Statistical Compilation of The ICT Sector and Policy Analysis

The main focus of this study is to quantify Egypt's ICT sector and analyze its sectoral composition and evolution. Particular focus was placed on the contribution of the ICT sector to real GDP and to employment, as Egypt's ICT sector has become an essential building block in both social and economic development. It also highlights Egypt's efforts to measure the performance of the ICT sector and how to utilize ICT indicators to support the decision making process through linking and compiling ICT statistics and policy analysis.

This study was conducted in cooperation with ORBICOM- which represents the International Network of UNESCO Chairs in Communications- in the context of ORBICOM project for "Statistical Compilation of The ICT Sector and Policy Analysis", which covered six selected countries. These countries are: India and Malaysia from Asia, Brazil and Argentina from Latin America, and Cameroon and Egypt from Africa.

The paper demonstrates that Egypt has exerted successful efforts to move towards the knowledge economy. Following the successful implementation of the Egyptian Information Society Initiative in 2006, which focused on improving productivity, citizens' quality of life and Business Park establishment, MCIT initiated an ICT strategy for the period (2007 – 2010), with the objective of increasing ICT exports and Industry development. As a result, Egypt has been ranked in 2009 as one of the top five global destinations for outsourcing industry. Now Egypt is moving towards formulating a new strategy for communications and information technology for the period (2011-2014); that will focus on innovation; so as to move Egypt to the high end of the value chain.

This paper highlights Egypt's ICT sector as a highly dynamic sector contributing positively to economic growth and social development. Despite the effect of the global financial crisis; the sector has successfully managed to maintain positive and double digit growth rates. This study confirms the economic importance of Egypt's ICT sector in light of its contribution to real GDP growth rates, employment and overall economy.

Egypt follows the internationally agreed-upon definition of the OECD for the ICT sector, with more emphasis on ICT services. Accordingly, financial data has been compiled, proving that ICT services comprise the largest contribution to the ICT value added and investments (estimated to range from 70 to 80%). In this regard, Egypt emphasizes the importance of developing reliable and updated indicators that disclose the economic and social contribution of the ICT sector.

The ICT value added at current prices has reached EGP 30.9 billion (US$ 5.6 billion) in 2008/2009, while the ICT value added at fixed prices reached EGP 30.3 billion (US$ 5.5 billion) with an annual growth rate of 14.5%. The ICT sector recorded the highest growth rate among economic sectors in Egypt, proving that it can maintain its growth momentum even during times of crisis. The private sector is playing a leading

role in generating the total ICT value added, contributing with about 69 % of the total value added generated in 2008/2009.

Egypt's ICT sector shows competitive performance in some World Bank indicators such as "Telecommunications revenue as a percentage of GDP", which reached 3.7% in 2008. In this regard, Egypt' ICT sector comes ahead of a number of developed and developing countries, such as Argentina, China and Germany and preceding the MENA region average. Besides, the importance of the ICT sector proves even higher when measured relative to the total services sectors' real GDP, reaching about 9.4% in 2008-2009.

Statistics presented in this study revealed the evolution of the mobile sector in Egypt during the past ten years, where the Compound annual growth rate of mobile subscribers reached 56%. Mobile revenues have also witnessed an enormous increase during the same period, leaping from EGP 2.12 billion in 2000 (40% of the total telecommunications revenues) to EGP 24.8 billion in 2009 (72.5% of the total telecommunications revenues).

Egypt's ICT sector has succeeded in attracting local and international companies to invest in different lines of businesses, including high value - added services and call centers. The number of ICT companies in 2009 was 18% higher than in 2008. Consequently, the total number of direct employees in the ICT sector reached 181.734 thousand employees in 2009. Egypt's ICT sector is expected to generate around 40 thousand new direct job opportunities in the next 2-3 years, in addition to 100 thousand indirect jobs after the launch of the second investment ICT zone in Maadi.

In addition, Egypt's ICT sector witnessed a significant increase in productivity in the last ten years. The employee productivity in the ICT private sector has increased from 8 Thousand EGP in 1997/98 to 132 Thousand EGP in 2007/08. The continuously compounded average growth rate of ICT productivity has reached 25% during the period (1997/98-2007/08).

The Government of Egypt has been keen in the past ten years to continue the liberalization process of Egypt's ICT sector, which in turn increased levels of competition between different operators. As a result of these policies, a major decline in the prices of ICT services took place in Egypt, where telecommunication services prices declined by 55% through the period 2002-2009. The prices of ICT services in Egypt are considered very competitive compared to many countries around the globe.

The study addressed the linkage between some selected ICT policies and the performance of Egypt's ICT sector within certain periods. The study attempted to analyze the effects of the broadband initiative -which has been launched in 2004 to increase Broadband subscribers- on the number of ADSL users. In addition, the study tried to analyze the effect of the mobile market deregulation process on mobile subscribers and mobile prices.

To analyze the relation between ADSL prices and ADSL users, a regression model has been conducted to estimate the relationship between ADSL prices as an independent variable and ADSL users as a dependent variable. Results indicate that the broadband initiative, which was very successful in reducing the ADSL prices, has led to a real increase in the average number of ADSL users. In addition, results referred that ADSL prices affect significantly the number of ADSL subscribers, so that if ADSL prices decrease by EGP 10 (US$ 1.8), the number of ADSL users will increase by 90,000 users on average.

Concerning the impact of the deregulation policies on mobile subscribers and prices, the study tested if there is a relation between the deregulation processes and mobile prices in Egypt using non-parametric test (Mann-Whitney Test). Results of this test showed that the entry of third mobile operator (Etisalat) has affected significantly mobile prices, as the mobile price index has decreased by 162.36 point after the entry of the third GSM operator.

In addition; the study also examined the effect of the mobile price index on the number of mobile subscribers using a regression model. The dependent variable is the number of subscribers and the independent variable is the mobile price index. Results show that if mobile price index decreases by one point, the number of mobile subscribers will increase by 10,510 subscribers on average.

Looking ahead, Egypt aims at increasing mobile penetration to reach 80%, availing broadband services at affordable prices to around 1.5 million households in 2011, and increasing ICT exports to more than US$ 2 billion in 2013 and US$ 10 billion in 2020. In addition, attention is being also placed on diminishing the digital divide between ICT usage in urban and rural areas through utilizing more advanced techniques like satellite connections. Modernization of the ICT infrastructure will remain the main focus of the government, which is looking forward to connect an increasing number of homes with fiber optics connections and to increase the capacity of Egypt's international internet bandwidth; to meet the increasing demand on broadband services through investing in new and huge submarine cables.