This module is part of the

Memobust Handbook

on Methodology of Modern Business Statistics

26 March 2014

Theme: Statistical Registers and Frames – Main Module

Contents

General section

1.   Summary

The *survey frame* identifies the statistical units of the population being observed, measured by a survey. It serves as a base for sampling, data collection and statistical processing, therefore the specification and composition of the survey frame is one of the most important parts of the design, build and data collection phases of the business process of surveys.

*Statistical register*s are also crucial for the whole process as they record the statistical units and a wide range of their variables are used for the creation of survey frames. Their actuality and quality have great influences on the quality of the survey and the statistical products.

2.   General description

The specification and composition of the *survey frame* is one of the most important parts of the design, build and data collection phase of the business process of surveys. It defines the frame population, the units of the survey. The survey frame lists the units together with their contact information, economic and geographic classifications, size categories. In the case of representative data collection, it serves as a *sampling frame*. For the selection of the sample, the sampling frame provides information for stratification. The survey frame is also the basis to access the data supplier and to personalise and mail the questionnaires. Furthermore, it helps to control and monitor the data collection phase, to register and validate responses and to urge and evaluate non-responses. The survey frame gives information for the weighting and analysing phases of the survey process as well.

The quality of the survey frame influences the quality of the whole survey (Eurostat, 2009). The coverage of the *target population* by the survey frame (*frame population*), the accuracy of the contact, stratification attributes of the units, the timeliness of the units are important elements of the quality assessment. They determine the quality of the next processing phases, the sampling, data collection, grossing data processing phases as well.

For business statistical surveys, the *business register* and its connecting *satellite registers* are used as the main base for the survey frames (Eurostat, 2010). The purpose of these statistical registers is to record and maintain the *statistical units*, their characteristics and the demography of the units for the whole economy as complete as possible.

This topic deals with the registers as a tool for maintaining and accessing the different survey populations (to the data collections, for controlling secondary sources, as a tool for micro integration, etc.). Beyond this purpose the registers are sources of a statistical domain of the analysis of the business population (business demography) as well. The method of business demography is detailed in the topic "Dynamics of the Business Population".

The terms, creation and registration of statistical units are the central element of the business statistics (UN DESA, 2007) and European framework of business statistics as well.

The main sources used for the *register maintenance* are usually administrative sources (UN ECE, 2012), but statistical surveys and other inputs can amend the information coming from these sources. The *frequency of the register maintenance* should be harmonised with the periodicity and the *reference period* of the surveys built on them.

The survey frame of a particular *survey instance* uses a *snapshot of the register*, a frozen register state for a given date. Since the business register serves as a base for different surveys, it is worth creating a *master frame* that is used as a common frame for these surveys (Györki, 2012). The master frame and the predefined subpopulations help to compose the survey frames and support the integration of the statistics both on a vertical and horizontal level as well as both on a national and international level. Integrated survey frames improve the effectiveness of the data collection, the survey process and help to reduce the response burden.
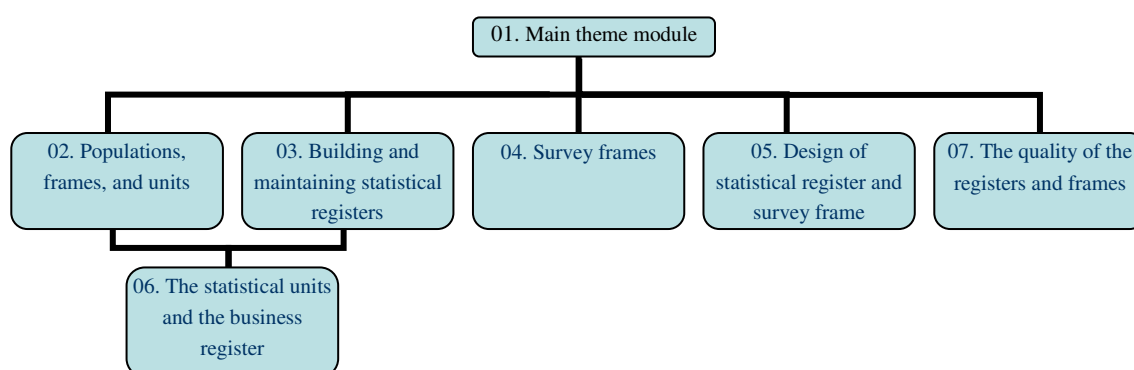
The next theme modules detail the terms, roles and tasks of creation and usage of statistical registers and frames:

– "The Populations, Frames and Units of Business Surveys" describes the population and units of the survey and the role and attributes of the survey frame;

– "Building and Maintaining Statistical Registers to Support Business Surveys" summarises the role of statistical registers, their maintenance, attributes and connections;

– "Survey Frames for Business Surveys" gives information about the creation of survey frames for business surveys: the connection of register and frame, the selection of the frame, the role of the master frame and the possibilities of frame coordination;

– "The Design of Statistical Registers and Survey Frames" sums up the aspects of the design of the statistical registers and survey frames for business surveys;

– "The Quality of the Registers and Frames" serves as a link between the general quality criteria and their specified roles at the field of statistical registers and frames.

For readers who are interested in the topic the next module gives deeper information:

– "The Statistical Units and the Business Register" provides for a detailed review of the statistical units of the Business statistics both about the legal aspects and the practical considerations.

The map of the modules is shown in the next figure.

3.   **Design issues**

4.   Available software tools

5.   Decision tree of methods

6.   Glossary

For definitions of terms used in this module, please refer to the separate "Glossary" provided as part of the handbook.

7.   References

Eurostat (2009), *ESS Handbook for Quality Reports 2009 edition*. Eurostat Methodologies and Working papers. http://unstats.un.org/unsd/dnss/docs-nqaf/Eurostat-EHQR_FINAL.pdf

Eurostat (2010), *Business Registers – Recommendations Manual, 2010 edition*. Eurostat Methodologies and Working papers. http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-32-10-216/EN/KS-32-10-216-EN.PDF

Györki, I. (2012), GÉSA: The Tool for Survey Control, Quality Assessment and Data Integration. *Hungarian Statistical Review, Special number* **15**, 48–78. http://www.ksh.hu/statszemle_archive/2012/2012_K15/2012_K15_048.pdf

UN DESA (2007), *Statistical Units*. United Nations, New York. http://unstats.un.org/unsd/isdts/docs/StatisticalUnits.pdf

UN/ECE (2012), *Using Administrative and Secondary Sources for Official Statistics. A Handbook of Principles and Practices*. http://www.unece.org/fileadmin/DAM/stats/publications/Using_Administrative_Sources_Final_for_web.pdf

Interconnections with other modules

8. Related themes described in other modules

1. User Needs – Specification of User Needs for Business Statistics

2. Overall Design – Overall Design

3. Repeated Surveys – Repeated Surveys

4. Statistical Registers and Frames – The Populations, Frames, and Units of Business Surveys

5. Statistical Registers and Frames – Building and Maintaining Statistical Registers to Support Business Surveys

6. Statistical Registers and Frames – Survey Frames for Business Surveys

7. Statistical Registers and Frames – The Design of Statistical Registers and Survey Frames

8. Statistical Registers and Frames – The Statistical Units and the Business Register

9. Statistical Registers and Frames – Quality of Statistical Registers and Frames

10. Sample Selection – Main Module

11. Data Collection – Main Module

12. Response – Response Process

13. Micro-Fusion – Data Fusion at Micro Level

9. Methods explicitly referred to in this module

1.

10. Mathematical techniques explicitly referred to in this module

1.

11. GSBPM phases explicitly referred to in this module

1. "2.4. Design frame and sample methodology" for frame design

2. "4.1. Select sample" for establishing the frame

3. All phases for register maintenance

12. Tools explicitly referred to in this module

1.

13. Process steps explicitly referred to in this module

1. "2.4. Design frame and sample methodology"

2. "4.1. Select sample"

3. All phases for the register maintenance

Administrative section

14.   Module code

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15.   Version history

Version	Date	Description of changes	Author	Institute
0.1	11-03-2012	first version	Ildikó Györki	HCSO
0.2	29-05-2012	second version	Ildikó Györki	HCSO
0.3	16-07-2013	revised version after EB review	Ildikó Györki	HCSO
0.4	17-11-2013	revised version after EB second review	Ildikó Györki	HCSO
0.4.1	11-12-2013	preliminary release		
0.5	03-02-2014	revised version after EB third review	Ildikó Györki	HCSO
1.0	26-03-2014	final version within the Memobust project		

16.   Template version and print date

Template version used	1.0 p 4 d.d. 22-11-2012
Print date	21-3-2014 17:35