Quality Report for Distributive Trade Statistics, 2018

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1   INTRODUCTION TO THE STATISTICAL PROCESS AND PRODUCT

1.1 Purpose of the survey

The purpose of this statistical survey is to obtain timely data on trends of turnover indices in distributive trade, i.e. to measure the dynamics of realised turnover (income from sale of goods/services).

One of the main aims of the calculation of turnover indices of distributive trade is to present changes in the level of realised turnover in the trade section. Turnover index of distributive trade is a short-term indicator used in national accounts statistics and for the needs of external users.

Index of distributive trade is calculated quarterly, on a regular basis.

1.2 Legal basis and responsibility of statistical institutions

Statistical activities in the field of distributive trade are carried out in accordance with the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska", No 85/03), the Statistical Programme of Republika Srpska for the period 2018-2021 and the current annual Work Plan of the Republika Srpska Institute of Statistics.

1.3 Relevant classifications

Since January 2013, statistical data in the field of distributive trade are monitored, processed and presented in accordance with the Classification of Economic Activities KDBiH 2010, which in its content and structure fully complies with the EU Statistical Classification of Economic Activities NACE Rev 2.

1.4 Reporting unit

Reporting units for the collection of distributive trade data are business entities registered in the divisions of trade, as well as business entities classified into other activities, but performing trade activities in Republika Srpska, which were selected into the coverage.

1.5 Statistical observation unit

Observation units most often correspond to reporting units, except when the principal activity is not trade; in that case, the observation unit is not the entire business entity, but its part which refers to trade only.

1.6 Scope and coverage

The survey is sample-based. The sample frame is defined using the Statistical Business Register – SBR. The survey covers all large and medium enterprises whose turnover in trade exceeds 4,000,000.00 KM and sampled small enterprises. The sample does not cover enterprises whose turnover is below 100,000 KM per year. The entire set is assessed on the basis of sample-based results.

The number of units in the frame is 2,571.

There are 794 units in the sample and 24 units for which principal activity of the business entity is not trade, but which do achieve significant turnover from trade activity and which were selected in the coverage.

1.7 Statistical concepts and definitions

Trade is a set of activities of sale of goods and/or provision of services to achieve profit or another socioeconomic goal.

Distributive trade includes all forms of trade activities, from the purchase of goods from manufacturers, intermediation, resale, to the delivery of goods to final consumers on the domestic market. It covers wholesale trade for own account, intermediation in wholesale trade, retail trade and repair of motor vehicles and motorcycles, and trade of personal and household goods.

Wholesale trade is the activity of purchase or resale of goods to industrial, commercial or professional users and institutions and other business entities engaged in wholesale or retail trade. It also includes transit turnover of goods (sale of goods that are by the seller's order delivered directly to the purchaser, without being previously stored by the seller).

Intermediation in wholesale trade refers to the performance of wholesale trade activities for a fee or on a contract basis. It includes sale from consignment warehouses, commissioners/agents' services, sale through intermediaries for trading goods and other wholesalers operating on behalf of others. It also covers activities of entities engaged in connecting sellers with customers and of those that undertake trade transactions on behalf of the owner of the goods.

Retail trade includes sale of goods to final consumers, i.e. to the population (for personal consumption or for household use).

Turnover is total invoiced amount calculated by an enterprise/reporting unit for goods sold to third persons or services performed during the reference period, which corresponds to the market value of these goods and services.

Main definitions are available to reporting units in the form K KPS TRG-2.

2   RELEVANCE, ASSESSMENT OF USERS' NEEDS AND PERCEPTIONS

2.1 Users of statistical survey data

2.1.1 Key users of statistical survey data

Data on turnover in distributive trade at the Republika Srpska level are submitted to the Agency for Statistics of Bosnia and Herzegovina, as the institution responsible for the aggregation of data to the BiH level and for reporting to the Statistical Office of the European Union, Eurostat.

Key users of data on turnover are:

• public sector: Government and other public administration institutions, such as the RS Ministry of Finance, municipal administrations, and other institutions at the state level, Directorate for Economic Planning;
• business entities: enterprises, lawyers and bar associations, RS Chamber of Commerce;
• science, research and education: institutes, educational institutions, students;
• general public: natural persons;
• the media: broadcasters, news agencies;
• international users: EUROSTAT, WB, IMF, foreign embassies;
• internal users: National Accounts Division.

2.1.2 Assessment of users' needs

The survey on distributive trade provides quarterly data on turnover by group of economic activities and total turnover at the Republika Srpska level, as well as quarterly change rates calculated from seasonally adjusted indices and annual change rates calculated from working-day adjusted indices. The published data largely meet the needs of users, who use these data for the purpose of monitoring economic trends, making business plans, market development and testing, developing studies and analyses, etc.

2.1.3 Measuring users' perceptions and user satisfaction

In 2017, the Republika Srpska Institute of Statistics conducted the User Satisfaction Survey and the results are available on the official website of the Institute. There is no specific measurement of user satisfaction related to the survey on distributive trade.

2.2 Data completeness

2.2.1 Quality and performance indicator – Data completeness – rate (R1)

Since the definitions of main STS variables and applied methodologies comply with Eurostat's requirements in the field of short-term statistics, the data are comparable with the data provided by the EU member states.

Quarterly variables of distributive trade required by the STS regulation are the turnover variable (120), number of persons employed (210) and wages and salaries (230).

The rate of available statistics is the ratio of available statistics to statistics required. The rate of available statistics is 33.3% [(1/3x100)].

3   ACCURACY AND RELIABILITY

3.1 Sampling error

3.1.1 Quality and performance indicator – Sampling error (A1)

A combined method of full coverage and stratified random sample is used for the implementation of survey on distributive trade. Since unknown parametres of the entire target population are estimated using only a part of it (selected sample), it is impossible to avoid errors that occur in this regard. The design and size of the sample, as the most significant factors that define the size of sampling error, are controlled by statisticians, in order to reduce the sampling error to the lowest level possible, in accordance with the resources available for the survey implementation.

Taking into account all samples which can theoretically be selected from the framework, different samples will result in different estimates of parametres of the target population. In order to avoid incorrect interpretation of estimated parametres, it is necessary to have a quantified measure of the variability of estimates from all possible theoretical samples. Variance represents the measure of such variability in this survey.

Table 1. CV% for estimates of quarterly turnover totals in distributive trade

KD BIH 2010 group	First quarter, 2018	Second quarter, 2018	Third quarter, 2018	Fourth quarter, 2018
451	9.3	7.8	9.7	12.3
452	8.2	6.7	6.6	20.2
453	4.9	5.7	3.7	3.8
454	0.0	0.0	0.0	0.0
461	7.8	13.2	10.6	8.6
462	5.2	7.7	7.0	6.6
463	1.6	2.3	2.3	2.2
464	2.5	2.5	2.4	2.8
465	11.9	10.1	13.3	10.6
466	6.2	4.4	3.7	3.9
467	2.5	2.8	2.5	3.2
469	4.2	2.9	4.8	4.6
471	1.0	1.4	1.0	0.8
472	1.8	2.2	2.9	2.1
473	1.3	1.8	1.9	2.1
474	0.0	0.0	0.0	0.0
475	3.4	5.5	6.3	6.8
476	0.0	0.0	0.0	0.0
477	8.5	8.0	8.2	8.4
479	0.0	0.0	0.0	0.0

Parametres of the target population are estimated using the method of ratio estimation, using data on total turnover available in the sample frame for all enterprises as auxiliary information.

3.1.2 Activities to reduce sampling errors

Coefficients of variation are analysed periodically and the design and size of the sample are modified.

3.2 Non-sampling errors

3.2.1 Non-sampling errors – Coverage errors

3.2.1.1 Quality and performance indicator – Over-coverage rate (A2)

The sample for the quarterly survey on distributive trade is designed at the beginning of the year. If an enterprise ceases its operations during the year, it is not replaced by another enterprise. If an enterprise changes its activity, the activity is not changed in the survey. Enterprises that ceased their operations are not included in the data processing.

Table 2. Over-coverage rate, 2018

	First quarter	Second quarter	Third quarter	Fourth quarter	Annual average
Number of units in the sample frame/address book	818	818	818	818	818
Number of irrelevant units in the sample frame/address book	26	26	29	30	28
Over-coverage rate (%)	3.2%	3.2%	3.5%	3.7%	3.4%

3.2.1.2 Quality and performance indicator– Common units – proportion (A3)

The survey on distributive trade does not use units from multiple sources, but only business entities and their units selected in the quarterly coverage.

3.2.1.3 Undercoverage error

Given that the coverage for the Quarterly report of distributive trade is not modified in the period between January and December, business entities that start operating during the observation year are not covered by the survey.

3.2.1.4 Measures to reduce coverage errors

Measures taken to reduce coverage errors include the timely and regular updating of the address book of observation units based on the Register of Business Entities and the inclusion of entrepreneurs in the coverage.

3.2.2 Non-sampling errors – Measurement errors

3.2.2.1 Reasons behind measurement errors

The most common reasons behind measurement errors are:

• Misunderstanding of methodology by reporting units;
• Random errors made when entering data into the form;
• Lack of interest of the reporting unit;
• Reporting units are burdened with their own affairs;
• The form is not always completed by the same person.

3.2.2.2 Measures to reduce the number of measurement errors

The person in charge of methodological support in this survey eliminates errors. In the event of a measurement error, depending on the type of error, it is either corrected by the methodologist based on other data in the questionnaire and data from the previous period, or the reporting unit is contacted in order to correct the detected error for the observation unit. In the event of a systemic error, the correction is made in cooperation with the reporting unit, using data from previous quarters.

The most important tools for reducing the occurrence of errors when completing the form are instructions delivered to the reporting units on the form. These instructions describe in detail how the form should be completed. Contacts between the methodologist and reporting units are also of great importance in terms of directly interpreting methodological explanations and pointing out the most common errors that occur when completing the form.

3.2.3 Non-sampling errors – Non-response errors

3.2.3.1 Quality and performance indicator – Unit non-response rate (A4)

Non-response covers all observation units for which no data were collected, regardless of the reason for non-response.

Table 3. Non-response rate, 2017

	First quarter	Second quarter	Third quarter	Fourth quarter	Annual average
Number of reporting units	818	818	818	818	818
Number of non-response cases	42	44	48	49	46
Non-response rate (%)	5.1%	5.4%	5.9%	6.0%	5.6%

3.2.3.2 Quality and performance indicator – Item non-response rate (A5)

The item non-response rate is usually equal to the unit non-response rate.

3.2.3.3 Procedures in the event of non-response

As the response rate is high (94.38%), data are not imputed from other sources. All significant reporting units, in terms of their turnover size, submit reports. Non-response consists mainly of small reporting units.

3.2.3.4 Procedures to reduce non-response rates

The following procedures are most often used to reduce the non-response rate:

• Multiple contacts with the reporting unit (in the event of unavailability);
• Flexible deadlines for the submission of reports (possibility of advancing the deadlines of data submission);
• Combining several different methods of data collection (telephone, urging);
• More precise methodological explanations, which refer to certain, question (variable),
• Providing the reporting unit with the name and telephone number of the contact person available for any questions.

3.2.4 Revision

3.2.4.1 Quality and performance indicator – Data revision – average size (A6)

Revision was not planned nor implemented.

3.2.5 Imputation

3.2.5.1 Quality and performance indicator – Imputation – rate (A7)

The rate of imputed data in 2018 (the number of enterprises in non-response)

Table 4. The rate of imputed observation units

Name	First quarter	Second quarter	Third quarter	Fourth quarter	Annual average
Number of units for which the value of **Y** variable was imputed	17	18	18	19	18
Number of units for which the value of **Y** variable remained unchanged	801	800	800	799	800
Rate of imputed data (%)	2.1	2.3	2.2	2.4	2.3

4   TIMELINESS AND PUNCTUALITY

4.1 Timeliness of publication

The timeliness of data publication represents the time lag between the observation period the data refer to and the date of publication.

4.1.1 Quality and performance indicator – _Time lag – first results (TP1)_

Quarterly data on distributive trade are released as final survey data only. Thus, the TP1 indicator is not calculated.

4.1.2 Quality and performance indicator – Time lag – final results (TP2)

The timeliness of final results (annual average) is T+55.8.

Table 5. Timeliness of publication of quarterly data on turnover

	First quarter	Second quarter	Third quarter	Fourth quarter	Average
Date of final data publication	24.05	24.08	26.11	25.02	/
Time lag (number of days)	T+55	T+55	T+57	T+56	T + 55.8

4.2 Punctuality of publication

The punctuality of data publication represents the time lag between the actual release date of data and the target date for release, as announced in the Release Calendar.

4.2.1 Quality and performance indicator – _Punctuality – delivery and publication (TP3)_

The indicator is calculated and presented in two ways – from the aspect of application for producers of statistics and for users of statistics.

Indicator for producers of statistics

The punctuality of publication (annual average) is T+0.

Table 6. Punctuality of publication of quarterly data on turnover

	First quarter	Second quarter	Third quarter	Fourth quarter	Average
Target date for release (as announced in the Release Calendar)	24.05	24.08	26.11	25.02	/
Release date	24.05	24.08	26.11	25.02	/
Time lag (number of days)	T+0	T+0	T+0	T+0	T +0

Indicator for users of statistics:

The punctuality rate of publication of data on turnover is 100%.

4.3 Reasons for major delays and measures to improve timeliness and punctuality

Results for all four quarters are published in a timely manner, as announced in the Release Calendar.

5   COHERENCE AND COMPARABILITY

5.1 Coherence

5.1.1 Quality and performance indicator – *Coherence between different data sources (CH1)*

The reference survey is the quarterly survey on turnover of goods, which is a sample-based survey. At the end of the year, the data are compared with balance sheet data. The difference between the distributive trade data and the balance sheet data for 2018 was approximately 2.8%.

5.1.2 Reasons for major discrepancies

There were no major discrepancies.

5.2 Comparability

5.2.1 Quality and performance indicator – *Asymmetry for mirror flows statistics (CC1)*

The calculation of this indicator is not applicable in Distributive trade statistics.

5.2.2 Quality and performance indicator – *Length of comparable time series (CC2)*

Quarterly data on turnover in distributive trade have been available since 1997. A comparable series of data by group of the Classification of Economic Activities KD BiH 2010 has been available since 2005, therefore

$CC2_1$ = December 2004 - January 1997 = 32 quarters
$CC2_2$ = December 2018 - January 2005 = 56 quarters

5.2.3 Breaks in time series

There have been no breaks in the series at the Republika Srpska level since the beginning of data collection. In previous years, the data were being collected on the basis of full coverage, while since 2013 the data collection has been sample-based.

The new Classification of Economic Activities (KD BiH 2010) has been applied since 2013. Because of the need to compare time series by section of the Classification of Economic Activities, the data were backcast to 2005.

5.3   Geographical comparability

5.3.1 Comparability with the European Statistical System members

Since the definitions of main STS variables and applied methodologies comply with Eurostat's requirements in the field of quarterly business statistics, the data are comparable with the data provided by the EU member states.

6   ACCESSIBILITY AND CLARITY, DISSEMINATION FORMATS

6.1 Releases in which data are published

Data on distributive trade are published at the Institute's website www.rzs.rs.ba in the quarterly release "Short-term indicators of distributive trade and other services". The release provides gross (non-adjusted) indices, quarterly change rates calculated from seasonally adjusted indices and annual change rates calculated from working-day adjusted indices, by division of the Classification of Economic Activities.

6.2 Publications in which data are published

Distributive trade data are published in the following publications:

• Release – final results;
• Statistical Yearbook – final results;
• This is Republika Srpska – final results.

6.3 Online database

Online database on distributive trade is not available to users.

6.4 Access to microdata

Microdata are not available.

6.5 Accessibility of methodological documents

The Institute's official website, in the part referring to distributive trade statistics, provides basic concepts and definitions and the Methodology for this survey.

In addition, the data are available in printed and online publications – in the Statistical Yearbook, releases, etc.

6.6 Measures to improve clarity of disseminated results

The data are presented clearly.

6.7 Quality and performance indicator – Data tables - consultations (AC1)

There is no procedure for recording the number of accesses to datasets on distributive trade.

6.8 Quality and performance indicator – Metadata - consultations (AC2)

There is no procedure for recording the number of accesses to sets of metadata on distributive trade.

6.9 Quality and performance indicator – Metadata completeness - rate (AC3)

The metadata completeness rate (ESMS v.2.0) for Distributive trade statistics is 98.3% (59/60x100).

7   SURVEY COSTS AND BURDEN ON RESPONDENTS

7.1 Costs of survey implementation

No data are available on the costs of the Republika Srpska Institute of Statistics for the implementation of statistical activities within the scope of Distributive trade statistics.

7.2 Burden on respondents

No data are available on costs and burden on reporting units.

7.3 Measures to reduce costs and burden

Measures to be taken to reduce costs and burden on reporting units are:

• Use of administrative data sources;
• Promoting the use of the electronic questionnaire.

8   CONFIDENTIALITY

8.1 Confidentiality - policy

Data collected for the purposes of Distributive trade statistics are subject to the legal framework of confidentiality and are used for statistical purposes only.
The confidentiality of data and protection of personal data are regulated by the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska, No. 85/03) and the Rulebook on protection of confidential data of the Republika Srpska Institute of Statistics. The confidentiality of statistical data is also ensured by the Law on protection of personal data ("Official Gazette of BiH", No. 49/06).

8.2 Confidentiality – data handling

The confidentiality of data and protection of personal data are guaranteed by Articles 25 and 29 of the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska", No. 85/03). The Institute informs all reporting units that the collected data will be used for statistical purposes only and that confidential data will remain confidential in accordance with this Law.

Collected, processed and stored data are considered confidential if reporting units can be directly or indirectly identified using these data, thereby disclosing individual data.

Statistical data must not be given to users if they contain or disclose confidential data. Confidential data are the data referring to a reporting unit or a group that consists of at least three reporting units, when a share of one of the units in the group exceeds 85%.

In the collection, processing and delivery of data, the Institute and authorised bodies and organisations undertake all organisational, regulatory, administrative and technical measures necessary to protect data confidentiality and to prevent unauthorized access, publication and use of data.

Persons who, while carrying out their duties, may have access to confidential data, must act in accordance with the provisions of this Law even after they cease to perform their functions.

9   STATISTICAL PROCESSING

9.1 Source of data

The source of data for the quarterly survey on distributive trade (K KPS TRG-2) are business entities which are, based on their principal economic activity, registered as business entities performing activities from the section G of the KD BiH 2010, as well as business entities classified into other activities which nevertheless perform the trade activity in Republika Srpska and which are selected in the coverage.

The survey is sample-based. The Statistical Business Register (SBR) is used to determine the sample frame.

The survey covers all large and medium enterprises whose turnover in trade exceeds 4,000,000.00 KM and sampled small enterprises. The sample does not cover enterprises whose turnover is below 100,000 KM per year. The entire set is assessed on the basis of sample-based results.

There are 818 observation units in the sample.

9.2 Frequency of data collection

Data on turnover are collected and published quarterly.

9.3 Data collection

Quarterly data on turnover are collected using the paper-based questionnaire K KPS TRG-2, from sampled business entities. Reporting units submit two copies of completed reports, within 15 days after the end of the reference quarter (T+15), to the addresses of the regional offices of the Institute. After logical control, no later than 15 days after receiving the report, regional offices submit the reports to the Republika Srpska Institute of Statistics, for further processing.

9.4 Data validation

Data entry and processing for turnover statistics are organised at the headquarters of the Republika Srpska Institute of Statistics.

All submitted reports are recorded at the Institute's headquarters, upon which the data on turnover, number of persons employed, number of hours worked, gross wages and salaries, stocks and time required to complete the questionnaire are completed with the values from the previous quarter. Each unexpected major discrepancy or missing data are checked and verified by means of telephone contacts with the reporting unit. The application used for data entry contains controls that indicate that computationally and logically incorrect data were entered into the database.

9.5 Data compilation

In the event of non-response for an entire report or for individual questions, as well as in the event of discrepancies and errors which cannot be corrected through repeated contacts with the reporting unit, the data are estimated based on available data for the observation unit from the previous quarter.

9.6 Adjustments

Since the definitions of main STS variables and applied methodologies comply with Eurostat's requirements in the field of quarterly business indicators, the data are comparable with the data provided by the EU member states.

Working-day and seasonal adjustments are performed using the indirect method in the Demetra application (version 2.2.2), TRAMO SEATS method, on gross quarterly data series from 2005, all in accordance with the guidelines of the European Statistical System.

9.6.1 Seasonal adjustment

In 2013, distributive trade data for previous years were revised and backcast. Thus, a multi-annual series of indices in the field of distributive trade was created, allowing for the presentation of three forms of indices: gross (non-adjusted), working-adjusted and seasonally adjusted. Effects of various calendar days were removed from working-day adjusted series, while both effects of various calendar days and seasonal effects were removed from seasonally adjusted series. Working-day and seasonal adjustments were performed in the Demetra application (version 2.2.2), TRAMO SEATS method, on gross quarterly data series. Due to the properties of the adjustment method applied, the addition of new observations may result in certain changes to the previously published series of seasonally and working-day adjusted indices.