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Sharma, Devashish

Amity University

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# The Impact of Information and Communication Technologies on Economic Competitiveness

Devashish Sharma

Amity University Madhya Pradesh, Gwalior

E-mail: [devashish.sharma@s.amity.edu](mailto:devashish.sharma@s.amity.edu)

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## ***Abstract***

It is important to note that enterprises will be more productive when they utilize information communication technologies to the fullest extent possible. This will result in an increase in their competitiveness, which will enable them to achieve sustainable economic growth, which, in the long run, is a prerequisite for reducing poverty. As a result of the development of information communication technologies, the opportunities for developing economies to participate in international markets are constantly expanding as a result of the development of this technology. With the advent of the Internet, we are witnessing a dramatic change in how goods and services are produced, delivered, sold, and purchased. As a result, the number of people and businesses that are connected to the internet on a daily basis is increasing, thus making them ready to take part in and contribute to the knowledge economy in an ever-increasing way. As a result of the use of the Internet, weak participants in the global economy will be empowered - such as small business owners in developing countries - enabling them to access information, communication, and knowledge that they had not been able to access in the past. It has become possible to trade goods and services more quickly due to the use of new technologies. Over the past few years, it has been shown that the trade in information and communication technology goods and services has been growing at a faster rate than the trade in total goods and services in the past few years. The information and communication technologies have also enabled trade in other sectors as they have improved market access and brought a broader range of customers into the market, as well as simplified the customs, transportation, and logistics processes that are associated with trade in other sectors. In terms of the economic impact of ICTs, one of their most important features is that they play a very important role in changing productivity processes within organizations.

***Keywords:*** *Information communication technologies, Information communication technologies and economy, Information communication technologies and competitiveness, economic competitiveness, technology and economy*

## ***Introduction***

There has been an increase in the recognition of information and communication technologies (ICTs) as one of the most significant factors contributing to the growth and development of countries around the world in the twenty-first century.

According to research, the use of information and communication technologies has been demonstrated to have a positive effect on productivity, efficiency, gross domestic product, and innovation activities in an organization. The development of an organization can be achieved in a variety of ways, all of which contribute to its success in the long run

Using information communication technologies contributes to improving the quality of education systems, changing the structure of business processes, facilitating employment opportunities among individuals, and facilitating daily activities among individuals. Additionally, information and communication regarding technology contribute to improving the quality of educational systems as well.

## ***Current Scenario***

The World Economic Forum (WEF) publishes the Global Competitiveness Report on a regular basis. The report describes competitiveness as a set of institutional, policy, and factor factors that determine the level of productivity of a country. As part of its Global Competitiveness Index (Global Competitiveness Index), the WEF measures competitiveness in terms of three subindices and 12 pillars. It is important to note that the overall competitiveness index (Global Competitiveness Index) is made up of three subindices (Basic requirements, Efficiency enhancers, and Innovation and sophistication factors) which are composed of the different pillars of competition. There are associated costs associated with using and taking advantage of ICTs, both in terms of capital and human skills investments and in terms of the transformation of labor markets in order to realize the benefits of ICTs. In addition to the use of ICTs in production processes, structural changes are also associated with their use. The implementation of these policies is often hindered by a lack of social dialogue as a result of social conflict. Therefore, policies must be able to adapt to the structural changes that result from such changes in order to be effective. It is important that any policy relating to ICT should take into account the costs associated with disseminating ICTs and ensuring an orderly adjustment of human resources.

As a result of the introduction of the Basic Requirements Index, we can identify four pillars of competitiveness: Institutions, Infrastructure, Macroeconomic Environment, and Health and Primary Education. There are six pillars of competitiveness that make up the Efficiency enhancers sub index: Higher education and training, Goods market efficiency, Labor market efficiency, Financial market development, Technological readiness, and Market size. Innovation and sophistication factors are two pillars of competitiveness that make up the

Innovation and sophistication factors sub index: Business sophistication and Business innovation. According to the Geneva Plan of Action of the WSIS conference, all stakeholders should work together to promote ICT applications that support development for all. A special emphasis is placed on encouraging SMEs to utilize ICT in order to foster innovation, to realize productivity gains, to reduce the costs of transactions and to fight poverty as a result of ICT adoption. As a result of the report, a number of areas have been identified where action is required, such as the development of policy and regulatory frameworks to support the participation of SMEs, and the promotion of the use of e-business and international trade in developing countries. A thematic meeting on ICT and economic and social development has been jointly organized by four international organizations that are working on the subject of ICT and economic and social development in response to the Geneva Plan of Action and as a contribution to the second phase of the WSIS. ICT and development will be discussed at this workshop, as well as policies and practices that should be adopted in order to ensure that ICT adoption leads to equitable economic growth in an equitable manner.

Research has shown that global countries, which are also the most competitive in the world, have a leading role in the use and implementation of ICT when it comes to both firms investing significant funds in development of ICT as well as residents who make extensive use of ICT in their daily lives. According to the research and results of the study, the use of ICT in a country has a different impact on the competitiveness of that country depending on the level of economic and social progress of that country when it comes to the use of ICT. In addition to being one of the most developed countries in the world, Western, Northern, and Central Europe are also among the most competitive nations in the world and they lead both in terms of investments and in terms of the development and use of information and communication technology.

### ***Challenges and the Future***

In today's world, what are some of the challenges facing the IT industry? Almost all of the company's core components and raw materials are imported from other countries. There is a high percentage of revenue that IT companies spend on the purchase of foreign licenses. By and large, the domestic market is saturated in terms of demand. There is a strong dependence on exports to specific regions in order for the company to survive. Is it possible for the private sector to overcome these challenges? A lot of countries tend to have a highly skilled work force, a wide variety of front-end industries, a great deal of know-how and expertise in mass production technology, and a prompt decision making process when it comes to investments in high-tech industries, which is without a doubt true.

It is unquestionably true that the digital revolution of the 21st century has had a profound impact on the way of life, the economy, and the culture of nations on a scale comparable to the industrial revolution of the 19th century and the automobile revolution of the 20th century when it comes to the way of life, economy, and culture of nations. In recent years

we have witnessed a revolution in the way knowledge and information are created, distributed, and utilized due to the application of advanced information technologies to the creation, distribution, and utilization of knowledge and information. It is clear that the paper trail has been replaced by a click-and-go approach in the distribution cycle, while the manufacturing cycle has gone from brute strength to brain power. As a result of the digital revolution, technological innovation has accelerated, product cycles have been reduced, investment risks have been increased, and returns on investments have multiplied. Due to the information age, economic competitiveness was enhanced as a result of better knowledge of customers, suppliers, competitors, and technological advances, cutting production and distribution costs, administrative and overhead costs, in addition to increasing the productivity of the workforce and increasing the profitability of companies as a result of the IT revolution.

As a result of the new digital economic environment, there are also new challenges in socio-economic development, such as the enormous impact of the growing digital divide on social equity and international competitiveness, which sets new tasks for governments as well as the need for a new digital industrial policy. There is no doubt that global perspectives regard ICT as one of the most important elements of domestic development strategies, as a major source of foreign exchange earnings, as a source of competitive economic advantage and a source of national power, as well as a prerequisite for extending the state's ability to organize and extract resources.

What are some of the soft issues facing the government when it comes to managing the digital revolution? The fundamental task is to bridge the emerging digital divide and promote social equity between the digitally rich and the poor through IT literacy and training programs for low-income men and women, the elderly, and the disabled at community IT access centers and public institutions to bridge the emerging digital divide and promote social equity.

## ***Conclusion***

A substantial amount of evidence has been accumulated which suggests that information communication technologies have a significant impact on economic growth, both in terms of supply as well as demand as well. The reason behind this is that they have an impact on both supply and demand at the same time. Using a production function, it can be shown that information communication technologies have a supply side effect, while using a utility function on the other hand, it can be shown that such technologies have a demand side effect. According to the coefficient that measures the relationship between ICT gross domestic investment and economic growth, it is evident that there is a significant correlation between ICT gross domestic investment and economic growth in the model. The coefficient which measures the relationship between the level of ICT gross domestic investment and economic growth in the study countries indicates that ICT investments have a positive impact on economic growth, as indicated by the coefficient that measures the level of ICT gross domestic investment. The fact that the coefficient of direct foreign investment of the model, which is the technical and

technological index of the model, has a positive and significant value, explains the results of the model because the coefficient of direct foreign investment is the technical and technological index. The growth of information communication technologies has been found to be positively related to the growth of the economy of a country in a number of studies.

In terms of research results, ICT capability really has a significant effect on competitive advantage, and it also has a significant effect on entrepreneurial orientation and organizational agility. The dream has become a reality. As a matter of fact, it is a reality. A revolution in the field of information technology has broken down decades-old barriers and created its own digital divides and e-challenges in the fields of economic development, military competition, and political legitimization games that have been taking place. There is no doubt that the digital society of tomorrow will become dominant in all countries over the next few years. As the digital age has come into being, tradition and modernity are entering into a new cycle of confrontation and co-habitation.

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