Black Sea Journal of Public and Social Science
Open Access Journal
e-ISSN: 2618-6640

BSPublishers

Research Article
Volume 1 - Issue 2: 68-85 / July 2018
(Cilt 1 - Sayı 2: 68-85/ Temmuz 2018)

INFORMATION AND COMMUNICATION TECHNOLOGIES AND ADVANCED MEDIA INNOVATIONS IN TEACHING, TRAINING AND SKILL DEVELOPMENT FOR ENTREPRENEURSHIP AND EMPOWERING OF RURAL WOMEN

Farhood GOLMOHAMMADI[1]*

[1] *Department of Agricultural Extension and Education, Islamic Azad University- Birjand Branch- Birjand, Iran*

Submission: *December 17, 2017;* ***Published:*** *July 01, 2018*
(Gönderi: *17 Aralık 2017;* ***Yayınlanma:*** *01 Temmuz 2018)*

Abstract: Education is no longer seen as an end in itself but rather as a key instrument for bringing about the changes in knowledge, values, behavior and lifestyles required to achieve sustainability. There is a common international context of rapidly changing globalized economies, communications and human cultural perspectives, where knowledge is a key resource, and where the need for skilled workforces and active citizens is making increasing demands on education at all levels. Using applications of Information and Communication Technology (ICT) for poverty reduction and for the economic empowerment of poor women and men in rural areas have been experienced world wide. Tele-centers are making tools available for villagers. It can provide rural people with information related to their business, reduce the costs of money transfers, and put microfinance within the reach of poor men and women. Tele-center is a public facility that offers shared access to Information Communication Technology Applications. The purpose of this talk is to introduce the Rural ICT activities in Iran and specially reviewing the results of Socio-Economic Impacts of Rural Tele-centers in Iran, in order to find how Iranians use these facilities for poverty reduction and for economic improvement of poor women and men in rural areas. While getting the essential knowledge to those who need it most remains difficult and expensive, much optimism has been generated as a result of the increased growth and sophistication of new electronic information services. Even in remote rural areas, Information and Communication Technologies (ICTs) are offering new options to deliver knowledge and information to villagers directly and indirectly through knowledge intermediaries. Evidence shows that even small efforts to put rural telecommunication policy on the national agenda can have significant results. In this chapter, author state a brief history about complementary of agricultural, industrial and information revolutions in history of humankind, and importance of rural development and human development and situation of women specially rural women in these processes, a brief history of Telecommunication and Internet and comparison between face-to-face education with Technology-based education, concepts of sustainable development and rural development, importance of ICTs in re-shaping of human societies, concept of empowerment of rural women, situation of women and girls in Iran specially in rural regions, gender and agriculture in information society, loops of household production in rural regions with emphasis on women works, model of empowerment of rural women through employment, different approaches and rationale for supporting women's entrepreneurship in different schools of development and growth, a brief statement of some national and international projects that have focused on ICTs for rural women in different countries and continents, potential strategies and approaches for improving access of women to ICTs, five areas that need to be

targeted in any ICTs project to create an environment where women stand to directly benefit from ICTs as much as men, state situation of rural women in Turkey in accessing to ICTs in their development affairs, livelihood information cycle in rural regions, important informational needs of rural people, system elements of implementing ICTs for diffusion of innovations in rural regions etc. In the author presented conclusion and recommendations from discussions in situations of women conditions in rural regions.

Keywords: ICTs, Rural, Women, Education, Empowerment, Entrepreneurship

***Corresponding author:** Department of Agricultural Extension and Education, Islamic Azad University, Birjand, Iran
Email: farhood.gol@gmail.com (F. GOLMOHAMMADI)

1. Introduction

Sharing rural ICT experiences is a very important issue. Limited access to Information and Communication Technology, ICT, means that rural communities lack basic information that could assist them in improving their livelihoods. ICT services can support development in rural areas (Jalali et al., 2011). What makes a nation great and wise is education that percolate all through the people (Golmohammadi, 2011).

We must see that information technology and telecommunication get there (to rural areas) Very fast. If we are interested in eliminating poverty, you have the best chance ever in human history through telecommunication, through information technology, through micro credit (Professor Yunus, Founder of Grameen Bank and who turned the concept of micro credit into a reality for millions of poor rural women in Bangladeshand winner of Noble prize).

Education is no longer seen as an end in itself but rather as a key instrument for bringing about the changes in knowledge, values, behavior and lifestyles required to achieve sustainability. There is a common international context of rapidly changing globalised economies, communications and human cultural perspectives, where knowledge is a key resource, and where the need for skilled workforces and active citizens is making increasing demands on education at all levels (Stanef et al., 2012).

Within the context of change the idea of life-long learning emerged, understood to cover all learning activities undertaken throughout a person's lifetime with the objective of improving knowledge, competences and aptitudes given a personal, civic, social or employment perspective. The integration of professional competences and evaluation of competences is a requirement, which must be adopted by current educational programs (Carmenado et al., 2011).

Nowadays, underprivileged countries are regularly drowned by the swiftly mastering up to date ICT technologies. Several of the key factors that direct to these tribulations are because of lack of means, inadequate infrastructures, segregation and cultural backgrounds. This is in particular for folks who live in rural area, in general rural community having obscurity to get an access because the majority of them are not depending too much on the internet in their daily live. Some of the cause that may contribute to the "ignorance" of the rural community to the modern world is for the reason that they satisfied with their present living manner and it does not harm them for not knowing it.

There are initiatives that will be taken in order to enhance the competency and productivity as well as to increase opportunities to generate wealth, increase the R&D sector, expand the usage of modern technique and technology as well as develop marketing capabilities and infrastructures.

In order to revolutionize their approach of judgment that they have to move further in the IT world, we need to propose them somewhat that they will not oppose. It is a necessity for us to develop a specific local content such as education, religion, health etc. for them so that they will feel attracted and keen to look at the content.

To accomplish this goal, all parties such as government, private and NGO's are to play their role to the maximum thigh so that it will endow with greater impact in achieving the objective that has been set. Although we should bear in mind that for the entire positive values it requires a long period for the reason that the process of acculturation the use of IT will not be seen in a blink of an eye. It requires lot of effort and consistency and if a community able to do this then automatically, it will be a part of our way of life. With this, it will ensure that the future generations will be more competitive in whatever challenges that coming their way (Mohammed, 2012).

In 1985, a very huge exhibition performed in Tsukaba in Japan (Tsukaba, EXPo 85, the 21th Century's in View). During six months that doors of the exhibition opened to viewers, twenty millions people visited from it. This exhibition was a great propaganda for technology of Japan, but also made opportunities for thinking about future human communications. Whether when man gradually accustomed to personal facilities such as glasses, automobile etc. He/she can't accustomed to a robot that enables to be leader of a blind man. One of the methodologist of cybernetics Problems Wrote: difficulty of our scientists is from that still we don't have complete cognition from intelligence and wisdom. We don't go forward from first opportunities. He increased: we can

divide communication process into two sectors. First, conversation between humans, second talk between man and machine. Of course, complete dissolving problem of human with machine is in pledge of intellectual study data regarding to communication between humans that is rounded in scope of psychology and sociology sciences (Golmohammadi, 2011).

Often we observe in rural development projects that have used from methods that need a huge amount resource that contain more human, technical, physical, financial. Since this side, whenever that educational activities culminate, cause come up cost ratio that motivate more necessary activities do and resources (quantitative and qualitative) for comprehensive and multidimensional encounter to problem that often are not available. To this order, present reflection is in direction of desirability. In real accepted that confirmed need for change is available. Educational innovation must complete two types of demands. First, it must provide on time, appropriate and flexible responses in basis of work, culture and social dimensions that individual live in that. It must have internal talent and merit and expressive in sight of psychology. Although it can responsive to quantitative, qualitative and heterogeneity conditions. Distance education contains methods that make it appropriate facility for effective delivery the range of educational opportunities with better monitoring. With use an educational plan in base of systems approach that have developed through educational processes, under the protection of individual learning opportunities (allocated education) to be possible install systems according to day and creative as compared with individual needs (Golmohammadi, 2011).

Information and Communication Technologies (ICTs) are an expanding assembly of technologies that can be used to collect, store and share information between people using multiple devices and multiple media. Many materials connected to agricultural extension and adoption have indicated that whatever more methods and channels are used to in agricultural extension, the possibility of success is increasing. However, without respect to amount of complexity of method, efficiency of message in a great deal founded on the person who responsible for execution its. The method to transfer a message in large amount determines the change in behavior and attitudes. Extension workers especially in developing countries have a little instruction in exchange of information and knowledge with respect to level of learning ability, power and experience of farmers. The goal of interventional communication utilized in extension, is mobilization, transfer of information, teaching skills or establishing organizations. The matter that still its potentials don't recognized completely yet in agricultural and rural sustainable development, is ICTs. The subject that developed and success developing countries (especially India, Bangladesh, Kenya, etc.) have 25 to 30 years successful experiences and works in that field.

Schemas of educational interaction in face to face education (performed in one's presence), comparison between educational interaction in distance education and face to face education and educational interaction in distance education (Golmohammadi, 2011) are shown in Figure 1, 2 and 3, respectively.

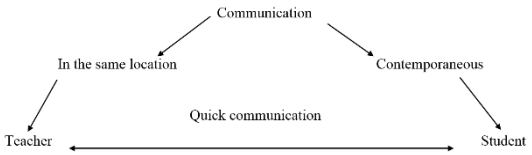

Figure 1. Educational interaction in face to face education (performed in one's presence)

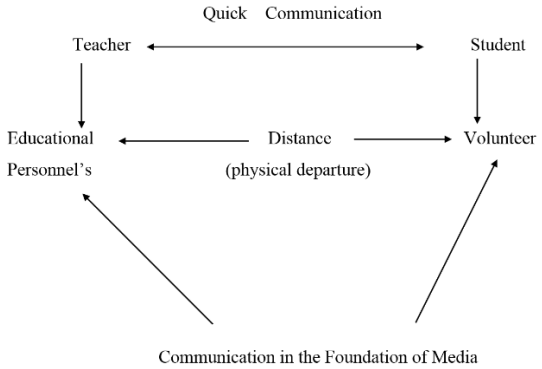

Figure 2. Comparison between educational interaction in distance education and face to face education

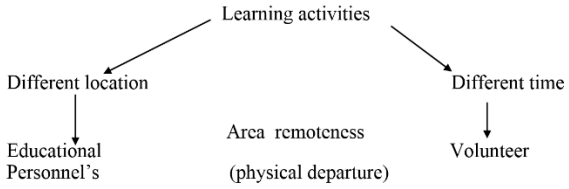

Figure 3. Educational Interaction in Distance Education (Golmohammadi, 2011).

The world is in the midst of a knowledge revolution, complemented by opening up entirely new vistas in communication technologies. Recent developments in the fields of information and communication technology are indeed revolutionary in nature. Hundreds of millions dollars are being spent on Information and Communication Technologies, reflecting a powerful global belief in the transformatory nature of these technologies. By definition, Information and Communication Technologies (ICT) are a diverse set of technological tools and resources to create, disseminate,

store, bring value-addition and manage information. Interestingly, ICT, when used as a broad tool for amalgamating local knowledge incubated by the communities with information existing in remote databases and in public domain, heralds the formation of a new class of society in the Knowledge Society. Knowledge thereby becomes the fundamental resource for all economic and developmental activities in the knowledge society of which women form an equal part. Knowledge networking opens up a new way of interactive communication between governments bodies, NGOs, academic and research institutions, and the civil society. It helps communities, both men and women, to take appropriate steps to recognize and document the knowledge they possess and in reflecting this knowledge in a wider social domain for directed change through the use of information and communication technologies.

There does not appear to be a universally accepted definition of a telecentre beyond the general concept of a physical place providing public access to communication and information services. Telecentres can be publicly or privately owned, be part of a public or private partnership, or be provided by international donors. They range from phone shops to cyber-cafés, cottage telecentres for tele-working to custom multi-purpose community telecentres (MCTs). Some even provide advanced services such as medical diagnosis and tele-medicine (Jalali et al., 2011).

2. Online Educations

Online educations consist of all structure of electronically support for teaching and learning purpose. Basically it will utilize all the computer and network to transfer the knowledge and skills that are required by user. Frequently when someone wish for any information or learn new things, they are able to explore any kind of information all the way through the internet.

For instance, a doctor has been used broadband connections whether at home or at his office in order for him to obtain a computer course. It is very useful to him because he manage to undergo the course even though his schedule is very pack with activities. But for those who face a drawback to a high speed connection, they can constantly use another technique such as videotape or DVD. Another method that can be utilized is by using streaming media on a computer or laptop to be present in a lecture.

Online educations will also facilitate individuals who were deprived for geographic, physical or social conditions have increasingly better educational odds via online. Furthermore, online education able to sustain synchronous and asynchronous communications in a mixture of formats ranging from text, voice and audio.

As soon as people are familiar with online educations, it will facilitate them to comprehend additional knowledge about internet world and assist them to be more adequate to fully utilize the internet for their benefits. There are several factors that can be consider in order to determine the level of adequacy to the internet. One of them is user profile and they have divided these profiles into 4 categories, which is the peripheral, normative, all-rounder and active participator. Amongst the profile, the all-rounder are considered as the largest part of active cluster in internet practice and they more probably to have colleagues who as well engaged in the technology (Jalali et al., 2011; Mohammed, 2012).

3. Content of Online Educations

Content availability varies to a large extent among telecentres. Some telecentres have resource material such as newspapers, magazines, books and videos onsite; others only offer access to content elsewhere, for example, through the Internet.

Access to information, and to the amenities to produce, store, and transmit information, is now considered essential to development, so that the classifications of "information rich" and "information poor" may mean more than dissimilarity based on GNP or other conventional development indicators.

Too much content on the web is not relevant to farmers and other rural people. It is a widespread problem around the world, where external information dominates locally-tailored material. This is where credible, useful and user-friendly information needs to be crafted. Any new, IT has to be design to allow user to easily locate the function they require. There are four ingredients to enhance the rural development with technology, which is providing access to Internet-connected technology, increasing access to broadband connectivity, developing useful internet content and software solutions for farmers and providing training so farmers can learn how to use computers. For the supreme impact the content that being offered need to suit the user's interest. At the level of project design, for instance, projects tend now to aim for less "top-down" structures, and emphasis is placed on involving trainees as much as possible at every stage of the process.

There are 5 areas in National Strategic Framework in bridging the digital divide such as increase access to and adoption of ICT by underserved groups, develop local content through participatory approaches, cultivate multi-stakeholder collaboration and coordination and Institutionalize evidence-informed policy and practice, etc.

In developing the local content, there are several

strategies that can be applied in order to give the suitable things to the target group, which is develop & increase relevant local content, provide financial support and promote generic local content for interactivity.

The quality that usually an organization offers is one of the main factors whether the overall e-learning program is a failure or success. In developing the content, the main key is to see the subject matter arena before others and try to integrate that insight with the objective. Plus, we can't just focus only to attract the user attention but also help to meet the goals that prompted us in creating the online content (Mohammed, 2012).

4. Empowerment of Rural Women

Empowerment of rural women is an important thrust area of many rural and agricultural development programs implemented by various governmental and non-governmental organizations in Iran. In Iran's rural society, every family can be counted as a production unit. These production units are small so that in the past, the kind of products that they used to produce and the amount of those products were most of the times the functions of each family's consumption and demand. In addition to meeting the domestic needs of the family, these products have found their way to the larger markets at the national and international levels. Rural women have always been an important foundation of these production units. Without the presence of rural women, the economic structure of the family could not and cannot become sustainable.

The participation of rural women in economic activities is an undeniable reality. Iranian rural women are active in economic activities such as agriculture and handicrafts. These activities let them play an effective role in reducing production costs and increasing family incomes, in addition to attending to their children and household. Therefore, gender concerns are mainstreamed in the agricultural extension process to ensure that women receive information relevant to their work. Hence, enhancement of women's participation in economic activities is one of the most important objectives of many governmental organizations, including Deputy of Extension and Farming System.

In particular, extension system targets rural women through increased participation in decision-making, organizing them into self-help groups, building their technical competencies on skill-based technologies and their leadership abilities (Golmohammadi, 2010).

5. History and Current Status of Rural Women in Development

Nowadays, the importance of rural development and its role in the development and progress of countries and especially developing countries is critically believed. Historically, the isolation of women from the mainstream economy and their lack of access to information because of societal, cultural and market constraints have led them to become distant from the global pool of information and knowledge. This distance is reflected in the levels of empowerment and equality of women in comparison to men, and has enormously contributed to the slow pace of development in South. It is now a well understood fact that without progress towards the empowerment of women, any attempt to raise the quality of lives of people in developing countries would be incomplete. There is an increasing amount of evidence which substantiates that societies that discriminate by gender pay a high price in terms of their ability to develop and to reduce poverty. Ironically, the importance of bringing a gender perspective to policy analysis and of designing development tools and interventions is still not widely understood, and the lessons for development still need to be fully integrated by the donors and national policy makers. In the context of knowledge sphere, the issues of gender equality, equity and empowerment of women become even more significant as women have a strategic role in incubation and transfer of critical knowledge, which often forms the blue print of survival for communities to adapt and minimize their risk in adverse circumstances. Women, because of their biological and social roles, are generally more rooted than men in the confines of their locality. They are therefore more aware than men of the social, economic and environmental needs of their own communities. Women have been the traditional incubators and transfer media of knowledge relating to seed preservation and storage, food processing, indigenous health practices. Such forms of knowledge are often contextual, rooted in experience and experiments, but are non-codified. Therefore, it is essential that any knowledge sharing mechanism recognizes the value of knowledge possessed by women and provides space for value-addition and the amalgamation of women's knowledge in the global knowledge pool. This condition forms the basis of evolution of women as equal contributors and end-users of knowledge in a knowledge society.

6. Different Approaches and Rationale for Women's Entrepreneurship

Entrepreneurship is a key element of growth and development prospects for all countries, and it is most relevant to transition countries. Countries, which create

good conditions for SME development, have higher growth rates and better development prospects. Longer-term trends indicate that during the 1990s the gap between men and women's entrepreneurial activities widened in transition economies. The situation of Women Entrepreneurs differs from country to country and depends on progress in the process of building a market economy. Accession countries in most cases do better than other economies in transition. The very low level of entrepreneurial activities in most countries of the Asia and in the Caucasus is an indicator of slow progress in building market economies. Women face not only general barriers for SMEs (weak institutional support to SMEs, lack of access to credit) but also gender specific barriers – such as lack of collateral due to uneven sharing of privatization gains, lack of networks and traditional views on women's roles. They have greater difficulty in obtaining credit, finding business partners, getting information on business opportunities. The gender gap in Women's Entrepreneurship is bad economic policy for a country. However, it should also be seen in the context of United Nations principles of gender equality. Self-employment and entrepreneurship are increasingly important for women as a way to ensure income from work in the context of declining job security and flexibility of work contracts across the world. Rapid growth of women's self-employment and entrepreneurship confirms that this is an important avenue to improve women's employability. This avenue is widely recognized at the global level. Fostering women's self-employment and entrepreneurship was also acknowledged as a policy priority for regional development. Access to financing is a major challenge to starting a business, especially for women. Gender specific barriers include the traditional views on women's role, but also in many countries the lack of collateral. In countries of Middle East, women's opportunities for entrepreneurship were strongly affected by a clear gender bias in the privatization process, in these countries; problems with the implementation of equal rights to land and property still exist. Mainstreaming gender into financial measures supporting SMEs, but also targeted programs, such as special credit lines and micro credit schemes for women entrepreneurs, as well as raising women's awareness of their rights, are some of the policy options. Addressing the "gender divide" in access to ICT is another challenge. Without equal access to ICT women entrepreneurs risk becoming marginalized in the new technology driven economy. There is thus a call to better use the existing experiences of countries to address these two challenges (Golmohammadi, 2010).

Approaches and rationale for supporting women's self-employment and entrepreneurship differ. The growth approach emphasizes women as an untapped source of growth for the economy as a whole.

The 'job creation´ rationale, links the support to women's entrepreneurship to broader strategies to combat unemployment. The poverty alleviation rationale emphasizes self-employment as an economic survival tool for poor women and their families. Efforts to promote women's entrepreneurship stem also from a commitment to women's empowerment. These rationales reflect different policy priorities and can lead to different approaches in policy implementation. When each stakeholder focuses narrowly on one approach, without coordinating its efforts with those of others, gaps can emerge, resulting in policies that are not effective. many NGO-based programs to support women's self employment target poor and vulnerable women and are typically based on 'poverty alleviation' of empowerment' approach. But without strong linkages to the government decision-makers who set the economic policy agenda, such programs risk to further isolate poor and marginalized women, instead of helping them to integrate into larger economic system (Golmohammadi, 2010).

7. New Methods in Women Farmers' Agricultural Continuing Education

Because of huge development of communication possibilities using the internet, in our days, the farmers have the possibility to access a huge collection of information, in various formats, regarding the great area of agriculture. The management of these data and their results are the product of time consuming and expensive procedures, the incomplete or inappropriate processing of which, slows down the overall research effort. The crucial role of managing the results of the agricultural research relates strongly the agricultural research to the use of computers and specialized software in order their processing to become complete, and their storage and utilization easier.

Different approaches to the material (e.g. theoretical, practical, problem solving or memorization approach) can favor particular media. Similarly, the evaluation method selected (multiple choice, essay, oral test, self evaluated) could also influence the choice of media. Because of new spectacular evolution of multimedia technologies, we can say that in present, all types of media need, at least in developing phase, a computer interference.

8. Common Experiences and Needs - Women's Entrepreneurship Worldwide

When asked about their biggest concerns in running their businesses, women all over the world identify five major issues. Women share concerns about the following five challenges:

1. Access to information; women want better access to education, training, and counseling.

2. Access to capital; access to capital is a very important issue for many women business owners, who often lack formal education in financial matters and who may face gender-based barriers to accessing financing.

3. Access to markets; women want better access to existing ways of sharing information about programs and services that are available to all businesses, such as government procurement and corporate purchasing opportunities, as well as opportunities for international trade.

4. Access to networks; women want full access to business networks such as industry-specific and general business associations.

5. Validation; women want to be treated seriously as business owners (Golmohammadi, 2010).

If these five areas are addressed by those involved in business development issues (be they government agencies, NGOs, large corporations, or business associations), then women's business ownership will not only continue to grow, but will thrive even more strongly. Unleashed and unfettered, women's entrepreneurship can provide the fuel for economic growth and opportunity for communities around the world. We can be hopeful in future with decreasing their weaknesses and improving their strengths, we will be seen more positive effects of them in order to accessing sustainable rural and human development. Ideas for increasing interaction with subject matter using different media are shown in Table 1.

Table 1. Ideas for increasing interaction with subject matter using different media (Golmohammadi, 2011).

Media	Activities
Print	self-assessment activities interactive exercises where learners are instructed to perform an activity and report it questions about the content submitted to the teacher feedback mechanisms between the student and teacher possible examination questions
Tapes	pose questions for individual consideration or for group discussions at the end of sections build in exercises
Radio	ask student to repeat words, phrases, sounds etc. aloud pre-recorded program as above
Radio live broadcast	as above, but also request learners to send in comments (writing, recorded in audio-cassettes) which are announced/ discussed in following broadcast incorporate a phone-in session for questions, discussion
Video cassette	include short segments with clear stopping points for discussion, thoughts, writing etc. build in questions and activities for viewers
Television	short segments with clear stopping points for discussion, thoughts, writing etc. build in questions and activities for viewers use listening groups of just students or with tutors for discussion of interpretations, thoughts etc.
Video-conferencing	arrange segments with clear stopping points for discussion, thoughts, writing etc. which could involve student listening groups
Computer	include exercises with feedback mechanisms (message of encouragement)
Internet	same as for print and audio and visual if these features are used ask students to conduct research on Internet from sources other than course Web pages

9. Empowerment of women in the context of knowledge societies

Empowerment of women 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, to make informed decisions. It entails building up capacities of women to overcome social and institutional barriers and strengthening their participation in the economic and political processes for an overall improvement in the quality of their lives.

Knowledge networking offers the unprecedented potential to empower every woman, as each woman is a potential recipient and incubator of knowledge in a truly networked world. A range of ICT- models have been used to support the empowerment of women all around the world. In Africa, groups such as the Africa Women's Network of the Association for Progressive Communications (APC) have conducted training workshop to support electronic networking among women's group. In Uganda, the Forum for Women in Democracy uses the Internet and e-mail to research issues for the country's female MPs, and Women's Net is a similar initiative in South Africa.6 Knowledge networking catalyzes the process of women's

empowerment as it is based on the mechanism of knowledge sharing and provides avenues for women to come together, build up consensus on issues that affect them and act strategically to maximize benefits through different approaches elucidated in the subsequent paragraphs.

10. ICT and women entrepreneurs

Major benefits of ICTs for women entrepreneurs include increased access to information and networks, reduced costs of business transactions, and increased access to regional and global markets. For the majority of women with small or home-based businesses, access to ICTs has the greatest immediate potential in terms of access to information and networks and reducing costs. In the developed region, women's current ability to access national, regional, and global markets using ICT may be limited by factors such as infrastructure availability and the sector location of the business.

However, international experiences provide examples of innovative ways for businesses in traditional sectors to use ICTs to expand their market outreach. In addition to improving women's ability to run their businesses, new technologies also, represent powerful tools for use in promoting women's entrepreneurship in the business community and the policy arena. One approach is the use of ICTs to raise the visibility of women business owners in the wider business community. At the same time, the barriers that affect women's access to ICTs also prevent women entrepreneurs from transferring these opportunities into benefits for their businesses. Cost is particularly relevant for women entrepreneurs because of the financial resources required to equip a business with computers and other ICTs. Women business owners, due to their limited access to finance, have more difficulty than men in making such investments. Therefore, women's limited access to finance directly affects their ability to access ICTs.

Another dimension of women entrepreneurs' ability to harness the full potential of ICTs relates to the sector location of their enterprises. Many women owned businesses are concentrated in sectors with more limited possibilities for ICT use. Businesses that provide products and services such as groceries and other retail products or hairstyling may not benefit from ICT-based methods of product innovation, and may also be less suited to e-commerce. Nonetheless, even entrepreneurs in "low-tech" sectors can use ICTs as a way to market their goods on the global market, as demonstrated by the examples in the box on global markets. Still, the kinds of businesses typically operated by women can limit the range of opportunities available to them to benefit from ICTs. Therefore, promoting women's entrepreneurship in technology intensive sectors must be an important part of any strategy to facilitate women entrepreneurs' access to and use of ICTs. Successful women in ICT fields, can serve as examples to aspiring business owners that technology is indeed a "female" domain (Golmohammadi, 2010).

11. Knowledge Networks: alternate communication channels and information providers

Access to information can be seen as a central issue concerning empowerment of women. There are no worse forms of human rights violations than to be deprived of the ability to think, create and communicate in freedom. Women in developing countries, however have been traditionally excluded from the external information sphere both deliberately and because of factors which inherently work to their disadvantage such as little freedom of movement, low education-levels etc. Under such circumstances, it is not uncommon for women to be little aware of information relating to market economy and local governance processes, which impedes their process of empowerment. ICT however opens up a direct window for women to the out- side world. Information now flows to them without distortion or any form of censoring, and they have access to the same information.

12. The Mobile Ladies in rural areas of Bangladesh

Grameen Phone is a commercial operation providing cellular services in both urban and rural areas of Bangladesh, with approximately 40,000 customers. A pilot programme of GrameenPhone, through the Grameen Bank and a wholly owned subsidiary called Grameen Telecom, is enabling women members of the Grameen Bank's revolving credit system to retail cellular phone services in rural areas. For the 800 Bangladeshi women who have been given cell phones on loan by the Grameen Bank, enables rural women to re-sell GSM cellular phone services in rural Bangladesh. Village women ö one per village ö can borrow enough money to buy a cell phone, then pay back the loan with revenues from sales of phone calls. The instrument is more than a means of communication: it is being used as a weapon for empowerment to fight poverty.

13. Gyandoot: A Lifeline for Indian Women

Gyandoot is an intranet project in Dhar district of Madhya Pradesh in India, which connects 21 rural cyber cafes called Soochanalayas. Each Soochanalaya provides services to about 10 to 15 Gram Panchayats, 20 to 30 villages, 20 000 to 30 000 in population. The net covers five out of 13 Blocks in the district and three out of seven

tahsils in the district. The Soochanalayas are located on the roadside of the central villages where people normally travel. They together serve a population of over half a million. The services provided by it include stating farm gate prices of agricultural commodities, providing copies of land records, providing facilities to file applications for caste, income and domicile certificates, and landholders passbook of land records and loans through e-mails. Women benefit from such interventions as now they have a greater understanding and control over the local processes. They may be complaints regarding common public grievances through the net and an e-mail reply is assured within seven days. These complaints include hand pump disorder, teacher absence, mid-day meal sanction/disbursement, poor seed/fertilizer, etc.

14. Connecting Communities in Andhra Pradesh, India

Andhra Pradesh State Wide Area Network (APSWAN) is the backbone network for voice, data, and video communication throughout the state of AP. This network connects the State Secretariat with 25 centers including all the District Headquarters towns. This is progressively connecting the campus network in the A.P. Secretariat and the Headquarters of various departments with Local Area Networks in District Collectorates and other district access, thus forming the backbone for the Government Intranet. Apart from linking Government offices, the network is also offering connectivity to major educational and health institutions across the state. The services provided by APSWAN include Data Communication, Reliable and dedicated voice communication and Video transmission. Some of the applications of such a network would be Data sharing and interchange among different wings of the government resulting in effective, efficient and transparent administration, providing e-mail and Internet facility to all the departments and offices of the Government, and providing high quality video connectivity that helps in these applications pave the way for convenient ``anytime, anywhere services'' for the citizens. Women stand to benefit enormously from them as they now have the power to write directly to the chief minister, cross-cutting the hierarchical layers. In subsequent phases APSWAN would be extended to all the towns and eventually to all the villages, either with dedicated lines or Wireless or Dial Up facilities paving the way for remote governance by individuals.

15. Application of ICTs by Agricultural Extension Service in Iran

The majority of rural population in Iran has limited access to agricultural information. However, bridging the digital divide between urban and rural areas has been a major challenge for authorities in Iran. Agricultural extension by its nature can have an important role in this regard. Results showed 80% of the variance in the policies which affect the application of ICTs by extension service could be explained by three variables, advocating the participation of rural population in ICTs project planning, open source system and the integration of conventional information delivery system with new ICTs. In order to deploy ICTS as an appropriate technology for extension service in Iran, financial, social, human and organizational sustainability should be achieved over time. Policies that provide affordable access to information need to be carefully identified and examined. Agricultural extension in Iran needs to address the policy and regulatory issues that impact on the use of the ICTs. The issue is not to replace the existing technologies, but the extension service should integrate the conventional information delivery system with new ICTs.

16. Areas to Create an Environment Where Women Benefit from ICTs As Much As Men

1. Policy and Action – Legislative, regulatory and administrative policies must be adopted at the international, national, and local levels as well as in the workplace to ensure access to ICT for women and girls. Action is needed to make sure legislation goes beyond rhetoric and translates into real progress.

2. Research and Collaboration – Research needs to be directed at the issue of the identification of effective practices and programs for the use of ICT to benefit women and girls. It also needs to include women, which means academic scholarships, internships, and promotion of women faculty in ICT fields, as well as inclusion of women and other stakeholders in research design, implementation and analysis. We also need to understand better the systems for effective learning and training for women and girls.

3. Dissemination and Communication – Effective practices must be communicated broadly to allow for modified duplication and scaling up of success. This requires the collaboration of governments, international bodies, associations and organizations to develop methods of data collection and to monitor progress towards goals.

4. Resource Development – Creating the infrastructure necessary to increase access for women and girls to education and other economic, social, and political goals through ICT will require the collaboration of organizations and governments. The overall goal is to better identify and allocate limited resources to those areas most likely to use them effectively to benefit all, particularly girls and women.

5. Context and Culture – Female representation and

participation in the education system as well as the information society are shaped by cultural influences from the media, parents, peers, teachers, co-workers, and others. In many ways this is the most pervasive and most difficult barrier to overcome, but it must be a central consideration in order to be effective in all other areas (Golmohammadi, 2010). ICT women empowerment model are shown in Figure 4.

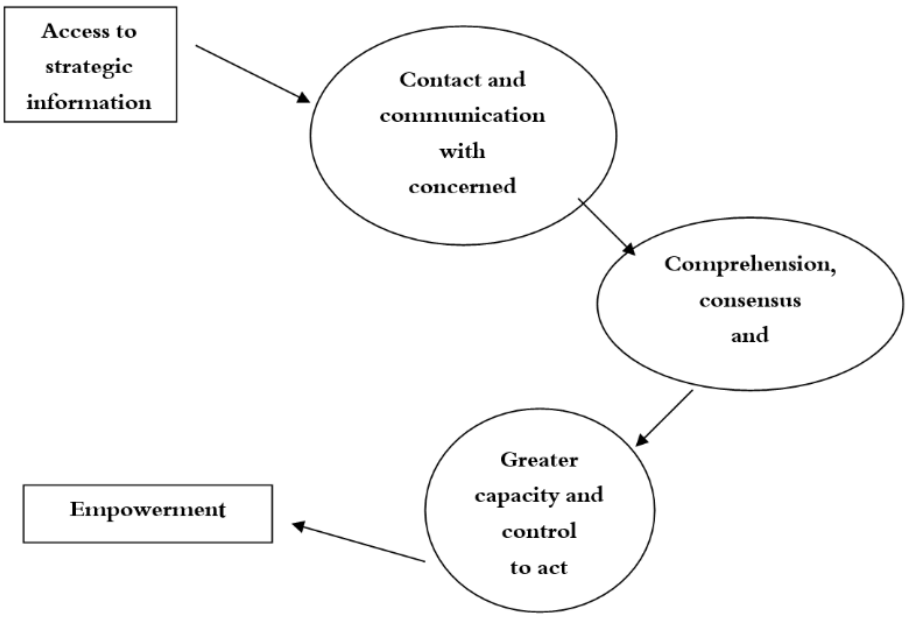

Figure 4. ICT women empowerment model (Golmohammadi, 2010).

17. National Project to Development ICTs Application in Iran (TAKFA)

This project approved in council of ministers in government of Iran in date of 30 June 2002. Regulations on special manner of implementing specified activities in order to deployment utilization Information and Communication Technologies (ICTs) in country approved in following summarized details: Preparation as more as possible country in order to presence whole dimensional in information society and for attainment to:

a) Systematic deployment of ICTs for the sake of proving to be true (sagacity axis) economic in order to national sustainable development.

b) Development human resources as strategic priority of ICTs development in order to establishing value added employment.

c) Cultural development and strengthen environment and space to national together increasing.

d) Implementing infrastructure arrangement for ICTs development containing access network, security, rules and regulations, resources and facilities.

e) Development fields and opportunities for the sake of mobilization private sector as key strategic axis in ICTs development.

f) Collaboration among ministries and organizations to mobilization all material and human possibilities in country to access the goals of TAKFA.

g) Some plans under this project are as following:

a) E-government plan (system, metaphorical network, rule and security).

b) Functional deployment plan ICTs in ministry of education and development digitally skills in human power of country, and also in higher education, hygiene and other ministries and organizations in commerce, culture, economic, science, research and etc.

18. Applying ICTs in Extension System Processes

A new revolution is sweeping the globe- Information Technology (ICT). It is a vehicle for future development, opportunities, challenges and competition that enables information to be collected and used. No aspect of human life remains untouched by the impact of IT, and agriculture is no exception. Access to information and improved communication is a crucial requirement for agricultural development. However, it is observed that rural population still has difficulty in accessing critical information in order to make timely decisions. Modern communication technologies, when applied to rural areas can help in improving communication, increase participation, disseminate information and share knowledge and skills. Cyber extension would be the

major form of technology dissemination in the near future. It uses the power of online networks, computer communications and digital interactive multimedia to facilitate dissemination of agricultural technologies. In Iran, increasing attention is being paid to apply information technology as a means of technology transfer in extension planning and implementation process.

In the extension system of Iran, a great emphasis is placed on the role of indigenous knowledge to facilitate communication in rural development programs. Communication between project personnel and farmers is often very poor, particularly in projects with a structure that favors literacy, top-down message flows and innovations developed elsewhere. The extension system has been using four main channels to convey information to farmers. Those channels are radio, TV, printed materials and interpersonal communication. Radio and TV stations located in the province's centers allocate time to the extension offices to make agricultural programs and broadcast them to the farmers. The programs are made in the extension office by the extension staff. These programs try to reach rural audiences with specially tailored messages in an attractive and cost efficient format. In addition, extension officers prepare publications on the related agricultural topics and present them to farmers. In addition, many extension organizations in different provinces produce periodic bulletins with news and review articles, which primarily aim at extension services. Extension agents also teach the farmers in interpersonal communication channel.

19. ICTs Capabilities in Diffusing Information and Innovations to Rural Regions

Information is the explicit compiled of knowledge, recognition and awareness and knowledge. Recognition and awareness are important aspects of sustainable human development. In other hand, sustainable human development can achieve through development and Improvement human resources approach. Harbison and Myer defined " development and improvement human resources as: to consist of increasing in knowledge (recognition and awareness), skills, capabilities and powers of whole people of a society. Of course, improvement in recognition capabilities in individuals is consequence of education, extension and informing activities. The importance and place of information and knowledge in development process especially in rural development is such important that especially since 1998-99 in global development reports published by World Bank and UN that have paid special attention to them.

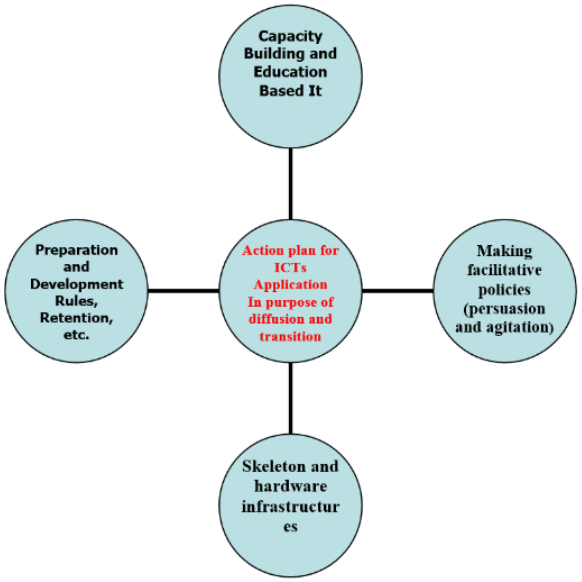

Figure 5. Elements of system (program) of action for Application Information and Communication Technologies (ICTs) for diffusion and Transfer of Information and Innovations to Rural Regions.

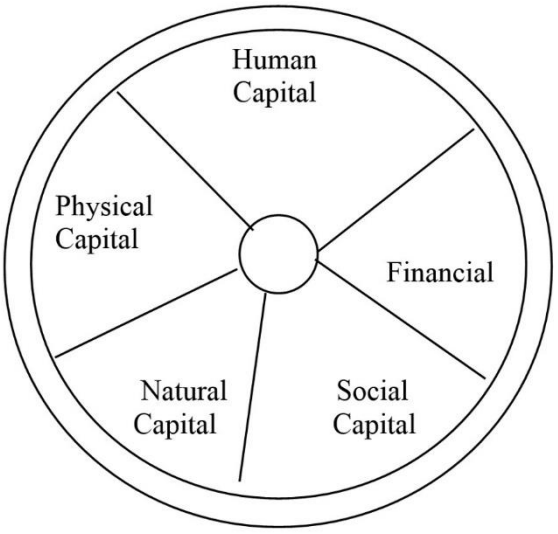

Figure 6. Livelihood Information wheel (Golmohammadi, 2011).

Figure 7. Map of the Iran and the South Khorasan Province in the East of Iran.

Figure 8. Tele-center in Kalate nasir, Bojd, Khorashad AND Bijaem villageS - Birjand. - East of Iran.

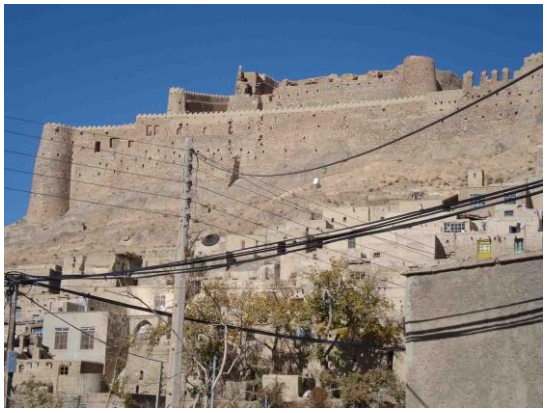

Figure 9. Infrastructures of Telephone and Electricity for Tele-center in Forg village- Birjand.-East of Iran.

Figure 10. Lecture of Entrepreneurship for managers of rural women cooperatives in South – Khorasan Province- Iran.

Figure 11. A Handicrafts cooperative in Yazd Province-Iran.

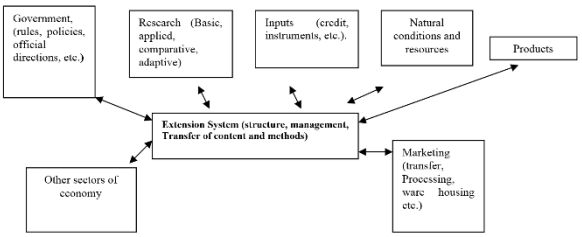

Figure 12. Extension system in agricultural development position.

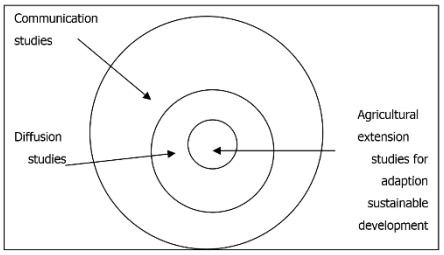

Figure 13. Extension system is a sub system of diffusion studies (that deals with transfer of new ideas), that itself is a sub collection of communication studies.

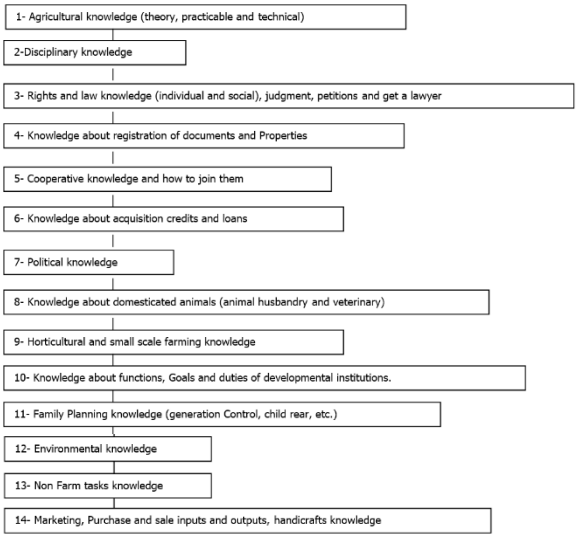

Figure 14. Some of the most important fields of informational needs in rural people that must be consider attaining sustainable development.

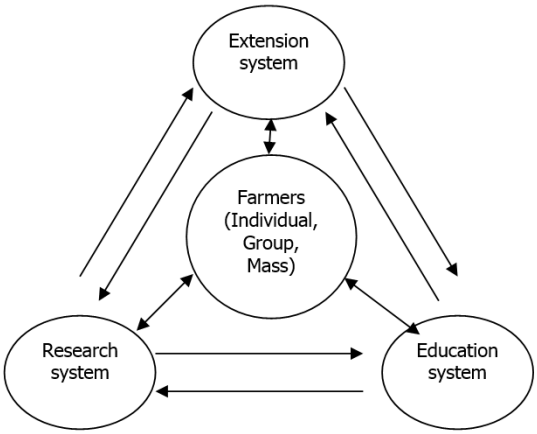

Figure 15. Appropriate linkages between research, education, extension and farmers.

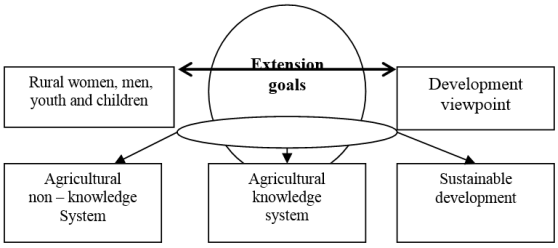

Figure 16. A theoretical framework for determining extension goals.

In figure 17 author presented various entrepreneurship and empowering activities of rural women cooperatives in Birjand, centre of South Khorasan province.

Figure 17. Various entrepreneurship and empowering activities of rural women cooperatives in Birjand, centre of South Khorasan province.

However, bridging the digital divide between urban and rural areas is one of the challenges facing governments and policy-makers today. Factors that contribute to and widen this divide include the following:

A) Economic: ICT infrastructure remains prohibitively expensive for many communities and nations.

B) Geographic: Difficult terrain, long distances and inadequate infrastructure.

C) Technological: Lack of skills to participate in the economy that uses ICTs extensively.

D) Cultural: Inequalities of access and participation.

E) Political: Long-term investment versus short-term political cycle.

20. Why Rural Tele-centers?

Gap between urban area and rural area may be reduced by using Information and communication Technology. We cannot have poverty reduction and economic empowerment of poor women in rural and remote areas without using ICT applications at rural Tele-centers. The most cost-effective solution in rural area is to share necessary facilities at Tele-centers. Iran has some experiences in building Tele-centers (Golmohammadi, 2011).

21. Benefits of Rural Tele Centers

Promote self-employment opportunities. Computer training at village level. Promote CLC services, activities and products. ICT training center for education and health care in the region.

Most of the villages in Iran need to use Information and Communication Technology (ICT) services. Iran Rural ICT Strategic Plan is one of the Iran ICT Development National Plans, and considered as a reference for integrated coordinating of Iran rural ICT development. The most important goal of the project is decreasing the rural digital divided for economic development in villages and move toward information society. National Rural ICT Strategic Plan in 2005 begin and received to its fundamental goal namely establishing and exploitation of the 10000 Rural ICT Tele-Service Center in 2010.

Rural Tele-center which can be publicly or privately owned, be part of a public or private franchise, or be provided by international donors, has been proved its justification in the world (Golmohammadi, 2011).

22. Goals, Target Groups and Challenges of Tele-center in South Khorasan Province–Iran

Goals, target groups and challenges of tele-center in South Khorasan province–Iran are following:

A) Education for all ages and for all people in the areas who need it.

B) Cultural Activities.

C) A showcase for the way IT can be utilized to govern and a small-scale model for e-government.

D) A center for women's activities.

E) An ISP for village.

F) An e-commerce hub for the village and surrounding areas.

G) Vehicle for e-learning, and access to virtual universities.

H) A general information center (health, agriculture, etc.).

I) Access to E-learning.

J) Tele-working (Job opportunity) (Golmohammadi, 2011).

23. Target Group at Tele-centers in South Khorasan Province – Iran

Individuals (local community members and village leaders); Small businesses; Schools; Youths; Disabled people; Farmers; Women groups; Tele-workers; Government departments

24. Challenges of Tele-centers in South Khorasan Province – Iran

High implementation cost (initial), Limited telecommunication infrastructure in remote areas, Limited usage –not enough to sustain, High operating cost (telecommunication, electricity, personnel), Encourage private sector participation, Need for effective management, Need for strong community support, ICT training–wide coverage, Technology moves fast.

25. Conclusion and Recommendations

The impact of technology on society is still increasing. Most of us live in total technological environments. Technology Education can provide an understanding of the general principles underlying technological phenomena (Mottier, 1999).

Education and training are crucial to economic and social change. The flexibility and security needed to achieve more and better jobs depend on ensuring that all citizens acquire key competences and update their skills throughout their lives. Lifelong learning supports creativity and innovation and enables full economic and social participation. In turn, these support the achievement of the Lisbon guidelines for jobs and growth. These objectives can only be achieved by sustained long term effort.

Farmers program could help rural communities find appropriate technology-based open and distance education to improve their livelihoods and reduce gaps between rural and urban areas. Such a vision is a response to a critical need: the wealth of information resulting from agricultural research and development often fails to travel the last mile to the villages of the developing world where it is most needed. While governments face challenges in funding adequate agricultural extension, globalization is creating increasing competition for poor rural farmers (Stanef et al., 2012).

In many countries various centers of information and communication services like Tele-centers, IT Centers, and Information Kiosks, Information Access points (IAP), Coffee-nets, and Telemedicine Centers have been created to provide communicative services to villagers. These centers are usually created by the private sector with some type of government support. In these centers, in addition to offering internet, e-mail, and phone services, computer training sessions are also held. Establishment of rural ICT centers is a strategic key to reducing the digital gap of rural and deprived areas. These centers have the ability to support the government as a front desk for ecommerce services to villagers (Jalali et al., 2011).

ICT as a key element of social and economic innovation is to be identified. ICT market offers good job opportunities and provides the share of women in this part, is still lower than the average and out rates and Not getting the company are very high.

The majority of rural population in Iran has limited access to agricultural information. However, bridging the digital divide between urban and rural areas has been a major challenge for authorities in Iran. Agricultural extension by its nature can have an important role in this regard. The one resource that liberates people from poverty and empowers them is knowledge. Possessing knowledge is empowering, while the lack of knowledge is debilitating. The potential of ICT for women in developing countries is highly dependent upon their levels of technical skill and education, and is the principal requirement for accessing knowledge from the global pool. The sophistication of any ICT infrastructure introduced into any environment becomes meaningless if women don't have the skills to operate the system and use it to their best advantage. This implies that the government and the NGOs need to focus on interventions, which lead to skill development and a rise in educational levels among women. It could be done through imparting of technical education on the use of ICT as a part of both formal and informal educational systems and initiating distant-learning and vocational courses on the same. Women will not be able to benefit from knowledge networking processes unless specific ICT-models are created which are targeted to the needs of the local women community. In order to build effective and sustained engendered knowledge societies, it is necessary to involve strategic stakeholders from both the public and the private sectors. These could include government bodies, corporate firms, financial institutions and the NGOs. Fostering corporate partnership in ICT ventures and raising venture capital funds for social development projects become important lines of thought. This could be done through a plethora of ways such as ICT based advertisement, using existing corporate infrastructure for opening of Tele-centers, bringing about transfer of technical expertise from corporate to the development sector etc.

Expectations are high when it comes to ICT opportunities for women in developing countries, including new forms of learning, education, health services, livelihood options and governance mechanisms. However, on a cautious note, it needs to be realized that information and communication technologies by itself cannot be an answer and elixir to all problems facing women development but it does bring new information resources and can open new communication channels for the marginalized communities. It offers new approaches for bridging the information gaps through interaction and dialogue, building new alliances, inter-personal networks, and cross-sectored links between organizations. The benefits include increased efficiency in allocation of resources for development work, less duplication of activities, reduced communication costs and global access to information and human resources. Come what may, these technologies have started to carve their impact on the villagers' lives as mothers do want their children to learn computers so that they can lead a better quality of life. Information and Communication Technologies (ICT) are for everyone and women have to be an equal beneficiary to the advantages offered by the technology, and the products and processes which emerge from their use.

The benefits accrued from the synergy of knowledge and ICT need not be restricted to the upper strata of the society but have to freely flow to all segments of the female population. The gamut of areas in which ICT can put a greater control in the hands of women is wide and continuously expanding, from managing water distribution at the village-level to standing for local elections and having access to lifelong learning opportunities. ICT in convergence with other forms of communication have the potential to reach those women who hitherto have not been reached by any other media, thereby empowering them to participate in economic and social progress, and make informed decision on issues that affect them. ICT are for everyone and women have to be an equal beneficiary to the advantages offered by the technology, and the products and processes which emerge from their use.

The benefits accrued from the synergy of knowledge and ICT need not be restricted to the upper strata of the society but have to freely flow to all segments of the female population. The gamut of areas in which ICT can put a greater control in the hands of women is wide and continuously expanding, from managing water distribution at the village-level to standing for local elections and having access to lifelong learning opportunities. ICT in convergence with other forms of communication have the potential to reach those women who hitherto have not been reached by any other media, thereby empowering them to participate in economic and social progress, and make informed decision on issues that affect them. Women business owners, in particular, seem to need even more support than their male counterparts for a number of reasons. Women experience more difficulties than men in getting decent jobs as employees in most countries, especially in developing countries. This is due to discriminatory practices, especially in the private sector, and gender barriers embodied in social norms and existing labor market institutions. Many women are turning to self-employment and small businesses as a means of economic survival.

The experiences of transition countries suggest that one

of the best ways to fight poverty is to increase employment through fostering small business. Promoting equal possibilities for both men and women in that segment of economy is essential for the overall economic development of these countries. Supporting women's entrepreneurship is particularly important since women are more affected by the new circumstances. Women are in a worse position than men in the field of entrepreneurship because they face gender-specific limitations as well as those affecting both genders. These gender-specific limitations are largely due to women's more demanding position in the family, which limits the time, energy and concentration they have available to pursue entrepreneurship. Therefore, women have smaller incomes and lower productivity, since the time they can devote to business is limited by the time they must devote to the family. This unfavorable position often results in a lack of self-confidence, which is of great importance in entrepreneurship. This lack can prevent women from starting their own businesses. Even when they do, they may not want to take the risk of expanding their companies. With training, education, and easier access to capital, women would be encouraged to enter into business more decisively and to bear the risks of business decisions on investments, production, and technology. Key requirements for that are favorable financing, sources, knowledge in the field of business, and other practical knowledge in economy and technical professions. Despite all the difficulties, many women have successfully managed their households for years. Why would they not successfully manage their own small business as well?

Entrepreneurship does not come automatically with liberalization and privatization. An entrepreneurial economy must be promoted through appropriate policies and adequate institutions in many areas, such as education and training and starting capital. In the case of promoting women's entrepreneurship, gender factors in economic policy at the transitional stage must be considered. These include gender aspects of fiscal policy, salary policy, labor market regulations, and social policy. To implement this policy, a state program for the development of female entrepreneurship is necessary. The first stage of such a program must involve research on businesswomen and their status on the labor market, to be used as the basis for subsequent activities. Program should be support for women engaged in business, including small business, and the creation of favorable conditions, such as soft credits and tax benefits, for starting such businesses. The program must address issues such as training women in the economics of market conditions, in principles of business organization and management, and in legal issues. The implementation of such policies will support the processes of democratic development, economic development, and poverty reduction. Women's public associations must also contribute to the development of women's businesses. Assistance must be provided to increase the share of women in governmental bodies, thus facilitating the development and implementation of the gender policy.

A surprisingly high percentage (70%) of women business owners Iran in never use the internet let alone electronic commerce. The trend among younger and better-educated women, however, is to gradually embrace technology. Creating spaces for women in relation to ICT is very important. For example, start and launch specific professional training for women and Cyber cafes cultural women's groups seems to exclude that are very important. This is obvious that interest on TV In most rural areas is very high, but without the agency to facilitate development, ICT is only a short term entertainment leisure time. Therefore, ICT should be included in other activities such as rural and agricultural development and marketing electronic acquisitions. For conclusion, many political challenges for women and ICT problems in connection with the cases 1) education, 2) the labor market, and 3) consumption, are required. ICTs are not all, but an important tool for rural development. It should be included as a part of rural development and promotion activities, for effective participation of women in rural areas. All aspects of ICT and economic and social benefit from ICTs requires immediate and decisive measures in many areas they that are used. Our system software must clear for new media and education system with their hardware systems. When we have information systems planning and creation, we must structure major technology consider the value of saying give hardware, software and human resources required in this field and to improve agriculture management, because the most important problems according to individual farmers and individual situations cited. Our system software must clear for new media and education system with their hardware systems. When we have information systems planning and creation, we must structure major consideration give the value of saying that hardware, software and human resources is required in this field.

By considering, the above studies and results may be introduced following suggestions:

• The creation of a web hub for key stakeholders to communicate and coordinate existing global databases, assets, and knowledge, and to provide an internationally appropriate taxonomy and set of definitions;

• The formation of a Declaration of Agreement and Plan of Action which calls for a commitment to move beyond an agreement in principle to individual and organizational responsibility for action;

• An agreement to support existing efforts by promoting women's advancement in leadership, collaborating to expand programmatic impact and benefits to women

globally, and partnering rather than creating new efforts that diminish resources;

• The gender digital divide is a centuries-old problem with a new face, but it also provides a new tool with which we might find new answers and needed energy. The problems do not seem to be going away, but neither are the men and women who are determined to create real change;

•Prepare and develop expanded community education and information communications technology;

•Creation and infrastructure development of IT field;

•Providing technology facilities so every region should be planned;

•Use of the technology characteristics, economic and social meetings with farmers to identify their needs and to provide services to these needs;

• Enabling poor people and middle classes of society to use information technology;

•Evaluation of information technology before and after using them;

•Presenting the results of using these technologies as practical and visible Template imaging activities developed countries in this field and transfer it to the situation of our country.

Recommendations in development of ICTs in sustainable agriculture and rural development are as following:

-Increasing literacy level of employees in agricultural sector.

-Establishing linkages between Iranian agricultural research, education and extension organizations.

-Development Cooperatives and NGOs in rural regions and then scientific strengthening of them and finally transferring ICTs to them.

-Development infrastructures, services, hardware, software and human ware in rural regions in field and domain of ICTs.

-Absorbing and stuffing young educated and expert people in field of ICTs from cities to rural regions.

-Preparing and development comprehensive plan for ICTs education in the country.

-Considering cultural, economic and social conditions in usage of ICTs in rural regions.

-Empowering small farmers in forward to usage of ICTs.

Figure 18. A department store of rural women cooperative of Khorashad village (Distance from Birjand: 30 km) in Birjand, centre of South Khorasan province (November 2, 2016).

In Figure 19, presented acquired final and exigency model of this research:

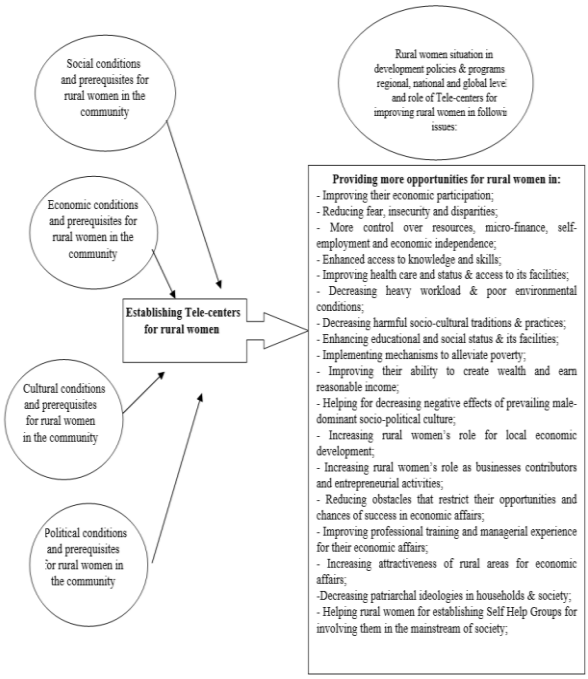

Figure 19. Final and exigency acquired model of this chapter on the role of ICTs and advanced media innovations in teaching, training and skill development for entrepreneurship and empowering of rural women

Acknowledgement

Information and Communication Technologies (ICTs) are an expanding assembly of technologies that can be used to collect, store and share information between people using multiple devices and multiple media (Golmohammadi, 2011).

References

Carmenado IDIR, Díaz-Puente JM, Blanco JLY. 2011. The integration of project competences within the post-graduate programme: a case study of the International Masters in Rural Development. Procedia Soc Behav Sci, 15: 96–110.

Golmohammadi F. 2010. Applying (ICTs) for Entrepreneurship and Empowering of Rural Women. J Infor Technol Agri, 4: 1.

Golmohammadi F. 2011. Rural Tele-centers in Sustainable Agriculture and Rural Development in Iran: Situations and Problems (Case Study: South Khorasan Province – East of Iran). Proceedings of 5th International Conference on Information and Communication Technologies in Agriculture, Food and Environment, 2: 707- 725.

Jalali AA, Okhovvat MR, Okhovvat M. 2011. A new applicable model of Iran rural e-commerce development. Proc Comp Sci, 3: 1157-1163.

Mohammed AH. 2012. Empowering the Online Education for Rural Community through Correlated Content Development. Procedia Soc Behav Sci, 67: 16–25.

Mottier I. 1999. Impacts of Technology Education: Introduction to the Conference. Proceedings of PATT-9 conference, 9: 4.

Stanef MR, Manole AM, Militaru M. 2012. Lifelong learning a way to reduce development gaps between rural and urban areas. Procedia Soc Behav Sci, 46: 4508 – 4512.