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TITLE: The status of Telecom/ ICT services in Egypt (2007)

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# **The status of Telecom/ ICT services in Egypt (2007)**

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## **1. TELECOM ICT SURVEY:**

The total number of subscribers in the fixed telephone network is around 11 million of which 8,165, 159 are urban subscribers and 280 0367 are rural subscribers. Besides, 3 mobile service operators provide services for about 35 million mobile subscribers.

The national land public network has 1636 exchanges. All local exchanges are digital, using circuit switching, providing ISDN subscriber services. In the large local telephone networks, SDH Systems on fiber cables are used to connect exchanges as, as well as for long distance lines. In local telephone networks copper cables are used as subscriber lines (last mile).

In large urban networks, packet exchanges based on ATM technology are used to change circuit switching to packet switching on junction and long distance SDH fiber cables.

The available high quality telecom infrastructure has attracted several multinational IT companies to operate in Egypt, due to its reasonable rates and low labor cost. The IT sector's revenues are estimated \$ 750 to \$800 millions in 2005.

Strong demand for IT technology and services has come from manufacturing and banking sectors in Egypt. In 1996, the Egyptian government started developing an Internet backbone and gateway facility, to serve the private internet service in Egypt. Several Internet Service Providers (ISP) were licensed to build their own data backbone and expand their broadband capacity, by obtaining separate international gateways.

The free Internet initiative launched by the government in 2002 has offered free access nationwide to Internet without any restrictions. The initiative provides easy and affordable access to the Internet, at the cost of local telephone call, without any additional subscription fees.

In 2002, the unbundling of subscriber line (local loop) has been regulated, which allowed the introduction of ADSL (Asymmetric Digital Subscriber Line). This regulation allowed

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licensed service providers to share the subscriber line with Telecom Egypt, the incumbent, to provide broadband access service for Internet subscribers. Internet services are now provided by Telecom Egypt in conjunction with 214 Egyptian ISPs to about 8 million users in 2007.

The number of ADSL subscribers in the year 2007 has amounted to 353616 subscribers.

Source: Egyptian Ministry of Communication and Information Technology

## 2. DISSEMINATION STUDIES:

According to the contribution “What determines broadband uptake in emerging countries, an Empirical Study”, it applies methods of econometric analysis to determine the factors ( indicators ) that affect broadband penetration, based on the available statistics. This paper is actually part of my PH.D. research work at Cairo University covering broadband penetration indicators in Egypt and some Arab countries as well as some emerging countries. The research applies the empirical model as used in OECD broadband research, based on indicators selected mainly from OECD studies. Then comparing the results obtained from my study with those of the OECD countries as follows:

**Table one : Factors ( Indicators) affecting broadband, comparison and summary**

<b>Independent variable ( indicators)</b>	<b>Previous study Bauer</b>	<b>Previous Study Ferreruella</b>	<b>Arab &amp; Emerging Countries</b>	<b>Comment</b>
<b>1.Income GNI /capita</b>	Significant/not significant		Significant	In 5 models Depending on the model
<b>2. School Enrollment</b>		Significant	Significant	
<b>3. Population density</b>	Significant	Not significant	Significant	
<b>4. Fixed lines /100</b>			Significant	
<b>5. Internet hosts</b>		Not Significant	Significant/ not significant	In 3 models Depending on

				the model
<b>6. Price of local call( dial up )</b>	Significant		Significant	
<b>7. PC/100</b>			Is not a reliable indicator	
<b>8. Internet users</b>		Significant	Significant	

Legend

For Arab and Emerging countries, ITU statistics is the main source.

Panel data for 22 countries from the years 2002-2005. Fixed effect model.

Bauer & al: 30 OECD countries for year 2001.

Ferreruela & al: 30 OECD countries for the years 2000-2002.

Notes:

1. Bauer & al used other indicators that include: price of broadband, preparedness, competition and dummy variable for policy regimes.

2. Ferreruela & al used other indicators that include available bandwidth per \$, lagged variable of DSL enabled Local loop, Unbundled local loop/100 access lines, monthly price of internet access and % of homes served by cable TV network.

3. For Arab and emerging countries, Indicators used in the table are mainly according to ITU available data.

In general the obtained results from table 4 are consistent with the literature discussed earlier. Compared with previous studies that discuss factors i.e. indicators affecting broadband penetration we find that common factors or indicators used in previous studies and the present study include population density, number of Internet subscribers, price of dial up, school enrollment, Internet hosts are found to be statistically significant. New indicators were added namely, PC/100 and fixed main lines /100 inhabitants. The former seems to be not a reliable indicator. However, fixed main lines/ 100 inhabitants was statistically significant. Therefore any increase in the significant indicators will increase the penetration of broadband access to the Internet. For the research methodology used in the paper, please refer to the complete paper at the ITU website.

<http://www.itu.int/md/D06-DAP2B.1.3-071213-INF/en>

