

# The Role of Meta Database for Improving Quality in Statistics: The Case of Structural Business Statistics

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The concept of high quality statistics used to be limited to the measures of accuracy. Nowadays many other dimensions are also included, such as relevance, timeliness, accessibility, interpretability, coherence, comparability and cost-effectiveness. It is the aim of this paper to show the reasons why a meta database is a necessary tool in the development and implementation of structural business statistics (hereinafter: SBS) and how it can improve the quality of SBS statistics.

SBS is one of the central developing fields of official statistics in the European Union. Its basic contents and guidelines are laid down in Council Regulation No. 58/97 of 20 December 1996. The implementation of this regulation also constitutes prerequisites in the field of statistics for candidate countries to join the European Union. Recently, the development of SBS has also been started in Slovenia. The findings presented in this paper are the results of the “Experts’ Support for SBS”<sup>1</sup> project.

The need for meta database primarily stems from the *complexity* of SBS:

- SBS cover market activities in all sections except agriculture, hunting, forestry, fishing, public administration, defence and compulsory social security;
- SBS include numerous variables related to different subject fields, e.g. enterprise demography, input, output, labour costs, employment, investments, research and development etc.;
- SBS require activity, regional and size-class breakdowns as well as the homogeneity of results (down to four-digit level of classification of economic activities NACE Rev. 1);
- the regulation on SBS encourages national statistical offices (hereinafter: NSOs) to use administrative data sources besides statistical surveys and statistical estimation procedures.

The SBS variables originate from various fields of statistics. It is therefore crucial to examine first at conceptual level if the transplantation of a variable into the SBS framework (under the same label) is justified. Any conceptual discrepancies should be identified.

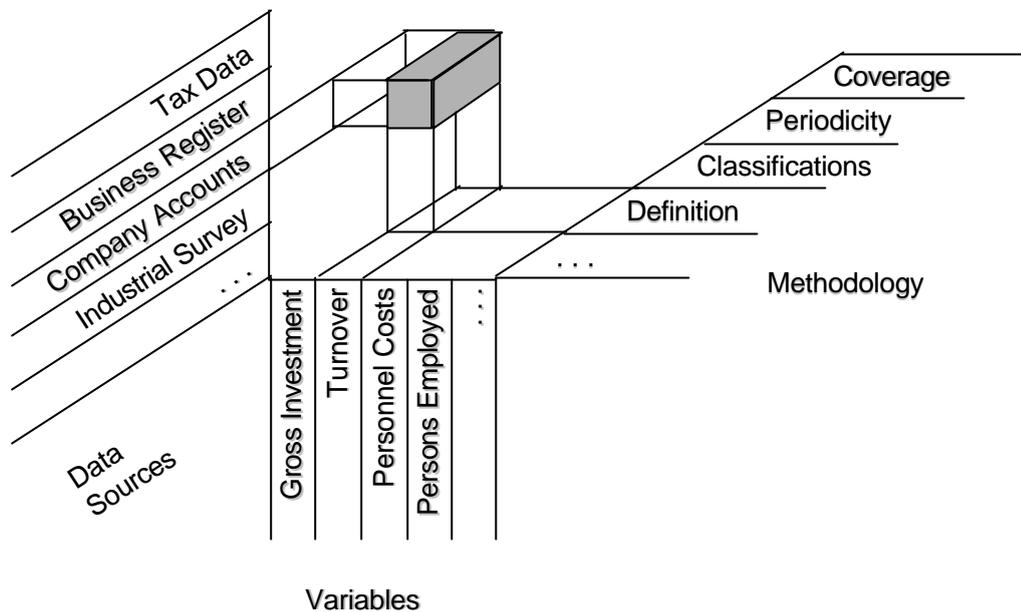
Next, following the fundamental principles of official statistics, which are also embedded in the regulation on SBS, the appropriateness of existing data sources for SBS variables must be studied at operational level. When using different data sources, statistics are coherent insofar as they are based on common definitions, classifications and methodological standards (Handbook on the design and implementation of Business surveys, 1998).

Since data for many of the SBS variables are already available in various data sources in Slovenia, implementation of conceptual and operational stage of SBS development required an

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appropriate tool which could provide an exhaustive methodological information in a systematic and transparent way. With this purpose, a concept of database was designed consisting of three main blocks: data sources, variables, methodology (Figure 1).



**Figure 1. SBS Meta Database Structure**

For the needs of project activities, a simple meta database has already been built indicating the definition, the relevant data sources and the necessary adjustments for each SBS variable. It turned out that the development of SBS based on comprehensive meta database unambiguously displays the adjustments and steps needed to improve the quality of statistics in terms of coherence and interpretability of statistics. Our research experience confirms that the conceptual integration is an indispensable step towards mutually consistent statistics and a prerequisite for the physical integration, i.e. harmonisation of data inputs, processes and outputs throughout the NSO (Colledge, 1999).

## REFERENCES

Colledge, M. J. (1999). Statistical Integration Through Metadata Management. *International Statistical Review*, 67, 1, 79-98.

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## RESUME

*L'article présente l'importance d'une base de métadonnées pour ménager la complexité des variables et des sources dans le développement des statistiques structurelles sur les entreprises.*