Chapter I
An Overview on Strategic ICT Implementations Toward Developing Knowledge Societies

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ABSTRACT

As nations continue to conceptualize, adopt, implement, and monitor their respective information and communications technologies (ICTs) policies and e-strategies, it is vital that a critical assessment is undertaken on their effective progress. This includes analysis of strategies, methodologies, and best practices while weighing the impact, effectiveness, and efficiency of these policies and strategies. However, the demands, motivations, and incentives of various governments for adopting, adapting, and initiating ICTs varies from country to country, with diverse economic, social, cultural, and political environments. Researches in this aspect recognized the necessity of a cohesive ICT policy and strategic framework in each country for socio-economic development at their grass roots. The execution of these policies and strategies should include concrete national commitment and strong political will at the highest levels of government, and an enabling environment that promotes stakeholder involvement in setting agendas and implementing plans and programs. This chapter provides insights into various national implementations in promoting related activities, tries to establish an analytical approach that would assist in formulating ICT policies and strategies by identifying different ICT indicators. Furthermore, this chapter focuses on critical aspects of different strategic national level policies with short-medium-long term visions that targeted both the immediate needs of the populace and long-term needs of nations by integrating ICTs. Finally, this chapter has recommended that via coherent and complimentary policies that engage both the private sector and civil society organizations, nations can move forward towards creating a knowledge society and at the same time by leveraging capabilities of ICT can address the social, economic and political issues on the ground.
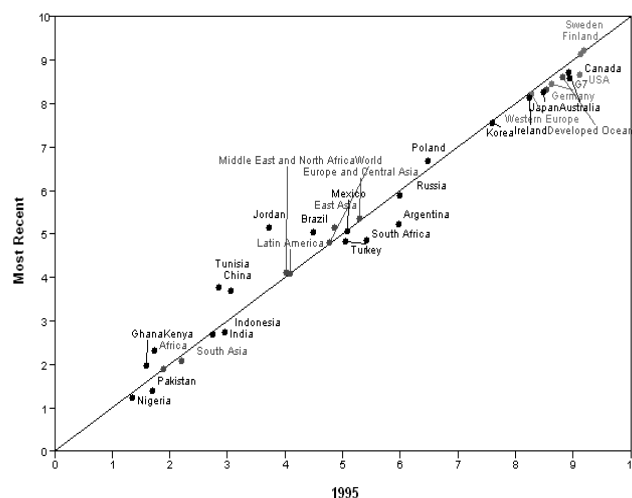
INTRODUCTION

During 1970 to 2000, the largest users of foreign direct investment (FDI) flows were generally in Asia (China alone had 33.2%), while portfolio flows were more concentrated in Latin America (Brazil, Mexico, and Argentina added up to 26.9%, Singapore and Malaysia obtained 10%, and rest of the developing world had 29.9%). An important point can be noted that, despite low FDI, Singapore and Malaysia have successes in economic development due to the implementation of successful ICT strategies in their countries.

In essence in many countries, ICTs provide the means to accelerate their progress or even leapfrog into the new phase of development and to enable their integration into the global economy. Particularly, in developed countries the knowledge-based economy allows further specialization, improvements in productivity, and the achievement of sustainable growth. By virtue knowledge capital is the only asset that can grow without limits; and new knowledge increases the efficient use of resources that are in finite supply

(Léautier, 2005). Figure 1 gives a global view on how knowledge-based economy has been adopted in many countries, since 1995. It also shows that a few countries have been achieved almost highest ranking in terms of knowledge economy index (KEI) in recent years[1].

With an estimated span of about 50 years of Information Age (1950-2010)[2], the world has been passing through revolution of changes and witnessing astounding development in ICTs. Today, the Second World[3] has about 30% of the world's population and about 20% of its wealth. The Third World[4] accounts for some 60% of the population but enjoys less than 10% of its wealth. These classifications relate primarily to economic indicators such as GDP, but they can also be equated to the differing rates of adoption of industrial technologies. In this context, information technology presents an opportunity to the Second and Third World countries to improve their economies. However, the First World[5] countries were among the leading developers and early adopters of Information Age technologies. Therefore, Second and Third World countries

Figure 1. Global view: Knowledge economy index by countries and regions (Adapted from Dahlman, Routti, & Ylä-Anttila, 2005)

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