as mobile phones, SMS, E-mails and internet-based telephony (such as Skype, Zoom etc.) and various social media platforms like Facebook, WhatsApp, Telegram. E-commerce which involves the buying and selling of goods and services on the internet and other electronic platforms is making it possible for women in purdah in south-west Nigeria to engage in trade by creating online and virtual storefronts on websites with online catalogues and marketing or selling their products to the global market though physically restricted to move around and interact with people outside their homes.

Women need to be assisted to gain access to the financial and economic world particularly those in purdah or some kinds of confinement and restrictions. Therefore, ICT facilities should be introduced to them for commercial purposes and those already exposed to it should be encouraged to use it more frequently to achieve their businesses' goals and liberate them from poverty.

This study therefore assesses the extent of utilization of ICT for commercial purpose by women in purdah in southwest Nigeria. It is therefore limited to women in purdah in Osun and Oyo states, south-west Nigeria. The study was guided by this research question: as to what extent is ICT being used for commercial purposes by Nigerian women in purdah?

Research Hypothesis

H₀: There is no significant difference between the mean ratings of women in purdah who use ICT in business activities and those who does not use ICT for commercial purpose in South-West Nigeria.

H₁: There is a significant difference between the mean ratings of women in purdah who use ICT in business activities and those who does not use ICT for commercial purpose in South-West Nigeria.

2. Methodology

Research Design

This study employed the descriptive survey design which was meant to assess the extent of utilization of ICT for commercial purpose by women in purdah in southwest Nigeria. This research design was utilized to obtain pertinent information on the issue being considered. This will enable the researcher to determine and examine the extent to which ICT was being used for commercial purposes by women in purdah in southwest Nigeria.

The population of the Study

The population of the study consist of an infinite number and hence, it is difficult to assume a specific number. A total number of two hundred (200) women in purdah were targeted to form the population for this study.

Sample and Sampling Technique

The purposive sampling technique was used to select one hundred and fifty (150) women in Purdah out of the 200-population targeted for the study.

Description of the instrument used

A twelve-item structured questionnaire for women in purdah was used as the research instrument for the study. The instrument was designed on a 5 points scale. It contains majorly two sections with section "A" designed to get information on the personal data of the respondents such as age, social-cultural background and their exposure to the use of ICT and section "B" presents data on the extent of ICT utilization for commercial purposes by the respondents. Five options were provided against each statement on the utilization extent of ICT for commercial purposes. Very High Extent (VHE), High Extent (HE), No Extent (NE), Low Extent (LE) and Very Low Extent (VLE).

Validation of Instrument:

The questionnaire used as the instrument for the study was carefully constructed by the researcher and given to three (3) experts in the Department of Statistics and Computer Science in Federal Polytechnic Bali for vetting to ascertain the content and face validity. The suggestions of the validators were incorporated in the final design of the questionnaire. The questionnaire was therefore considered valid to access the extent of utilization of ICT for commercial purposes by women in purdah.

Reliability of Instrument:

The internal consistency of the instrument was determined using the Cornbrash Alpha method and it yielded a coefficient of 0.78 indicating that the instrument was reliable for the study.

Method of Data Collection:

The researcher personally administered the questionnaire with the help of learned husbands of sampled women in purdah and the completed questionnaires were collected by the researcher. Since the questionnaire was to be handed down to the actual respondents through their husbands, therefore, the researcher has to go through the pains of explaining in detail the information required from the respondents. All the respondents were allowed to fill the questionnaire, as it is appropriate to them.

Method of Data Analysis:

The data collected were analysed using mean to answer the research question. Using the upper limit and the lower limit, any mean response of 3.00 and above based on the 5 points scale was accepted and considered positive while any mean response below 3.00 was rejected and considered negative. The chi-square technique was also used to test the hypotheses formulated at 0.05 significance level based on its decision rule; the null hypothesis will be accepted when the computed value of chi-square is lesser than the critical value and vice versa.

3. Results

The analysis of the data collected for the study and the result were presented below.

Research Question: To what extent is ICT being used for commercial purposes by women in purdah?

Table 1: Mean score on the extent of ICT utilization for commercial purposes by women in purdah in southwest Nigeria.

	To what extent is ICT being used for the following activities?	VHE	HE	NE	LE	VLE	N		Decision	
1	ICT is use as a channel for marketing products and services online	75	40	0	10	25	580	150	3.87	Accepted
2	ICT is a means of meeting the need of potential customers online	80	35	0	15	20	590	150	3.93	Accepted
3	ICT makes payment for stock very easy	30	95	0	12	13	567	150	3.78	Accepted
4	Receiving payment from customers online is made possible through ICT	85	46	0	9	10	637	150	4.25	Accepted
5	Online transactions are made easy through ICT utilization	65	55	0	5	25	580	150	3.87	Accepted
6	ICT are useful for online business meeting	70	60	0	10	10	620	150	4.13	Accepted
7	ICT are crucial for disseminating business seminars and presentations	60	75	0	5	10	620	150	4.13	Accepted
8	ICT makes sourcing for potential customers and prospects online stress-free	95	15	0	10	30	585	150	3.9	Accepted
9	ICT channels are easy ways to meet business	50	30	0	15	55	445	150	3.03	Accepted

	partners									
10	ICT helps remove the physical distance barriers between buyers and sellers	85	45	0	10	10	635	150	4.23	Accepted
11	Women in purdah uses ICT to transact business on daily basis	110	30	0	0	10	680	150	4.53	Accepted
12	Businesswomen in purdah had more than one ICT channels to transact businesses	100	25	0	25	0	650	150	4.33	Accepted

From table 1 above, it was revealed that ICT was highly utilized among women in purdah for commercial activities. All items were accepted by the respondents as having high utilization extent by the women in purdah. They all agreed that ICT has a high utilization extent for marketing products and services online with a mean score of 3.87. This implies that women in purdah use ICT highly for projecting and marketing their products and services online for the public to see and be able to patronise them since their physical mobility and social interaction were restricted. A mean score of 3.93 was recorded for the statement that ICT makes sourcing for potential customers and prospects online stress-free. ICT was highly utilized for sourcing for potential customers and business prospects online by women in purdah due to their peculiarity.

With the mean scores of 4.25 and 3.78, the respondents accepted that ICT has a very high utilization extent for receiving payments from and making payments to customers online respectively from table 1 above. This implies that women in purdah were using ICT highly for payment related issues online which make commercial activities easy for them since they cannot go out to collect payments for their products and services. Also, a mean of 4.13 shows that ICT was highly utilized for attending online business meetings. This implies that though women in purdah were restricted to the fore walls of their homes, ICT has a high utilization extent among them for attending different business meetings online through various channels.

Table 1 above shows that women in purdah were highly using ICT for presentations and disseminating business information online which has a mean score of 4.13. They also use ICT greatly for meeting business partners online. The respondents also agreed that they are using ICT greatly to remove the physical distance barriers between them and their customers. This implies that the more they use ICT for commercial purposes the more they feel among.

The statement that women in purdah use ICT to transact business on daily basis from table 1 above has the highest mean score of 4.53 implying that they make use of ICT on daily basis for commercial purposes. It can be deduced that ICT has a very high utilization extent among women in purdah in southwest Nigeria for commercial purposes based on the fact that they make use of it on daily basis for business transactions. The last statement that businesswomen in purdah had more than one ICT channel to transact business was accepted with a mean score of 4.33 implying that for them to have more than one ICT channel to transact business, ICT is highly utilized among them for commercial purposes.

Test of Hypothesis

The hypothesis for this study was tested through Chi-Square analysis to make the right decision on the assumption formulated for the work.

H₀: There is no significant difference between the mean ratings of women in purdah who use ICT in business activities and those who do not use ICT for commercial purposes in South-West Nigeria.

H₁: There is a significant difference between the mean ratings of women in purdah who use ICT in business activities and those who do not use ICT for commercial purposes in South-West Nigeria.

Table 2: Observed Values

Responses	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	Total
VHE	75	80	30	85	65	70	60	95	50	85	110	100	905
HE	40	35	95	46	55	60	75	15	30	45	30	25	551
NE	0	0	0	0	0	0	0	0	0	0	0	0	0
LE	10	15	12	9	5	10	5	10	15	10	0	25	126
VLE	25	20	13	10	25	10	10	30	55	10	10	0	218
Total	150	150	150	150	150	150	150	150	150	150	150	150	1800

$$\text{Expected Cell } ij = \frac{\text{ith ROW TOTAL} \times \text{jth COLUMN TOTAL}}{\text{GRAND TOTAL}}$$

$$\text{Row 1 – VHE} = \frac{905 \times 150}{1800} = 75.42$$

$$\text{Row 2 – HE} = \frac{551 \times 150}{1800} = 45.92$$

$$\text{Row 3 – NE} = \frac{0 \times 150}{1800} = 0$$

$$\text{Row 4 – LE} = \frac{126 \times 150}{1800} = 10.5$$

$$\text{Row 5 – VLE} = \frac{218 \times 150}{1800} = 18.17$$

Table 3: Expected Values

Resp.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	Total
VHE	75.42	75.42	75.42	75.42	75.42	75.42	75.42	75.42	75.42	75.42	75.42	75.42	905.04
HE	45.92	45.92	45.92	45.92	45.92	45.92	45.92	45.92	45.92	45.92	45.92	45.92	551.04
NE	0	0	0	0	0	0	0	0	0	0	0	0	0
LE	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	126
VLE	18.17	18.17	18.17	18.17	18.17	18.17	18.17	18.17	18.17	18.17	18.17	18.17	218.04
Total	150	150	150	150	150	150	150	150	150	150	150	150	1800

This is derived by using the Formula: Chi-Square (X^2) = $(F_o - F_e)^2 / F_e = 360.54$

Table 4: Chi-Square Result for Research Hypothesis

Chi-Square (X^2)	Degree of Freedom (df)	Significance Level (α)	Critical Table Value (p-value)
360.54	44	0.05	60.48

Decision Rule: From table 4 above, it is seen that the value of Chi-Square calculated is 360.54 while the critical table value is 60.48 and the degree of freedom is 44 at a 0.05 level of significance. Therefore, since the value of calculated $X^2 = 360.54$ which is greater than the table value $p\text{-value} = 60.48$, the null hypothesis states that there is no significant difference between the mean ratings of women in purdah who use ICT in business activities and those who does not use ICT in commercial purpose in South-West Nigeria was rejected while the alternative hypothesis that there is a significant difference between the mean ratings of women in purdah who use ICT in business activities and those who does not use ICT in commercial purpose in South-West Nigeria was accepted.

4. Discussion of Findings

It was revealed from the study that ICT was highly utilized among women in purdah for carrying out commercial activities as they could not but use it on daily basis to transact business because their physical mobility and social interaction were restricted. Alam, Jani & Omar (2011) emphasises the importance of the utilization of ICT by entrepreneur women for successful business transactions. This conforms with the results of this study as it was revealed that women in purdah make use of ICT to transact business on daily basis. The extent to which women in purdah uses ICT for marketing their products and services online was very high as revealed by this study and this conforms with the study by Nur and Faradillah (2019).

There were high extents of ICT utilization for sourcing for potential customers and meeting the need of their customers online by women in purdah in south-west Nigeria as agreed by the study of Afrah and Fabiha (2017) when they analysed how important the use of ICT is a tool of empowerment is to women entrepreneurs for attending to customers' needs. Amuichie and Asotibe (2015) likewise researched in line with this that ICT when rightly utilized by businesswomen could help them solve the needs and challenges of their customers even without them physically with them. This study also shows that the extent of ICT utilization among women in purdah in southwest Nigeria was very high for making and receiving payments online from their customers and this they do on daily basis. The report of ILO and UNCTAD (2014) supported the fact that ICT makes online transactions easy and interesting, Nur and Faradillah (2019) also supported this in their study.

It was equally discovered that the level of ICT utilization for attending online business meetings and disseminating business information was very high by women in purdah and this has greatly helped them as they could easily attend their business meetings and get up-to-date business information online. This aspect was adequately stressed by Komunte, Rwashana and Nabukenya (2012). This study also revealed that ICT is highly utilized among women in purdah to interact with their various business partners online where business ideas and concepts are gathered and shared as discovered by Sajuyigbe and Alabi (2012) that businesswomen do interact and collaborate with others online through the use of ICT facilities. They could call, send text messages, chat with each other through various social media platforms as often as possible and some do hold a meeting via ICT medium.

Through this study, it was shown that women in purdah in southwest Nigeria use ICT on daily basis for one commercial activity or the other and that they have access to more than one ICT channel for transacting their businesses. This was true because of their situation and restrictions therefore, anyone among them who want to be successful in their businesses had no other choice than to bank on the opportunities presented to them through the use of ICT.

5. Conclusion

From the results gathered from this study, it was concluded that there is a very high extent of ICT utilization for commercial purposes among women in purdah in southwest Nigeria. They are highly utilizing ICT on daily basis for various commercial activities for profitability; they are using ICT greatly for carrying out their business transactions online. They use ICT regularly for marketing their products and services, meeting the

needs of customers, attending business meetings and making as well as receiving payments for products and services online from their various customers who they met and connected with online through the use of ICT.

References

- Afrah, S. H. & Fabiha, S. T. (2017). Empowering women entrepreneurs through information and communication technology (ICT). *A case study of Bangladesh. Management, 7 (1)*, 1-6.
- Alam, S. S., Jani, M. F. M. & Omar, N. A. (2011). An empirical study of success factors of women entrepreneurs in Southern Region in Malaysia. *International Journal of Economics and Finance, 3 (2)*, 1-10.
- Aleke, B., Ojiako, U., & Wainwright, D. W. (2011). ICT adoption in developing countries: Perspectives from small-scale Agribusinesses. *Journal of Enterprise Information Management, 24(1)*, 68-84.
- Badran, M. F. (2014). Access and use of ICT in female owned SMEs in selected Arab countries and Brazil: A comparative study. *Maastricht School of Management, 12*.
- Chris, J. (2012). *The impact of computers in small business*. Pennsylvania: Yoke College.
- Deebom, M. T. & Goma, O. T. (2018). Utilization of Information Communication and Technology for Sustainable Manpower Development among Technical Educators in Tertiary Institutions in Rivers State, Nigeria. *International Journal of Innovative Information Systems & Technology Research, 6(2)*, 48-58.
- Dube, C. M. (2010). Women Entrepreneurs and Information Communication Technology('ICT'): An Analysis Of Efficacy Of The Use Of Modern Technology In Conducting Business Transactions in Zimbabwe. *University of Zimbabwe*.
- Dwivedi, N. T. & Mishra, T. (2013). Women Empowerment Through Women Entrepreneurship (A Study of Faizabad Zone of Uttar Pradesh). *Voice of Research, 2(2)*, 50-55.
- Etim, E. S. & Iwu, C. G. (2018). A descriptive review of the continued marginalization of female entrepreneurs in sub-Saharan Africa. (in press).
- Ezemoyih, C. M., & Okafor, N. A. (2010). Evaluation of information and communication technology skills needed by accounting education lecturers in Nigeria. *Business Education Journal, 10(4)*.
- Haque, R. (2010). "Gender and Nexus of Purdah Culture in Public Policy". *South Asian Studies, 25(2)*, 303–310.
- Hassan, A. K. (2011). The role of mobile phones on sustainable livelihood. *The economic and social research foundation, 33*.
- Huang, K. H. (2011). A comparative study to classify ICT developments by economies. *Journal of Business Research, 64(11)*, 1174-1177.
- ILO/UNCTAD. (2014). Empowering women entrepreneurs through information and communications technologies. A practical guide. *ILO/UNCTAD Report*.
- Inije, G. O., Utoware, J. D. A. & Kren-Ikidi, P. C. (2013). Utilization of E-learning Technologies in Business Education Instructional Delivery in Colleges of Education in Delta State of Nigeria. *International Journal of Education and Research, 1 (10)*, 1-14.
- International Telecommunication Union, ITU. (2013). *Measuring the Information Society*. Geneva, Switzerland.

- Khazan, O. (2013). *"Face Veils and the Saudi Arabian Plague"*. The Atlantic: The Atlantic Media Company.
- Komunte, M., Rwashana, A. S. and Nabukenya, J. (2012). Comparative Analysis of Mobile Phone Usage among Women Entrepreneurs in Uganda and Kenya. *African Journal of Computing & ICT*, 5(5), 74-86.
- Mordi, C. & Okafor, C. (2010). Women Entrepreneurship Development in Nigeria: the effect of environmental factors. *The Petroleum-Gas University of Ploiesti*, (4), 43-52.
- Motilewa, B. D., Onakoya, A. O. & Oke, A. O. (2015). ICT and gender-specific challenges faced by female entrepreneurs in Nigeria. *International Journal of Business and Social Sciences*, 6(3), 97-105.
- Mpogole, Usanga, H. and Tedre, M. (2010). Mobile Phones and Poverty Alleviation: A Survey Study in Rural Tanzania 2010.
- Mugoshi, C. S. (2013). Factors Influencing Access to Public Procurement Bidding By Women Entrepreneurs in Kenya. Case of Women-Led SMEs in Nairobi. *International Journal of Social Sciences and Entrepreneurship*, 1(1), 69-85.
- Nsegimana, S. (2017). Challenges to women entrepreneurship in Kigali, Rwanda. *MTech Thesis. Cape Peninsula University of Technology, South Africa*.
- Nur, A. O. & Faradillah, I. O. (2019). Cognitive Needs of ICT usage in Business Among Women Entrepreneurs. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 8(7), 1-6.
- Odigbo, G. (2011). *E-Business. Business creation and growth*. C.E. Ezedum and O.G. Odigbo (eds.). Nigeria: Centre for Entrepreneurship and Development Research.
- Oke, D. F. (2013). The effect of social network on women entrepreneurs in Nigeria: A case study of Ado-Ekiti Small Scale Enterprise. *International Journal of Education and Research*, 1(11), 1-14.
- Olasanmi, O. O., Ayoola, T. & Kareem-Ojo, M. J. (2012). Evaluation of ICT use among women entrepreneurs in the Nigerian Garment Industry. *International Journal of Management & Business Studies*, 2(1), 7-12.
- Onasanya, S. A., Shehu, R. A., Oduware, R. O., & Shettu, L. A. (2010). Higher institutions lecturers' attitude towards integration of ICT into teaching and research in Nigeria. *Journal of Information Technology*, 2, 1-10.
- Panos, L. I. (2010). *ICTs and development in Zambia: Challenges and opportunities*. Retrieved April 26, 2020, from ngopulse: www.ngopulse.org/files/Zambia_Research_Report.pdf
- Sajuyigbe, A. S. & Alabi, E. (2012). Impact of information and communication technology in selected small and medium enterprises in Osogbo metropolis, Nigeria. *Journal of School of Communication and Information Technology, Federal Polytechnic, Offa, Osun State*, 3(1).
- Shahryan A. A., Nor A. M. and Tengku S. T. (2016). Gender Enrolment Factors in ICT Studies. *SOFTAM Postgraduate Symposium*, 1-8.
- Shaikh, Z. A. & Khoja, S.A. (2011). Role Of ICT in Shaping the Future of Pakistani Higher Education System” Faculty of Computer Science Institute of Business Administration, Karachi. *Shaikh, Z. A. & Khoja, S.A. (2011), “Role Of ICT in Shaping The Future of Pakistani Higher Education System TOJET: The Turkish Online Journal of Educational Technology*, 10(1).



- Singer, E. R. (2012). *Women and poverty*. New York: New York University.
- Ukpere, C. L., Slabbert, A. D. and Ukpere, W. I. (2014). The Relevance of Modern Technology Usage on the Business Ventures of Kenyan Women Entrepreneurs. *Mediterranean Journal of Social Sciences*,5(10), 58-66.
- Uluma, N. B. (2012). Extent of ICT Utilization Among Women in Mumias Division, Kenya. *International Journal of Social Science and Humanities*,1(1), 22-25.
- UNCTAD. (2010). ICTs, Enterprises and Poverty Alleviation. *Information Economy Report 2010*. New York and Geneva, 53.
- UNCTAD. (2011). ICTs as an Enabler for Private Sector Development. *Information Economy Report 2011*. New York and Geneva.
- Vossenbergh, S. (2013). Women Entrepreneurship Promotion in Developing Countries: What explains the gender gap in entrepreneurship and how to close it? *Maastricht School of Management, P.O. Box 1203, 6201 BE Maastricht, Nederland*.
- Vyas, Sugandha, R. and Pradeep, K. (2014). "From Sultanate Period Till Date: An Estimate Of Role and Status of Muslim Women in India.". *Journal of Indian Research*, 2(3), 9-14.
- Wamala, C. (2012). *Empowering Women Through ICT*. Retrieved April 20, 2020, from Spider: <http://spider.dsv.su.se/files/Empowering%20women%20through%20ict.pdf>