

JOMC 223 Global Impact of New Communication Technologies

Final Project

National E-development Strategies as a Catalyst for ICT Applications in Developing Countries

by
Diana Manevskaya

School of Journalism and Mass Communication
The University of North Carolina at Chapel Hill

Contact Information:
109-H Shadowood Dr.
Chapel Hill, NC 27514
919-619-7466
manevska@email.unc.edu

Pledge: I have neither given nor received unauthorized assistance on this assignment.

December 6, 2004

© 2004 Diana Manevskaya

Introduction

The e-development and the application on information communication technologies (ICT), in particular, is an amazing process. Especially, it is interesting to observe how developing countries absorb new achievements of technological revolution and apply them in various sectors.

To fasten application of new information communication technologies, national e-development strategies, or ICT-strategies, are created and implemented by the countries.

This essay focuses on the importance of ICT-strategies for developing countries, challenges and opportunities they bring, and provides case study from Ireland as a successful example of ICT-strategy creation and implementation. .

What are national ICT-strategies and why are they important?

National E-development/ICT-strategies (further – ICT-strategies) are initiatives created by the countries aimed to promote various aspects of information society and apply ICT in various sectors of economy, political and social life.

Various international structures support and assist national governments in drafting out and implementing these strategies. The importance and necessity of these strategies was underlined during World Summit on Information Society (2003).

National ICT strategies cover all sectors: public and private, health and education, business and government.

Nagy Hanna, senior adviser on e-development of the World Bank, defined the roles national strategies play. Among them – raising awareness, resources and commitment into action; building coalitions for policy and institutional reforms, building public-private partnerships; focusing scarce resources on exploiting ICT for national priorities, and others (Hanna, 2003).

Further, Hanna defines the objectives of national strategies, closely tying them with the overall global idea of development: "sustainable growth, driven by participating in highly dynamic global industry and by diffusing ICT to enhance economy-wide competitiveness; and, poverty reduction, facilitated by broad-based growth, accelerated human development, and empowerment" (Hanna, 2003).

National ICT strategies obviously imply a significant involvement by the public sector. However, the role of private sector is also very important. For example, e-commerce: its development relies on market forces and self-regulation by business especially given rapid changes in the technologies, on which it is based (E-commerce and

Development Report, 2003). The uniqueness of the national ICT-strategies is in addressing public and business interests by the same policies.

How National ICT-strategies are created and implemented in the developing countries? What are the problems and challenges?

Considering positive perspectives and impact of ICT on national economies and global competition ICT, countries need to embed ICT into their overall national development strategies, as much as businesses have learned to integrate ICT into their core business strategies. (Hanna, 2003). Also, Hanna considers that managing the benefits, risks, and impacts of ICT is a challenging task in view of the complexity and uncertainty of the interaction between ICT, economic growth, and poverty reduction (Hanna, 2003). "This can help ensure that the efforts to harness digital opportunities does not run counter to meeting the country's broad development goals and that poverty reduction strategies, in turn, benefit from the harnessing of digital opportunities." (UNDP ICT Task Force Series 3, 2003)

Integration of ICT into development is a highly complex process and requires much experimentation, social learning, local initiatives, agile learning, and sharing of experience. "We are not dealing only with the implementation of new information and communication technologies or with the creation of new economic activities or job opportunities. We are rather dealing with an overall societal, political and cultural change process in which various kinds of technical, institutional and social innovations interact with each other." (Kasvio, 2000). Such holistic development focus goes beyond issues of

digital divide and ICT sector to build broad-based momentum for effective and efficient deployment of ICT throughout government, society and economy. It provides developing countries tools to create dynamic comparative advantage by utilizing technological and institutional changes as the driving forces of development, while harnessing intangibles such as information, knowledge, and organizational and social capital. Governments play a critical role here, correcting coordination failures, promoting technological learning, providing the institutional infrastructure for a market economy, and alerting other institutions through collective action.

Some countries were able make significant achievements in producing and diffusing ICT and realizing the benefits of the ongoing technological revolution. Importantly, they have pursued an explicit ICT strategy and systematically integrated ICT into their overall vision and strategy for development. These include countries like Ireland, Singapore, Korea, Finland, Brazil, Mexico, Taiwan, Malaysia, and Estonia, and to a lesser extent, India, Costa Rica, China, and Barbados, among others. Even poor countries and communities can reap significant benefits from taking a proactive national policy towards access, content and utilization of ICT. (UNDP ICT Task Force Series 3, 2003).

At the same time, there is a number of developing and transition countries that have explicit and comprehensive national strategies on paper, but struggle to deliver any meaningful results. Remarkably, the list of “offenders” is not limited to the poorest and most resource-strapped countries. Many Eastern European nations, such as Russia, Romania, Bulgaria and Croatia, have struggling, if not stillborn, national ICT-strategies. The main lesson learned from this comparison is that successful countries perceive e-

development strategy not only as a policy document, but also as a dynamic and evolving process. In this context, focusing on the fixed output – the Strategy paper – may even hurt the country more than it would help.

Developing information technologies systems may be relatively fast, but it takes time for institutions and people to accept the changes that “cannot be compressed drastically.” (Suan, 2003). Whatever the national development objectives may be, a successful national ICT-strategy should address two core fundamentals of long-term e-Development process: building broad-based support and collaboration among major stakeholders such as government, businesses and civil society, and facilitating effective operational and policy leadership.

Stakeholder engagement helps to develop holistic vision, adopt balanced approach to major elements of ICT-strategy - such as policy, information infrastructure, ICT sector development, local content and applications - for the benefits of society at large. It assures that the ICT-strategy is realistic, sustainable, flexible and responsive to the ever-changing environment and local needs. It also increases implementability of e-Strategy by providing opportunities for new partnerships, innovative business models and implementation strategies, efficient use of financial, human and technology resources. Last but not the least, engagement of the civil society ensures responsiveness of e-development process to country's social and cultural diversity. Overall, mobilization of stakeholders, supported by dedicated and institutionalized leadership, provides for strong momentum and continuity of e-Development, surpassing political changes in the government.

Economic and social development is supported by information and communication technologies. Additionally, tools to enhance national, business, and individual productivity and growth are provided by ICT. According to Figures-Olsen and Paua, “for ICT to serve as an engine for development it is absolutely critical that an effective policy framework is in place; such a framework will enable an economy to fully capture the benefits of the technologies.”

What leads to a successful National ICT Policy?

Successful National IT policies have several characteristics in common including a strategy with a clear focus, and the strategy that is founded on infrastructure and education. Furthermore, according to the authors, “the most visible national ICT strategies tend to have a key visionary, a chief architect.” (Dutta, Lanvin, and Paua, 2003). ICT readiness can take the form of individual (the nation’s citizens to utilize and leverage ICT), business (measures a variety of businesses to participate in and benefit from ICT), and government (the readiness of a government to employ ICT). The ICT readiness of a country is part of the initial country assessment (for example, Iraq is not ready just at this time but there is major social, political, economic, and ICT change going on the in the country). After the country ICT assessment, a careful and thorough analysis must be made of the country’s strengths, and of target areas for policy intervention. (UNDP, 2003). Furthermore, the authors note that at its most basic, the ICT strategy must be founded on two prerequisites: infrastructure and education. “The strategy must then build upon this foundation by formulating an industrial policy

designed to attract private investment in strategic segments of the ICT sector.” (Dutta, Lanvin, and Paua, 2003)

National ICT-strategies: Case Study of Ireland

Less than twenty years ago, Ireland was considered a “second world” country in Europe. In the mid-eighties, Ireland opted to focus on creation of export-oriented ICT industry that will work as a locomotive of e-Development in the country. Since the country lacked necessary resources at home, the emphasis was on attracting inward investment. After extensive consultations with the private sector, including multinational ICT corporations, modern infrastructure was determined as the major pre-requisite. Liberalizing telecommunications sector and building international connectivity became government’s priority number one. The next most important priority was ICT training and education, with emphasis on school computerization and introduction of ICT-related courses in the higher education system. Other priority measures in the government strategy included:

- Creation of favorable ICT- related regulatory environment, for example, common standards for e-commerce.
- Creation of favorable environment for FDI - low corporate taxes, competitive labor rates, a good telecommunications infrastructure, skilled labor, export-oriented economy as well as responsive government.
- Very active use of public-private partnerships, especially in areas of R&D, education and ICT promotion.

Coherent government efforts paid off handsomely. Ireland became the world leader in software export. Inward investment by information technology companies has been one of the keys to Ireland's prosperity, and the country is now attracting large e-commerce and other internet-related investments. Riding on the wave of booming ICT sector, Irish government then was able to gradually shift its focus to full utilization of ICT by various sectors in the country, with heavy emphasis on ICT adoption by SME and e-Government services. In this dimension Ireland is still not among the world leaders, but advances very fast, which shows that government efforts are effective.

Conclusion

Developing and implementing national ICT-strategies is very important for developing countries in order to be a part of globalization process and develop public and private sectors of its society.

ICT-strategies should be developed and applied together with the global vision of development.

There are countries which success in this process more than others. Various factors should be considered. Among them – focus, infrastructure, education, and, no doubt, a good leadership.

Bibliography

Dutta, Lanvin, and Paua (2003). *The Global Information Technology Report*. New York: Oxford University Press.

Heeks, R. (2002). *Failure, success and improvisation of information systems projects in developing countries*. Institute for Development Policy and Management, University of Manchester.

Hanna, N. (2003). *Why National Strategies are needed for ICT-Enabled Development*. ISG Staff Working Papers. World Bank. Washington, D.C.

Kasvio, A. (2000). *Finland Information Society as a national project – analyzing the case of Finland Information Society Research Centre University of Tampere*. Available at: <http://Www.Uta.Fi/~Ttanka/>

Suan, Bok Hai. (2003). *Making e-Governance happen – a practitioner's perspective*. In *E-Government in Asia*, edited by Yong, J.

UNCTAD (2003). *E-commerce and development report 2003*.

UNDP (2003). *The Role of Information and Communication Technologies in Global Development*. ICT Task Force Series 3, 2003.