

INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE DEVELOPING COUNTRIES ECONOMY

Annotation. The article is concerned with some up-to-date information and communication technologies. The characteristic features of their application in the developing countries are regarded. Recommendations for information and communication technologies improvement and their further successful developing are suggested.

Анотація. Розглянуто деякі сучасні інформаційні та комунікативні технології. Розглянуто особливості використання цих технологій у країнах, що розвиваються. Надано рекомендації щодо подальшого вдосконалення та розвитку цих технологій.

Аннотация. Рассмотрено современные информационные и коммуникативные технологии. Выделены особенности использования и применения этих технологий в развивающихся странах. Предложены рекомендации для дальнейшего совершенствования и развития технологий информации и коммуникации.

Keywords: ICT, development, telephone, market.

Recent development of information and communication technology (ICT) is changing our economy and society in a rapid way. Electronic commerce, internet and related activities demand more data-processing power, more memory and more speed. Due to this surging demand for ITC, the industries which provide ITC goods such as computer, software, telecommunications equipment are growing enormously.

The aim of this research is to study the basic problems of ICT development in the economy of developing countries, to show why ICT is so important nowadays and to examine the main ways to solve the problem.

The main objectives of this paper are to consider the notion of ICT in general and to learn some ICT abilities in the developing countries.

The practical application of the paper is to realize the role and the value of ICT and to be able to apply this knowledge and its benefits in the economy of all countries, especially in the poorest nations.

The research regarding "information sector" has begun from an attempt to identify the importance of knowledge and information in 1960's. The primary roles of the ITC Category are: 1) telecommunications; 2) information technology; 3) visual communications; 4) information and operational security; 5) information management. And now we will pay particular attention to the benefits well-functioning markets bring to even the poorest persons in the poorest nations. How challenging is the task of providing the information that enables markets to work? Little information would be required if prices remained relatively constant from year to year. Farmers would know what to plant, laborers would know where to work, and consumers would know what to pay for goods and farmers for inputs, just by relying on prices from the previous period. However, even in relatively underdeveloped economies, prices move considerably in response to such forces as weather, changes in taste and technology, and variation in supply and demand from outside the region [1].

In the developed world, markets perform well because the prices of goods are known or can be found with minimal effort. However, in developing nations, especially in rural areas, such signals flow sluggishly, if at all. As a result, farmers often produce the wrong mixture of crops, often using inefficient technologies, and consumers do not receive goods even though they are willing to pay the market price. The result is inefficiency. In poor countries, the coordination of economic activity rarely works well. In isolated rural villages in most developing countries, there are virtually no sources of information regarding market prices and other production-related information. For them, "information is poor, scarce, maldistributed, inefficiently communicated, and intensely valued".

The main reason is that many people lack access to even very basic communications infrastructure. In low-income countries as a whole, there are only eighteen telephone mainlines for every thousand people, and the average waiting time for a telephone is almost six years. Access to more advanced forms of ICTs is generally even more limited. Barely 6 percent of the world's people have ever logged onto the Internet [2]. A household survey in Peru showed that 77.2 percent of households lacked telephones, including 99.8 percent of poor rural households. With no way to communicate across distances, many rural poor are removed from the flow of information required to make markets work. In particular, price signals are faint or absent. A vivid symptom of poor information flow is that prices vary widely within a geographic area, even for goods that are readily transported.

The villagers that received telephones between 1991 and 1993 had slightly higher incomes from wages and businesses and lower incomes from agriculture, than villages that were still without telephones in 1993. Overall, however, households living in villages that received telephones in 1993 had incomes that were slightly lower in 1991 (about 2 percent). But between 1991 and 1993, there were dramatic changes in the income for households in villages where telephones were provided. In particular, overall average household income grew 15 percent, with the largest increases in agricultural and business income. By contrast, households living in villages that did not have telephone communication experienced slightly lower incomes in 1993 compared with 1991 [3].

Our analysis has largely made use of references and examples using the telephone. More advanced technologies,

such as Internet-enabled kiosks, could provide even greater benefits. For markets, a single mouse click could instantaneously and simultaneously reveal market prices in numerous locations, removing the need for contacting each directly, as with a telephone. Further, technologies such as Internet kiosks could provide numerous additional benefits. While our argument has been to show the role of markets for improving living standards, the poor need more than just markets. Health and education, in example, are important priorities. But it needs to be not an "either-or" proposition, because ICTs can be provided in these areas as well [4].

In conclusion it should be said that the theory of information and market signals and the available evidence on the relationship between market integration and economic development suggest that greater access to ICTs, starting with basic communications infrastructure, could significantly improve the living standards of the world's rural poor by enhancing the functioning of relevant markets. What is clear, however, is that the potential for ICTs to alleviate poverty and promote economic growth in developing countries justifies greater attention and systematic analysis.

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