Measuring the platform economy in Italy. Methodological challenges and open issues

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Defining a conceptual framework

Two-sided markets
(Rochet and Tirole 2003, Armstrong 2006)

Digitalisation

Platform business model
Which kind of platforms?

**Transaction platforms**
Technology, product or service that acts as an intermediary facilitating exchange or transactions between users, buyers, or suppliers.

**Integrated platforms**
Both a transaction platform and an innovation platform (e.g. Apple)

**Innovation platforms**
Technology, product or service that serves as a foundation on top of which other firms develop complementary technologies, products or services.

**Investment platforms**
Companies that have developed a platform portfolio strategy and act as a holding company, active platform or both.

**SOURCE:** Global Platform Survey, The Center for Global Enterprise, 2015
Which kind of platforms?

Transaction

Innovation

Integrated

Investment

Transactions and sharing (P2P) platforms in the digitalised economy
Identification of a platform

- Nationality (i.e. the country where the owner – or the Holding Company if the platform is owned by an enterprise group – is based).
- Country where is (potentially or actually) operating.
- Internet address (URL).
- Ownership (individuals, domestic firms, multinationals, etc.).
- Business model.
- Workforce (number, occupations, skills).
- Algorithm(s) – a classification of which is not yet available.
- Access features (free, registration, restricted / mobile / languages / etc.).
- Money management (internal / external / multi-channel).
- Providers (number, characteristics, etc.).
- Users / Customers (number, characteristics, etc.).
Definition of a statistical framework

1) The statistical unit

Platform
- Revenues
- Workforce
- Economic and social impact

Enterprise
- Turnover
- Employees
- Financial transactions
- Taxation

Transaction
- Volume
- Intensity
- Economic value
- Social value

Peers
- Quantity
- Attributes (profiling)
- Intensity
- Economic and social spillovers

Does a breakdown by «asset-based» and «labour» platforms make sense?
## Definition of a statistical framework

### 2) A proposal for classification by platform type

<table>
<thead>
<tr>
<th>Features</th>
<th>Peer-to peer model (sharing)</th>
<th>Two-sided market (Business-to-peer)</th>
<th>Intermediaries using platform technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Peers</strong></td>
<td>Individuals, households, businesses.</td>
<td>Businesses and consumers</td>
<td>Customers</td>
</tr>
<tr>
<td><strong>Legal nature of the managing institution(s).</strong></td>
<td>Public, non-profit institutions, households, businesses.</td>
<td>Businesses</td>
<td>Businesses</td>
</tr>
<tr>
<td><strong>Workforce</strong></td>
<td>IT staff, managers. Low ratio personnel expenditure / revenues.</td>
<td>IT staff, managers. Low ratio personnel expenditure / revenues.</td>
<td>Employees</td>
</tr>
<tr>
<td><strong>Business model</strong></td>
<td>No fees but also registration or low transaction fees. Advertising.</td>
<td>Registration fees. Advertising. Trade of data.</td>
<td>Pay-per-use</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IT staff, managers, clerical support staff, logistics and warehousing staff, delivery staff (riders). High ratio personnel expenditure / revenues.</td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
- **Features**
- **Intermediaries using platform technologies**
- **Peers**: Individuals, households, businesses.
- **Legal nature**: Public, non-profit institutions, households, businesses.
- **Workforce**: IT staff, managers. Low ratio personnel expenditure / revenues.
- **Business model**: No fees but also registration or low transaction fees. Advertising.
# Definition of a statistical framework

3) A proposal for classification by sector of activity

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Peer-to peer model (sharing)</th>
<th>Two-sided market (Business-to-peer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-commerce (multi-product)</td>
<td>Kijiji, subito.it</td>
<td>ebay, Amazon Marketplace, ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amazon</td>
</tr>
<tr>
<td>E-commerce (sector-specific)</td>
<td>Gumroad</td>
<td>Shiply, Eurosender</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Glovo!, Deliver.ee</td>
</tr>
<tr>
<td>General logistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public transportation</td>
<td>BlaBlaCar, GoCarShare, Drivy ..</td>
<td>UBER-black, Blacklane, ........</td>
</tr>
<tr>
<td>Accomodation services</td>
<td>AirBNB</td>
<td>Trivago</td>
</tr>
<tr>
<td>Travel services</td>
<td>Vayable, With Locals, ........</td>
<td>Volagratis, Skyscanner, Barqo</td>
</tr>
<tr>
<td>Professional services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal care services</td>
<td>Suppershare, Croqer, ........</td>
<td>Helpling, TreatWell</td>
</tr>
<tr>
<td>Crowdsourcing (C2B)</td>
<td>GloVo</td>
<td>BeMyEye, Microtask, ........</td>
</tr>
</tbody>
</table>

*Note: The table lists various sectors and companies that exemplify the peer-to-peer and two-sided market models.*
Opinion *Gig economy*

*The gig economy is neither ‘sharing’ nor ‘collaborative’*

Upwork and its like shape the labour market in more profound ways than the labels suggest

*SARAH O’CONNOR*  
*June 14, 2016*
Definition of a statistical framework
4) Problems in linking platforms and enterprises

A) Italian company managing platform and personnel

B) Foreign company managing platform and Italian affiliate managing personnel

C) Foreign company managing platform and personnel
Definition of a statistical framework

5) Mismatch between platforms’ activities and NACE

- Food delivery (12 enterprises)
  - 47.91 Retail sale via mail order houses or via Internet
  - 56.21 Event catering activities
  - 62.01 Computer programming activities
  - 62.02 Computer consultancy activities
  - 62.09 Other information technology and computer service activities
  - 63.12 Web portals
  - 73.11 Advertising agencies
  - 82.99 Other business support service activities n.e.c.
Measurement issues
1) A macro approach to the platform economy

Official data on revenues, for Italy, are not available.

A study by the University of Pavia designed a scenario («digital disruption») based on 6.7 Billion Euros of revenues from «sharing economy» activities in 2018 (0.39% of the GDP). It could increase up to 1.38% of GDP in 2025. Assumptions and projections’ criteria are quite vague.
Measurement issues
1) A macro approach to the platform economy

Official data on employment, for Italy, are not available.

A study by Fondazione De Benedetti and the Italian Social Security Institute has recently estimated an impact of the «gig economy» in terms of employment between 0.7 and 1 Million workers (1.8-2.6% of total population). Only 150-200 Thousand workers would be employed full time. Ten per cent of them are riders.
Measurement issues
2a) Case studies: food delivery

The employment pyramid: the 12 firms operating in Italy show a common breakdown of the employment: a few employees and many «riders» employed as service providers.

Estimated from media sources (20 to 70K).
E-commerce platforms account for less than 2% of total retail trade expenditure in 2017. PCs and smartphones are the most traded online: almost 9%. No data available for market-places only.
Measurement issues
2c) Case studies: accommodation booking

Two-thirds of Italians use to book accommodation on-line (up to 70% for accommodation abroad). Only from 10 to 15% of them use platforms (25% for accommodation abroad).
Measurement issues

2d) Case studies: use of Internet by households

The percentage of Italians using online platforms for **travel booking** and **selling goods/services online** is constant over time. No increase is expected in coming years.
Conclusions (1)

• A systematic activity will be launched in Italy when EU countries will agree on definitions and classifications.

• It is highly probable that Eurostat will be focusing on:

  • **two categories of platforms** (asset-based and labour?) and

  • **three sectors** (public transport, food delivery and short-term accommodation).
Conclusions (2)

• Estimating the overall impact of the platform economy, as defined by the EU, will be possible only by:
  • Collecting economic (transactions) data at a higher detail than it is currently done (e.g. AirBNB payments, riders’ salaries, etc.).
  • **Combining economic and social statistics** in order to be able to estimate economic data on the supply side by using information on the demand side (peers).
  • **New statistical surveys** could be needed to explore small areas of activity by platforms.