
Strategies for a Global Digital Economy

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Welcome:

During the last decade, I've researched and worked with many pioneering technology companies, ICT managers and consultants. Several CEOs and public policy makers have approached us for best practices advice. This executive paper provides a summary of management recommendations, insights and lessons learned during the past decade.

IIM Vision

"Knowledge networks will revolutionize the global economy. They will change the way we think, learn and work. The prosperity of a nation and its industries will be determined to a large degree by how well they can leverage global knowledge networks to collaborate, innovate, develop and market their resources, products and services."

At IIM we believe that a number of strategies should shape the national business agenda and corporate action plans. These strategic recommendations are aimed at government policy makers and business leaders to promote and leverage the emerging digital economy. The recommendations are divided into five areas:

1. Leadership
2. Planning and Program Development
3. Policies and Regulations
4. Infrastructure Development
5. Capacity Building

1. Leadership Best Practices:

- Leadership at the civic level is designed to be inclusive, but has difficulty being effective. In the private sector, leadership is based on meritocracy. Digital economy should be led by the private sector and the role of government should be to facilitate and support it.
- Leadership of a digital economy development program should be supported by credible entrepreneurs, with relevant entrepreneurial experiences, access to global networks and capital.
- Form an economic committee made of a group of internal and external experts appointed by government bodies to receive policy advice through a technical, legal and management advisory committee made up of expert consultants with responsibility to manage the policies, legal, administrative and technical reforms projects that will help in building and enabling the digital economy
- The program can be implemented through partnership of government and non-governmental organizations, as well as representatives of the private sector, who would meet quarterly to plan and review implemented activities and projects, so as to avoid duplication of efforts.
- On a national level, cluster-based subcommittees can be created to manage the national infrastructure development (Network, software and hardware) and superstructure development (applications, process, training and services)

2. Planning Best Practices:

- In the context of the global digital economy, the business adage “think regionally, act locally” is changed to “think globally, act globally.” Plan and act globally through ICT networks.
- Start by conducting a discovery/research study on digital business environment
 - How to differentiate your economy and your businesses in the digital age
 - Use management best practices to analyze alternative strategies. Example strategy tools BCG, BSC, GE, SWOT, benchmarking and other decision-making tools
 - Quantify ROI and qualify the benefits of all new ICT projects before implementations
 - Provide detailed description of activities (market analysis, technical requirements, cost allocation, business network topology and implementation methodology
 - State expected results (estimated impact on target groups, publications, outputs, multiplier effects, and sustainability)

- The development of a national digital economy should be addressed in clusters. Clusters are industry sectors with critical mass and a set of organizations and firms that have strong local and exporting markets. Clusters can cover different sectors (Public administration, manufacturing, education, trade, health, etc.) or areas such as:
 - Research and development of enabling technologies
 - Infrastructure development
 - Application development
 - New regulations and laws
 - New business model
 - New policy (education, business, intellectual property, etc).
- Instead of going for big-bang projects, implement the program in phases and use piloting of smaller projects to develop expertise and evaluate results.
- Focus your programs on core competencies, strong national and export industries
- Start with high-impact / quick-wins / 80:20 projects (projects with immediate ROI and/or directly touch citizens or customers and eliminate organizational complexity.
- Develop an integrated action framework to build your digital economy.
- Fragmented development is inefficient and ineffective. Develop an integrated program (5-10 year) with specific subprojects for each clusters, including E-Government, E-Business, E-Media, E- Learning, E-Health and so on.
- Leverage PDBOT project management model (plan, design, build, operate, transfer)
- Control and align operations by using progress measurement system that include metrics such as sector employment, patents, venture funding, startups, local and export income
- Evaluate growth strategies:
 - Build, acquire or partner your way in
 - Build on national strengths/select industries and help the transformation of older industries that are capable of sustained growth
 - Expand your channels and geographies, sell into geographies you are not currently in
- When planning or awarding grants, think “sustainable development”
- Standardize! Economy of scale works best when you use a single open platform to run and maintain your economy and your business. You’ll save on capital, training, operation and support cost.
- Whenever possible, leverage open source software and technologies. However, government should not control or fight competitive commercial solutions. Let market forces decide on the best solution.
- Manage risks and plan for business continuity and disaster recovery (BC/DR)
- Monitor and follow up the plans of action for leaders, like US, EU & Asia in the field of ICT R&D
- Join/build global research consortiums
- Join/build education, media and investment networks

3. Policies and Regulations Best Practices:

- Policies should focus on building up and networking of executive talent base, support of entrepreneurship, attraction of capital and worldwide alliances
- Cross-border and international issues resolution should be pursued by mutual agreement, negotiation and in reference to international organizations
- Free and open access to information is essential
- ICT policy should support and enhance democracy and individual freedom and choice
- Government intervention, when required, should promote a legal environment compatible with international business and international laws. It should help, not hinder the commerce and information exchange
- Government regulations should be technologically neutral and should promote open and fair competition
- In order to promote trust, government should formulate and enforce regulations for the protection of Internet users, in particular with regard to fraud, privacy and security
- Government intervention should not hinder economic and information exchange. Market-driven, industry-led solutions are most likely to prove more efficient to compete in this new economy
- Deregulate telecommunications and Internet to encourage major investments in telecommunications infrastructure and digital commerce by offering financial incentives and cooperative projects. Avoid monopolies and open competition between media, commerce and internet services
- Promote new business models for digital workplace and e-business including “smart organizations”, “virtual office” and “teleworking” (Knowledge management, collaboration and workflow systems)
- Promote university and industry collaboration and commercial exploitation of academic research
- Demonstrate support for Internet applications at the highest levels of government.
- Ensure free/reasonably priced access for schools, universities, libraries and other public service institutions. Permit special tariffs designed to promote Internet services, such as lower prices un-metered local calls for a fixed rate.
- Promote the use of Telecentres and other means to extend access to under-served communities
- Legislate and enable the enforcement of digital contracts and safeguarding competition.
- Promote production of local content by creating and enforcing a legal framework to protect intellectual property and copyright
- Remove all restrictions on communications service provisioning. Voice and Video over IP and Data services
- Encourage foreign ICT investments and capital markets: Create tax free and low startup costs zones such as Internet cities and technology parks for startups, venture capital and incubators

- Avoid taxing new online business, communication, and email. All such business should be treated as a startup

4. Infrastructure Development Best Practices:

- Build the infrastructure. Use wireless in hard terrains, instead of wire-line telecoms.
- Start by connecting affiliated groups, Government Network, Academic Network, Commercial Network, Health Network, etc.
- Establish policies to use digital workflow in place of paper. E-government Internet/Intranet publishing should become the default. Printed documents should be the exception.
- Incorporate video conferencing, Internet telephony, interactive web pages to enhance communications and reduce cost
- Governments can use new digital means like web-based databases to deliver core public services. Including public information, and cultural resources, public libraries, health services, web sites at local, regional and national levels and public libraries and other services.
- Intensify research and development linked to the next generation of the Internet (Internet 2.0 & Web 2.0), in an effort to identify and exploit new Net services

5. Capacity-Building Best Practices:

- Develop, train and mobilize internal resource for ICT implementation programs.
- Invest in training the managers on business process reengineering and shift MIS workers into thinking about efficiency, profitability and return on investment in addition to implementation know-how and best practices
- Install computer and Internet labs in early stages of education to jumpstart new ICT skills
- Train the teachers
- Have technical support as part of school administrative teams.
- Private-public sector partnerships are essential. Involve the community, the private sector and investors
- Link ICT and education efforts to broader education reforms. While many governments around the world have made the commitment to computerize schools, few have developed coherent strategies to fully integrate the use of computers as pedagogical tools in the classroom or aligning curricula, exams, and incentives with the educational outcomes that they hope to gain.
- Encourage Online Distance Learning (ODL) or E-Learning
- Make universities and labs part of the process and accountable to the private sector community
- Develop plans to attract and retain IT trained staff

- Diversify ICT course offerings and specializations in higher education (universities and institutes)
- Increase compensation and diverse packages to retain national ICT expertise in government
- Provide accessible and open continuing education/retraining for civil servants and citizens alike (especially for workers displaced by ICT development)
- Promote an active public awareness campaign. Celebrate your digital heroes, publicly and often. This creates strong motivation for the society and would-be entrepreneurs

References and Resources

- Most of the best practices recommendations are a reprint of MTC group/IIM paper at the 7th international scientific conference 1999 at the UNESCO palace.
- Updated recommendations are adapted from other international references and resources including WISIS, OECD, World Bank, EUMEDIS, IST, and the US Chamber of commerce.