Extracting data from enterprise accounting systems in the SBS in Sweden

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Outline of presentation

• Part 1: The Swedish SBS

• Part 2: Project on extracting data from accounting systems

• Part 3: Evaluation of the project and future plans
Part 1
The Swedish SBS
Swedish Structural Business Statistics (SBS)

- Annual
- Designed according to EU-regulation and National Accounts Needs
- Covers business sector (NACE 01-96 excl. 64-66, 84)
- Population based on Business Register
- Approximately 1,000,000 enterprises
Swedish SBS

- Based on administrative data (tax register)
- Complete questionnaire to the 600 largest enterprises
- Additional data from 3 separate sample surveys:
  - SpecRR – Income and costs (17 000)
  - SpecI – Investments (4 000)
  - SpecA – Shares (600)
SpecRR – A specification of the income statement

- Purpose: Obtain detailed information about income and costs
- Data collection: Web-application. Pre-printed totals from the Tax Agency
- The respondents are asked to specify the pre-printed values
- The costs are closely linked to the Swedish chart of accounts, BAS
Variables in SpecRR

<table>
<thead>
<tr>
<th>Income statement</th>
<th>Breakdown of income and costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net turnover</td>
<td>Breakdown of turnover</td>
</tr>
<tr>
<td>+ Other operating income</td>
<td>Breakdown other op. income</td>
</tr>
<tr>
<td>+ Changes in inventory</td>
<td></td>
</tr>
<tr>
<td>+ Activated work for own account</td>
<td>Breakdown of other external costs</td>
</tr>
<tr>
<td>- Cost of trade goods and raw materials</td>
<td></td>
</tr>
<tr>
<td>- Other external costs</td>
<td>Breakdown of personnel costs</td>
</tr>
<tr>
<td>- Personnel costs</td>
<td>Breakdown of other op. costs</td>
</tr>
<tr>
<td>- Other operating costs</td>
<td>Breakdown of depreciation</td>
</tr>
<tr>
<td>- Depreciation costs</td>
<td></td>
</tr>
<tr>
<td>= Operating profit / loss</td>
<td></td>
</tr>
</tbody>
</table>

**Statistics Sweden**
Part 2
Project on extracting data from accounting systems
Background to the project

- Simplify the data collection process
- Reduce the response burden
- Investigate the possibility to use the standardised Swedish format SIE
- Extend the use of BAS
- Tests have previously yielded positive indicators of increased data quality and reduced non-response.
Design of the experiment

• The experiment was carried out as a part of the regular SpecRR survey (autumn 2012)
• Limitations with respect to industry (NACE) and size
• NACE codes included: 07-33, 45-47, 69, 71-72, 78, 80-82
• Size 10-249 employees
• 658 enterprises was chosen out of 2 600 enterprises
Response rates

• Out of the 658 enterprises in the experiment 537 (82%) answered the questionnaire

• 134 (25%) out of the 537 enterprises chose to answer through the SIE supported solution
Preparations to be made

1. Mapping of variables

✓ Many of the SBS variables can be mapped to the BAS-accounts
✓ There are new versions of the BAS-accounting plan every year
✓ BAS-accounting plans can vary among different NACE codes
### Mapping of variables

<table>
<thead>
<tr>
<th>Income statement</th>
<th>SIE solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net turnover</td>
<td>Must be manually completed</td>
</tr>
<tr>
<td>+ Other operating income</td>
<td>Almost fully completed</td>
</tr>
<tr>
<td>+ Changes in inventory</td>
<td>Almost fully completed</td>
</tr>
<tr>
<td>+ Activated work for own account</td>
<td>Fully completed</td>
</tr>
<tr>
<td>- Cost of trade goods and raw materials</td>
<td>Must be manually completed</td>
</tr>
<tr>
<td>- Other external costs</td>
<td>Almost fully completed</td>
</tr>
<tr>
<td>- Personnel costs</td>
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<td>- Depreciation costs</td>
<td>Fully completed</td>
</tr>
</tbody>
</table>
Preparations to be made

2. Adjustment of the data collection tool:
- A separate entrance to the web questionnaire had to be constructed
- The respondents uploaded a SIE-file and the questionnaire was filled in where there is a unique link between SIE-BAS-SBS
- Other variables must be filled in manually

3. Development of a communication plan with respondents
Collection of data

- The respondents had two choices in the web questionnaire
- Pre-printed totals from tax data in both questionnaires
- Some edits built into the web-questionnaire (Consistency controls)
Collection of data

- Checks for a few parameters in the SIE file:
  - Organization number
  - Reference year
  - Version of BAS 97 or later
  - Type of SIE file
Collection of data

- The Business Data Collection unit is responsible for collecting, checking and correcting the data
- New phone number for SIE
- Some persons responsible for micro editing of SIE enterprises
- In a later phase personnel from the unit responsible for SBS was involved in checking the SIE files
Part 3
Evaluation and future plans
1. Quantitative evaluation
Is there systematic differences between those who chose or did not choose the SIE alternative?

2. Qualitative evaluation
What types of deviations from pre-printed values did occur?

3. The respondent perspective
Interviews with a minor number of enterprises who chose or did not choose the SIE alternative
1. Quantitative evaluation

**Question:** Is there systematic differences between those who chose the SIE alternative and other respondents?

**Answer:** Yes

- A significantly higher percentage changed the pre-printed values
- Use of more variables
- Significantly lower proportion of costs on other expenses
2. Qualitative evaluation

A review was made of all enterprises that changed their pre-printed values exceeding 5 percent of the original value

**Most frequent deviations:**

- Changes in inventories and work in progress – the use of BAS differs from its original thought
- Allocation of costs between different types of costs
- Consumable inventories – part of several BAS accounts
3. The respondent perspective

30 enterprises were interviewed

The general impression was:

- The technical solution worked well
- The respondents experienced a lower burden
- Respondents would have wanted to get rid of manual completion
- Respondents would have chosen SIE again if they had the opportunity
3. The respondent perspective

Reasons for not using SIE:

- No technical conditions at the enterprise for creating or using SIE
- BAS-accounting plan was too old
- Lack of practical experience of SIE
Conclusions from the project

- Overall positive reactions from respondents and moderate costs for Statistics Sweden
- Technical support for mapping is needed
- The access to detailed information from the accounting systems made us aware of quality aspects in the SBS
Future plans

- Offer around 4 000 enterprises the opportunity to upload SIE files
- Continue the cooperation with BAS-stakeholder association
- Offer the technical solution to other surveys
Thank you for your attention!