

The Role of ICT in Women's Empowerment: Cross Country Analysis

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Abstract:

The purpose of this study is to check the role of ICT in women's empowerment. For this purpose we take the women's empowerment as dependent variable and ICT, use of mobile and internet, the gender equality in education and the economic equality as independent variable. The results reveal that there is positive relationship between use of mobile and internet with women's empowerment. As use of mobile and internet increase the women's empowerment also increase so the Government should increase the availability of mobile network and internet facilities to enhance the women's empowerment.

INTRODUCTION

What is empowerment?

Empowerment is defined as the freedom of choice and action. For the lower class of people that freedom is very limited especially for women. Women are depends on their husband in most of activities.

The definition of empowerment as follows;

Empowerment is the enlargement/development of assets and power of poor people to participate in, arrange with, affect, control, and hold accountable institutions that affect their lives.

It is well known fact that the illiteracy rate of women is large than the men. According to the 2011 census the literacy rate of male is 82.14 percent while the literacy rate of female is 64.4 percent .But for the progress of our country is necessary to reduce this gap of literacy rate between male and female. It is very important fact that for the progress of the nation women must be awoken, once she is move, family moves, villages move and the nation move. As we know that the progress of the nations is based on the education of females. While the institutions of education for women are short as compare to the men. ICT plays a very important role for the education of women to the outside world. ICT are closely linked to power and the ability to affect change. ICT has become very important in every field of life such as, to promote the education empowerment, social empowerment and economic empowerment etc. In the developing countries the information technology is most important for their progress.

Women in developing countries are quite powerless they are the extensive part of the divide, more they removed from the mobility age as compare to the men whose poverty they share. Most of the Indian women are still lives in customary position they have no awareness of advance age. The rule of gender equality is incorporate in the Indian structure in its perfect, basic rights, basic duties and direction rules. ICT is known as a tool of women's empowerment there for if one country wanted to be more powerful it must be introduced information and communication technology. Before that we explain the role of ICT we must be known what is ICT?

The information and communication technology is defined as a set of technological tools which made the global world like as a family. With the help of the information and communication technology we connect with whole of the world at any place and any time easily.

In this surrounding ICTs are appear as a strong device for women empowerment in many developing countries. There has been fast growth in the ICT sector since the late 1980s and the use of the ICTs has dramatically enlarged since 1990s.

1.2 ICT AND WOMEN

In the developing countries women play a vital role in every field of life such as, family community and nations. The study by Imran et al. (2021) examines global regulatory perspectives on artificial intelligence (technology) in autonomous vehicles, stressing challenges in harmonizing standards, ensuring safety, and addressing ethical concerns. It highlights that coherent frameworks not only enhance safety and public health but also indirectly support remittances by improving migrant workers' mobility and transport reliability.

Therefore, the education of females is necessary in the developing countries for their progress. The educated nation is based on the educated mother. But in the developing countries the less attention is given to the women's education as compare to the men. Therefore the illiteracy rate of females is higher than the males. ICT offer the direct chance for illiterate, those who lack of skills and lack of self confidence. Here are some aspects of life which have a direct influence of ICT especially on women.

- 1) Women's increase access to job market.
- 2) Increased of average household income in villages
- 3) Women empowerment.
- 4) Easy-family communication.
- 5) Increased social awareness.

1.3 ICT AND DEVELOPMENT

The ICT plays a very important role for the progress of the underdeveloped countries. The ICT sector consists of parts such as telecommunication, television and media transmit, computer hardware software and services and electronic media. The need of ICTs can be fulfill by the conventional sources such as printers, telephony lines, space station technology and internet. Customary technologies are most important for huge number of people around the world, especially in rural areas. However, new technologies have a vast potential for the women empowerment or for the progress of the developing countries. Over the past decade, there has been growing understanding that these technologies can be powerful instruments for advancing economic and social development. ICT also have the potential to improve interaction between Government and citizens. While the ICT plays a vital role for the economic growth and socio-economic development.

1.4 ICT and gender equality:

ICT is considered as a device for the promotion of gender equality and women's empowerment. ICT gives the chance to men as well as women of awareness and technical education. With the help of ICT women work side by side with men. ICT is proved helpful to reduce the gender gap. Hence, interpretation the connection with other area will help schedule makers to apprehension why some policies are failed though of an increase in physical, economic and political scope. Although ICT in rural Bangladesh is not much affected for the women in rural areas but they helping to deliver the required information which finally changes their thinking point of view and develop their self respect and self confidence.

1.5 THE NEEDS FOR WOMEN'S EMPOWERMENT

The world bank (2001) identified two factors to remove deprivation: wide-ranging speculation in development areas; women empowerment. The poor people have chance to improve their life style and remove their depressiveness if they are powerful. The share of the women in total population is more than half of which 70% women are powerless. Most of the women are poorest of the poor due to the inequity which remain in many areas of the today's world. Although it has been work on look after the poor families, the animals which are raised to generate a profit and cultivation

work but the women have no access to these resources. The world Bank identified the women's empowerment is one of the factors to reduce poverty and acceptable development. It is a major factor that to improve the life style of women and empower women it is necessary to reduce their depressiveness.

1.6 MEASUREMENT OF WOMEN'S EMPOWERMENT

While the ICT is used for women's empowerment in many countries in Asia, Africa, and other upward countries in the world, there is no exact technique for measure and track changes in level of empowerment by ICT involvements.

For example, several investigate techniques (counting contributor examination, person interviews, grouping interviews, analysis of chosen e-mail messages, comment questionnaire that provide qualitative and quantitative facts and figures, and numerical investigation of demographic and individual information) were used to examine empowerment and disempowerment of country women in Australia, an industrial country. The women's empowerment is measured in two ways: as procedure from side to side which there is vary for larger equal opportunity or bigger liberty of choice; and action. Empowerment also considers as agency, where women themselves must have important participation in the change procedure that is individual explain or measured.

1.7 WOMEN'S EMPOWERMENT THROUGH POVERTY ALLEVIATION

Women's empowerment is one of the important troubles of global section. This trouble is display in the definition of 1000-year period progress aim. The women's empowerment is third of these aims for example, equality of men and women. Depressiveness is one of the main problems of lack of women's empowerment. There are various government policies based on small and large scale is used to reduce the poverty and to empower them. In the recently it has been examined that if and where, poverty reduction programs really helpful for the women's empowerment in Pakistan. Unfavorable in this study are the problems of regulation of NGOs performance in the aspect of aesthetic standard and advantage of the community and the political and economic position in which poverty reduction programs are run in a society. It has been analysis that the social and political and economic condition of women which central in the process of women's empowerment.

1.8 LITERACY RATE AND WOMEN'S EMPOWERMENT

The fact that women are half of the total population and most of the women are illiterate which is major cause of women's disempowerment. In spite of high literacy programs and technical education interventions particularly selective women including UNESCO'S LIFE scheme the disproportion between men and women remain constant in many countries of the world. This starting point for thinking about women's literacy rate has however often led to a narrow focus on literacy access and outcomes. Whereas, the planners have try to recognize and control hurdle to women's involvement, investigator have directed to measure the social and economic welfare of women's literacy rate. Statistical association has been presented as verification of the impact of women's literacy: for example, in Pakistan, women with a high level of literacy earned 95 percent more than women with no literacy skills yet there was only a 33 percent differential amongst men. Within each analysis however, little attention has been given to the social process associated with literacy learning and women's empowerment.

1.9 Literacy and education for sustainable development and women's empowerment and education aims to promote:

Recognized the adult education programs require how the formal and non formal education interacts. The learning programs should be such as which fulfill the needs of modern age and

attractive and responsive. In the context of society foundations learning programs have also famous access to introduced society issues, such as the preservation of company forest resources. Though, such policies have often acquired an educational approach to transport messages about persistent progress through stories or articles addressing environmental topics such as social soil humiliation and weather change. However, the purpose may have been encourage the individual student to concern the problems to their own position, in practice literacy smoothers have repeated concerns only ones transport environmental messages and asking learners to memories and repeat them.

1.10 WOMEN'S ECOMOMIC EMPOWERMENT

Women's economic empowerment is essential for supported progress, reduction in absolute poverty and the acquirement, is about of all the Women's empowerment is about rights and just a fair societies. Women's economic empowerment is the volume of women and men to take a part in, accord to and welfare from growth process in ways which identify the advantage of their participation, favor their honor and make it practicable to arrange of equitable distribution of the benefits growth. The women's Economic empowerment increases the women's achievement to economic resources and chance including jobs, monetary services, depressiveness and other productive assets, skills development and market information. The Women's economic empowerment is the foundation of women's empower and strength which enable the women to have control on their lives and increase the chance of self-esteem.

It is about to increase the equal chance for women in all the activities of the society. Women often bear differences and gender inequalities, with some women experiencing multiple differences and prohibition due to the elements such as origin or project. Women fulfill 66 percent of the world's work, and manufacture 50 percent of the food, still earn only 10 percent of the income and have individual 1 percent of the depressiveness however, the problem is better education in the development world, or fighting global weather change, or addressing nearly any other challenge we face, empowering women is a significant part of the education.

1.11 WOMEN'S EMPWERMMENT AND SOCIAL CONTEXT

Social scientists have been also interested to improve the women's empowerment. Actually the equality of male and female is important for economic growth; to reduce the depressiveness and increase the human welfare, and interest in the ingredient and correspond of women's empowerment has also grown. Unhappily, ignorance over the definition and measurement of this idea remains, universal. Actually the women's social empowerment measures by their years of schooling, employment skilled and age at marriage rest alive, though increasingly called into question on both spiritual and actual aims. The current discussion on that topic is that what is women empowerment, how can we measure it and what are its ingredients.

After studying about the spiritual problems, we back to the facts and figures collected in South and Southeast Asia that allow explaining three main factors about the conceptuality and measuring of women's empowerment. The first point is that power within family circle the particular aspect of women's empowerment on which we meeting point is strongly unfair by social context because it is strongly determined by social institutions rather than by individual characteristics. The second point is that all aspects of women's empowerment are multidimensional and the interrelations among different scope depend on social context. Finally, the socioeconomic proxy for women's empowerment uses in past studies do good job of indexing only some aspect of women's empowerment and power and only in some framework.

1.12 EDUCATION AND WOMEN'S EMPOWERMENT

Seeing as the UN announcement of the decade of women in 1975, concentration and act on women's concern have progressively enlarged and learning though it is form of consciousness-raising or talent addition, was one of the areas women's corporation, government organization and worldwide contributor agencies paying attention on. The fundamental supposition was that if women unspoken their situations, know their human rights and academic ability usually deprived of to them, empowerment would follow. Eighteen years have passed and there are different views as to whether such statement about growing entrance to schooling and preparation have resulted in the leaning of the power equilibrium in support of women.

In the global seminar of women's empowerment there was a discussion about the women's education in improving the condition of women, in the long run. Moreover, the seminar held throughout a critical period at the UNESCO organization for education, where women's non-formal education is very important. In 1995 the world seminar on women to be under arrest in Beijing the objective of the seminar many procedures and activities related to the women's problems which will be organized or supported by the institute. The encouragement of action-oriented investigates and the step up of teamwork with different institutions concern on women's education needs will be one of the preferences of the institute in the coming years. The very important of education must be underline and verified on a permanent basis. The organization as it improved was talented to offer a sense of what different organizations were doing and how this could be progressed. It was decided that this could be initial point for assessing the scope to which learning has empowerment women.

1.13 The use of internet and mobile and women's empowerment:

- The advances in the use of information and communication technologies for example, mobile, internet, social media and telephone represents a insurrection that people interrelate among each other, communicate, access information, entrance services live by acting as a facilitators for easier and faster work at all levels. These increments have a tough prospective for the empowerment of women, as well as for the society as a whole. At the same time, new challenges come into view in conditions of risks posed, that need to be recognized and addressed properly by strategy maker and humanity as a whole.
- The united nation played a vital role by sketch the global concentration to the positive and negative aspects of the internet in relative to the women's empowerment. There was a seminar of Beijing in 1995 in this seminar there was an announcement for action has included among its main areas of concern that of "women and the media", counting new technologies of communication. The world summit on the in sequence humanity (WSIS) of 2003, 2005 and 2015 and connected result credentials and agenda have also promote the function of women in technological world.
- The European Union work on such activities in the fields of education and training of girls and women to foster employment and private enterprise in the ICT sector, which increase the chance of women work in ICT. It has also in recent times paying attention on judgment behavior to make certain that bargain in human being and aggression throughout the internet can be fight in the on-line world in the same way as in the actual world.

- A statement by the fundamental rights agency has particularly raised the problem of whether current codification on aggression against women is well-matched to fight cyber trail and cyber-irritation and on whether service suppliers should be called to better put off and fight against illegal, as well as accommodate suffer of these proceed.
- The committee of Europe Istanbul meeting on preventing and fighting savagery against women and physical injury by one family or household member already passion a commitment for state get-together to forbidden course, counting cyber stalking, as well to encourage the participation of the private sector and the media in preventing and fighting aggression against women. EU Member states are in procedure of endorsement the convention, while the EU might also agree and confirm it.
- A broad choice of goals have been recognized in key to uphold the empowerment of women in the digital world, such as guarantee entrance to information through the internet; supporting education, training and literacy in ICTs; involving women in the decision-making in the media sector; promoting employment and entrepreneurship of women in the media and ICTs; fighting violence against women through and trafficking in human beings through the internet; countering stereotyping of women in the media and the internet.

1.14 Promoting the gender equality and women's economic empowerment:

Achieving the gender equality requires dealings to pay compensation for obtainable disadvantages that stop equal opportunity from individual accessible to both men and women. UNECE has recognized quite a lot of key areas where depressiveness for women at present survive in the area and has well-known strategy and programmatic policies that are at this time being implemented in many of its member states to target them. These key areas include access to resources, fairness in the workplace, private enterprise development, conclusion making power, and the understanding of work and family responsibilities.

There are following steps to encourage the economic parity and women's empowerment:

- It is necessary to provide the identical achievement for men and women and equal opportunities in every field of life for example in monetary resources, information, in education and training. The strategies painted in this brochure meeting point on the eradication of hurdles, that women look to accessing, for example, the rights to their own land in Kyrgyzstan, microcredit loans in Albania, concerning fiscal organization and the fundamentals of market economics in Uzbekistan.
- The middle function that promoting equal attention, a gender sensitive work environment, and equitable opportunities for advancement play in eliminating the gender pay gap. Policies nominated to eradicate the inequalities of men and women in the workplace objective the wage disparity that remain a constant test in the UNECE.
- The traditions in which micro and small enterprise are supported, most of these enterprise are run by the women, is an necessary device to generate new chances for women to produce income new permanent pattern of production of goods and services. Programmatic responses to address everywhere issues in the region such as the need for networking opportunities and hold up system for women entrepreneurs, because well as the need for dedicated knowledge and skills preparation are highlighted.

- The significance of ever-increasing the percentage of women that are incorporated in top-down organizational management location in the section as a means trail to women's empowerment.
- The need for facilitating a balance between work and family life as means to overcome women's with determination disadvantaged location in the labor market as a result of having to select between full salaried employment and care giving responsibilities.

1.15 POLITICAL EMPOWERMENT OF WOMEN

South Asia is a home of diversity of traditions, languages and religions. Here we can find variations in customs, value system and traditions of life. But one thing is ordinary among all the traditions and areas of South Asia that is sex differentials. Women conventionally are careful lower-ranking to the male and this remained a well-known aspect both in the urban and the rural areas. In urban areas a little enhancement is due to improved level of education and economic self-determination in women. There is very less difference of cultured and unqualified as that of religion in this regard.

The state of affairs is enhanced with observe to political empowerment particularly with the allocation of 33% seats in local government in South Asia but in most of the cases this change is not satisfactory. The actual empowerment would be achieved only if it would be conducted by the communal and productive empowerment. For that motivation, community has to be changed at large. Such change cannot be transpired only throughout any coercive codification or tough position exploit in the wink of an eye. But the information remains there that in society where all the change start from crest to bed these measures beside with a strapping opinionated will can motivate a change to get better the condition gradually.

Women's political empowerment itself is not a goal but it is influential in motivating the society for social and political empowerment which would extra encourage the on the whole progress and modification in the community. The survival and participation of women in choice making process would facilitate them to improve the gender inequitable strategies and rules on one hand and would sustain fairness based new laws and policies on the other.

Since the official situation is interested, the constitutions of approximately all the South Asian countries believe equal benefits for all people and refuse any unfairness on the foundation of gender unaccompanied. But still inequity in law making and strategy making is continued. It has been a difficult dispute in political discipline that no one represents the other apart from the interests. Special lessons and the minimized should be representing through their own representatives. So it is actually supposed that only women can represent their interests and their presence is unavoidable in conclusion making bodies. In South Asia women are generally underrepresented in the high level power structures specially the countries which are not observing quotas in their parliaments for the symbol of their women population.

1.16 OBJECTIVE OF THE STUDY

The objective of the is to check the role of ICT in women's empowerment. For this purpose we take the we take the women's empowerment as dependent variable and ICT, use of internet and mobile, education, and economic equality as independent variable. We concluded that there is

positive relationship between the women's empowerment and ICT, gender equality in education, and use of mobile and internet.

Literature Review

Lechman and Okonowicz (2013) investigated are women important for economic development? In the context of 83 world countries by being offered free access to educational infrastructure, women become better educated, improve their Skills and capabilities, gain possibilities to enter the labor market and use financial resources to start up their own businesses. In the empirical part, we use a cross-country panel data, for 83 economies, which are derived from world development indicators 2012 database International Monetary Fund world economic outlook database April 2013. The time coverage is set for 1990-2011.

Duflo (2011) investigated women's empowerment and economic development in the context of USA. Women's empowerment and economic development are closely related: in one direction, development alone can play a major role in driving down inequality between men and women; in the other direction, empowering women may benefit development by using the data from 1992 to 2012.

Beena and Mathur (2012) investigated role of ICT education for women empowerment in the context of INDIA by using ICT as independent variable and women's empowerment as dependent variable and the sample size of the research was 200 by no of trainees and 30 by no of instructors of different governmental and nongovernmental organizations of Jaipur district. Researcher used random sampling technique to select the sample for the study.

This research concluded that the information and communication technology empower a women in various areas like social, educational, personal, psychological, political, technological and economical.

Khan (2013) investigated the women's empowerment through poverty alleviation in the context of United Kingdom by Using the OLS technique. Poverty alleviation as independent variable and women' empowerment as dependent variable. Finally this study concluded that although poverty alleviation helps women to lead a better life, it does not improve that status of women in the household women are still victims of violence and exploitation in offices and at work places.

Tariq and Bussry (2012) investigated the educational empowerment of women in the context of Pakistan. Education as independent variable and women empowerment as dependent variable the data for this purpose was based on closed ended questionnaire, in which a 5 point scale was developed to gauge the perception of the experts and their responses were evaluated with the help of chi square and two way analysis of variance.

The major conclusion was that the implementation of the policies regarding educational empowerment of women in KPK is perceived to be highly unacceptable.

Chaudhary, Chani, and Pervaiz (2012) investigated an analysis of different approach to women empowerment in the context of Pakistan. Using economic empowerment of women and women overall development as independent variable and women's empowerment as dependent variable. They use the data 1996 to 2009 for Pakistan. Empirical results reveal that consciousness of women about their rights, economic empowerment of women and women's overall empowerment have positive and significant effect on women's empowerment as measured by gender empowerment measure(gem) index.

Nwosu (2014) find out the hospitality education in the context of Nigeria using hospitality education as independent variable and women empowerment as dependent variable. This study is

relatively small size of the sample (300) and subsequent number respondents (80) by using the survey technique. The paper shows the significant relationship between level of educational attainment, type of the employment engaged in, and the range of income of hospitality education.

(Assaad, Nazier, & Ramadan, 2014) find out individual and household determinants of women empowerment in the context of Egypt by using different individual and socio-demographic determinant as independent variable and women empowerment as dependent variable. They use the Egypt labor market panel survey elms 2012, estimated 9 decision making index and a mobility index. Context was not only found to be an important determinant of women's empowerment as measured by our two indices, but it was also found to affect the impact of the other individual and socio demographic determinants on women's empowerment.

Azra Batool, Ahmed, and Qureshi (2017) investigated impact of demographic variables on women's economic empowerment in the context of Pakistan using the demographic variables as independent variables and women's economic empowerment as dependent variables. A sample of size 500 married women between 21 and 49 years old was conveniently selected from district Multan Pakistan. Ordered Probit regression was run to assess the demographic determinants. Finally it is concluded that we will not be able to enhance the economic empowerment of women unless we explore the factors that determinants economic empowerment in women.

(Imai, Annim, Kulkarni, and Gaiha (2014)) find out Women's empowerment and prevalence of stunted and underweight children in rural India in the context of India. This study investigates whether mother's empowerment measured by her education attainment relative to father's, domestic violence, and autonomy is related to children's nutritional status using the three rounds of inches data in India. This study draws upon three rounds of NFHS data, nfhs-1 (year 1992-93), nfhs-2(1998-99), NFHS (year2005-06). Multiple techniques use in this paper for example, (or), (OLS), and (iv) methods are used.

Bozzano (2016) investigated on the historical roots of women's empowerment across Italian provinces: religion or family culture? In the context of Italy religion and culture are used as independent variable and women's empowerment as dependent variable. OLS and IV techniques are used in this paper. They obtained the data from 2010 to 2015. Both OLS and the results indicate that our measures of women's empowerment are strongly associated with religion culture and proxied by religious marriages. These results are robust and consistent across specifications.

Cornwall and Sardenberg (2014) investigated participatory pathways: researching women's empowerment in Salvador, Brazil in the context of Brazil. This article explores a series of research initiatives in Salvador, Brazil that sought to integrate transformative feminism into the study of women's empowerment as a part of international research program involving researchers from Latin America, the Middle East, South Africa, West Africa, UK, and the USA. They use the integration technique in this paper. For those who came to be part of the projects, the empowerment dimensions of working together in this way include the self efficacy and self-esteem that are envisaged in psychological accounts of empowerment as well as well as the more material focus of international development's definitions of empowerment.

Kingsberg, Krychman, Graham, Bernick, and Mirkin (2017) investigated the women's empowerment survey: identifying women's perception on Vulvar and vaginal atrophy and its treatment in the context of USA. Vulgar and vaginal atrophy (VVA) affects up to two thirds of postmenopausal women, but most Symptomatic women do not receive prescription therapy. Methods: the rose research firm conducted an internet survey of female consumers provided by

light speed global market. Women at least 45 years of age who reported symptoms of (VVA) and residing in the United States were recruited. The sample size ($n=1,858$). Conclusion: the women's empowerment survey showed that VVA continues to be an under-recognized and under-treated condition, despite recent educational initiatives.

A disconnect in education, communication, and information between HCP's and their menopausal patients remains prevalent.

Subramaniam, Tan, Maniam, and Ali (2013) investigated workplace flexibility, empowerment and quality of life. In the context of London empowering women to participate in economic life is one way to improve the quality of life for women, families and communities. However, many women exit from the formal labor market resulting in women's participation stagnating at around 40 percent since the 1990s. Using a mixed method approach, this study examines whether workplace flexibility may impact women's empowerment and quality of life. They used a sample of 400 female employees from the services sector answered a self-administered questionnaire complemented with 30 interviews. Multivariate analysis and structured interviews showed that workplace designed with flexibility has a positive impact on women's empowerment and quality of life.

Bushra and Wajih (2015) investigated assessing the socio-economic determinants of women empowerment in Pakistan in the context of USA. In this paper, an attempt is made to explore the determinants that have an influence on women empowerment in Pakistan. Sample consisted 200 female respondents from two renowned universities in Lahore. The empirical results showed that the content of education, economic participation of women, poverty and economic opportunity available for women increase their empowerment. In this study, apart from conventional variables, a variable, women having a bank account was also tested which showed a extreme significant positive impact on women empowerment. It supports the economic opportunity available to the women increases their power. Finally, it is concluded that these significant factors influence empowerment of women, so one can focus on these determinants to increase and enhance women's role in our society.

Nikkhah, Redzuan, and Abu-Samah (2010) investigated the effect of women's socio-demographic variables on their empowerment in the context of Malaysia. This study elucidates the relationship between socio-demographic variables of women and their education, occupation, family income and marital status on their empowerment. Data was collected 195 women who participated in empowerment process which organized by NGOs in the whole city of Shiraz.

The result of study showed that among the socio-demographic variables, only education and marital status had effect on empowerment. It can be concluded that access to education and knowledge play an important role increasing women empowerment. The result also showed that the divorced women have high level of empowerment compare to married and widow women. This is might due to that married women couldn't get their husband permission to participate in empowerment process.

Weiss, Hussain, and Sathar (2001) investigated the social development, the empowerment of women, and the expansion of civil society in the context of PAKISTAN using the debt and poverty trap as independent variable and women empowerment as dependent variable and OLS technique. DATA is obtained from 1990 to 2000.

Finally it is concluded that though by prioritizing social development, enabling women to become full participants in the state, and expanding the power and possibilities that civil society groups by prioritizing social development, enabling women to become full participants in the state, and expanding the power and possibilities that civil society groups can play, Pakistan will find that

these are the most viable strategies to break free from the debt and poverty trap in which it finds itself today.

Hashemi, Schuler, and Riley (1996) checked out rural credit programs and women's empowerment in Bangladesh in the context of USA. Rural credit as independent variable women's empowerment as dependent variable. The author use a combination of sample survey and case study data to argue that success of Germen bank is particular, in empowering women is due both to its strong, central focus on credit and its skill use of rules and rituals to make the loan program function.

Namadi and Aliyu (2017) investigated an appraisal of the impact of subsidy reinvestment program on women's empowerment in Kaduna state in the context of NIGERIA using the subsidy reinvestment and empowerment program (SURE-P) AS INDEPENDENT variable and women's empowerment as dependent variable. The sample for the study comprised of 120 beneficiaries of the SURE-P and 40 community leaders drawn using stratified random sample purposive and snowball sampling techniques. The finding revealed that the program has succeeded in providing vocational skills training, materials and assistance.

Kabeer (2001) investigated conflicts over credit: re-evaluating the empowerment potential of loans to women in rural Bangladesh in the context of UK using the positional access to credit as independent variable and women empowerment as dependent variable. The method of ordinary least square used in this model. Finally result is that if greater efficiency and equity help to lay the ground for women to tackle other aspects of injustice in their lives, then we will have found a different and perhaps more sustainable route to women's empowerment.

Nazier and Ramadan (2015) investigated the determinants of women empowerment in the context of EGYPT using the women empowerment as an outcome of interest by defining the different socio demographic determinants within the house hold estimated an ordered logistic model using micro level data from the EGYPT labor market panel survey ELMPS 2006. The result came in line with the literature education, employ, marital status, age, household size, and the social norms appeared as significant determinants of women empowerment.

Bera (2016) investigated the WOMEN EMPOWERMENT THROUGH EDUCATION in the context of INDIA. They used education as independent variable and women empowerment as dependent variable. They used data from 2011 to 2013. Finally it is realized that education enables women not only to acquire knowledge but also aid to help them to achieve the economic security social status, self confidence, courage and inner strength to face challenges in life and reduces disparities and exploitation upon them.

Mason and Smith (2003) investigated women's empowerment and social context: results from five Asian countries* in the context of USA. This paper analyzes multiple measures of married women's empowerment in the domestic sphere in 56 communities spanning five Asian countries (India, Malaysia, Pakistan, the Philippines, and Thailand). The results suggest that policies to rise women's age at marriage enhance their educations and open greater employment opportunities will also help to empower them, at least in some respects.

Schuler, Hashemi, Riley, and Akhter (1996) investigated credit programs patriarchy and men's violence against women in rural Bangladesh in the context of USA. The independent variables Are respondents, age, education, religion and weather and dependent variables are women's empowerment. The findings presented in this paper are based on ethnographic research by resident researchers in six villages in two region of Bangladesh between 1990 and 1994 and random sample

survey of about 1300 women conducted in 1992, as part of a larger study of microenterprise credit programs and transformations in women status and productive norms in Bangladesh.

Shahbaz, Luqman, and Cho (2014) investigated analysis of rural development timeline in Korea and Pakistan: what lesson Pakistan can learn? in the context of in the context of KOREA. The main objective of this paper is to sequentially analyze the major themes in rural development By taking the case studies of Pakistan and Korea using the framework proposed by Ellis and Biggs.

The data presented in this paper is based on an intensive review of literature and in-depth interviews with some key persons from different organizations in the Republic of Korea.

Integrating approach for example, processing/value addition and marketing of the farm produce at the local level is successful Korean model that can also be used in Pakistan. The concluding argument is that though contextual, cultural and socio-economic differences may be taken into account while comparing the development history of different countries, developing countries can learn substantially from the experiences of a developed country in some particular sector, Notably in the problem solving approach, integrated strategy, agricultural value addition, strengthening Of local governments, livelihood diversification in rural areas, effective linkages between different organizations and emphasis on sustainable livelihoods.

3.1 WOMEN'S EMPOWERMENT

Women's empowerment is a complex, multi-dimensional, fluid and emerging concept with in feminism and development literature. It has economic, political, educational, social, cultural, religious, personal, psychological, and emotional elements. Empowerment appears to be context-specific and has multiple determinants. Women are capable of empowering themselves while external actors and agencies can create supportive environment.

Women's empowerment is defined in a wide variety of ways some of which include access to material resources such as land, money, credit and income, availability of decent employment opportunities that involve good working conditions, access to power through representation in political and decision-making bodies, the freedom to make choices in life, enjoyment of basic rights granted in the constitution and international agreements, equal success to quality education and health facilities, mobility to be able to access various facilities, and control over one's body, sexuality and productive choices. Empowerment is believed to be the road to women's own equality, rights and fulfillment, while the instrumental view regards women's empowerment as the means to a better family, economy, society and nation.

3.2 ICTs and women's empowerment

To understand the extent of the influence of ICTs education on women's empowerment, an exploratory research was conducted. Primary data was collected using survey questionnaires for women of the Jaipur region. The method use in this study was aimed at eliciting response from women who are participants in the use of burgeoning ICT technologies. These ICTs factors include computer, mobile telephony technology, the internet and other facets of the changing methods and means of communication to man today. In the recent past, ICTs have been added to the women and gender equality debate. ICTs are being presented as a tool having potential to benefit women's empowerment and a number of ICT projects that specifically target women have been established in several developed and underdeveloped countries.

Role of education in achieving women empowerment: In spite of constitutional guarantees, legislative provisions, judiciary mandate and administrative efforts, the women empowerment India is still lacking in some areas. Mere enactment of laws and chalking out of schemes are not much effective for women empowerment. Hence education is need for this. The national

curriculum framework of women pointed out, education of women is an important key to improving health, nutrition and education in the family and also empowering them participate in decision making”.

Moreover education enables women not only to acquire knowledge but also help them to achieve economic security, self-confidence, vocational and technical skills and guidance, good health and safety, courage and inner-strength to face challenges in every spheres of life and enable them to play equal role as men in nation-building. Education can be used as a tool for reduction of inequalities and gender bias so that women can move from weak position to execute their power or capabilities in society. The

The national policy for the empowerment of women, 2001 stated, equal access to education for women and girls will be ensured, special measures will be taken to eliminate discrimination, universalize education, eradicate illiteracy and create gender sensitive educational system, increase enrolment and retention rates of girls and improve the quality of education to facilitate life-long learning as well as development of vocational or technical skills of women. Hence some practical steps should be taken as follows:

1. Different types of educational institutions should be established exclusively for women in the state.
2. Traditional evil norms and practices, such as child marriage child labor, dowry system, child prostitution, polygamy and female feticides should be strictly banned by enforcing laws and creating public awareness.
3. The government should provide a package of educational grants, such as „Kanyashri“ of women and concessions in the form of providing free books, uniform, mid-day meals, scholarships, cycles and so on for enrolment for more girls and reducing the drop out students, especially from marginalized families of BPL.

Adult and continuing education, social education, home schooling etc can be used as a tool of basic change in the status of women. It would help to develop in women entrepreneurial skills and job opportunities. In rural areas mobile library, distance education through the media, non-formal schools should be provided for the life-long education and empowerment of women. Technical and vocational education should be provided particularly to the rural women, such as tailoring and weaving, mushroom farming, bee keeping, fruit pulping etc, for improving their vocational efficiency so that they can be self- appointed and self-supportive. The government will have to offer financial support and teach them how they can earn money by starting business activities.

□ The efforts of Govt. and N.G.O.’s will be co-ordinated in respect of implementation of schemes and Programmers for empowerment of women. Better facilities of health care, sanitation and medication should be provided to women. The judiciary should look after the molestation cases with special care and transparency.

3.3 WOMEN ECONOMIC EMPOWERMENT

Economic empowerment has been defined in several ways by various researchers and organizations. In simple terms, economic empowerment combines the concept of empowerment and economic advancement. Approaches to economic empowerment concentrate on factors that help women succeed and advance in marketplace. This includes increasing skills and access to productive resources, improving the enabling and institutional environments, assisting women in their ability to make and action upon decision in order to benefit from economic growth and development. Approaches must also recognize that economic empowerment is interviewed with social and political empowerment. Taking into account the underlying social and cultural factors

that limit women's ability to interact with and benefit from markets, such as unpaid and inequality distributed domestic and care work, limited mobility, and the prevalence of sexual and gender-based violence, is essential if initiatives are to address the full range of constraints to women's economic empowerment.

3.4 HEALTH AND WOMEN'S EMPOWERMENT:

Health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity. (WHO, 1948) This definition adopted by the world health organization in 1948 has continued to inform policy development, including the recent SDGs, which emphasize this broader understanding of health as well-being not limited to policy in the health sector. The theory of social determinants of health (SDOH) underline that our health is affected by divers influences including work, ethnicity, food security, gender, the environment, social relationships and of course, education. The WHO engages directly with this recognition of how social and economic inequalities affect health through its constitution, which emphasize a rights approach (WHO,2006).

3.5 PROMOTING CRITICAL APPROACHES TO HEALTH AND LITERACY FOR WOMEN'S EMPOWERMENT:

Underpinned by a human rights approach to literacy and health, most programmers reviewed here adopted a participatory pedagogy, drawing particularly on a freirean critical literacy approach, involving awareness-raising and action. Though functional literacy certainly played a part in women's empowerment (such as enhancing economic roles through learning to keep records and budgets), there was also evidence of the symbolic value of literacy in enhancing women's identities and roles in public space. This kind of empowerment had indirect impact on health and well-being-whether giving women the skills and confidence to advocate for or set up new health facilities or become more assertive within sexual relationship within the household. The emphasis on critical approaches to health and literacy as connected to relationships of power challenged the common practice within many women's literacy programmers of incorporating didactic health messages into literacy primer. Although current literature (UNESCO, 2015c) suggests that mobile phones and another technologies can be used to critically engage learners with digital ways of communicating, there is surprisingly little evidence of digital practices within adult literacy and health programmers.

3.6 POLITICAL EMPOWERMENT OF WOMEN IN Pakistan:

NO nation can rise to the height of glory unless your women are side by side with you; we are victims of evil customs. It is crime against humanity that our women are shut up within the four walls of the houses as prisoners. There is no sanction anywhere for the deplorable condition in which our women have to live. You should take your women along with you as comrades in every sphere of life. (Muhammad Ali Jinnah, 1944) With the advent of the Pakistan Movement, women's participation in the freedom struggle became a dire necessity, both for increasing the Muslim vote bank and for displaying numerical strength at the Muslim League's political rallies. In 1940 Mr. Jinnah announced, "Women are supposed to create a sense of general political consciousness. They should stand shoulder to shoulder with men in practical politics."¹ This saw the removal of cultural

and social restrictions on their traveling for purposes of attending political gatherings. Unfortunately, in spite of the Quaid's personal views, 1948 saw an abrupt end to this temporary political freedom. However, a few determined women continued to play very important roles in the political empowerment of the women of Pakistan. This article seeks to record and eulogies their successes, while simultaneously analyzing the effects of their failures on the body politic of Pakistan. The first such lady was Miss Fatima Jinnah who was an inspiration to the women of Pakistan and continues to be held in high esteem even today. She formed the Women's Relief Committee, which played a vital role in the settlement of refugees in the new state of Pakistan.

3.7 Equation:

The equation which researchers estimate is the follows:

$$WEP_i = \beta_1 + \beta_2 ICT_i + \beta_3 EEQ_i + \beta_4 POL_i + \beta_5 ECOEQ_i + \beta_6 HEA_i + \mu_i, \quad i = 1, 2, \dots, 127.$$

In this equation the WEP represents women's empowerment which is dependent variable and ICT represents information and communication technology, EEQ represents education equality, POL represents political empowerment ECOEQ represents economic equality and HEA represents health which are independent variables. i represents the number of countries which are 127.

3.8 Data Sources:

The study use the women's empowerment as dependent variable and use of mobile and internet education and ICT as independent variable. The data of women's empowerment is taken from Global Gender Gap Report (2016) by World Economic Forum. The data for mobile, internet, education and ICT is taken from global competitiveness report 2016-2017 by world economic forum and world development indicators by world bank.

Results and interpretation

Dependent Variable: WPE

Method: Least Squares

Date: 04/19/17 Time: 01:16

Sample: 1 127

Included observations: 127

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed

bandwidth = 5.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MOBILE	0.000558	0.000312	1.785824	0.0766
INTNET	0.003777	0.001326	2.848315	0.0052
EEQ	0.208978	0.165314	1.264130	0.2086
ECOEQ	-1.387097	0.494471	-2.805213	0.0059
ECOEQ^2	1.354752	0.425281	3.185542	0.0018
C	0.225033	0.211310	1.064943	0.2890

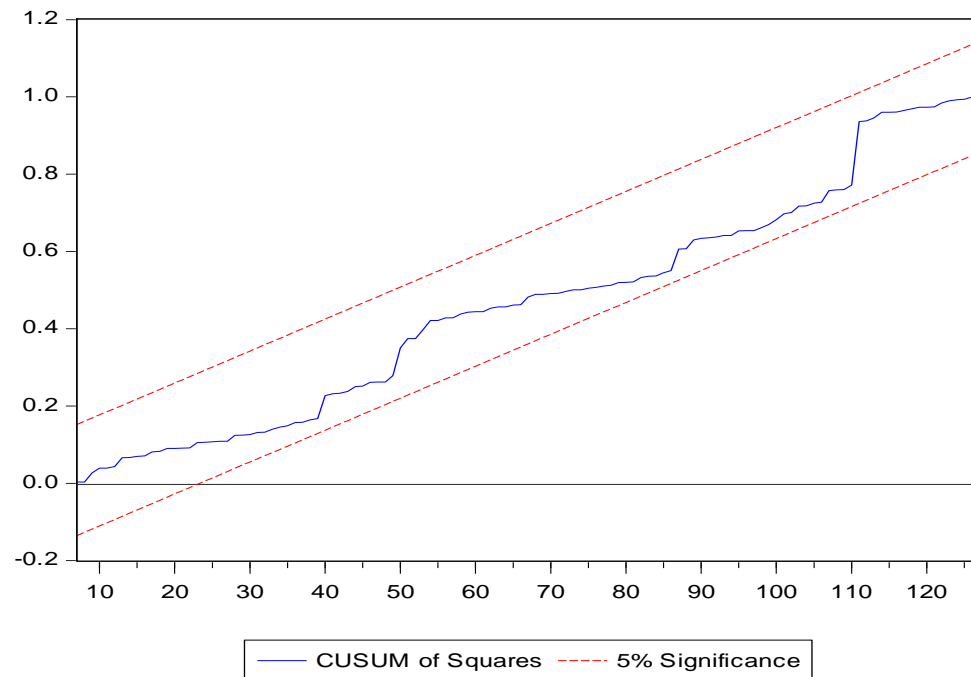
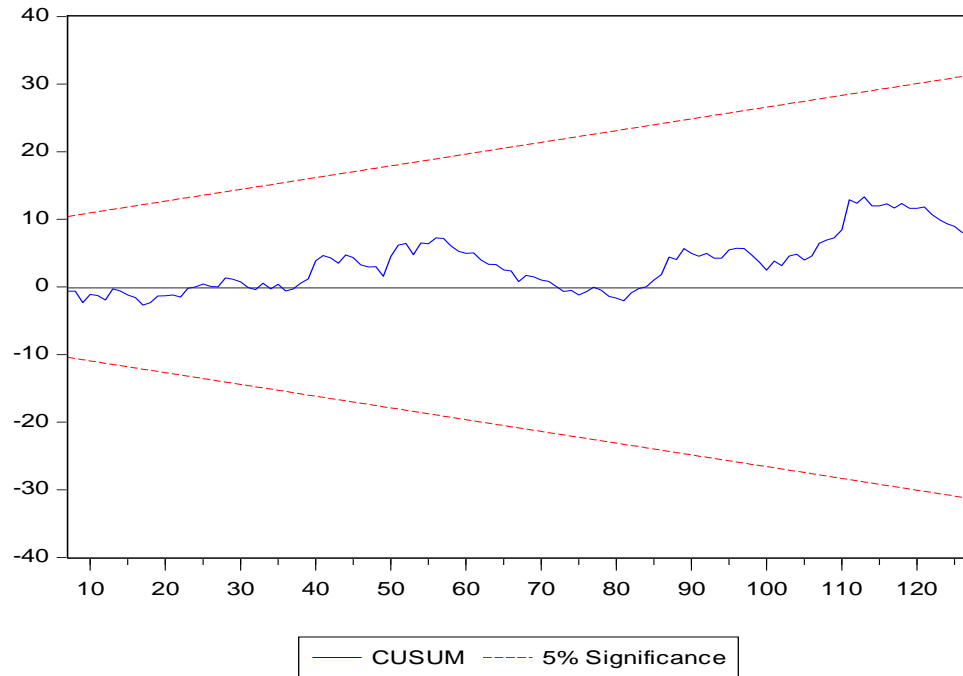
R-squared	0.226695	Mean dependent var	0.209388
Adjusted R-squared	0.194740	S.D. dependent var	0.151623
S.E. of regression	0.136061	Akaike info criterion	-1.105341
Sum squared resid	2.240010	Schwarz criterion	-0.970970
Log likelihood	76.18919	Hannan-Quinn criter.	-1.050748
F-statistic	7.094254	Durbin-Watson stat	1.936068
Prob(F-statistic)	0.000008	Wald F-statistic	6.859704
Prob(Wald statistic)	F-0.000011		

Interpretation: Women's empowerment and the use of mobile have positive relationship as the use of mobile increase women's empowerment also increase. Hence the probability value is less than level of significance which is 10% so we can say that there is significant relationship between women's empowerment and mobile phone use.

The use of internet and women's empowerment have positive relationship, as the use of internet increase women's empowerment also increase. Hence the probability value is less than level of significance which is 10% so we can say that there is significant relationship between women's empowerment and internet use.

The gender equality in education and women's empowerment have positive relationship as gender equality in education increase women's empowerment also increase. Hence the probability value is greater than the level of significance which is 10% so we can say that there is insignificant relationship between women's empowerment and education.

Initially economic equality and women's empowerment have negative relationship after the specific level the economic equality and women's empowerment have positive relationship hence the economic equality and women's empowerment have u shape relationship. If p value is less than significant level over all regression model is significant.



Heteroskedasticity Test

F-statistic	0.016032	Prob. F(1,124)	0.8994
Obs*R-squared	0.016289	Prob. Chi-Square(1)	0.8984

To check the heteroscedasticity we use White test. White test has the null hypothesis stating that there is no heteroscedasticity. Hence the probability value is greater than the level of significance which is 10% so we accept the null hypothesis. Hence we can say that there is no heteroscedasticity.

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.122489	Prob. F(1,120)	0.7270
Obs*R-squared	0.129502	Prob. Chi-Square(1)	0.7189

To check the problem of autocorrelation, Breusch-Godfrey Serial correlation LM test is used. LM test has the null hypothesis stating that there is no serial correlation. The probability value is greater than the level of significance which is 10% so we accept the null hypothesis. Hence we can say that there is no autocorrelation.

Covariance Analysis: Ordinary

Date: 04/19/17 Time: 01:22

Sample: 1 127

Included observations: 127

Correlation

t-Statistic	WPE	MOBILE	INTNET	EEQ	ECOEQ
Probability					
WPE	1.000000				

MOBILE	0.042734	1.000000			
	0.478219	-----			
	0.6333	-----			
INTNET	0.355311	-0.305530	1.000000		
	4.249810	-3.587477	-----		
	0.0000	0.0005	-----		
EEQ	0.206856	-0.391409	0.460174	1.000000	
	2.363845	-4.755497	5.794928	-----	
	0.0196	0.0000	0.0000	-----	
ECOEQ	0.246698	-0.000552	0.253169	0.187813	1.000000
	2.846130	-0.006168	2.925836	2.137853	-----
	0.0052	0.9951	0.0041	0.0345	-----

There is positive association between mobile use and women's empowerment. Hence the probability value is greater than level of significance which is 10% so we can say that there is insignificant association between mobile use and women's empowerment.

There is positive association between use of internet and women's empowerment. Hence the probability value is less than level of significance which is 10% so we can say that there is significance association between use of internet and women's empowerment.

There is positive association between education equality and women's empowerment. Hence the probability value is less than level of significance which is 10% so we can say that there is significance association between education equality and women's empowerment.

There is positive association between economic equality and women's empowerment. Hence the probability value is less than level of significance which is 10% so we can say that there is significance association between economic equality and women's empowerment.

Conclusion

The purpose of this study is to check the role of ICT in women's empowerment. For this purpose we take the women's empowerment as dependent variable and ICT, use of mobile and internet, the gender equality in education, the economic equality as independent variables. The results indicate that use of mobile and internet positively affect women's empowerment as use of mobile and internet increase women's empowerment also increase. There is significant relationship between use of mobile and internet and women's empowerment at 10% level of significance.

The gender equality in education and women's empowerment have positive relationship. As gender equality in education increase women's empowerment also increase. The gender equality in education and women's empowerment have insignificant relationship at 10% level of significance.

There is negative relationship between economic equality and women's empowerment as economic equality increase women's empowerment decrease. Hence there is significant relationship between economic equality and women's empowerment at 10% level of significance. But there is positive relationship between square of economic equality and women's empowerment it means initially as the economic equality increase women's empowerment decrease but after the specific level as economic equality increase women's empowerment also increase so we can say that there is U shape relationship between economic equality and women's empowerment.

POLICY IMPLICATIONS

The results reveal that there is positive relationship between use of mobile and internet with women's empowerment. As use of mobile and internet increase the women's empowerment also increase so the Government should increase the availability of mobile network and internet facilities to enhance the women's empowerment.

The gender equality in education and women's empowerment has positive relationship with the increasing of gender equality in education women's empowerment also increase. The Government should increase facilities of education to improve the education so that the women's empowerment enhance. The Government should increase the educational institutions and educational plans to promote the women's empowerment. The economic equality should increase with increasing rate so that the women's empowerment enhance.

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