This module is part of the

Memobust Handbook

on Methodology of Modern Business Statistics

26 March 2014

Theme: Specification of User Needs for Business Statistics

Contents

General section

1. Summary

As stated in principle 11 of the Code of Practice (Eurostat, 2011) European statistics must meet the needs of users. The Quality Assurance Framework of the European Statistical System (Eurostat, 2012) describes activities, methods and tools that facilitate the implementation of the Code of Practice (CoP). One indicator related to the needs of users is to start the design of a new statistical production process for business statistics with the identification of user needs. In the GSBPM the identification of the user needs forms a preparation before the actual design for a new business statistics can start. The activity of identifying user needs starts when a need for new statistics is identified or current statistics appear to be inappropriate. Then there is a demand that is not satisfied, externally or internally, for the identified statistics. In this preparatory phase a statistical organisation has to

1. Determine the needs for information: what statistics, methods, sources are needed
2. Confirm, in more detail, the statistical needs
3. Establish the high level objectives of the statistical outputs
4. Identify the relevant concepts and variables for which data are required

Already in this stage the feasibility and necessity of the new statistics must be evaluated. For that a statistical organisation has to

5. Check if current data collections and methodologies can meet these needs
6. Prepare the business case to get approval to produce the statistics.

In these sub-processes the user needs are put in a broader scope of existing statistics and common methodologies and available data sources. These are generally six sequential sub-processes, but in a less formal context they can also occur in parallel, and can be iterative if prior assumptions have to be adapted taking into account additional information collected from users or stakeholders. So in the GSBPM before the actual design of a production process starts, the user needs are compared to the possibilities to produce them and common practice in related statistics. In this module we will follow the GSBPM approach that immediately turns the user needs into a business case, with optionally an iteration to the user needs, taking into consideration their costs for actual production.

2. General description

2.1 Sub-processes for specification of user needs in Business Statistics

In this section we will focus on each of the sub-processes in the determination of user needs.

2.1.1 Determine the needs for information

This sub-process includes the initial investigation and identification of what statistics are needed. It also includes consideration of existing practice amongst other national and international statistical organisations producing similar data, and in particular the methods used by those organisations.

2.1.2 Consult and confirm needs

Subsequently, the user needs have to be translated into specific statistical output that would meet those user needs. This includes consulting with the stakeholders and confirming in detail the needs for the statistics. A good understanding of user needs is required so that the statistical organisation knows not only what is expected to deliver, but also when, how, and, perhaps most importantly, why. For second and subsequent iterations of this phase, the main focus will be on determining whether previously identified needs have changed. This detailed understanding of user needs is the critical part of this sub-process.

2.1.3 Establish output objectives

This sub-process identifies the statistical outputs that are required to meet the user needs identified in the previous sub-process. It includes agreeing with users the suitability of the proposed outputs and their quality measures. In a new field of information, user needs can be determined by tracing and analysing existing publications in related fields. It is necessary to specify the user needs, because most users have a broad interest. This can be done by letting the potential user specify the frequency (daily, monthly), the quantity (one figure, large number), the depth (microdata) and the purpose (to report, to teach) of data use. Once a first indication of user needs being available, the statistician has to find out to what extent these needs can be satisfied by statistical information already available, either from resources within his own NSI, or from other data providers.

2.1.4 Identify concepts

This sub-process clarifies the required concepts to be measured by the business process from the point of view of the user. At this stage the concepts identified may not align with existing statistical standards. Defining the statistical output for a particular process is not an isolated activity exclusively based on an interpretation of user needs in the field of interest. We mentioned already that constraints with respect to data availability as well as considerations regarding response burden should be kept in mind. When the user needs are translated into a specification of the intended statistical output, contents are more essential than names. Therefore the choice of definitions should, in principle, precede the choice of vocabulary (e.g., variable names).

The choice of the variables (definitions and terminology) for which data are to be published is in the first place a matter of user needs. However, there are more aspects to take into account, such as coherence of concepts with existing publications as a general quality component. The choices made should as much as possible comply with international lists of concepts such as standard classifications.

The step from user needs to statistical output comprises the delineation of the target population (including the desired statistical unit type, e.g., businesses, enterprises or establishments, e.g., as defined by a legal authority or a statistical institute, and the desired coverage of the population), and comprises the identification of the variables for which data are to be produced.

In most cases several important user groups will exist with related but deviating needs on certain issues, such as individual users, users in the public domain, governmental users, local and national authorities, and commercial users. All of these different user groups should be managed properly in their needs, which may require creative solutions concerning the identified concepts and statistical disclosure control (see also the modules “Statistical Disclosure Control – Main Module” and

“Dissemination – Dissemination of Business Statistics”). In this sub-process it cannot be guaranteed that every user group is fully satisfied for cost reasons and for confidentiality reasons. The user needs should also be harmonised to accepted standards to ensure that outcomes can be compared with existing statistics.

The systematic overview of user needs leads to a detailed specification of the intended statistical output. However, after issuing the outcomes of a new survey, users will be inclined to reconsider their needs and priorities. Therefore, measuring user satisfaction as well as market research should be recurrent operations. Such monitoring is worthwhile not only to keep ahead with expanding user needs, but also to reconsider the usefulness of existing data output.

2.1.5 Check data availability

This sub-process checks whether current data sources can meet user requirements and the conditions under which they would be available, including any restrictions on their use. An assessment of possible alternatives normally includes research into potential administrative data sources and their methodologies, to determine whether they would be suitable for use for statistical purposes. When existing sources have been assessed, a strategy for filling any remaining gaps in the data requirement is prepared. This also includes a more general assessment of the legal framework in which data would be collected and used, and may therefore identify proposals for changes to existing legislation or the introduction of a new legal framework.

2.1.6 Preparation of a business case

The previous specification of user needs and available data sources and methodologies are input for a business case to get approval to implement the new statistical business process. Such a business case would typically include:

- a description of the “as-is” business process, if it already exists, with information on how the current statistics are produced, highlighting any inefficiencies and issues to be addressed;
- the proposed “to-be” solution, detailing how the statistical business process will be developed to produce the new or revised statistics;
- an assessment of costs and benefits, as more detailed data will be more expensive, and an assessment of any external constraints, such as statistical disclosure control considerations, as more detailed data are likely to create confidentiality problems. In this way both costs and statistical disclosure control counterbalance the identified user needs.

Eventually products are produced to meet the user needs. The products can take many forms, including printed publications, press releases and web sites. In this situation the user needs are monitored and reviewed regularly as they can be rather dynamic. In particular after issuing the outcomes of new statistics, users will be inclined to reconsider their needs and priorities. Therefore, measuring user satisfaction should be a recurrent operation. Such monitoring is not only worthwhile to keep ahead with expanding user needs, but also to reconsider the usefulness of existing data collection. Balancing effort and returns is then an ongoing concern. The fact that a certain data item is published is not a justification towards users that become ever more critical. See also the module “Evaluation – Evaluation of Business Statistics”.

2.2 *Examples of the specification of user needs in Business Statistics*

Two examples of the identification of user needs can be found in the following literature.

1. Danish experiences are described in How to fulfil user needs (Thygesen and Nielsen, 2012). The paper recognises uncovered needs and gives end-users assistance when they use statistics or wish to find relevant statistics. The quality and metadata are implemented with the aim to support processes at statistical organisations that handle administrative data as generic fulfilment of user needs, since user needs can to a certain extent be fulfilled dynamically by combining data from different sources. The paper contains in-depth studies and schemes based on the Danish experience.
2. Another example is the Nordic project of recognition of user needs concerning business statistics, described in Mapping user needs (Jørgensen, 2010). A characteristic feature of this paper is a perception of a user as a stakeholder or co-producer (co-developer). An important question in this context is the measurement and evaluation of user needs. One measure is the user satisfaction index. The Eurostat Handbook on Data Quality Assessment Methods and Tools (Eurostat, 2007) shows how it can be used in practice. A formal definition of the user satisfaction index can be found in the Guidelines for the implementation of a data quality framework for the UNCCD process (Committee for the Review of the Implementation, 2013).

3. Design issues

A specification of the user needs in terms of output tables, and a listing of the available data sources and required methods, provides essential input for the design for business statistics. If the user needs or the available data sources are not clear, the requirements for the process are also unclear. So the specification of user needs is an indispensable preparatory phase before design can start. The six sub-processes described in the previous section explain this activity in more detail.

4. Available software tools

5. Decision tree of methods

Descriptions of methods to monitor and review user needs can be provided in method modules, but at the moment they are not yet planned.

6. Glossary

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

7. References

Committee for the Review of the Implementation of the Convention (2013), Guidelines for the implementation of a data quality framework for the UNCCD process. Bonn.

Eurostat (2007), *Handbook on Data Quality Assessment Methods and Tools*.

Eurostat (2011), *European Statistics Code of Practice for the National and Community Statistical Authorities*. Luxembourg.

Eurostat (2012), Quality Assurance Framework of the European Statistical System (ESS QAF), version 1.1. Deliverable of the Eurostat working group on Quality in Statistics.

Jørgensen, L. L. (2010), *Mapping user needs, Nordic project 'Measuring innovation in the public sector in the Nordic countries: Toward a common statistical approach' ("Copenhagen Manual")*, DAMVAD.

Thygesen, L. and Nielsen, M. G. (2012), How to fulfil user needs – metadata, administrative data and processes. European Conference on Quality in Official Statistics (Q2012), Athens, Greece.

UNECE (2009), Generic Statistical Business Process Model. Version 4.0 – April 2009 (prepared by the UNECE Secretariat). Joint UNECE/Eurostat/OECD Work Session on Statistical Metadata (METIS).

Interconnections with other modules

8. Related themes described in other modules

1. General Observations – GSBPM: Generic Statistical Business Process Model
2. Overall Design – Overall Design
3. Statistical Disclosure Control – Main Module
4. Dissemination – Dissemination of Business Statistics
5. Evaluation – Evaluation of Business Statistics

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. Phase 1: Specify Needs

12. Tools explicitly referred to in this module

1.

13. Process steps explicitly referred to in this module

1.

Administrative section

14. Module code

User Needs-T-Specification of User Needs

15. Version history

Version	Date	Description of changes	Author	Institute
0.1	14-02-2013	first version	Rob van de Laar	CBS (Netherlands)
0.2	27-03-2013	updated version after review NL	Rob van de Laar	CBS (Netherlands)
0.3	12-11-2013	updated version after review PL	Rob van de Laar	CBS (Netherlands)
0.4	14-03-2014	updated version after review EB	Rob van de Laar	CBS (Netherlands)
0.4.1	14-03-2014	preliminary release		
1.0	26-03-2014	final version within the Memobust project		

16. Template version and print date

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