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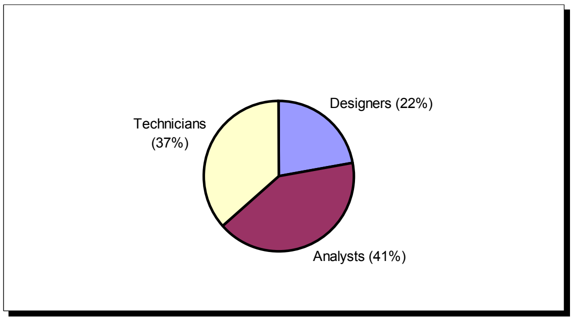
Strategic positioning study of the computer and information technologies branch

FOREWORD

The Tunisian IT market has evolved dramatically during the past decade with a trend towards diversification of products and services, and annual growth of between 10 to 15%. Despite this growth, the Tunisian IT market has remained rather modest, representing less than 1% of GDP.

NATIONAL SITUATION

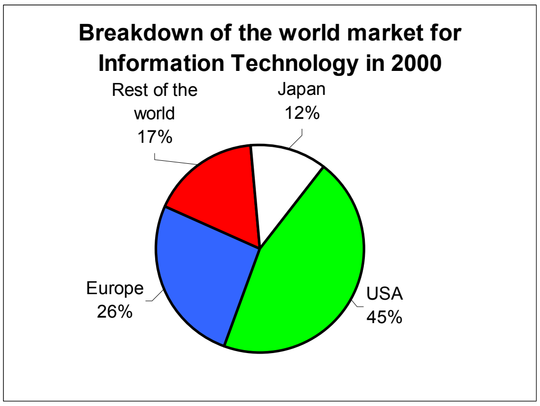
The IT branch in Tunisia is composed of 345 enterprises (of which 300 have less than 10 employees) operating in a market that is valued at 200 MTND.
The market is broken down as follows: 68% for materials (computers and peripherals), 6% for standard software and 26% for applied software and services. There are an estimated 210 000 PCs in Tunisia.
80% of branch turnover is realized with public enterprises and the public administration.
The branch employs some 6550 persons, of which half work for Information Technology Engineering Services companies (ITES). The remaining branch employees work in administration, national information technologies centers and public groups.
Technical training is assured by universities and technical schools (6 141 students in 2000) and professional training (10 000 persons).
Graduates are broken down into the following specializations:



Foreign trade in IT is characterized by material imports (140 MTND) and software exports (25 MTND).
The level of growth of the branch is between 10 and 15% per annum but remains low compared to that of the European countries and the USA.

INTERNATIONAL SITUATION

The world market for IT was estimated at 1 000 billion Euros in 2000, and has grown on average 10% per annum.
The world market is dominated by four major blocs: the United States of America, Europe, Japan and the rest of the world, as shown in the following pie chart:



Current market trends include the following:

1. at the level of hardware : industrials are oriented toward the manufacture of bottom of the line servers, network boards (cards) and portable PCs;
2. at the level of software: information security systems ERP (enterprise resources planning systems), Intranet – Extranet development, e-commerce, data backup and storage, client relations management (CRM) and mobile applications are the most profitable niches.

INTERNATIONAL COMPARISON

A benchmarking analysis study undertaken referencing the branch in Tunisia relative to a reference group of four countries: France, Hungary, Ireland and Morocco has resulted in the following observations:

- o the hourly cost for Tunisian IT specialists is low compared to European countries (8.8 euros in Tunisia versus 70 euros in France);

- o Tunisian consumption of IT is 50 times inferior than European consumption and 100 times inferior to American consumption;
- o National Internet access rate in Tunisia is very low (75 Mb/s) while in Morocco it is two times greater, in France it is 12 000 MB/s or 160 times greater;
- o IT services activity remains focused on the local market;
- o The retard accumulated in terms of computerization of enterprises is estimated at between 7 to 10 years, while the retard in technical capacity of ITES companies is estimated at 3 years compared to the world standard;
- o the enterprises are small in size, often not specialized and suffer from a lack of financial means for their development.

OBJECTIVES 2007

- increase the contribution of IT to the GDP from 1.5% in 2000 to 8% in 2006, keeping in mind that ITES contribution in 2000 was 0.25%.

LUCRATIVE NICHES AND MARKETS

- ✓ networks and security;
- ✓ Intranet and Extranet systems;
- ✓ Call centers and client relations management centers;
- ✓ Safeguarding systems;
- ✓ Advanced management systems: CAD CAM, ERP, SCM,… ;
- ✓ Business information systems: collaborative work groups, knowledge management, workflow management;
- ✓ E-business.

ACTIONS TO UNDERTAKE

1. Actions within the enterprises

✓ **Restructuring and modernization of the computer and information technologies sector**

- ❑ Encourage the regrouping of competence and the engagement of the new generation of managers;
- ❑ Concentration on precise niches and the appropriation of client goodwill.
- ❑ Modernize development methods, project management, and the industrialization of software.

2. Institutional measures

✓ **Market reforms**

- ❑ Make administrative procedures more flexible concerning the awarding of public markets;
- ❑ Reduce the delays for the constitution of the specifications for tender offers for the public market and create common stable reference with procedures that are clear and easy to follow;
- ❑ Conduct standardization operations for specifications by type of tender offer.

✓ **Development of the domestic market**

- ❑ elaborate a major, well defined investment programs to incite the specialization of teams and the disengagement of the State for missions that could be realized by ITES sector companies;

✓ **Aid and support for innovation**

- ❑ extend to ITES companies the same assistance and aid mechanisms provided to industry for example FODEC, FOPROMAT, etc;
- ❑ encourage ITES companies to develop their Research and Development activities in order to support the continuous innovation policy;
- ❑ create a fund for the promotion and the development of software;
- ❑ reduce fiscal and social charges for innovative ITES enterprises.

✓ **Aid for financing**

- ❑ reinforce the activities of venture capital and development capital;
- ❑ encourage the financial restructuring and re-capitalization of ITES companies through mechanisms to be defined with precision such as access to the stock exchange in creating a secondary market, through mergers, creation of capital development funds,…

✓ **Reduce infrastructure costs and increase debit transmission**

- ❑ increase the Internet transmission band width;
- ❑ introduction of ADSL;
- ❑ reduce the costs of international communications, RNIS links and specialized lines.

✓ **Modernization of the IT sector**

- ❑ adaptation of the National Modernization Program to the nature of the activities of ITES companies: the program does not finance prototypes, R&D, technological monitoring, consulting and quality.

3. Promotional Actions

- ❑ further promote the utilization of computers for home use by families, at schools and university level as well as for professional use
- ❑ promote a competitive environment for ITES sector companies.

4. Enterprise creation and partnerships

✓ **Partnerships and attracting foreign direct investment**

- ❑ encourage and create the mechanisms to promote partnership with mixed teams or through associations between enterprises;
- ❑ emphasize the existence of recognized state-of-the-art national competence in specialized areas.