

## **Effects of Gender Roles on Women's ICT Use in Rural Turkey: A Case Study in Kars Province**

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**Abstract:** *Demand for information and communication technologies (ICT) has become inevitable in view of their ability to provide direct and rapid communication between the users, access to information, as well as the ease of expression of ideas and views and its increasing penetration into the daily life. Those who live in the rural areas, especially women, are at a disadvantage with regards to accessing and utilizing ICT. People who live in rural areas are in need of ICT to eliminate their unfavorable living conditions at least partially, improve their existing opportunities, access to all kinds of knowledge from production to marketing phases and ensure their participation. It is observed that women in rural areas are prejudiced against ICT: they are unwilling to accept to use such technologies and not sufficiently informed about the benefits that these would yield concerning sustainability of agriculture and raising livestock that constitute their livelihoods, and that gender roles affect use of ICT. This hypothesis is confirmed with the sample of Bođatepe and Küçükbođatepe villages of Karsin which Karapapak live. Women living in those villages are under the influence of gender roles in terms of ICT use although they received various trainings and participated in extension studies via the efforts of the "Bođatepe Environment and Life Association" including French language courses.*

**Keywords:** *Rural, Gender, ICT, Kars, Karapapak Culture.*

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### **1. INTRODUCTION**

Today, information and communication technologies (ICT) present itself as a key factor affecting the pace and the nature of societal change and group empowerment alongside of the economic development it generates. ICT are now a part of the rural households' lives ranging from environment protection movements to marketing; surveillance of the village agoras with cameras to Karapapak households who watch their animals in stables through web-cams. Nevertheless, the use of ICT, like all things 'nouvelle', is affected by the gender roles like traditional perception of 'honor' constituted in the rural areas has a negative effect on women's use of cell phones and the Internet [1].

In order for the development targets to be met in disadvantageous rural societies sustainable flow of information that can be realized through ICT is needed. A significant amount of households throughout the world are unable to benefit from the ICT revolution despite the social and economic gains it provides to rural societies [1]. Poverty that strikes the rural areas and traditional societal gender roles are among the vital causes of such a backward trend.

Individuals and groups have the opportunity to express themselves in a more democratic manner and access to different information on demand through the Internet, and have the means of interpersonal communication at times [2]. ICT drew much attention by its ability to rapidly renew economic and social structures of all countries throughout the world; thereby, has become a preferential tool in poverty alleviation and development efforts in developing countries. Connecting people and places together, such technologies play a fundamental role in national, regional and global development and therefore pave the way for thinking further on this issue [3]. Technological revolution era brought about in light of the technological developments reconstructed the economic, political and cultural space [4].

ICT technologies are utilized in every area in regard to collection, systemic storage of data and delivery thereof to the users in an authenticated and fast mode through association [5]. Speedy development of ICT affects the social life as well. There is an increased demand due to its rapid

adaptation to the daily life as well as its enabling power for fast and direct interaction; and, this demand is also influenced the fact that the knowledge provided are accessible to everyone [6,7].

According to the International Telecommunication Union (ITU) statistics, the rate of the fixed-telephone subscriptions in Turkey was 29.12 in 100 households in the year 2000. This number has dropped to 18.73 percent in 2012. In 2000, mobile-cellular subscriptions were at the rate of 25.54 for every 100 people, whereas in 2012, it increased to 91.46 %. Statistics on individuals using the Internet in Turkey show a similar trend. In 2012, 45.13 out of 100 people were internet users, compared to the 3.76% measured in 2000 [8]. In a study conducted by Ergül, Gökalp and Cangöz (2010) in low income households of two neighborhoods of Eskişehir city centre, the authors observe that use of telephone, mobile phone and the Internet evolved as interaction spaces not despite the fact that these people are poor but rather such technologies are used almost because they are. Occupants of the households stated that they use cell phones to be informed about spontaneous jobs such as cleaning, construction works and portage. Economic poverty impedes access to ICT, solidifies this situation and such inequality makes way for reproduction of poverty of information [9]. Television is now a part of daily lives of most of the societies, urban and rural. In Turkey, a family typically spends 5-7 hours on average watching television and television series and advertisements are daily topics for discussion [10].

Forerunner users of the increased Internet access in Turkey are young people and children. Compared to the Western countries, Internet access is low and major discrepancies in terms of geographical regions, gender and societal groups exist. For this reason, existing inequalities in the Turkish society deepen. While people are unaware of the contribution of the Internet for individuals, young people and children do not know about the risks of the Internet [11].

ICT mandated changes in numerous societies, however, rural areas, like in many other aspects, take a prolonged time to benefit from the advantages provided by ICT. According to TÜİK 2013 statistics, the reasons of not having home access to Internet in rural areas are as diversified as follows: there is no need to use the Internet in the household (content is useless, harmful, etc.), 30.9%, cannot afford to buy devices such as computers, etc. 27%, the Internet connection fee is expensive, 25.2%, insufficient knowledge of using the Internet, 25.1%, has no idea about the Internet, 19%, uses the Internet elsewhere (work, school, Internet cafés), 11.7%. The results indicate the insufficient knowledge of the uses of Internet in rural areas, that the lack of material sources continues to constitute a problem, and that the use of ICT is highly affected from the insecurities stemming from computer illiteracy [12].

ICT could have a significant impact on protection of the family farming, and on mastering farming, which has become a market with a global focus, and on moving ahead the negative experiences and of the knowledge gap. Nonetheless, leading practices throughout the globe and in Turkey should be promoted. There are different development projects that focus on the use of ICT on rural areas or have ICT as an internal component aiming to disseminate the positive impact thereof. For example, in Kenya, “call centers” are being utilized to support agriculture. In a rural ICT center, the aim is to provide computers and Internet access for the rural society and to help to farmers to tackle prospective problems. Such centers can be employed to find sponsor organizations to assist rural societies, to provide quality inputs, low cost and an overall good quality supply chain via establishing better relations between the farmers and suppliers. Thereby, the farmers would be aware of the raising market prices, have rapid access to knowledge they need to increase product yield and their incomes, and be informed about their various legal rights. A rural telecommunication centre could inform the farmers, provide the flow information on the new and useful methods of planting between the farmers, and, open up channels between the experts and farmers. Nevertheless, a study conducted in India, the use of ‘telecommunication centers’ open for public in rural areas are low regardless of their advantages [13].

Access to ICT is problematic for those living in rural areas due to material impossibilities; however, it is also worth pointing out to the reasons for their unwillingness or prejudiced attitudes to use such technologies even when they are available. An important problem is that the lack of available spaces and time slots to use ICT in rural areas. Another crucial drawback for the farmers is the fact that the potential economic benefits of ICT do not go beyond prediction phase until the sufficient consciousness level in terms of ICT use achieved upon the alleviation of gaps and weaknesses in practice [14]. Low literacy rates in the rural areas are the biggest obstacle for the inhabitants, especially for women, in accessing information and news. Nevertheless, the main issue is people, who

are used to producing and marketing their goods in traditional ways, acting prejudiced towards the use of technological novelties of whose benefits they are puzzled about. It is therefore necessary to illustrate that technologies that people living in rural areas have could make a difference in their daily lives and socioeconomic conditions.

Reasons such as perceived difficulties in using computers, the discomfort such difficulties bring, computers and the Internet being non-user friendly and pricy, lack of information, skills, trust are pointed as the factors inhibiting the computer use among farmers. Numerous studies show that with ICT use, farmers' location concerns with regards to marketing their goods are overcome [15]. Insufficiency on part of extension and training studies towards the rural enhances the importance of agricultural training through radio and television for agricultural extension. Television and radio are technological intermediaries which possess the power of having a broad reach; they also come at lower costs for individuals. Especially in regions where the literacy rates are low and reading habits do not exist, efficiency of intermediaries such as radio and television are high. Specifically, for programs broadcast in television as they are impactful upon provision of both visual and auditory support, more clear and understandable expressions need to be employed along with opportunities to ask questions [16]. Computers and the internet allow for distant learning through the multiple media technology and they are regarded as a new vehicle in resolution of the problems experienced by the rural inhabitants [17]. Fulfilling the requirements of the rapidly advancing and ever-changing technology necessitate informing and training of the rural society constantly regardless of its education level [16].

## **2. GENDER AND ICT**

Production of ICT entails an ideal user target, however, the ideal user to utilize such technologies are typically referred to as men. ICT use is considered as an area of interest for men and this perception fortifies the existing gender inequalities through technological intermediaries [18]. Although ICT are built upon the gender inequalities in societies, they are for the benefit of women, presenting opportunities for emancipation and self-realization. Women's access to information sources and communication through ICT, increase their self-esteem and puts an end to their isolation [19].

Rural inhabitants, in particular rural women, have multiple impediments not only in terms of access to information but also in economic sense. ICT shall especially enable women's access to information and provide opportunities for development of their socio-economic conditions. Impediments of the ICT use for women living in rural areas are low literacy rates, restrictions on access to technology, traditions, inability to participate in decision-making process of society, and heavy workload. In the ICT based rural development pilot projects implemented in rural areas, it is observed that men have primary access to the technologies, whereas women lag behind [20].

Women take advantage of economic opportunities through utilizing mobile phones; especially women who own businesses view mobile phones as an indispensable productivity tool, and more than half of these women state that they use the mobiles to earn extra income. 85% of women participated in the survey affirmed that they feel more independent thanks to the mobile phones. %43 of people who call the Kenyan Farmer Support Call Line (Huduma K waWakulima) to obtain information on farming and raising livestock is women. Although women ask for help of the experts rarely, they overcome obstacles on access to information owing to this line and phones. In another project implemented in Pakistan, the objective of increasing the literacy rates of young girls living in rural areas was sought. In this respect, all 240 girls aged 15-24, who received basic literacy trainings in 2009, were given low cost mobile phones and pay as you go membership. Assistance of the pre-trained teachers on this subject is attained as well. Messages on religion, health, and nutrition through SMS were sent to these girls who are unable to get hold of reading materials. The girls were then required to read and write the messages sent and respond to the teachers via SMS. To ensure that more women living in rural areas possess mobile phones, it is compulsory to demonstrate that the device is capable of enhancing living standards [21].

## **3. METHODOLOGY**

This study encompasses the data on women's ICT use in small family owned businesses of a continuing field survey proceeding in Boğatepe and Küçükboğatepe villages of Kars. Surveys are the primary sources employed, whereas the secondary sources are other studies, project documents and reports. A total of 91 women living in the two villages were contacted in scope of this study.

#### 4. RESULTS AND DISCUSSION

The name of Karapapak signifies a supra-identity and Terekeme people whose ancestors are descendents of the Ghuzz Tribe are named as Karapapak due to their dressing styles. There are numerous villages in Turkey such as Yeşilbaşlı, Akbaşlı, Akbaşlar, Karabörklü, Kızılbörklü named after the Caucasian Turks who wore fur caps in the bygone era. Karapapak rejected the crimson caps named “crown” worn by the disciples of Shah Haydar, father of Shah Ismail, and wore black caps in an effort to underline that they are Sunnis. Terekemes, whose ancestors live in North Caucasia, emigrated from their lands for various reasons and settled in Georgia and Turkey. Local people of their settlements called them Terekeme, which means “those who abandon their lands”[22, 23].

People living in the Kars’ villages of Boğatepe and Küçükboğatepe where the study is conducted are Terekeme (Karapapak). Immigrant villagers from Russia were settled in this region due to their interest in pasture areas. Utilizing their local knowledge, those villagers started gruyere and cheddar cheese production in dairy farms, an activity that began as a livelihood but assumed a brand status later.

Boğatepe and Küçükboğatepe villages that desired to take advantage of the fertile structure of the region owing to its flora decided to boost the added value of their products by Boğatepe Environment and Life Association. At this stage, the process is facilitated through a male leader who leads the reverse-immigration efforts and his producers. These efforts primarily focused on raising livestock and later on seed harvesting having received some public and private sector support. Due to the fact that raising livestock is mostly carried out by women, various trainings and extension studies geared especially towards them are conducted.

76 of 91 women participated in this study are involved in crop production and raising livestock simultaneously. 15 households are determined to have no land. Residents of these households work in seasonal jobs both in and outside the villages.

Women participated in this study defined themselves as housewives (84), farmers (5), village women (1), and accountant (1). Women who stated their occupations as farmers and village women explained their rationale as follows: “we take care of animals, we deal with gardens and land, women who sit at home in the city are called housewives”. Those who defined themselves as housewives are also involved in farming too. Education level of those women is as follows: never went to school (21), primary school dropout (9), primary school graduate (39), elementary school dropout (13), high school dropout (2), high school graduate (5), and university graduate (1). 2 of those women stated that they are illiterate.

Women participated in tourism courses (providing bed and breakfast facilities) since the villages are a tourist destination and 7 women received certificates. Due to the fact that most tourists visiting the villages are French, 11 women who provide bed and breakfast facilities received basic language training in French upon their own requests to ensure efficient daily communication skills. Moreover, another course on organic farming took place in which the participants were mostly men, whereas only 4 women attended.

Among the ICT options, it is demonstrated that all women participants of the study have access to television the most. All participant women watch TV; it is determined that 30.8% watch programs on farming and raising livestock, whereas 53.8% do not watch such programs, and 15.4% watch those programs occasionally.

Women stated that they do not sufficiently benefit from the television programs on farming and raising livestock, that they are not interested in the subject, and find it boring. Those who claim to watch programs on farming and raising livestock, stated that they prefer watching Bereket TV (17.6%), Köy TV (2.2%), programs on livestock care (6.6%), all programs that come across on land and livestock (14.3%). 78% of women indicated that they never listen to radio, 12.1% listen occasionally, 7.7% listen to radio for a couple of hours in a day, 2.2% listen to radio all the time. Women generally listen to radio while doing housework, with their preference being music.

Women are informed about existence of computers and the Internet. When asked about the utility of these technologies in their daily lives, 39.6% stated that they would use them to “get handicraft samples, whereas 9.9% stated that these are useful to search about health problems. 2.2% establish that these technologies might be useful in enabling access to raising livestock, products and harvesting

information but they do not utilize them. Remaining 48.3% expressed that they do not believe that the Internet can change their lives, that the Internet as a waste of time in belief that it will hinder their daily work and that their husbands will not allow them to use it.

During the interviews, it is observed that despite women have no societal obstacle in using the television and the radio, the use of the Internet and mobile phones depend on the approval of men and that their use by women, especially by young women, is generally audited or disapproved of with the reason being that women "will speak to/write to a man" through such media. In the households, computers are regarded as technology that needs to be possessed by males who attend school.

Most women are not aware of the benefits that computers and the Internet will bring to crop /livestock production and marketing; they believe that these technologies will not have a life-changing effect and hinder their daily work. There are a few who think of utilizing these technologies to care for their animals and obtain information on animal diseases, and that these technologies present chances for vegetable and cheese sales. When asked their attitude towards selling the vegetables they produced, collected and dried on Internet if provided with an opportunity to do so, 39.6% responded positively, whereas 60.4% stated they are not willing to sell their products online. Views of women participated in this study regarding online sales are as follows: I do not trust the Internet, I will be afraid of being defrauded (26.4%); it is safer to sell through traditional methods/manually(23.1%); I will sell online to get extra income (18.7%); I don't trust something that I don't see with my own eyes (8.8%); I'll sell if I am trusted (8.8%); I'll sell if I am led by example/presence of an avant-garde(5.5%); I'll try at least for once (3.3%), I'll sell if I am provided with an opportunity to do so (2.2%); my husband takes care of such things, I won't be involved (2.2%); I'll be involved in selling if I trust the products I produce (1.1%).

## **5. CONCLUSIONS**

Despite the fact that ICT provides opportunities to access multiple different information channels such as vegetative agriculture, raising livestock, forestry, veterinary, environment, and food production and assists women to resolve problems and empower them through developing their communication networks, women living in rural areas are not informed on ICT's potential benefits. ICT use is only regarded as normal on the condition that the technology used reinforces the domestic roles of women, as exemplified in handicraft models. As observed in many rural area studies in Turkey, this example also illustrates that women are allowed to use one-sided communication technologies, television and radio, by men and the rural society. In case communication's nature is interactive and allows providing opportunities to interact with new individuals, groups, and forums, and even one-to-one communication, it is not deemed as appropriate for women. Gender roles affect use of mobile phones and the Internet the most in rural areas.

Women themselves are reluctant with regards to using ICT. The most important factor can be pointed out as the fact that they are being uninformed about the benefits that these technologies will yield. In rural areas, technologies are defined with their particular aspects such as being a means for entertainment, a waste of time, and as addiction. The fact that the sample villages of this study are geared towards a project started raising such awareness. Different trainings provided within the scope of the project aiming to support women entrepreneurship, and the opportunity to interact with the project teams in these villages are shown to have aided women in becoming more open to new ideas and technologies.

It is necessary to support people living in rural areas and to provide trainings that will ensure realization of existing opportunities and potential in their own villages with the aim of adapting those people to socio-economic developments. Rural people need to be made aware of the benefits that ICT shall present to them. As shown by the examples, especially women are able to demonstrate great transformations even with the disadvantageous conditions that they are in. Hence, rural women need to be trained on the potential benefits of ICT and to be encouraged to publish websites and forums to assist their daily problems such as production, association, and communication. It is also noteworthy that television, an internal ICT channel, plays a vital role for promotion of ICT itself. Rural Extension programs and projects are quite important to rise awareness on ICT's positive benefits.

ICT's importance in empowering women and developing their networks in rural areas is obvious. Nevertheless, despite vitality of ICT in this regard, there is insufficient recognition on part of women. Gender roles and pressures stemming from the patriarchal structure also accumulate on top of this

insufficiency and therefore ICT is blocked from finding ways to support progress and development in rural areas.

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