

**Empowerment and Information and Communication Technology (ICT)
prospects and challenges for women in Zimbabwe**

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Abstract

The aim of this paper is to determine the perceived prospects and challenges of women in Zimbabwe regarding empowerment and Information and Communication Technology (ICT). These serve as indicators of success in achieving the Millennium Development Goals (MDGs), in particular MDG3 as we move towards the targeted year 2015 for their full implementation. A host of challenges have been highlighted for both initiatives with finances being a common high level challenge. The common prospects are family health improvement and business promotions for both empowerment and ICT initiatives. In the study, significant associations were observed between demographic factors of the respondents and perceptions on particular issues regarding the challenges and prospects of women empowerment and ICT initiatives, revealing specific group needs and focus requirement for their successful and sustainably implementation. The significant associations suggest that the dynamics of women empowerment could possibly be modeled using at least the multinomial regression models.

Key Words: empowerment, information and communication technology, prospects, challenges, perception

1. Introduction

Women's University in Africa's (WUA) mission is to provide quality tuition, research and service to the community to empower students for leadership and development roles. WUA seeks to enhance women's capacity through the provision of higher education, which enables them to fulfill political, economic, social and leadership roles. The University considers empowerment of women to be absolutely critical for sustainable democratic governance, economic growth, and enhanced well-being of the general populace (WUA Strategic Plan, 2012 – 2015). This study seeks to find out the perceived challenges and prospects of women in regard to empowerment and ICT by the female students at WUA in a bid to assess the achievability of the Millennium Development Goal number 3 (MDG 3) in 2015.

2. Literature Review

2.1. The need for Women's Empowerment

The World Bank (2001) developed a two-pronged strategy to eradicate poverty: large scale investment in developing countries; and empowerment of underprivileged people. Therefore, disadvantaged people had the potential to develop their lives and hence eradicate poverty if they were empowered. Women constitute about half of the total population in the world yet 70% of the world's disadvantaged are women (Action aid, 2006 in Sudweeks & Armarego, 2010). Many women are the poorest of the poor because of the extreme forms of discrimination that persist in many parts of today's world (Obayelu & Ogunlade, 2006 in Sudweeks & Armarego, 2010). Women are, therefore, not only the representatives of impoverished people in the world but they are also the most deprived and the cross-cut category of individuals that overlaps with all other

disadvantaged groups (*the poor, ethnic minorities, etc*). Although actively participating in taking care of children, family members, livestock and agricultural work (*food production, preservation and processing*), household work, health care and unpaid family chores, women have limited access to resources and economy. The World Bank (2008) has identified empowerment as one of the key constituent elements of poverty reduction and sustainable development. So, it is important to empower women to change their lives through enabling their contribution to society, thereby eradicating or reducing poverty.

2.2. Potential of ICT for Empowering Women

The researchers concur with Sudweeks & Armarego, (2010) that information is viewed as a prerequisite for empowerment, while participation drives empowerment by encouraging people to be actively involved in the development process, contribute ideas, take the initiative to articulate needs and problems and assert their autonomy (Obayelu & Ogunlade, 2006). The UN millennium development project (United-Nations, 2005) focused on globalization as well as gender equality and empowerment of women as effective ways to combat poverty in a sustainable way. Women's full and equal access to ICT – based economic and educational activities support women's contribution in business and home-based activities and help women to become more empowered. By accessing information, women can enhance their capabilities thereby improve their quality of life.

Research has found successful case studies from many countries that describe the use of ICT as a tool for the economic empowerment of women (Prasad & Sreedevi, 2007), participation in public life (Lennie, 2002), and enhancing women's skills and capabilities in society (Mitchell & Gillis, 2007). When used effectively, ICT can create better opportunities for women to exchange information, gain access to on-line education and to engage in e-commerce activities (Marcelle, 2002 in Sudweek & Omarego, 2010).

2.3. Factors in Women's Empowerment

Generally, two key factors in the process of empowerment are identified: control over resources (*the conditions for empowerment*): and agency (*the ability to formulate choices*). From the conceptual framework discussed by Malhotra, Schuler & Boender (2005) (Figure 1), it can be understood that empowerment is a dynamic process that may be separated into components, such as enabling resources, agency and outcomes.

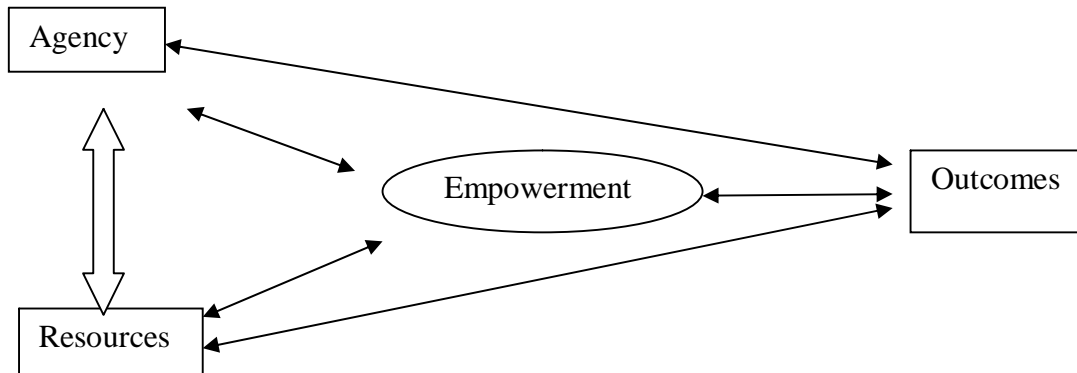


Figure 1. The conceptual framework showing relationships among resources, agency and outcomes with empowerment (*adapted from Malhotra et al., 2005*).

Alternatively, the consolidated framework developed by Chen (1997 in Sudweeks & Ormarego, 2010) details four broad pathways through which individuals' experiences change:

- Material pathway, through which changes in access to or control over material resources, such as in the level of income, in the satisfaction of basic needs or in earning capacity, are experienced.
- Cognitive pathway, through which changes in level of knowledge, skills or awareness of wider environment are experienced.
- Perceptual pathway, through which changes in individual confidence level and self-esteem and vision of the future as well as changes in recognition and respect by others are experienced.
- Relational pathway, through which changes in decision-making roles, bargaining power, participation in non-family groups, dependence on others and mobility are experienced.

To fully understand the process of change, Chen (1997) details two types of variables: the key participation variables (i.e. *demographic profile of the client, household dependency ratio and the economic portfolio mix of the household*) which are designed to measure the different levels of contact that a woman might have with various services offered by micro-enterprises; and the mediating variables (i.e. *social norms such as gender division of labor, gender norms of behavior and gender allocation of resources*), which are thought to affect the direction and strength of the relationship between participation in micro-enterprise services and impacts on individual level. This framework is useful because it reflects the culture and context of rural Bangladesh for measuring women's empowerment, which typifies most developing nations' set-up. Zimbabwe as a

typical developing country as Bangladesh; the cited framework would be likely to be useful for women's empowerment.

2.4. Trends of Digital Divide in the Global Perspective

The technological advancement in communication technology increases at a higher rate but the distribution and application varies from place to place and region to region (ITU, 2009). For example, access for ICT goods and services is much easier for a person living in Europe and United States of America than the one living in Sub-Saharan Africa and Asia (ITU, 2010).

In fact, most of the innovations and developments of these technologies comes from western world that lift them to higher level of ICT application status. However, it should be considered that technological transfer to developing world becomes an important part of minimizing the existing digital divide. In this regard, creating competitive and innovative environment for ICT sector is a key instrument in booming expansion the infrastructure in developing countries (Kimura *et al*, 2010 in Wondmagegn, 2011). Practically, many developing countries have been registering tangible progress in the last few years by expanding ICT infrastructure and universal access of communication technologies (World Bank, 2011). For instance, the report made by ITU (2010) on mobile phone coverage of Africa revealed that, only the mobile penetration rates alone would reach an estimated 41% growth by the end of 2010 (*compared to 76% globally*) leaving a significant potential for growth. This can be counted as a promissory development in dropping down the existing gap of ICT application level known as digital divide "between countries. On contrast, the spread of these technologies might worsen the digital divide as companies create dependency on the technology and service they are providing. This must be addressed by well organized and effective ICT policy. Generally, it is considerably important to expand ICT infrastructures as this advancement enhances the overall economic, social and political transformation of the poor, whose majority are women living in rural areas.

2.5. Demographic Characteristics and ICT Distribution

In a study done by Wen (2005) it was recognized that ICT distribution was highly correlated with the demographic characteristics including age, gender and marital status of an individual. According to his argument, gender affects the application of various ICT's in a way that 10 males are more likely to use ICT's than more females. Similar thoughts on gender-technology relationship also indicate that technology is not neutral but depends on the established culture (Gurumurthy, 2004 in Wondmagegn, 2011). Particularly, female in rural areas have less access and opportunity for communication technologies in a place where the culture of gender equality is minimal. The other vital factor that influences ICT distribution in a certain society is their marital status. The same study by Wen (2005) revealed that a single male or female is likely to have a less chance of using ICT in his or her day to day life where as a married individual had a high possibility.

Other studies also suggested that there are a variety of factors apart from age, gender and marital status that can be associated with the level of ICT application in a certain society. Additional socio-demographic variables including education, population size and distribution, pattern of settlement either in urban versus rural contexts are closely associated with ICT distribution (Billon *et al*, 2010 in Wondmagegn, 2011). Thus, in studying ICT uptake, it is therefore imperative to classify socio-demographic characteristics and the level of ICT distribution in a certain society.

2.6 Reasons for Slow Progress in Women Entrepreneurs

The problems and constraints experienced by women entrepreneurs have resulted in restricting the expansion of women entrepreneurship. In India for instance, reasons for slow progress include: patriarchal-male dominant social order, stiff competition, Lack of self-confidence/ will-power, lack of strong mental outlook and optimistic attitude amongst women, limited mobility, lack of access to information, family obligations, and absence of proper support systems, low levels in education and training which include lack of training in ICT (www.zenithresearch.org.in). This was also supported by findings of a survey by (ACS, 2007) which revealed that, 'Gender issues in the workplace were also acknowledged by the pervading culture of the workplace and the male dominated work environment were perceived to have an adverse impact on the working life and careers of women in the sector. Bandias & Warne (2007) in their survey work also revealed that approximately 44 percent of women had a career break at some point in their working life. The women indicated that there is no much progress in their careers. For instance, while they are aware of the new technologies that are being introduced in their organizations, upon returning from maternity, orientation is needed for familiarization.

Apart from the above discussed problems there may occur other series of serious problems faced by women entrepreneurs as improper infrastructural facilities, high cost of production, attitude of people of society towards the women modern business outlook, low needs of enterprise. Women also tend to start business about ten years later than men, on average. Motherhood, lack of management experience, and traditional socialization has all been cited as reasons for delayed entry into entrepreneurial careers (www.zenithresearch.org.in). Zimbabwe is a developing country like India; the cited barriers to empowerment of women are likely to affect Zimbabwean women as well.

3. Materials and Methods

A descriptive research design was employed in this study and a non-probability sampling method; convenience sampling was used in the selection of the sample units. The study population was female students at the Women's University in Africa. Data was collected in February 2013 through the administration of a questionnaire. A sample of size 132 was selected from the student population.

The data was analyzed using Statistical and Presentation System Software (*SPSS*) version 16. Explorative descriptive statistics were used to explore the perceptions of the students in regard to empowerment and ICT prospects and challenges of women in Zimbabwe. Tables and graphical plots were drawn to present the perceptions on these two phenomena in terms of the women's

demographic factors. Chi-square tests of association amongst the demographic factors and the perceptions of the female students on the prospects and challenges on empowerment and ICT were conducted. The significance level employed in these investigations was $\alpha = 0.05$.

4. Results and Discussions

The data showed that the high level challenges perceived by women on empowerment included the vulnerability of women to abuse (93.2%), sex stereotypes (*gender bias and inequality*) (91.6%), financial limitations (89.4%), and the discriminatory attitudes of men (86.3%). The moderate level challenges included failure to access loans due to lack of substantive collateral (82.6%), family responsibilities (80.3%), and the educational level and family background of their husbands (80%). The low level challenges to women empowerment included societal stigmatization (73.8%), women's educational limitations (70.5%), rivalry amongst women (62.6%), and women's low self-esteem (34.1%).

The perceived prospects for women due to empowerment included the improvement of family productivity (94.7%), improvement of family health (93.9%), women take control of their circumstances (93.9%); women networking and business integration (93.1%); access to vocational and open distance e-learning (89.3%), the recognition (*valuation*) and use of women labour (86.7%).

The perceived high level challenges in ICT expedition of women included their having less free time than men (94.5%), accessibility (87.8%) as most women stay in rural areas, literacy issues (86.4%), and limited financial liberty (85%). The moderate level challenge observed was that of social barriers (80%) and the low level challenges included affordability of ICT equipment (74.8%), lack of female role models in ICT (70.7%), women's technological skills being overlooked (68.8%), lack of mentors and inflexibility of the ICT work environment (63%), and that ICT designations did not necessarily meet women's specific needs (47.2%).

The perceived prospects for women due to ICT included its allowing women to access education especially through the Open Distance e-Learning (ODEL) platform (84.9%), facilitation to promote their businesses (81.6%), access to financial information (79.2%) and health information (78.4%), and it removes women's reliance on middle men for marketing hence improves on their profitability levels in their business endeavours (77.8%).

The following significant associations were revealed between the demographic factors and the perceived challenges on women empowerment: marital status and sex stereotypes ($p\text{-value}=0.036$), marital status and discriminatory attitudes of men ($p\text{-value}=0.015$). Age group was associated with perceptions on both "women have low self-esteem" ($p\text{-value}=0.003$) and "rivalry among women" ($p\text{-value}=0.025$) whilst employment status was associated with the women's perception on societal stigmatization on women entrepreneurs ($p\text{-value}=0.032$). The respondents' faculty of study was associated with both sex stereotypes ($p\text{-value}=0.001$) and "women have low self-esteem" ($p\text{-value}=0.002$). The academic year of study of the respondents was associated with their perceptions

on both “women have low self-esteem” ($p\text{-value}=0.023$) and “the educational level and family background of husband affect women empowerment” ($p\text{-value}=0.008$).

The following significant associations were revealed between the demographic factors and the perceived prospects on women empowerment: age group and the prospects of improvement in productivity of family ($p\text{-value}=0.017$), and the recognition (*valuation*) and use of women labour ($p\text{-value}=0.011$). A significant association was observed between the employment status of the female students and their perception on the prospect of women accessing education through vocational training and ODeL ($p\text{-value}=0.029$). Significant associations were revealed between the faculty of study of the respondents and their perceptions on the following prospects of women empowerment: improvement of family health ($p\text{-value}=0.029$) and women accessing education through vocational training and ODeL ($p\text{-value}=0.012$). The year of study of the respondents was significantly associated with prospects on women empowerment in both their perceptions on improvement of family health ($p\text{-value}<0.001$) and “support agencies and government efforts provide resources, subsidies and policies to sustain women empowerment” ($p\text{-value}=0.02$).

The following significant associations were revealed between the demographic factors and the perceived challenges of women in ICT; marital status and perceptions on limited financial liberty ($p\text{-value}=0.007$) and affordability of ICT equipment ($p\text{-value}=0.028$). Age group of the respondents was significantly associated with their perceptions on limited financial liberty ($p\text{-value}<0.001$), “women’s technological skills are overlooked” ($p\text{-value}=0.034$), and affordability of ICT equipment ($p\text{-value}=0.017$). The faculty of study of respondents was significantly associated with their perceptions on lack of female role models ($p\text{-value}=0.022$), and affordability of ICT equipment ($p\text{-value}=0.036$). The respondents’ academic year of study was significantly associated with their perception on the challenge of lack of female role models in ICT ($p\text{-value}=0.015$).

The following significant associations were revealed between the demographic factors and the perceived prospects of women in ICT; age group and both “ICT improves women’s access to financial information” ($p\text{-value}=0.005$), and “ICT ensures women’s self-reliance in marketing of their produce” ($p\text{-value}=0.028$). A significant association was revealed between the faculty of study of the respondents and their perceptions on the prospect of ICT giving women access to health information ($p\text{-value}=0.013$).

5. Conclusions and Recommendations

This study showed that the predominant challenges to women empowerment were vulnerability of women to abuse, sex stereotypes, financial limitations and the discriminatory attitudes of men. The least formidable challenge to women empowerment was low self-esteem.

The perceived notable prospects for women deriving from their empowerment were improvement of family productivity, improvement of family health, women taking control of their circumstances, women networking and business integration, access to vocational and open distance e-learning, and the recognition (*valuation*) and use of women labour.

The study also revealed that the perceived challenges to ICT expedition of women were women's having less free time than men, accessibility as most women stay in rural areas, literacy issues, and limited financial liberty. The least significant factor to women's ICT endeavors was that ICT designations did not necessarily meet women's specific needs.

The perceived prospects for women due to ICT included its allowing women to access education especially through the Open Distance e-Learning (ODEL) platform, facility to promote their businesses, access to financial and health information, and its removal of women's reliance on middle men for marketing hence improving their profitability levels in business. Significant associations were revealed between the demographic factors of the respondents and their perception on challenges to women empowerment notably between marital status and both sex stereotypes and discriminatory attitudes of men; age group and the perceptions of low self-esteem and rivalry of women. The respondents' employment status was significantly associated with their perception on the society's stigmatization of women entrepreneurs; the respondents' faculty of study was associated significantly with their perceptions on sex stereotypes and women's low esteem. The academic year of study of the respondents was associated with their perceptions on women's low self-esteem and the educational level and family background of husband affected women empowerment.

Significant associations were revealed between the demographic factors and the perceived prospects on women empowerment and these include associations between age group and both the prospects of improvement in productivity of family and the recognition (*valuation*) and use of women labour. The respondents' employment status was associated significantly with their perception on the prospect of women accessing education through vocational training and ODeL whilst the respondents' faculty of study and their perceptions on the following prospects of women empowerment, improvement of family health and women accessing education through vocational training and ODeL were also significantly associated. The year of study of the respondents was significantly associated with prospects on women empowerment in both their perceptions on improvement of family health and support agencies and government efforts providing resources, subsidies and policies to sustain women empowerment.

The following significant associations were revealed between the demographic factors and the perceived challenges of women in ICT: marital status and perceptions on both limited financial liberty and affordability of ICT equipment. Age group of the respondents was significantly associated with their perceptions on limited financial liberty, "women's technological skills are overlooked", and affordability of ICT equipment. The faculty of study of respondents was significantly associated with their perceptions on lack of female role models, and affordability of ICT equipment. The respondents' academic year of study was significantly associated with their perception on the challenge of lack of female role models in ICT.

The associations between prospects in ICT and the demographic factors of the female students were significant for age group and their perceptions on both "ICT improves women's access to financial information" and "ICT ensures women's self-reliance in marketing of their produce". A significant

association was also discovered between the faculty of study of the respondents and their perceptions on the prospect of ICT giving women access to health information.

We strongly recommend that a multinomial model be applied to assess the pessimistic and optimistic levels of women in regard to the attainment of the Millenium Development Goals in developing countries because of the host of associations discovered in this research between demographic factors and perceptions of the respondents.

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