Best Practices and Innovation in Governance and Public Administration:

The Case of Telecom Egypt

Tarek Hatem
Professor of Strategic Management and Public Administration

The American University in Cairo, Egypt
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“TE has undergone one of the most drastic changes that we have seen any public sector company undergo probably in the history of Egypt,” says TE Chairman Beshir (El Bakry 2004).

Radical changes in Information and Communications Technologies (ICT) are transforming countries’ economies and presenting new opportunities as well as perils. The challenge in an emerging information and digital-based economy is to capitalize on the opportunities and compete effectively to achieve shareholders’ value and above average returns. Reforms initiated by the Egyptian Government in the 1990s have, therefore, emphasized economic and social reforms to achieve better economic growth rates, and lower rates of unemployment. Realizing the significant role that the information and communications technologies play in sustaining socio-economic growth, the government has focused on advancing the sector’s development by providing a state-of-the-art national telecommunications network, promoting information-based developments, and upgrading human resources. The 150 years old state owned company, Telecom Egypt (TE), monopolizes the operation and services of international and national fixed line connectivity in Egypt. Earlier, during the 1980s and 1990s, however, the telecommunications infrastructure was the worst in the region. While millions were on the waiting lists for telephone lines, others couldn't obtain phones because their residence areas were out of reach of the telecommunications network. Therefore, over the last 20 years, the company has undergone radical changes to reduce customers’ dissatisfaction, and better meet the challenges of ever changing demands through enhanced utilization of technologies and innovation in governance.
Characteristics of Telecommunication before 1998

Telecom Egypt's history and development dates back to 1854 when the National Organization for Telecommunications, the oldest company in Egypt inaugurated the first telegraph line connecting Cairo and Alexandria cities. In 1881, the first telephone line was installed between the two cities. Later in 1918, The Egyptian Government acquired the Eastern Telephone Company for 755,000 L.E. (US$ 132,456.14) and developed the Telephone & Telegraph Authority; a predecessor of Telecom Egypt. The highly regulated-government organization was dominated by Arab Republic of Egypt National telecommunication Organization (ARENTO), and was also highly over-staffed with unskilled and unmotivated civil servants, suffered poor managerial skills, and low productivity levels. The company played the roles of both the service provider and regulator, was characterized by a centralized hierarchical structure and system of approvals, a bureaucratic government culture, and absence of a marketing department and customer services' orientations. These company's characteristics, resulted in long waiting lines, poor quality of services provided, limited services, and a very week telecommunication infrastructure, all of which caused customers' dissatisfaction.

Telecom Egypt after 1998

In accordance with Egypt's 1990s reforms, and liberalization of the telecommunication sector, Telecom Egypt (TE), Egypt's incumbent telecommunications operator, was established in 1998, according to Law 19 of 1998, as a joint stock company, to replace the former Arab Republic of Egypt National Telecommunication Organization (ARENTO). Further, the National Telecommunication Regulatory Authority (NTRA) has been entrusted with the implementation of government policy with the objective of developing and spreading communication services throughout Egypt, and encouraging investment in the Telecom Sector. The year 1999
marked a new period in Telecom Egypt's activities with the Presidential announcement era of knowledge and information society, and the establishment of the Ministry of Communication and Information Technology. In May 2000, a successful business manager from the private sector was appointed as the new chairman of Telecom Egypt. In 2003, Law 10 was passed and enacted by the President of Egypt on February 4th to regulate the telecommunication sector.

**Initiatives of Innovations**

Those people behind applying best practices and innovation in governance and public administration have been triggered by seeking improved ways of serving the public sector's customers, and responding to new and changing needs of the private sector. Implementing best principles of public service is explained by the important role that these initiatives play in eliciting and developing privatization of state-owned enterprises, in increasing investments and attracting foreign capital, in enhancing accessibility to new technologies and markets, and in boosting economic growth in general. The purpose of this report is to share experiences and best practices in innovation in governance of the 150 years old state owned and highly regulated government organization, Telecom Egypt (TE), discuss lessons learned and key Issues, promote cooperation, and find out potentials of transferability of such practices to other organizations in other countries. For the purpose of this paper, best practices and innovation in governance and public administration have been compiled into four categories: regulatory change, good management, utilization of technology, and human resources management practices.
Company Overview

Performance

In 2004, Telecom Egypt was the leading provider of telecommunications in the Middle East.

To meet its goals and objectives, the state-owned company invested in developing skills and competitive capacities of its mid-management levels, introduced several human resources best practices, and improved the quality and capacity of its national network (see fig. 1). In 2004 the company retained 9.2 million subscribers, representing an increase of 9.5% over June 2003, and Revenues (see figure 2 for Telecom Egypt's breakdown of revenue) exceeding L.E 3.8 billion, representing an increase of 15% over June 2003 (Telecom Egypt
Telecom Egypt generates revenues from a number of different channels with the overall revenue trend being positive. The company's long distance revenues have been reduced with the introduction of mobiles' services throughout Egypt. The number of subscribers differs substantially between governorates with Cairo taking the lead with approximately 25% of all subscribers. From 1998 to 2004, average annual population growth was 2.0% while average annual household growth was 2.1%, and average total line growth was 16% (approximately 950,000 lines per year).

**Revenues Breakdown (2003)**

![Pie chart showing revenue breakdown]

<table>
<thead>
<tr>
<th>Service</th>
<th>Revenue Share</th>
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<tr>
<td>Local</td>
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</tr>
<tr>
<td>Long Distance</td>
<td>12%</td>
</tr>
<tr>
<td>International</td>
<td>16%</td>
</tr>
<tr>
<td>Fixed to Mobile</td>
<td>4%</td>
</tr>
<tr>
<td>Mobile Interconnect</td>
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<tr>
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<tr>
<td>Connection</td>
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<td>Prepaid and card</td>
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<tr>
<td>Mobile Int'l &amp; Roaming</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>14%</td>
</tr>
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**Figure 2: Telecom Egypt's Revenue Breakdown**

In line with the Egyptian Government's policy of increasing telecommunications access Telecom Egypt has dramatically grown its tele-density and subscriber base. Tele-density varies widely amongst governorates with Port Said having the highest at around 25% compared with more rural areas where rates can be as low as 5% or less. As for the subscribers' base, Telecom Egypt has benefited from a substantial waiting list for new subscribers which have enabled connection rates to be maintained at L.E. 800 (US$ 140.35) for domestic and L.E. 1500 (US$ 263.15) for commercial.
Defining a Mission Statement

TE mission statement emphasizes the important role that the company plays in the development of telecommunications services in Egypt. TE is committed to being the best source and total solution communication provider, while dedicating its resources to build a better future for its employees and community through responsive services, honest business practices, and the latest advancement in the communication industry at a reasonable price.

Identifying Goals

1) Be reachable everywhere in Egypt throughout its 26 governorates and build existing customer value by providing broadband solutions for both the retail and wholesale markets.

2) Improve the internal environment of the organization by enhancing managerial planning skills, and techniques to be proactive, developing core competencies, enhancing operational efficiency, and placing information technology at the center of all business decisions.

3) Increase revenues by increasing domestic subscription and the proportion of subscription based services such as ADSL by turning the company to value added products.

4) Financial Goals:
   a. The majority of debt raised to fund infrastructure expansion should be carried out in local currency.
   b. Explore regional expansion opportunities to generate hard currency.
   c. Cost-efficient liquidity management.

5) Investment Goals: Invest in the telecommunication industry and IT sectors.
Objectives:

1) Increase revenues by more than L.E. 600 million (US$ 105.26) over a three year period through increases in subscription fees.
2) Add approximately one million new lines annually, and achieve a tele-density of 17% by 2006 which requires the connection of an extra 3.2 million customers.
3) Financial Objectives:
   a. Debt to equity ratio should not exceed 40% over the next 5 years to allow the company to maintain a better debt position.
4) Investment objectives: target rates of return greater than 15%.

Key Strengths

1) TE monopolizes fixed line telephony in Egypt, and is well positioned as a regional telecommunication hub.
2) TE strategically invests in IT and telecommunications enterprises, like for example Vodafone Egypt, which have strong growth potential and are of strategic significance to either Telecom Egypt or the telecommunication market in general.
3) High quality network with utilization of proven and modern technologies. Modem and fully digitalized national backbone based on well proven technologies and with excess installed capacity to meet future growth in demand. Fixed wireless CDMA network will provide extra operating flexibility and may serve as a platform for a potential future 3G network.
4) Strong growth potential through the role-out of value added products.
5) Highly skilled workforce with a strong traditional focus on technical disciplines.
Challenges in Implementing the Innovation

1) Telecom Egypt faced a number of associated problems in the process of transformation to a service oriented enterprise, the main one being the considerable overstaffing of the operation. The company also suffered from poor managerial skills, inadequate organizational structure model, centralized hierarchical approvals, paperwork, and tedious procedures, absence of a customer service oriented mindset and atmosphere, low productivity levels and service quality as a result of lack of motivation among employees due to incompetent salary schemes and human resources policies and practices which prevailed in this period. For example, Labor laws (137/1981 and 91/1959) which governed human resource management, before the issuance of the New Unified Law of 2003, and which were mainly enforced in public sector enterprises in Egypt, endowed labor force with virtually complete job protection. In addition, recruitment and hiring of employees of the public sector was according to set rules and procedures and promotion was seniority-based (Hatem 2005).

2) Central and local government authorities' influences and considerations interfered with efficient decision making. The bureaucratic governmental culture, over-aged regulations governing the civil service job market, incompetent salary schemes, lack of motivation among the employees of the public sector, redundancy in roles and responsibilities among government entities, centralized decision making, and lack of function-based specialized entities were some of the challenges which faced the enterprises of the public sector.

3) TE was exposed to exchange rate movements from its exposure to foreign currency debt and capital expenditure.
4) TE tariffs in Egypt are distorted due to the cross-subsidization of services as high international tariffs and connection fees are used to support low local tariffs, monthly subscription charges and long distance tariffs.

5) The vast geography of Egypt entails a significant capital spending in rolling out the network to reach the demanding targets set by the government.

6) TE is currently engaged in negotiation with the Egyptian government regarding the existence of L.E. 4.4 billion (US$ 0.77 billion) potential tax liability.

Opportunities and Key Success Factors

1) Egypt has a large population with a low telecom connection penetration. Egypt's population of 77,505,756 as per July 2005 estimates is still expected to grow to reach 100 million by 2020 (Egypt's Fact Book 2005).

2) Egypt benefits from a young and technologically advanced population a factor which provides considerable scope for TE to increase its product offering to incorporate a range of value added services.

3) TE enjoys a supportive regulatory environment. In fact, Expanding telecommunication access forms an integral part of the Egyptian government's policy.

4) Partial privatization of TE may lead to future increased investment in the company.

5) TE has entered the bidding process for a number of international tendering contracts which will be the source of additional hard currency benefits if they are won.
Threats

1) The devaluation of the Egyptian pound makes infrastructure investments relatively more expensive given that they are usually denominated in foreign currency.

2) Falling GDP per capita may lead to a reduction in telecommunications spending.

3) The liberalization of Egypt's telecommunications market in December 2005 entails substantial business risk.

4) Tariffs: further work is required to re-balance tariffs which presently entail low cost domestic calls and high cost international calls. Tariff changes need to be approved by the NTRA. Higher tariffs through tariff rebalancing through, for example, increased line rental charges. The current tariff system is effectively subsidizing local calls from international call revenues. Ongoing liberalization and a potential future tariff rebalancing is expected to rapidly increase demand for both voice, data and higher margin value added services.

5) The emergence of low cost mobile-to-mobile call has reduced TE revenues, especially the long-distance ones.

6) A low portion of customers are responsible for a high portion of TE's international revenues. On market liberalization, these customers will be the target of any new operators.

7) Capacity imbalances with over capacity in towns and insufficient line capacity in rural areas. Tele-density of Port Said, for example is 25% as compared with more rural areas where rates can be as low as 5% or less.

Ways of Encountering Threats

1) Currency volatility: Re-balanced debt portfolio with a greater proportion of debt denominated in Egyptian pounds. Future funding to be met utilizing LE facilities.
2) Liberalization of the Egyptian telecommunication market in December 2005: Liberalization is expected to occur gradually over a period of time. And despite the fact that the loss of the monopoly position in 2006 could lead to a drop in revenues, this is mitigated by the fact that transition is likely to be staggered, Vodafone Egypt and MobiNil's guarantee to channel calls through TE's gateway, and the availability of strategically important key customers.

3) Addressing imbalances in charging policy and capacity: Set up of the Universal Fund by the NTRA designed to compensate TE for non profitable network expansion to meet target penetration rates.

4) Emergence of low cost mobile-to-mobile calls: TE has purchased a stake in Vodafone Egypt which enables TE to access the fast growing and competitive mobile market at an attractive price.

5) Regulatory still to decide on the optimum pricing formula: As the incumbent telecoms operator in Egypt TE has a strong relationship with the regulator, which remains supportive of TE.

**Best Practices and Telecom Egypt's Transformation**

In transforming Telecom Egypt from a non-efficient public-sector organization to an efficient one, TE management introduced several best practices which had both tangible and intangible results, and had benefited different stakeholders. "We adopted the approach that you would employ if you were a private sector company in the sense of prioritizing customer service and satisfaction." TE Chairman Akil Beshir says (El Bakry 2004).

Best practices improved TE's performance through their value-creating impact on both the "ON STAGE" and "BACK STAGE" activities of the company. Improvements in the company's primary activities or the "On Stage" segment of its basic value chain activities comprised improving quality of service, pricing strategies, orientations towards servicing the public as customers, customers' segmentation, identifying
customers needs and providing different services for different customers, and improving accessibility, Examples of improvements in TE's primary activities include speedy delivery, providing prepaid phone cards, Pay Phone, quality telephone lines, reduced waiting lines, mobile services; allowing Internet usage; and offering affordable Prices.

Enhancing the value-creating potential of the company's support activities or the operation of the "Back Stage" included improving public service delivery through management, planning, and budgeting practices, emphasizing ICT application and development, utilizing better functional and organizational structures, investing in human resources management and development,

Categories of Best Practices

A) Regulatory Change: The Role of the government (regulator and not service provider)

Telecom Egypt enjoyed a supportive regulatory environment and reforms which facilitated capacity building the focus of which has been on organizational processes, human resources, planning and budgeting, and information technology. In this respect, and in further efforts of the Egyptian government to integrate into the global economy and promote foreign investment as an engine for local economic growth, the government inaugurated the following laws and regulations:

1) Law No. 19 of 1998 was inaugurated to change the status of the telecommunication authority, Telecom Egypt, to a commercial shareholding company, with the government as majority shareholder.

2) Law 10 is the latest law passed and enacted by the President of Egypt on February 4, 2003 to regulate the telecommunication
sector. The new law provided TE with one license at no charge for each activity or service provided directly by TE or through companies it establishes with others so long as it owns a majority of the capital. This will extend until end of 2005 for services provided before or on that date. Excluded are frequency licenses and charges and mobile licenses (Stovall 1998).

3) Companies Law: The Egyptian Peoples Assembly approved Law No. 3 (1998), amending the Egyptian Companies Law whereby the procedures for establishing an Egyptian company were streamlined, in efforts to reduce bureaucracy and encourage investments, thereby allowing companies to start operating as soon as the requisite corporate documents are submitted to the Egyptian Ministry of Economy.

4) Government Procurement: The Egyptian government enacted a new Tender Law, Law No. 89 (1998), which governs government procurement of goods and services by all Egyptian ministries, departments, local government units, and public and general organizations, in an effort to improve transparency and predictability in the Egyptian government tender process.

Telecom Egypt enjoyed a supportive regulatory environment the characteristics of which were as follows:

- The government encouraged increased phone proliferation in Egypt by declaring the right of every citizen to have access to a phone.

- The National Telecommunication Regulatory Authority (NTRA) has been entrusted with the implementation of government policy with the objective of developing and spreading communication services
throughout Egypt, and encouraging investment in the Telecom Sector.

- Both the National Telecommunication Regulatory Authority (NTRA) and Telecom Egypt believe that the market has substantial demand potential and that the realization of this potential to a very large extent is supply driven. Consequently, the current policy for telecommunications is focused on the provision of services and expansion of the national network coupled with a gradual increase in competition through the liberalization of the market.

- Establishment of the Universal Service Fund by 2005 will subsidize the cost of providing coverage in less economically attractive locations. The fund, provided through the NTRA’s budget, will be used to subsidize the construction cost for new lines and telephone access in areas, which are not otherwise economically viable (some areas have teledensity below 5%). The fund will, therefore, will compensate TE for costs incurred in establishing lines which are uneconomical.

- Potential future tariff-rebalancing is likely to lead to increase domestic subscriptions and call revenues.

- TE is exempted from paying for any licenses in its existing services before 2006.

**B) Leadership Commitment and Management Planning Practices**

In improving its public service delivery, Telecom Egypt used some management planning practices such as goal setting, financial reviews, stakeholder examination, environmental scanning, competitive analysis, operation plans, and observing outcomes, which proved to be related to different organizational performance indicators, examples of which are the
ratio of total revenues to total operating profits, growth in sales, and so forth., as well as to organizational effectiveness indicators such as the presence of mission statements, measurements of service satisfaction, employees’ job evaluations, and financial audits (Herman & Renz 2004).

**Characteristics and Examples of Planning Practices**

In planning for growth, Telecom Egypt implemented a **market diversification** strategy through providing additional wholesale services, maintaining presence in the majority of its service provisions through subsidiaries, revenue sharing agreements, acquiring shares, or through corporate liasons.

To provide additional sources of revenue streams to compensate for slower growth or in some cases, the decreases in traditional retail services, Telecom Egypt provided **wholesale services** in Egypt to cellular operators and Internet service providers.

TE has a strong presence in the majority of its service provisions directly through **subsidiaries**. By December 2003, the company had made investments in 18 companies at an initial cost of L.E. 283.4 million (US$ 49.7 million) excluding Vodafone Egypt. The company's investment strategy is to invest in IT and telecommunication enterprises that have strong growth potential and are of strategic significance to either Telecom Egypt or the communication market in general. Telecom Egypt penetrated the Internet services market, which is a segment of the telecommunications market rapidly growing at a compound annual growth rates of 31.4%, through TE Data, its 92.5% subsidiary, and keeps a market share of more than 30% in such market. Examples of some other subsidiaries are TE Information Technology, Middle East Radio Comm., Nile Online, and Egynet in which Telecom Egypt maintains investment stakes of 92.5%, 51.21%, 27.27%, and 19.51% respectively. TE Invested in Internet service providers and arranged with them to retain 30% of revenues. In addition, Telecom Egypt has minimal investment stakes of
2.0% in each of the public payphone operators MenaTel and Nile Telecom.

Telecom Egypt has also a strong presence in the majority of its services indirectly since it maintains revenue sharing agreements with mobile operators for interconnection, internet service providers, and other service providers such as Audio Text, Pay phones and Pre-paid cards. The company made an agreement with both MobiNil and Vodafone Egypt whereby it received 40% of billed interconnection revenues.

Telecom Egypt entered the mobile market by acquiring shares in Vodafone Egypt from minority shareholders. TE realized that it would be more cost effective to acquire stakes in Vodafone, being a partner to Vodafone International. “We entered into negotiations with Vodafone Egypt and after almost one year, we reached an agreement that would allow us to buy 25.5 percent of the shares of Vodafone for roughly half the amount it would have cost us to build a network. At the same time, we have achieved our goal of entering the mobile market.” Declared TE Chairman Beshir.

Strategic Alliance initiatives allowed TE to build core competencies and after sales vendor solutions (global accredited training schemes, centers of excellence, product/solution partnerships). The partnership with Vodafone Egypt allowed TE to benefit from having a strong global partner and also reduced the level of uncertainty that would have been generated in building a third mobile operator. TE's investments in Vodafone Egypt generate substantial income from mobile interconnection fees. Demand for mobile services has increased rapidly in Egypt in recent years and hence so have TE's revenues.

TE is actively seeking further international presence through corporate liaisons to provide a steadily increasing revenue stream. International connectivity is an important source of hard currency earnings. TE generates some 58.9% of its incoming and 54.4% of its
outgoing revenues from the Middle East region, for example. The single largest market by volume of incoming and outgoing calls is Saudi Arabia which accounts for 30.3% of incoming calls and 21.9% of outgoings. TE also achieved a partnership with Orascom to Build, Own and Operate a second fixed network in Algeria.

Since the development of the telecommunication market, both incoming and outgoing international call traffic has grown 108% and 119% respectively from 1998 to 2003. In the period 1999 to 2003, revenue earning international capacity has increased by more than 5000% which is equivalent to an average annual growth rate of almost 175%. It is anticipated that the demand for this will continue to grow for the next few years; in the first 5 months of 2004 the contracted bandwidth has increased by a further 32% over the 2003 year-end figure. As international tendering contracts will provide an important source of hard currency, TE will enter the tendering process only when there is a considerable chance of success, and will leverage core competencies when bidding in such tenders. Where necessary, TE will seek a strategic partner to provide additional skills.

In improving its public service delivery, Telecom Egypt used both cost leadership and differentiation business level strategies.

**TE value-creating activities using Cost Leadership Strategy:**

The company achieved a cost leadership strategy by downsizing through reviewing the number of employees, building a detailed cost structure model to allow the company to position itself in future tariff renegotiations with the National Telecommunication Regulatory Authority (NTRA), implementing highly effective and efficient human resources through intense and effective training programs, financial reporting systems, and addressing market competition both locally through a strategic planning unit and internationally through studying overseas incumbents (BT & DT).
Telecom Egypt used some planning practices such as operation plans to expand its coverage and enhance profitability by achieving higher call volumes through additional lines and increasing tele-density. Both incoming and outgoing call volumes have increased rapidly in excess of 100% since 1998 with combined average growth rates standing at around 13-14% over the period, despite the fact that international call traffic is heavily biased towards incoming calls due in part to more affluent expatriate/foreign communities. TE international calling tariffs remain relatively high when compared with those of other international operators. Outgoing tariffs have been selectively reduced in an attempt to increase outgoing call volumes and fend off illegal traffic. Declining accounting rates have impacted incoming call revenues in recent years with the trend expected to continue. TE established three geographical charging bands. One for all Arab countries and the USA, another to Canada, another for Europe and Caribbean, and the third to Africa, Asia, South America, Australia and the Pacific.

**TE value-creating activities using a Differentiation Strategy:**

In improving its public service delivery, TE implemented a growth marketing strategy of Product diversification. "We prioritized introducing new services for our client and believe it or not, this was not about generating profit because TE has always and probably will continue to generate revenue. This was actually about providing service to our clients that is similar to what any other citizen of any other country would expect to receive from their fixed-line carrier." (El Bakry 2004). The company adopted a product diversification by:

- Delivering high margin services and xDSL such as broadband which will allow the bundling of high value content such as TV/IP Streaming, music, access to government business services.
Development of new services such as fixed line SMS and enterprise VOIP to generate incremental revenues.

“To face liberalization,” says Sanaa Soliman, marketing director for TE. “If the telecommunication market is going to be liberalized [in 2006], I have to differentiate myself we didn’t tell people about what we do, this was our problem. We are good in our services but we don’t give people awareness about what we are doing, what are we offering as services.” (The Shape of Trust). To overcome little brand awareness among consumers the company created a marketing department to be able to re-brand itself and be able to face new competitors especially after the liberalization of the telecommunications market. New marketing initiatives are being planned to encourage new customers to join the network and to strengthen the company's brand.

Therefore, in 2001, and after a new management joined Telecom Egypt, the company started repositioning itself through, for example, product development initiatives aimed at increasing national and international fixed line access. TE improved the margin on services and customer value through the implementation of a new account based billing system which will allow for proper billing of advanced IN services at premium prices.

Recent literature provides support to the assumption that there is a correlation between effectiveness of the board of directors of non-profit organizations, and the employment of specific board practices such as investment decision making and policies. Investment decision making process starts with allocating an investment opportunity and submitting it to an investment committee, which in turn approves it and submits it, if promising, to the board of directors. The board of directors, the highest approving authority, then approves the business case pending due diligence. A full and legal due diligence process is conducted on the target investment before any investment decisions is being made. For
example, in the investment selection process, all target investments should be of key strategic importance to TE directly or indirectly through their significance to the industry as a whole. In addition to the rigorous investment selection process when making investment decisions, Telecom Egypt's investment policies undergo regular review every two years unless otherwise required by the board.

Broad based asset allocation shows that telecommunications represents 95.2% while IT represents 4.6% of Telecom Egypt's investment portfolio. The company's international investments portfolio is concentrated in the field of satellite telecommunication. Its strategy with regards to international investments involves dispensing with those investments in which the company's influence is minimal. For example, Telecom Egypt sold its shares in Inmarsat Ventures for USD 5.47 million in December 2003 achieving a profit of about L.E. 21 million (US$ 3.68 million) representing over three times its initial investment.

Telecom Egypt's financial policy plays a vital role in achieving maximum shareholders' value. The company's funding profile has changed greatly starting 2000, thereby reflecting the change in policy as a result of the devaluation of the Egyptian pound. Local loans have increased from 5% in 2000 to 58% in 2004. The company's debt profile includes local loans and facilities of 31%, supply agreements of 21%, government loans of 19%, and foreign loans of 29%. The company has further restructured its funding profile so that debt is dominated in Egyptian pounds.

In achieving a cost-efficient liquidity management, Telecom Egypt:

a. Maintained non-earning cash balances at minimum levels.

b. Used excess cash balances in reducing interest payments through temporary repayment of short term debts.

c. Invested cash balances to generate additional revenues.
d. Deposited cash balances with well respected local and international banks.

e. Shortened the cash cycle by billing and collecting receivables over shorter periods.

f. Optimized cash allocation and strengthened relationships with banks.

The annual budgeting process follows strict procedures. It starts in June at the department level. Then a budget committee drawn from all departments is created. In July, sector budgets are prepared, and budget office sits with sector heads until September. In September, an integrated budget is created. In October, the budgetary committee submits the budget to the chairman, the vice chairman, and sector chiefs. Finally, in November, the budget is approved by the budgetary committee and the Board of Directors. The budget in use is audited on a quarterly basis. In general, actual budgetary figures have always surpassed the budget except for year 2003 when expended figures were below the approved budget due to the impact of currency devaluations.

In addressing market competition, Telecom Egypt used some management practices such as environmental scanning and competitive analysis. In this respect, the company established a strategic planning unit and studied overseas incumbents (BT and DT) in efforts to find more information about competitors and make a benchmark to evaluate the performance of business processes, organizational structure, and optimally allocate resources.

C) Utilization of Technology and ICT Applications:

Telecom policy emphasized ICT development. Hence, In achieving the target penetration rate of 17% by 2006, Telecom Egypt sought to provide service by using several advanced practices in planning and
budgeting which leading companies used among which were making good investments in IT and innovative solutions, executing good competitive strategies, managing future results, and focusing on the external environment. New technologies are being viewed as a cost efficient means of expanding the backbone to meet government tele-density targets.

**Utilization of Technology Examples:**

1) The company's expansion was achieved by investing extensively in its network through utilizing the latest available technologies which resulted in both additional capacity and cost savings. It operated 100% digitalized network and was one of the first countries in the MENA region to achieve such an accomplishment.

2) The Company monopolized the provision of international connectivity in Egypt, encompassing all voice traffic (fixed and mobile) and leased lines. In 1998, too, the company installed the mobile GSM service throughout Egypt, and introduced the Intelligent Network and the Integrated Services Digital Network in Cairo. Some of Telecom Egypt's efforts to embrace new technologies in 1999 were introducing the Transport Network SDH 3 Rings and the Frame Relay/ATM Network for high speed access, and the use of Fiber Optic Cables by adding equipment and increasing the data rate through the upgrade of multiplexers. TE strategy is to leverage the only nation-wide backbone (the only fibre optic network in the region). The second millennium started with accomplishing Egypt 2000 project, initiating the new billing system in 2001, introducing free internet services and implementing ADSL services to obtain speedy access to the Internet in 2002, and introducing a call center at the Intelligent Village. The backbone and connectivity which has been developed by TE have acted as a strong barrier to entry for any potential new entrant.
3) TE initiated a mix of both commercial and public service projects that maximize the usage of the latest technology to achieve maximum cost advantage when expanding network capacity:

   a. Product development initiatives aimed at increasing national and international fixed line access.
   b. Build on IP Core Network to facilitate ADSL network expansion and commercialization.
   c. PSTN (copper local loop) line purification program using automated software with updated inventory management enabling the faster connection of new lines, and identification of suitable copper lines for ADSL services.
   d. Build clean customer profiles using PIN codes and third parties in preparation for implementing an account based billing system.
   e. Telecom Egypt recognized value added services as a key driver for future revenues. Telecom Egypt is able to make available value added services to approximately 30% of its installed capacity. Hence, additional value added services like "Caller ID", "Call Waiting", "Call Baring", "Follow Me", "Conference Calling", "Wake Up", "Don't Disturb", and "Hotline" are available through current technologies but their usage is minimal.

1) TE strategy is for NPD centers around voice centric services and building core revenue streams using proven technologies:

   a) IN service development:
   b) Home & office budget control services which provides password protected access and credit limits to win-back core revenues from the pre-paid and mobile markets.
c) Intelligent payphone services which use a smart card which can be topped-up using "Marhaba" pre-paid card to promote core revenues in locations with low line penetration.

d) Economy International Off-Peak Services using VoiP technologies.

e) Voice Information & Text-Assisted Value Added Services: high value information services and bill payment and booking applications which combine voice assistance and confirmation of content by using IVR/SMS technologies.

f) Messaging Services: provide simple messaging type services for residential and unified messaging services for enterprise customers.

2) Telecom Egypt continues to apply latest technologies in provision of services. Its key objectives by 2007 in the development of the market potential are:

   a) Increase national teledensity to 18% by construction and connection of approximately one million new lines per annum.
   b) Build a nation-wide fixed wireless/CDMA network in order to achieve 100% telephone coverage of Egypt.
   c) Achieve the targeted universal obligation to provide access to telecommunication services and achieve the 18% teledensity target can only be cost effectively addressed through use of wireless technology CDMA.

3) As a regional hub, Egypt is additionally geographically well positioned to benefit from increased regional traffic having actively participated in the international submarine cable projects (SEA-ME-WE(SMW), SMW2 & 3), and the regional ALITAR-BRITAR submarine fiber optic cable with Syria and Lebanon.
4) TE has developed the DSL services across Egypt. While still at a modest scale these services are being developed rapidly and are an important element in the provision of reliable high-speed internet services for businesses, government agencies and educational institutions.

D) Human Resources Management Practices:

In human resources management many ideas about “best practices” have strongly been advocated by Telecom Egypt to improve the company’s ability to lure and retain the best human capital resources among which are job analysis, human resources planning, selection and placement, employee training and development, performance appraisals, salaries’ administration, as well as employees’ involvement and participation. The state-owned company invested in developing skills and competitive capacities of its mid-management levels, and improved the quality and capacity of its national network to become a leading provider of telecommunications in the Middle East.

Characteristics of Human Resources Practices

a) Enhance Management capabilities and Motivate Staff:

Recognizing the significant role that human resources might play in supporting TE’s mission and developing its performance indicators, the company provided several specially designed training programs to develop its management team's capabilities and motivate its workforce among which were:

a. The Leadership Development Program:

In 2003, TE initiated full time training program, the Leadership Development Program, for 25 of its key managers who showed
leadership potential, and can play the role of the company’s change agents. The goal of the program was to identify those managers who were capable of carrying out advanced organizational changes, promote TE's mission, goals, and objectives, and present a model of management and leadership effectiveness. Thus, the training program focused on issues like leadership and career development, management and financial skills, and change management.

b. Skill-based training:

TE provided skill-based over 200 training sessions, delivered by top organizations such as Alcatel, for over 7000 of its specialists and service based employees, thereby, covering issues of technical advancements, and service improvements.

To motivate its staff to be more supportive to its transformation process, Telecom Egypt introduced a new competitive compensation program. In 2003, the company introduced a new salary restructuring program to lure new people of high caliber, and to keep them, introduced a bonus scheme to reward excellent performance, and supported the existing early retirement program which allows employees to retire early with a considerable compensation pay. Other motivating benefits which the company provided to its staff were social and cultural programs which helped in developing a community atmosphere, sports clubs, nurseries, and so forth.

Organizational Structure:

- TE employs a relatively flat organizational structure with seven vice Chairman. TE Chairman is appointed by the board of directors.

Corporate Governance and Decision Making Bodies:
- TE utilizes a formal structure and decision making process. Despite the fact that the company's independence from the government, the ultimate decision maker of TE's policy framework and objectives is the General Assembly which comprises 15 government representatives, with the Chair being the Minister of Communication and Information Technology.

- A Board of Directors is appointed by the General Assembly to ensure that TE's performance is in line with the master plan, approve the budget at the beginning of each year, review human resources matters, and technical affairs. The board meets on a monthly basis and consists of the Chairman, four executives, and one representative from each of the following: Banking Industry, State Council Legal Affairs, Egyptian Army, Ministry of Telecommunications, the private sector, National Democratic Party, and Employees Association.

- Day-to-day management of TE is undertaken by seven vice-Chairman who meet regularly with the Chairman. Decision making centers around the formation of committees drawn from a collection of personnel with the appropriate skills base. The executive committee, which consists of the seven vice-Chairman, is responsible for preparing the preparation and implementation of the budget. Operational ad hoc committees set up in the areas of legal, financial, commercial/technical, and human resources affairs prepare specific operational executive decisions and recommendations for the executive committee or the board.

The Chairman is the only authorized signatory to the company though he possesses delegating powers. A formal approval process is implemented when purchase agreements above certain limits are sought.
TE Transformation and Lessons Learned

1) Establishment of effective legal and regulatory frameworks enhances organizational performance and effectiveness indicators since they allow flexibility and competence of public enterprises:

In more efforts to provide a supportive environment to innovation in governance and public administration, the Egyptian government inaugurated several laws and regulations in efforts to integrate into the global economy, promote foreign investment as an engine for local economic growth, streamline the procedures for establishing an Egyptian company, and improve transparency and predictability. As regards the telecommunications sector, Law No. 19 of 1998 was inaugurated to change the status of the telecommunication authority, Telecom Egypt, to a commercial shareholding company, with the government as majority shareholder. Also, Law 10 was the latest law passed on February 4, 2003 to regulate the telecommunication sector. The new law provided TE, until end of 2005, with one license at no charge for each activity or service provided directly by the company or through companies it establishes with others so long as it owns a majority of the capital. These laws, in addition to the New Unified Labor Law of 2003, provided TE with more strategic flexibility in managing its organizational resources, and hence the profitability of the company.

2) Effectiveness of management is vital for the performance and effectiveness of non-profit organizations or governmental institutions:
In Telecom Egypt, management's use of some planning practices such as goal setting, financial reviews, stakeholder examination, environmental scanning, competitive analysis, operation plans, and observing outcomes, were related to different organizational performance and effectiveness indicators. For example, TE’s 9.2 million subscribers in 2004 represented an increase of 9.5% over June 2003 numbers, while its L.E.3.8 million (US$ 0.67 million) of revenues exceeded represented an increase of 15% over June 2003. Moreover, productivity improved in 5 years (from 2000 to 2005) from 105 to 220 lines per employee, and waiting lists were eradicated.

Effectiveness of the state-owned institution was further achieved with the new management's formulation of the company's strategic posture. The mission of the new management was to transform Telecom Egypt from a state-owned company enjoying monopoly in all services to a market-oriented, customer-oriented, profit-oriented telecom operator capable of competing in a liberalized market locally, regionally and internationally. Therefore, major areas of concern were the quality of services delivered, organizational restructuring, human resources management and development, and the use of information communication technologies in managing operations, and in delivering value added services, examples of which are the use of the state-of-the-art national telecommunications network, and promoting information-based developments.

In improving its public service delivery, Telecom Egypt implemented a growth corporate directional strategy through market diversification by providing additional wholesale services, maintaining presence in the majority of its service provisions through subsidiaries, revenue sharing agreements, acquiring shares, or through corporate liaisons. TE penetrated the internet service providers market directly through its subsidiaries, examples of which is its 92.5% TE Data, and indirectly through revenue sharing agreements with mobile operators (both MobiNil and Vodafone) for interconnection, by acquiring shares from
minority shareholders, or through corporate liaisons. Management's use of strategic alliances initiatives allowed TE to build core competencies and after sale vendor solutions, reduce levels of uncertainty, and achieve international presence through corporate liaisons to provide a steadily increasing source of revenue and hard currency earnings.

In enhancing its service quality and delivery, and addressing market competition, Telecom Egypt used both **cost leadership and differentiation business level strategies**. TE implemented both a cost leadership strategy by downsizing and a differentiation strategy by repositioning itself using product development initiatives aimed at increasing national and international fixed line access, such as New Billing System and Payment of customer bills on the Internet, and by enhancing brand awareness among customers.

TE management restructured the company by employing a relatively flat organizational structure, with seven vice Chairman, thereby, eliminating unnecessary layers. The new management also introduced the departments of marketing, internal auditing, investment, treasury, key Account Management, and revenue assurance to emphasize role/function-based categorization, which allowed the company to reposition itself and prepared it to face new competitors especially after liberalization of the telecommunications market.

3) **Advanced practices like making good investments in IT and innovative solutions to allow better utilization of technologies and ICT applications are cost efficient means of achieving additional capacity, meeting stakeholders' targets and improving public service delivery.**

Telecom Egypt invested heavily in its network, and monopolized the provision of international connectivity in Egypt. It also maximized the usage of latest technologies to achieve cost efficiencies and build core revenue streams.
4) Best practices in human resources management and development are strongly advocated to improve companies' ability to lure and retain the best human capital resources and enhance management’s capabilities.

After the new Unified Labor Law 12 of 2003 was promulgated to replace the two old labor laws of 1959 and 1981, and to fit with the desired market economy, human resources departments in many companies, among which was Telecom Egypt, started to incorporate personnel functions of recruitment, hiring, making contracts, disseminating wages and benefits, doing performance evaluations, adding on-the-job training, and firing unproductive employees. Recruitment became dependent upon the candidate's qualifications and promotion started becoming merit-based instead of being based on seniority as was the case with the old labor laws which created lack of motivation among employees.

Realizing the fact that "Best Practices" in development programs settings can be successfully copied to new settings (Straussman, J.D. 2001), and recognizing the significant role that human resources might play in supporting TE's mission and developing its performance indicators, the company provided several specially designed training programs to develop its workforce among which were the Leadership Development Program aimed at key managers with leadership potential, Skill-based training covering issues of technical advancements, and service improvements, as well as the Executive MBA and Executive development program aimed at selected employees.

To motivate its staff to be more supportive to its transformation process, Telecom Egypt replaced the old incompetent salary schemes with a new competitive salary and compensation program in efforts to lure new people of high caliber, and to keep them. The company also introduced a bonus scheme to reward excellent performance, medical coverage for all employees, and supported the existing early retirement
program, and initiated social and cultural programs which helped in developing a community atmosphere, sports clubs, nurseries, and so forth.

Best practices in governance and public administration: Could this innovation be replicated?

The case study of the transformation of Telecom Egypt from a state-owned highly regulated company to a customer services oriented one provides an overall framework for change of public sector enterprises. The case provides important lessons for other counties’ authorities who are interested in transforming their public sector organizations by identifying those best practices and actions which were accountable for such transformation. However, it should be pointed out that to effectively implement these best practices, it is important to first understand the objectives of the targeted transformation, stakeholders involved, and the nature of the market involved. Also, though in the case of Telecom Egypt, accountability to customers initiated the innovation, it should be noted that without a supportive regulatory change, management commitment, and advanced practices in management planning and human resource management, such transformation could not have happened. In other words, to be able to obtain the anticipated results, those officials who seek to copy these experiences to their countries should not select individual actions of the deal; they should go for the whole package. For example, replicating Telecom Egypt's experience in other countries would greatly depend on whether these countries' legal and regulatory frameworks, or overall conditions, would equally and effectively provide the right conditions for such transformation. Only then will implementation of best practices produce the desired outcomes.
Bibliography


