Mini-Presentation for SPPI on Data Processing, Hosting and Related Activities (ISIC 6311) with Emphasis on Cloud Computing

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1. Key Figures of Industry

- Number of enterprises, employees and amount of turnover in ISIC 6311 in Finland, 2016

<table>
<thead>
<tr>
<th></th>
<th>Number of enterprises</th>
<th>Total number of employees</th>
<th>Turnover (€ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro and small enterprises</td>
<td>341</td>
<td>901</td>
<td>213</td>
</tr>
<tr>
<td>Medium enterprises</td>
<td>21</td>
<td>1138</td>
<td>275</td>
</tr>
<tr>
<td>Large enterprises</td>
<td>16</td>
<td>1768</td>
<td>955</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>378</strong></td>
<td><strong>3 807</strong></td>
<td><strong>1 442</strong></td>
</tr>
</tbody>
</table>

1. Key Figures of Industry

- Industry concentration in ISIC 6311 in Finland in 2016, size defined by number of employees

1. Key Figures of Industry

- Industry concentration in ISIC 6311 in Finland in 2016, enterprises sorted by size based on their turnover, additive (%)

1. Key Figures of Industry

- Operating margin, per cent, industries total, ISIC section J and class 6311 in Finland in 2016

![Bar chart showing operating margin per cent for different industries.]

*Source: Statistics Finland, Structural Business and Financial Statement Statistics, 2016*
1. Key Figures of Industry

- Development of turnover, industries total and ISIC 6311 in Finland in 2012-2016 (2012=100)

2. Definition of Service

“Simply put, cloud computing is the delivery of computing services — servers, storage, databases, networking, software, analytics and more — over the Internet (“the cloud”). Companies offering these computing services are called cloud providers and typically charge for cloud computing services based on usage, similar to how you are billed for water or electricity at home.”

Source: Microsoft
2i. Cloud Service Models

- **SaaS**
  - Packaged Software
  - OS & Application Stack
  - Servers Storage Network
  - End Users

- **PaaS**
  - OS & Application Stack
  - Server Storage Network
  - Application Developers

- **IaaS**
  - Server Storage Network
  - Infrastructure & Network Architects

*Source: [https://www.uniprint.net/en/7-types-cloud-computing-structures/](https://www.uniprint.net/en/7-types-cloud-computing-structures/), accessed July 17, 2018*
2ii. Responsibilities between a User and the Provider

2iii. Use of Cloud Services

- Commonly used cloud services in Finnish enterprises in 2017

- E-mail: 76%
- Storage of files: 63%
- Office software: 57%
- Finance or accounting software applications: 51%
- Hosting for the enterprise's database: 45%
- Customer Relationship Management software: 33%
- Computing power to run the enterprise's own software: 16%

Source: Statistics Finland, Use of Information Technology in Enterprises, 2017
3. Classification Issues

SaaS
- 58.20, 62.01 or 63.11?
- Who has the copyrights? Is the software customized or not?

PaaS
- 62.01, 62.02 or 63.11?
- Service provider manages the operating system

IaaS
- 63.11?
4. Price Determining Characteristics of the Service

- Initial costs
- Lease period
- Age of resources
- Cost of maintenance
- Location

- Quality of Service, such as the availability of service, data privacy, the power of the processor, the amount of RAM, and the amount of disk space allocated and operating system
5. Typical Pricing Methods

- Pay-as-you-go pricing
- Subscription
- Hybrid pricing
- List prices

- Cost-based pricing
- Competition-based pricing
- Customer-based pricing

**Fixed pricing models**

**Dynamic pricing models**
6. Concluding Remarks

- There are many challenges to measure the price development of data processing, hosting and related activities such as cloud computing.

- Essential to stay up to date and understand what kind of services emerges in the market.
  - Sample and price collection should be updated whenever needed.

- Classification issues may need to be discussed and solved.
  - Coherency.

- Alternative price collection methods might be preferable for this kind of technically advanced industry.
Thank You!

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