

QUALITY – AN IMPORTANT “BRICK” IN THE NATIONAL STATISTICAL SYSTEM IN THE REPUBLIC OF NORTH MACEDONIA

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Abstract

The State Statistical Office of the Republic of North Macedonia in the past years worked on establishing a framework for quality management and significant progress was done in this field. However, to be recognised as a producer and coordinator of official statistics, it is of crucial importance to ensure that quality is recognised in other producers of official statistics. The starting process was checking the compatibility of their production with Eurostat's Guidance note concerning Other National Authorities (ONAs) in the process of adoption of the Five-Year Programme of Statistical Surveys.

Within the IPA 2019 Project on Quality Management, the SSO has started the work on communication of quality to ONAs and production of first quality reports in ESMS format.

Quality reports were selected as a starting point for quality work with ONAs, because these reports are milestones for assessing the statistics produced in the national statistical system. In addition, quality is seen as a very important mark for differentiation of reliable statistics from “fast” statistics available now in the digital society.

The work done within this Project showed us that we must work more intensively on developing a quality framework in ONAs in the preparations for the next round of the Peer Review of official statistics in the Republic of North Macedonia.

Keywords: quality management, coordination of the statistical system, Other National Authorities, ESMS quality reports, quality indicators

1. Introduction

The information society has re-defined the role of statistics in the society. Users need statistical data to be available shortly after the end of the reference period, and they want all national statistics to be available in one place.

The national statistical offices (NSIs) as main producers of data are facing with a constant decrease of resources (both human and financial). To solve these challenges, national statistical offices must develop new forms of partnership with all participants in the national statistical system.

The importance of the existence of a comprehensive and modern statistical system of a country was recognised by Eurostat, who in the new version of the Code of Practice has introduced principle 1b, assigned to co-ordination of the national statistical system. The main idea behind this principle is strengthening the “coordination role”, which is seen as the set of activities of a single organisation which ensure that the activities of different members of the system meet the relevant quality standards. For NSIs, the coordination role ensures that all other national authorities within their national statistical system, especially those which contribute to the development, production, and dissemination of European statistics, comply with the standards of the ESS and fulfil the quality requirements for European statistics.

2. Legal and organisational framework of the national statistical system

The Law on State Statistics is the main legal document which defines the role of the State Statistical Office (SSO) and other national authorities. The statistical system in the Republic of North Macedonia is centralised in which the State Statistical Office is assigned as co-ordinator of the national statistical system. The number and responsibilities of ONAs are defined in the Five-Year Statistical Programme. In accordance with the Five-Year Statistical Programme, 2023-2027, national statistics are produced by the State Statistical Office and other national authorities: National Bank of the Republic of North Macedonia, Ministry of Finance, Institute of Public Health, Employment Agency, Ministry of Justice and Ministry of Interior.

3. Quality management system in ONAs

To ensure the production of quality and reliable statistics in the national statistical system, it is necessary to “scan” how quality is recognised by other national authorities.

For that reason, the State Statistical Office designed a questionnaire about the level of knowledge and application of the principles of the European Statistics Code of Practice, as well as information about documenting quality by ONAs. The data were collected in the period from 10 to 23 March 2022 with a 100% response rate. The questionnaire was designed in a format compatible for self-assessment, following the structure of the ES Code of Practice. Also, the questionnaire was first tested by SSO experts to improve and optimise its structure and contents.

Based on received suggestions, the questionnaire was re-drafted, and it was decided to assess quality by the following characteristics, shown in Table 1.

Table 1: Assessment of quality

Quality criteria	Characteristics
Relevance	Knowledge about users of statistics
Accessibility and clarity	Availability of information about user needs; Access to data for different user groups; Dissemination media; Availability of methodological information.
Timeliness and punctuality	Availability of a Release Calendar
Comparability	Documentation about comparability of data in the relevant time period
Accuracy	Practice applied for measuring data accuracy

The results of the survey are explained below.

Relevance

All ONAs have information about the users of statistics, produced by them.

Accessibility and clarity

The ONAs have not developed a model for systematic monitoring and documenting needs for statistical data by users. The most used form of communication are meetings with users and only one institution has conducted two User Surveys. Websites are used as a channel for collecting information about users, and only one institution has conducted a Survey for assessment of its overall work by users.

The rule for ensuring simultaneous access to statistical data for all user groups is respected by all participants in the statistical system. Special access to data for the Government is ensured by 50% of institutions, and only one institution provides this access through Open Data. Also, one institution gives access to data for media following a legal solution for free access to information of public interest.

The main channel for data dissemination is the websites for all ONAs, and only two institutions have a special section on their websites dedicated to statistics. The data source is published

together with the data by 50% of ONAs. The rest of the institutions consider this question is exhausted with the fact that they work in accordance with the relevant legal acts.

Timeliness and punctuality

Timeliness and punctuality are assessed with the existence of an Advance Release Calendar and the application of the procedures for its monitoring. An Advance Release Calendar is available at 50% of the surveyed institutions, of which only one institution reported that their Calendar is not publicly available.

Comparability

All participants in the Survey publish time series with data as their updating. Only two institutions are marking data revisions with footnotes.

Accuracy

Ignorance and the nonexistence of a practice for monitoring and quantifying the indicators for accuracy is a common characteristic for all participants in the statistical system. Two institutions consider that accuracy is measured by the existence of a procedure for verification and validation of data, as well as data cross-checking.

General self-assessment of quality management

In addition to the quality assessment, the SSO has collected information about quality management in the institution. This refers to the existence of a Quality Policy at an institutional level, as well as a Quality Policy for statistics. Only three institutions have adopted a Quality Policy at the institutional level, and no institution has adopted a Quality Policy for statistics.

Concerning quality documentation, the compilation of quality reports was not seen as part of the regular statistical production.

The results from the survey confirmed the belief that other authorities in the national statistical system have insufficient knowledge about quality in statistics and the Code of Practice.

To improve this situation, the SSO has implemented several activities, which were supported by IPA 2017 MBP and IPA 2019 MBP Projects on Quality Management.

4. Guide for quality assurance of the Macedonian statistical system (or Code of Practice for the Macedonian statistical system)

The State Statistical Office has informed ONAs in the past about the content and importance of the ES Code of Practice (CoP) for producing official statistics.

However, there were no efforts done to make the CoP closer to them. Following the structure and content of the CoP, a Guide for quality assurance of the Macedonian statistical system was developed. The main objective of the Guide is to support and standardise the production of high-quality statistical data at all stakeholders in the Macedonian statistical system. The Guide was developed following the structure of the European Statistics Code of Practice (ES CoP), and the directions follow the 15 principles and 82 indicators of the ES CoP and are organised as:

1. Institutional environment (covering the principles: Professional independence, Mandate for data collection and access to data, Adequacy of resources, Commitment to quality, Statistical confidentiality and data protection, Impartiality and objectivity).
2. Statistical processes (covering the principles: Sound methodology, Appropriate statistical procedures, Non-excessive burden on respondents, Cost effectiveness).
3. Statistical output (covering the principles: Relevance, Accuracy and reliability, Timeliness and punctuality, Coherence and comparability, Accessibility and clarity).

Each direction is further defined with several criteria, needed to achieve full compliance with the Code of Practice.

5. Training for quality related issues

Quality reporting is a tool used to assess the quality of statistical processes and outputs. The State Statistical Office is the only institution in the Macedonian statistical system that produces quality reports in SIMS format, publishes them on its website and sends them to Eurostat via the ESS Metadata Handler. To change this situation, the SSO organised a three-day training for representatives from ONAs about: introducing quality in general, quality reporting in SIMS format and producing first ESMS reports for statistical surveys under the competence of the ONAs. The representatives from the ONAs expressed their interest in quality issues, and at the end of this training first ESMS reports were produced and published on SSO's website: https://www.stat.gov.mk/Esmslzvestai_en.aspx#blNadv.

During the training, the participants expressed their interest to get information about the compilation of different quality indicators.

Following this request, as well as the lack of knowledge about the compilation of quality indicators in the SSO, under the IPA 2019 MBP Project on Quality, the SSO organised a training course for compilation of different quality indicators for SSO staff and colleagues from the ONAs. The training was given by a GOPA expert and well received by participants.

However, all participants in the training pointed that regular compilation of quality indicators means a significant workload for the subject matter statisticians both in the SSO and in the ONAs. It is therefore essential to make the implementation process as smooth as possible. The SSO is developing a mode how to make the quality reporting easier. The first step is developing an e-library including relevant literature for compilation and interpretation of quality indicators. The second step is finding a solution how to standardise the compilation of some specific indicators. The idea behind this standardisation is to develop an IT solution for compilation of specific indicators through a database with input data. This model should be developed in the SSO and after that to see how to adapt it to the specific situation in the ONAs.

The other topic for which training is needed is the Generic Statistical Business Process Model (GSBPM). Based on the GSBPM, the SSO has developed a Statistical Business Process Model (SBPM), which was used in the development of the Five-Year Programme of Statistical Surveys. The descriptive version of the SBPM was presented to representatives from the ONAs. Under Eurostat's Quality Working Group, a one-day webinar for GSBPM will be organised, where the representatives from the ONAs are also invited.

6. Conclusions

The activities undertaken up to now have been an important step to further develop a systematic data quality management in Macedonian official statistics. In this sense, the developed Guide for quality assurance of the Macedonian statistical system will be discussed between SSO and ONAs representatives to achieve its implementation.

The first training events on quality proved their worth for a systematic evaluation of quality management activities. They will contribute to further development and improvement of quality assurance in all steps of the production process. In this sense, communication and training are central when promoting the use of the principles and rolling out the assessment to a wide range of statistics.

The next step of the stocktaking for all national statistics will start with the preparation for the forthcoming assessment of the national statistical system under third round of Peer Review.

References

Law on State Statistics, https://www.stat.gov.mk/ZakonZaStatistika_en.aspx

Five-Year Statistical Programme, 2023-2027, https://www.stat.gov.mk/ZaNas_en.aspx?id=8

Internal Report from Quality survey in ONAs

ES Code of Practice, <https://ec.europa.eu/eurostat/web/quality/european-quality-standards/european-statistics-code-of-practice>.

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