Size and Structure of the ICT sector in Spain

Business Information Technologies Project

Main Objective
Analyze the Size and Structure of Spanish ICT sector.

Methodology
Longitudinal analysis that allows us to understand the evolutionary tendencies that characterize the ICT sector.

Statistical Issues
- Spanish Ministry of Industry, Tourism and Commerce
- National Institute of Statistics
- Bank of Spain
- OECD
1. Research and Development Expenditure in ICT

2. Evolution of Spanish Firms and employment

3. Gross Domestic Market and Trade Balance

4. Value Added

Activities included in the ICT Sector

Spanish National classification of Economic Activities (CNAE)

Manufacturing
- **CNAE 300**: Office, accounting and computing machinery
- **CNAE 313**: Insulated wire cable
- **CNAE 321**: Electronic valves and tubes and other electronic components
- **CNAE 322**: Television and radio transmitters and apparatus for line telephony and line telegraphy
- **CNAE 323**: Television, radio receivers, sound or video recording - reproducing apparatus & associated goods
- **CNAE 332**: Instruments and appliances for measuring, checking, testing, navigating and other purposes except industrial process equipment
- **CNAE 333**: Industrial process equipment

Services
- **Telecommunications** → **CNAE 642**: Telecommunications
- **Other services** → **CNAE 72**: Computer and related activities
1. Research and Development Expenditure in ICT

2. Evolution of Spanish Firms and employment

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4. Value Added

R&D expenditure by selected ICT manufacturing industries

Source: OCDE
Main Ideas 1

- In manufacturing the R&D is not high, and growth rates ↓
- Telecommunications: level and growth rate
- Telefonica
- Spain → The innovation is more intensive in services than in manufacturing
1. Research and Development Expenditure in ICT

2. Evolution of Spanish Firms and Employment

3. Gross Domestic Market and Trade Balance

4. Added Value

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**Evolution of Spanish ICT Firms**

Source: National Institute of Statistic
Main Ideas 2

- The number is increasing
- Small companies
- Concentrate in services
- Big Telecommunication companies that concentrate high proportion of the employment
1. Expenditure and Research and Development in ICT

2. Evolution of Spanish Firms and employment

3. Gross Domestic Market and Trade Balance

4. Added Value

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**Information Technology Market**

[Graph showing the trend of imports and exports in the Information Technology Market from 1995 to 2004.]

**1995: 2001**
- ↑ Turnover
- ↑ GDN
- ↓ X

**2001: 2004**
- ↓ Turnover
- ↓ X

Source: Spanish Ministry of Industry, Tourism and Commerce
Main Ideas 3

- The Domestic market is more important than the exportation market
- Computer assembling
- ↓ Market of Hardware: GDM & Exports → international competition
- Negative Balance Trade

1. Expenditure and Research and Development in ICT
2. Evolution of Spanish Firms and employment
3. Gross Domestic Market and Trade Balance
4. Value Added
Importance of the ICT in the economy

<table>
<thead>
<tr>
<th></th>
<th>Value Added (% Market Economy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>0.94</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>2.48</td>
</tr>
<tr>
<td>Other services</td>
<td>0.53</td>
</tr>
<tr>
<td>Total ICT</td>
<td>3.94</td>
</tr>
</tbody>
</table>

Source: Banco de España

- Not specialized in the manufacturing of ICT goods.
- Telecommunication services.
- ICT services → 70% and 90% of total ICT sector value added.
- Increase in software services.

Conclusions

- During the last ten years the ICT sector in Spain has increased, mainly due to the telecommunications sector.
- The sector comprises over 36,149 companies, including manufacturing, telecommunications and other services companies.
- Small and medium size, 56% of the companies do not have employees.
- The exports have fallen considerably.
- The Valued added of ICT was 6.4% of Total Spanish VA in 2003.
- The manufacturing is decreasing because Spain is a country focused in computer assembling.