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Information and Communications Technology Offices: A Solution for Economic and Social Development of Villages (A Case Study on Rural District of Khosrow Shirin, Abadeh, Iran)

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Abstract

Information technology is considered as one of the major criteria for economic and industrial development and progress, and it is one of the most important bases for rural development. Information technology is setting the stage for social and economic development by appropriate decision-making to achieve national objectives and to meet needs of rural communities. In the present study, through a rural development approach, an attempt was made to get a general conclusion about the roles of technology and information in economic growth and development of villages and effects of Information and Communications Technology (ICT) offices on rural development and its problems in village Khosrow Shirin were addressed in various aspects.

Keywords: economic-social development, ICT offices, information technology, Khosrow Shrin village

Introduction

Development is a complex and broad concept that includes various aspects. Complexity of the development concept has different reasons, the most important of which are generality and universality of the concept. In fact, development should evolve in all structural and institutional areas of a community, and different unbalanced situations should be prevented. Rural development is one of developmental plans for any country to improve of life conditions for villagers and create economic, social and cultural balance between cities and villages, while increasing productivity on the basis of growth and development to transform social and economic structures in villages.

Rural development is referred to as a vital element for national development and the final solution for unemployment and over-population that practically results in the improvement of villagers' lives in various aspects such as income, employment, education, health, food, and housing, as well as development of rural division capacities and acceleration of growth over time (Alexandru, 2006).

Emergence of electronic world and development of information technology have been effective on communities' development in different aspects, playing a critical role in development. The actions governments have taken for the reconstruction and comprehensive development of villages at national levels include developing and expanding information and communications technology (ICT) to enhance social, economic and cultural justice in villages and to take optimal measures in this area.

A sociological approach

Madian Levy is a researcher following a sociological approach to development. Levy considers relations between relatively modern communities and non-modern communities, accounting for the main reason behind realizing modernization. The specifications of non-modern communities include: low specialty, high sufficiency, presence of tradition-based cultural norms, cultural homogeneity, relatively low emphasis on money and market flows, family-governed norms such as adherence to informal relations within formal structures,

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and one-sided flow of goods and services from rural areas to urban areas. On the contrary, specifications for relatively modern communities include: high specialty, inter-dependence of organizations, logic-oriented cultural norms, rationality, public-orientation, functional orientation, high centralization, relatively higher emphasis on money and market flows, need for separating bureaucracy from other social entities, and two-sided flows of goods and services (Azkiya, 2004) .

Mass media theory

Communication, the transfer of information from a person or a group to another person or group, either verbally or by mass media in the modern age, is a vital element in any society. According to Innis, that is why features and nature of media in a society affects the organization of the society in question. According to McLuhan, the media is the same as the message. That is, the nature of media available in a society influences the society's structure much more than the content or messages of the media, including electronic media creating the global village (Castells, 2001).

Rural development

Diasen believes that rural development is a strategy that intends to improve economic and social life of a specific group of people. This process includes expanding development benefits among the poorest people who are making a living in rural areas (Cigdem, 2008). Rural development is the modernization of the rural communities and will transform them from a traditional isolation into a society that merges national economy (ibid).

According to definitions, programs for rural development are part of development programs for any country, and are used for transforming social-economic structure of rural communities. Such programs that are implemented by governments or their representatives in rural areas are also called social transformation based on a design and plan. That is the case in third world countries in which governments have a critical role in restructuring society to fulfill specific political and economic objectives. On the other hand, rural development could be considered a factor in improving life conditions of low-income families living in villages, and making them self-sufficient in the process of macro-development of the country. In sum, rural development is considered a set of technical, economic, and social strategies in order to make the best use of available resources and facilities in villages.

Significance of rural development

The roles and positions of villages in the process of economic, social and political development in local, regional, at international scales and the consequences of underdevelopment of rural areas such as widespread poverty, increasing injustice, fast growth of population, unemployment, immigration, suburban, etc. have drawn the attention to rural development and even its priority over urban development. According to Michael Todaro, the final solution for urban unemployment and population density is to improve rural environments by establishing an appropriate balance between economic facilities in cities and villages, as well as providing convenient conditions for people's expansive participation in national development (Cigdem, 2008).

The concept of information technology

One of the most fundamental media is the underlying structure through which information is exchanged. Technological developments over the twentieth century have transformed information exchange completely by electronic media. Innovative communication technologies are foundations for profound changes in the global monetary system and stock exchanges (Castells, 2001).

There is a wide dependence on the application of information to produce a variety of goods and services in a society. One of the dynamic channels of a society is formed by information highways such as the Internet that constitute a new space in economic, social and cultural terms for human beings. According to William Martin, informational community is a community in which quality of life, parallel to perspectives of social transformation and economic development, is increasingly dependent on information and its application. In such a society, life standards, work and leisure patterns, educational system, and market are affected by developments in information and science. The evidence for the claim is the widespread information products and services transferred by a wide range of media which are mostly electronic.

Informational societies have some substructures that could be classified into three categories:

1. Substructures for telecommunication
2. Substructures associated with sciences concerned with organizing and processing information, making the access, application and interpretation of the information possible.
3. Technical substructures for information connection: this substructure is indicative of an environment in which various interactions are made.

However, a large volume of information is a key factor in development of informational societies, and this technology is divided into two different categories: computer power and transferability (Ghavam, 1973).

Information technology involves an approach to production and collection of information, its application, and availability of an intellectual and cultural system that includes all cultural expressions. Today, it is the information process that introduces a new procedure for development and its main feature is the emergence of information process as a fundamental activity that determines the effectiveness and productivity of all processes such as information processing, distribution and management. Information flow emerges as a key feature for informational communities, and this dependence on computerized network is reducing spatial limitations for contemporary activities (Giddens, 1974).

The effect of information technology on rural development

ICT is the technology of new millennium that has brought about reduction in process time of calculations, accuracy of data processing, easy exchange of information, and reduction of transaction costs. The concept of informational community indicates unlimited temporal and spatial access to information, and it contains another concept within itself called information gap (Khosravi, 1979). Generally, information gap refers to social and economic differences in applying ICT (Mohseni, 2001). ICT has been resulted from the interaction of three distinct sections, computer, information, and telecommunications (Nouri, 2003), seeks to provide services of central government and non-government agencies for residents of rural areas (Rama, 2004). Today, ICT is one of the major criteria for economic and industrial development and progress. ICT has so influenced various aspects of individual and community life such as political, social, cultural and economic, that it could not be simply overlooked. Development of ICT has also affected villages. ICT is a combination of tools, machines, technical knowledge, methods and expertise to use them to produce, transact, process, transfer, and consume information which include the simplest forms of information to the most complex ones, and the most rudimentary to the most advanced stages of information (Taleb, 2008).

In the present political economy, capital and technology have mobility, and internationalization has led to a network of complex and deep relations between large companies and countries all over the world and cultures. Politics has also been transmitted to everywhere worldwide by rapid exchange of information, thoughts and knowledge.

Clearly, development is not possible without technology, and technology as a phenomenon has provoked its development and diversity, while both phenomena influence each other. ICT is a new millennium technology that has brought about reduction in process time of calculations, accuracy to data processing, easy exchange of information, and reduction of transaction costs. Achievements of ICT have the most influence on human life when it could penetrate all fields across all social classes (Cigdem, 2008).

What is the village?

A village is a dwelling and the smallest political unit in country divisions, and it is the living or community place for a group of rural families and includes some units for farming and/or some business places (Vehovar et al. 2006).

A village consists of a range of geographical location, in which a small social units including a number of families with some feelings of attachment, common emotions, and interests gather and most of the activities they do to meet their life needs are performed by using and employing land within their dwelling environment. This social unit, most people of which engage in agricultural activities, is called village.

In country subdivisions, the village Khosrow Shirin is one of suburbs of Abadeh County, Fars, Iran, that is located 82 km of the county center. Its population is 3785 including 1898 males and 1887 females, in 743 households. The occupations for most of villagers are traditional agriculture and animal husbandry. The village faces some problems such as low literacy, unemployment, and low purchase power, unfavorable dwellings, immigration, and poverty, and low productivity, lack of money

flow, low capital and successive draughts. However, a significant change has been made in economic, social and cultural development since the establishment of the ICT office.

Services of ICT office

ICT development in villages was initiated by Fourth Development Plan of Iran, and appropriate planning has been made in this field so that profound digital gap between cities and villages, on the one hand, and between villages and the information world, on the other hand, could be decreased within a certain period of time. Drastic development of rural ICT has set the stage for solving most of the problems in Khosrow Shirin, such as unemployment, job creation, low capital, immigration, etc. ICT office was primarily established in Khosrow Shirin village by a common title of Post, Telegraph, & Post-Bank on Feb 2007, and it has been operating by new name of Rural ICT since Feb 2008. ICT has significantly influenced Khosrow Shirin, and some of the influences are discussed here. Technological and information development in villages is one of the objectives of principles and practice programs of informational community, and Twenty-Year Outlook. Appropriate scientific and executive activities have been performed to develop rural ICT in Khosrow Shirin, and, from the perspective of development, the village has reached good achievements towards improving rural life. Considering the matter of importance, required conditions and practices for organizing and using global experiences have been met by private and public sectors.

ICT office Khosrow Shrin provides various services towards development in educational, social, economic, cultural, and information exchange some of which are as follows:

- Absorption of low capital of villagers for investment and monetary flow in the field of rural development
- Providing banking services to village head assistant office
- Providing all banking services for villagers such as opening current, loan, and deposit accounts
- Receiving bills for water and power consumption, landline phone, and mobile phone which has led to lowering transportation costs, and accelerating payments
- Paying pensioners of Imam Khomeini Relief Committee
- Paying equity dividend
- Paying facilities that have set the stage for high investment and productivity
- Providing internet services such as fuel card registration, university enrollment, course selection, receiving scientific, investigative, religious, and cultural articles
- Online purchase of books
- Providing insurance services such as issuance of insurance booklets
- Providing mailing services
- Landline phone registration

The effects of ICT office in the village Khsrow Shirin

- Providing (banking, mail, the Internet, and telecommunication) services for villagers in the least possible time
- Reducing current expenditures and saving time
- Reducing unnecessary travels to cities
- Preventing immigration to cities
- Encouraging villagers' active participation by investing in ICT office for civil and comprehensive development, and increasing opportunities for job creation
- Enhancing the scientific level of students by information exchange via the Internet
- Enhancing cultural, social, and economic level of villagers and expanding social and economic justice by enjoying capitals, facilities, and various services
- Receiving bills of water and power consumption, landline phone and mobile phone that triggers increasing receivables of the associated departments and providing services from relevant entities more desirably

Problems of ICT offices

Because of the distance from the observing branch, money exchange is not implemented in time, and liquidity discourages customers.

- For offices with low sources, payments do not meet the office's expenditures
- Contractors do not have social insurance, and do not have the ability to insure themselves.
- Insurance sums for offices are low.
- The offices' properties are not insured.
- Because of rural distribution, supports for hardware and software systems are not provided in time.

Conclusions

Information and communication technology has created new opportunities for different com-

munities. The communities identifying the opportunities more quickly may compensate retardations through rapid structural development. In Abadeh County, Fars, Iran, rural ICT has been established with a significant effect. By introducing information technology to villages of Abadeh County, traditional and ineffective procedures for agriculture and animal husbandry have been replaced by modern and effective techniques, leading to increasing sources of income for villagers. In this regard, ICT office has placed the village Khosrow Shirin on development plans, and the arrangements for rural growth and development in social, economic, and cultural aspects, as well as villagers' participation in civil and rural development have been made. ICT office has provided employment by introducing better services, and prevented immigration to cities. ICT offices need more attention and support by the government to provide better services so that the offices will not encounter depression in the event of any incident such as flood and draught.

Recommendations

- Selling securities by ICT offices so that villagers take steps towards economic justice by participating in purchasing securities.
- Paying economic subsidies
- Paying insurance for agricultural products
- Paying the price of agricultural products such as wheat, barley, corn, etc.
- Providing all insurance services (insurance for agricultural products, social insurance for villager, third party insurance)
- Increasing insurance limit for ICT office fund based on the absorbed resources so that liquidity problems will be solved.
- Allocating safe vehicles to agents exchanging documents and bank bonds.
- Allocating back-up computers to take backups and using them in case of any impairment in operators of banking services
- Increasing the payment of contractors for ICT offices, the absorbed resources of which are low.
- The offices contractors should be insured.
- Allocating inter-bank cheques to offices to solve liquidity problems.

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