SPPI FOR FREIGHT TRANSPORT BY ROAD IN GERMANY

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Definition of the Service

Freight Transport By Road

- All kinds of transporting cargo on the road
- Including renting of trucks with driver, furniture removal and animal-drawn transports

Decisive whether a company is asked is the offering of freight transport by road to the customer, not the conduction of the transport itself.
Pricing Unit of Measure

Contracts, not transports

- Otherwise construction, distribution and short distance transports would be neglected where
  - “flat rates” are common
  - the carried out transports may vary from day to day, but the price stays the same (e.g. transportation for a supermarket)
- For longer distances, transports and contracts are identically specified.
- Repeated services are common (spot market about 10%)
Market Conditions

Size of Industry:

<table>
<thead>
<tr>
<th>Sectors (NACE/WZ)</th>
<th>No. of companies</th>
<th>No. of employees</th>
<th>total turnover (1000 EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.24</td>
<td>34,038</td>
<td>275,207</td>
<td>23,380,576</td>
</tr>
<tr>
<td>63.40.1</td>
<td>8,851</td>
<td>203,422</td>
<td>35,993,122</td>
</tr>
<tr>
<td>Sum</td>
<td>42,889</td>
<td>478,629</td>
<td>59,373,698</td>
</tr>
</tbody>
</table>

Source: FSO service statistics, 2003

60.24: Freight Transport By Road (especially smaller companies, pure hauliers)

63.40.1: Freight Forwarding (especially larger companies, diversifying in other parts of the logistics sector like sea and air freight, customs clearance, contract logistics)
Market Conditions

Size of Industry:

- Further growth predicted (until 2020: 64% for all modes on a 1997 basis)

- Strong competition from foreign hauliers, especially after the expansion of the EU in 2004

- Trend of outsourcing transportation activities ⇒ *Werkverkehr* becomes less important
Market Conditions and Constraints

Special conditions:

- Both hauliers and freight forwarders have to be considered ⇒ inclusion of NACE/Wz sectors 60.24 and 63.40.1
- Differentiation of spot market and contract market
Market Conditions and Constraints

Record keeping practices:

- Data collection
  - Weighting pattern: at corporate level, accounting department
  - Price collection: at operational level, marketing department

- Reduction of bureaucracy and respondent’s burden: small sample, questions easy to answer, not too much details which need further calculations to be done by the respondents
Classification Structure

NACE – ISIC

- NACE 60.24 identical to ISIC 6023
- No deeper structure
- Revision of ISIC/NACE: change of numbers (ISIC 4923), but not of contents

CPA - CPC

- contains sub-structure with price determining characteristics
- However, no data about turnover distribution according to CPA – CPC available in Germany
Classification Structure


- Classification for purposes of transportation statistics
- According to categories of goods
- Not satisfying for classification purposes in terms of determining sub-segments

⇒ For developing SPPIs, a segmentation is necessary that brings out sub-segments which are *homogenous* in their *pricing mechanisms* and *pricing levels*. This is not ensured by using the existing classification systems. A new classification has to be introduced.
Evaluation Classification Structure

Classification for SPPI purposes:

- Two dimensions: distance and “transportation groups”:

**Distance**
- Short distance/distribution services (less than 50 km)
- Regional transportation (50-150 km)
- National long distance transportation (>150 km)
- International long distance transportation

**Transportation Groups**
- Transports of oil/oil products in tankers
- Special transports (e.g. dangerous goods, heavy load, living animals)
- Reefer cargo
- Container
- Vehicles
- Other transports with tankers
- Agriculture; loose bulk freight
- Steel products
- Wrapped and general cargo
Until 2004 calculation based on freight rates by the BAG (Federal Office for Freight Transport) \(\Rightarrow\) not longer available, SPPI urgently needed

German NA uses CPA 60.24 “FT” as most detailed position for price and volume measures

EUROSTAT handbook on NA* defines a SPPI for Freight Transport By Road with the use of prices of repeated services as an A method.

Pricing Methods

1. Contract Pricing
2. Model Pricing
Pricing Methods

1. Contract Pricing

- Price charged for an (almost) exactly repeated service by the same producer for the same client

- Long-term or framework contract between client and producer

- Normal case in the transportation industry
Pricing Methods

2. Model Pricing

- Only for a few sub-segments: very small companies with quite no repeated services, grouped cargo (payment conditions and customers remain constant, quantity and type of cargo varies), transportation of heavy loads which are unique.

- Based on transports actually conducted; the price is than updated throughout the following periods.

- Regularly updating of the model transaction.

- Challenge: to estimate the amount of negotiation and discounts.

- Prices are not lagged.
Pricing Methods

Spot market: not yet included

- None of the regular pricing methods seems to be capable to tackle the high-volatile spot market:
  - No repeated services at all (one-off-contracts)
  - Price completely subject to negotiation
  - Hauliers are happy with every price just to get a reload instead of an empty truck

- Idea for the future: create an index for the spot-market with the help of internet-based cargo auctions as it is already existing for sea water transport (indices of the Baltic Exchange, London)
Quality Adjustment

QA needed...

- when a contract ends or when the transport specification is modified
  - Employed QA method: match-model (substitution with a new, similar contract of the same enterprise if possible)
  - Linking of the two contracts with overlapping or imputation
- for seasonal transports (e.g. agricultural transportation)
  - Imputation necessary for missing months
  - Possible methods: adjusting with the development of the relevant elementary aggregate; expect the price to remain constant; Rothwell-Index
Comparing SPPI with Turnover/Output

**Turnover**
- FSO Service Statistics since 2000
- No differentiation according to market segments, only impression about the size of the market

**Output**
- Transportation statistics
- Data can be transformed to fit to the SPPI classification

Transportation statistics together with freight rates form the weighting pattern of the SPPI
Summary

- Collaboration with associations and companies major success factor
- New classification was necessary for SPPI production
- Transaction prices and model prices as preferred method for the contract market, spot market excluded so far
- Inclusion of freight forwarders necessary to get information about the whole market
- Quality adjustment task for the future; in such an early stage (first publication expected for 1st quarter 2007), quality is about getting the data from the companies in the right quality