# INFORMATION COMMUNICATION TECHNOLOGY (ICT) AND WOMEN EMPOWERMENT FOR RURAL AREA

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# ABSTRACT

Women at rural area should be empowered in order to help family income. In some cases, they have a productive activity to help in increasing the family income; such as having a small home industry, etc. Therefore, in supporting their economic activity, media or Information Communication Technology (ICT) is not significantly becoming a point to raise the family income or to improve the quality of society development. While in some countries, ICT is part of poverty reduction program, could help in increasing the family economy and also is used by women for their productive activities. Thus, it is also needed the women's role, while so far, it is not calculated in. This paper is to explore about how media ICT could be part of women empowerment in helping to improve their family income especially for rural area. The result shown that in some developing countries, ICT has benefit for women in improving the family income.

Key words: ICT, media, women empowerment, poverty reduction, rural area

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## I. INTRODUCTION

Media communications and information, or better known as the Information Communication Technology or ICT (which is be abbreviated in this paper) is growing rapidly in Indonesia. People can take advantage of ICT such as selling goods online. Basically, there are many previous studies that look at how the media or ICT should be able to assist people in small-scale business. This study are mostly done in several developing countries such as India, Malaysia, Bangladesh and African countries and hese are based on several research have been condustued. Thus in Indonesia, there is no studies have examined more about ICT and women empowerment in the rural area. So far the writer finds that there is a research about society empowerment by Siti Amanah but its not about women empowerment. Then a research about ICT and women empowerment at coastal area was conducted by Susri Adeni and Machyudin Agung. It can be said that the writer do not find about ICT and women empowerment at rural area. Meanwhile, in some countries, ICT is used for women at rural area to generate their family income, such as in Bangladesh, India, and some African countries where it will be discussed later on this article.

It is an interesting fact that Indonesia is a large country with many population live in rural area but so far there is no poverty reduction programusing ICT especially for women. The ironic thing is the population between urban and rural area is getting balance. In 2014, 50% population is in rural area and 49,8% is in urban. In 2015, there is almost equal number of population between urban and rural area. Further to this, the period September 2014 to March 2015 poor people increases. If in September 2014 the poor numbered 27.73 million, in six months the number increased to 28.59 million (Gianie, 2016). Some significant the programs to eradicate poverty have been done by government. Ministry of Social Affairs records, at least 20 governments have programs to address the problem of poverty, i.e. *Program Subsidi Beras Sejahtera (Rastra), Program Indonesia Pintar, Program Keluarga Harapan, BPJS Kesehatan, Kelompok Usaha Bersama, dan Rumah Swadaya.* However, there are still many households that have not been able to get out of poverty. That is because the programs are not yet integrated. Moreover, the target of different programs and databases that are used are not the same so it is difficult to measure the effectiveness of the program. A simple example, many very poor households do not receive appropriate *Rastra* quota (15 kilograms) (Gianie, 2016).

From the explanation above, it can be said that the poverty program is generally for all gender. There is no spesifically to improve women to be empowered in helping family income. Another fact that the use of ICT for women is still low. Thus women are not able to promote or to use ICT. Data shown that women is sill still letf behind in using ICT. There are only 22% of women internet users in Asia, 8% in Latin America, 6% in the Middle East and only a few in Africa (Lestari, 2011).

Women empowerment is meant to be associated with poverty reduction programs. Where generally poverty is very high at the coastal areas and rural area. Thus, it is needed a program that can really touch the general public, particularly women and housewife at the rural area. This becomes the focus of the problem, because in general, the housewives stay at home or even work at the farm. So it is necessary to strengthen the women to be able to help the family income.

Based on the explanation above, it is a fascinating discussion about people who live in rural area especially on how actually ICT can be used for rural area and how women can get involved. Thus it will give an opportunity to empower women at rural area.

#### **II. LITERATURE REVIEW**

# The concept of Empowerment and Women's Empowerment

Empowerment is a process to improve the people by building and spread the influence of authority. To do this, a person or an organization must have power. Thus power is the ability to influence individuals, groups, decision, or events (Rappaport 1984 cited in Mardikanto, 2010). Acceptance theory of authority basically lies on the affected side (influencee), not the party which affects (influencers) (Kinlaw, 1999). Basically when talking about women's empowerment, community empowerment will be discussed.

Related to the meaning of the concept of community empowerment, empowerment is the core of the three-fold, namely development (enabling), strengthening the potential or power (empowering), and the creation of independence (autonomy). Starting from this opinion, empowerment is not just happened to people who do not have the ability, but to the people who still have a limited amount of power, can be developed to achieve independence (Winarni, 1998).

Meanwhile, according to Amber Teguh Sulistiyani (2004), community empowerment is a learning process that takes place gradually, which include: (a) Phase awareness and behavior

towards the formation of conscious and care so that the they feel and need to improve the capacity of themselves; (b) Phase transformation capabilities in the form of insight knowledge, skills that open horizons and give basic skills so that they can take a role in development; and (c) Phase enhancement of intellectual abilities, thus forming innovative initiative and ability to deliver on independence. Further to this, Sulistiyani illustrates the various models of community empowerment and partnership in her book titled Partnership and Models Empowerment. Clearly and straightforwardly, the book explains about the various terms and understanding of empowerment which involves three main pillars that collaborate in a partnership, namely the government, the private sector and the public. Related to this research, thought from Sulistiyani open our insights on how community empowerment, so it will be able to optimize the role of the community in a variety of development. Partnership and empowerment is a necessity of the government to the public in development activities.

The efforts of community empowerment should be made well in all aspects of political, economic, social, cultural, educational, religious, and others. According to Harry Hikmat (cited in Sedarmayanti, 2005), community empowerment is not only to develop the economic potential of the community alone, but it must also be able to increase the dignity, self-confidence and self-esteem, as well as the preservation of the cultural value system of society itself. The core of the movement of empowerment in development are "of, by, and for" community, which includes: (a) formulation of the concept; (b) Preparation of patterns; (c) planning process; (d) The empowerment movement; (e) monitoring and assessment of implementation results; and (f) Development of preservation empowerment movement. Community empowerment strategies basically have the direction and policies include: (1) Direction alignments to the public, (2) Direction stabilization and delegation of authority in the development of the developing community participation, (3) Direction modernization through sharpening and strengthening the socio-economic and cultural which is based on the role of local communities (Hikmat 2001 cited in Sedarmayanti, 2005).

Further about women empowerment, Lennie (2002 cited in Allahdadi, 2011:40) has developed a model for women empowerment. There are four types of women empowerment, i.e.:

- 1. **Community empowerment**: Access to new and useful knowledge and awareness, Developing new skills, abilities, confidence and competence, obtaining the friendship and support of other women, participating in various activities with other women.
- 2. **Organizational empowerment:** New knowledge and awareness about new benefits of technology for rural development through rural cooperatives.
- 3. **Political empowerment:** Influencing other government policies and decisions that affect on rural communities, changing town-based people's beliefs, networking with people in government and industry and other women to discuss issues affecting rural women and rural communities.
- 4. **Psychological empowerment:** An increase in self-confidence and self-esteem, Greater motivation, inspiration, enthusiasm and interest to develop new skills and knowledge, to keep pushing for better services for rural people, feelings of belonging related to participation in the online groups in particular (Lennie, 2002 cited in Allahdadi, 2011:40).

These types of women empowerment can be drawn as seen bellow:

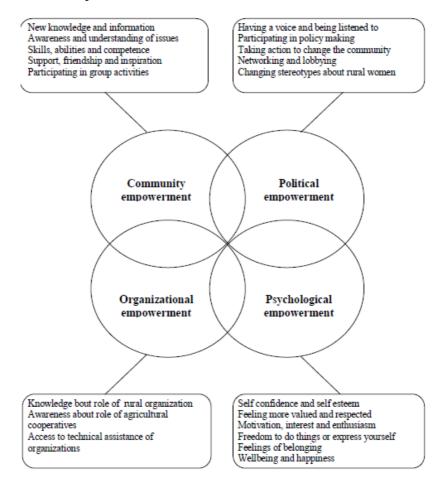


Figure 1. The key forms and features of rural women's empowerment Adapted from (Lennie, 2002 cited in Allahdadi, 2011:41).

The picture describes the component of each of types of women empowerment. Each element are related and connected each other. Also, it can be seen that one of community empowerment parts is new knowledge and information; where it can be defined that ICT is becoming part of empowerment for women. The writer also noted that iIn terms of using ICT, there should be a continuity workshop for women in using ICT. Besides, the women organisastion should be strenghten to gain a good and qualify result in women empowerment. So, it is not only a discourse on women empowerment of using ICT. All aspect of local governemnt should support the program in order to increase the knowledge of women and finally to generate their family income as it is drawn from the picture.

#### Media/ICT

Media is one part of the fulfillment of information needs of the community. Media are better known as the Information Communication and Technology (ICT) have contributed also in the economic life and development. So that in the following sub-chapter explored more specifically the ICT for Development (ICT4D).

## Information Communication and Technologies for Development (ICTs4D)

ITC) is used almost every day by people. ICT can be television, telephone, radio, satellite dish, internet and computers. ICT according to Kwapong and Adwoa (2007:46) is "a set of potential delivery and instruction and instructional tools that can be used to help people acquire skills associated with the traditional notions of literacy". The notion of clearly stated that while the tools are used, the main function of this tool is to help people in work or other activities. Then, the growth of ICT also plays a role in development and can improve the quality of human life (Heeks 2002; McNamara 2003; Chapman, Slaymaker and Young 2003; Hongladarom 2004; Indjikian and Seigel 2005; Tongia, Subrahmanian and Arunachalam 2005; World Bank, 2006; Papaioannou and Dimelis 2007; Hanna in 2008 cited inTiwari, 2008: 449).

The benefits of ICT development can be felt in urban areas and also in rural areas. Holmes (2004 in Kwapong, 2007: 46) found

Technologies and tools that people use to share, distribute, gather information, and to communicate with one another, one on one, or in groups, through the use of computers and interconnected computer networks. They are mediums that utilize both telecommunication and technologies to transmit information.

From the above statement, Holmes distinguishes major function of computers to humans. However, the ICT function cannot be accessed by the entire community. But basically, ICT can assist in policy development to improve the standard of living. Some studies show that ICT advised in rural communities (rural areas) as done by Olaniyi Sofowora (2009) in Osun State, Nigeria with the title "The potential of using information and communication technology for Poverty Alleviation and economic empowerment in Osun State, Nigeria". The results showed that with development planning in the field of ICT, it can help the poor to improve the economy or the income of the community.

Other research is conducted by Farrokh Mamaghani (2010) with the title "The social and economic impact of information and communication technologies on developing countries: an

analysis", shows that ICT can be used by people in developing countries can improve the living standards of the poor. The studies were carried out in several developing countries is very attractive so that it can be concluded that ICT are basically positive impact for development although no doubt there is also the negative impact of his.

Discuss about ICT and women in particular, this refers to how women use and utilize ICT to help their lives. But women are often seen as person who is less knowledge about ICT and more men are seen as being able to use ICT. So this needs to be researched and in-explore on how actual the use of ICT and ICT role models in women's empowerment. Emphasized by Nath (2001 cited in Kwapong, 2007: 47) that

ICT in the context of knowledge societies is understood as building the ability and skills of women to gain insight of actions and issues in the external environment which influence them and to build their capacity to get involved and voice their concerns in these external processes, and make informed decisions.

To gain access to women, women must have the skills. Furthermore, as Kwapong (2007: 47) says there are five important issues on the relationship between women and ICT. First, the policy and implementation of ICT should be clear. Secondly, there must be an alternative information delivery. Third, recognition of the socioeconomic characteristics of the household for women is needed. Fourth, the concept of empowerment should be clear to define a clear generalization about what empowerment for women and ICT. Finally, feedback is needed in order to evaluate the empowerment program. Further to this, European Commission Information Society and Media (2010: 15) underlines that 'women should have equal access and benefit fully from the development, design and application, and finally had the opportunities offered by the market.'

From these explanations, it can be concluded that the development of ICT in all areas is basically to help the community and to improve the lives of women and can help overcome the problems of poverty.

# **III. METHODS**

This paper is written by using description method where the data is gathered from the literature. It can be said that it is a literature review. In order to gain the data, the study of scientific documents is necessary; which means to further examine written sources that can

provide becoming primary data. The document is in the form of books that are relevant to the topic of the paper, the results of previous studies, annual report development projects, articles in scientific magazines published by institutions and academics, and even when it is considered necessary then look for some references from the Internet. Based on this method, it is expected to have an overview of women empowerment at rural area in using ICT, so it can be further research to be deployed.

#### **IV. DISCUSSION**

Information and communication technologies (ICTs) has come to every aspect of our lives; from city/urban area to rural area. Women and men are using ICTs, children at school also know about ICTs. It can be said that ICT is spread from community radios in the most rural parts of the globe to cellular phones in the hands of women and men in every community on earth, to computers in almost every medium to large organization.

For some reasons, ICTs have brought advantages to human life. For instance, it can connect people from all over the world without going or travelling in a high cost. People can search information easily about what they want to know. Also, ICTs can provide opportunities in increasing economic development and social engagement. However, ICTs can affect in a negative ways for human life such as cybercrime, pornography, and others.

The advancement of ICTs has brought new opportunities for both knowledge and information availability both for women and men.ICTTs can provide unlimited opportunities for economic development and social engagement through new innovative thinking and tools. Specifically, without a thoughtful policy, strategy, and execution plan to ensure women's full engagement in the knowledge society, the places in which they work, the families for whom they care, and the communities in which they live and serve will not thrive.

#### Several Cases for Women Empowerment at Rural Area

This sub-chapter discusses about several cases for women empowerment at rural area. It covers from several developing countries. For Indonesia case, the writers attempt to explore about the availability of that research but it is quite hard to find the research result about it.

**Firstly,** the case is from a research conducted in Bangladesh. The research was from Zebunnessa Laizu, Jocelyn Armarego and Fay Sudweeks in 2010 with titled The Roal of ICT in Women's Empowerment in Rural Bangladesh. Bangladesh is drawn as a poor country with 45% people living below the poverty line. The major problems are gender inequality, lower education, unemployment, income inequality, business failure, poor infrastructure, political instability and environmental degradation are the main causes of poverty in many developing countries like Bangladesh (Szirmai,2005 cited in Laizu, Armarego & Sudweeks, 2010:217).

The reality about rural women in Bangladesh is they have limited access to resources and public spheres due to socio-cultural restrictions. It is stated that women suffer from severe discrimination, and it is thought this is heightened due to a lack of access to information. Information communication and technology (ICT) is a potential tool that can reach rural women and enrich their knowledge. The research is conducted in under using the beneficiaries data and informan of two projects in Bangladesh, which are Development Research Network (D.net) and Our Village Online (Amader gram online). In the village of Boitpur where the D.net project has been established, 20 women who were using ICT tools like mobile phones, computers, or the Internet and were beneficiaries of the Village Information Project, were interviewed. Another 30 women in the village, who were part of D.net but not part of the ICT project or who were not part of any project, were also interviewed. Though Amader Gram was established in 1998 in Srifoltala village, since 2003 it has been working to motivate the young generation morally, and change their mindset through ICT education. The six programs on which they are working are: (i) Breast Cancer; (ii) Amader Gram Database Program; (iii) Knowledge Center; (iv) Literacy for Livelihood; (v) Monitoring and Evaluation; and (vi) and (vi) Rural News Online. They have about 691 enlisted beneficiaries in Srifoltala village.

The research result is there are differences outcomes from those two villages from different project. In Boitpur, as most of the ICT women are student trainees and employees of the project, they can use a computer, and the Internet and they are involved in paid training programs of at least 3 months. So, they are gaining more knowledge and education because of the depth of project purpose. On the other hand, it can be seen that in Srifoltala village, there are combinations of various categories of purpose of involvement for women. Most of the women participated in the "Computer for all" program, which is a one-day program to introduce computers to rural people. In this program, project staff members carry a computer on a three-

wheeler from door to door, to show groups of people what the computer is, how it works, how important it is and engage the women by allowing them to touch it and use it so that their fear of new technology can be eliminated.

The result reveals that women with ICT skills have a higher confidence level, more selfesteem, self-awareness and dignity, and they feel freer and much more independent than non-ICT participants in Boitpur village under the D.net project. But for the Amader Gram project, there is less change in women with ICT. These women are showing less confidence, selfawareness, dignity, freedom and independence than non-ICT participants. Only self-esteem is slightly more than non-ICT participants. It can be said that though women in Srifoltala village have computer and Internet facilities within their village, they are not getting the full benefit of ICT for enriching their knowledge and education because of the lack of active participation in the projects. So, the ICT project in Srifoltala is failing to meet their goal to empower women in that rural village.

To conclude, it is important that ICT projects working with rural women look at their needs and inspire them to become involved in the project more actively and for a longer length of time to benefit rural women. If women's engagement in ICT is active and in-depth in terms of learning and education, then women could become more empowered. Moreover, poverty could be alleviated in rural populations in Bangladesh by women acquiring knowledge and education.

**Secondly,** the case from India. The paper from Rasheed Sulaiman V, N. J Kalaivani and Nimisha Mittal (2011) with tittle ICTs and Empowerment of Indian Rural Women; What can we learn from on-going initiatives?, stated that India has been a major hub for rural ICT experiments for more than two decades. It has clearly revealed the huge potential of new ICTs in improving efficiency, effectiveness and reach of rural (as well as urban) service delivery. They also highlight the scope in ensuring the much needed transparency in both government and business. There are several findings from their work, i.e.:

 ICTs do play an important role in disseminating a wide range of information and advice leading to knowledge and attitude change among rural communities. It is also supporting rural communities to acquire new skills and is also creating new employment opportunities. However, the continuing digital divide between urban and rural areas and between men and women currently constrain the realization of the full potential of ICTs in reaching rural women.

- 2. Radio (All India Radio) and Television disseminate a wide range of information relevant to socioeconomic development and these include agriculture, health, rural employment, environment, eGovernance etc. Women who have access to these media have mostly benefited as passive recipients of information and advice. However, with addition of new program formats such as phone-in-programs, these media are now becoming more interactive.
- 3. Out of the different ICTs, only Community Radio (CR) and Rural Knowledge Centers (RKCs) were found to have an agenda and a mechanism for addressing the locally relevant information needs of rural women. But its extent of effectiveness is closely dependent on two sets of factors, namely, the extent of ownership and management by women in these initiatives; and agenda, focus and vision of organizations employing these tools.
- 4. ICTs hold lots of promise for organizations working for the interests of women or having an explicit agenda for social inclusion, gender focus and pro-poor development.
- 5. ICT-based enterprises have potential to employ more number of rural women who are educated up to 10th or preferably 12th classes, in the lower end of the BPO sector. There are also opportunities to train some of these rural women for self-employment in the IT sector (data management, DTP, as trainers).
- 6. In most of the other ICT initiatives that depend on print media, internet kiosks, portals, call centres, mobile, video digital photography etc, there is not enough evidence to show its wider access and use by women. This could be due to the following reasons:
  - These tools and its applications are intended for the rural communities without any specific attention for women's special needs for information and their constraints in accessing these. Men are specifically targeted in these initiatives as they take decisions on inputs, farm operations, marketing, accessing government schemes etc.
  - The information provided through these tools are generic and so while it adds to the information base of rural communities including women, its lack of contextualization prevents both men and women from using this information effectively.

• Lack of adequate research on women's access to ICTs and the resultant lack of data, constraints any specific action that might be needed to improve women's access.

It is interesting to note from the research result above that there is lack of adequate research on women's access to ICTs.

Thirdly, there is an on-going research about Women Empowerment and ICTs in Bengkulu but the research only focusing at coastal area, not in rural area (Adeni and Agung, 2015). Based on the temporarily result, it can be showed that women have a willingness to learn more about ICT and they are interested in using ICT to generate their income. In fact, the local government is not supported yet what they desire. It is also found that they used to have internet connection but then it stopped due to many reasons such as extensive monthly payment, no one use it, etc. While, from the discussion with women, they said that some of them did not know about there was internet connection in their village. After some time interacting with women and held a focus group with women in coastal areas in both subdistricts, the researchers know that there is a strong desire of women, especially mothers to take advantage of the Internet to support their production activities although still in a small scale. The desire is also essentially driven by the ever presence of internet connection in the subdistrict office, but then is not utilized to the maximum and the inability to use the internet. However, basically the women in both villages have a hope for the more advanced in their productivity.

From several cases written above, it can be concluded that in one side women empowerment thought ICTs can increase women's knowledge and ability in order to enhance their socio-economic development. In other hand, inappropriate of using ICTs could lead into negative side of the ICTs. And the model of women empowerment drawn above is not yet applied in several research that writers found.

The fact from several research proves that women are keen to learn about the ICT in order to increase their knowledge. However, they find difficulty in accessing the internet, lack of information, low literacy rate and others factors. While in some research found that women are also able to increase their family income by using ICT. It means that women should be given more space to empower themselves. Further to this, it can be said that this is an interesting research area to be more developed.

# **V. CONCLUSION**

The cases show that in several developing countries, there are numbers of research about ICTs and women at rural area. In some case, ICTs can give a positive benefit for women; where it can improve women's quality life. Women are also able to use ICTs to increase their economic income. The model of women empowerment can be employed in rural area but so far the writer does not find the research yet about it. The model also can be interfered in ICTs program. To sum up, with an appropriate program or policy about women empowerment and ICTs, it would increase women's quality life.

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