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ELECTRONIC REPORTING IN POLAND

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Introduction

The purpose of this paper is to present the advantages gained from the introduction of new method of data collection following the example of electronic BS questionnaire *Report on turnover of business services* which is used as a tool of the survey *Evaluation of business services related activities*. The designation of BS questionnaire as the main actor of this paper resulted from the fact that it collects data on turnover by product for business services activities which are significant element of methodology when compiling the index of services production.

In Poland 2009 was the groundbreaking year for official statistics as it was the first reference period for data collection by means of electronic questionnaires. The system of data collection changed and passed from paper reporting to electronic reporting. Nowadays, most of data have been collected electronically via Internet. Each respondent has its own account at the reporting portal and can fill in questionnaires in on-line version. The paper version of questionnaires is very rarely used and is acceptable only in case of enterprises with the number of persons employed 5 and less or in other very special situations.

Moreover, in 2009 the process of data production was reorganized. In Poland the system of official statistics consists of the Central Statistical Office and 16 regional statistical offices located in capital cities of voivodships. Till 2009 the regional offices were responsible for processing data collected from respondents resided in their voivodship. In 2009 the specialization of regional offices took a place. Nowadays, each regional office cooperates with the CSO in the scope of selected surveys and is in charge of processing data collected within those surveys from entities from all over the country. It has to be in mind that the changes introduced in the distribution of duties between the CSO and regional offices effect the whole process of data production and may also distort profits gained from the introduction of electronic reporting.

Description of the survey

The survey *Evaluation of business services related activities* aims at compiling annual information on the value and the structure of turnover with the breakdown into product and residence of client. The methodology of survey was elaborated within the works of Eurostat's Working Group on Services Statistics. The action undertaken by working group wrote in overall concept of compiling the index of services production which recommends the usage of data on turnover at the product level. Moreover, data should also be used as the weights for services producer price indices.

The survey was launched by official statistics in 2010 with the first reference year 2009. It has been conducting in order to meet the requirements of Regulation (EC, EURATOM) No 58/97 of the Council of 20 December 1996 as well as the Regulation (EC) No 295/2008 of the European Parliament and of the Council of 11 March 2008 concerning structural business statistics.

The BS questionnaire *Report on turnover of business services* consists of three parts. At first respondent reports some identification information, such name and place of residence, number of National Official Business Register REGON, symbol of Polish Activity Classification (PKD) as well as some contact information, which enable to identify the respondent and to direct them to the third part. The second part collects data on turnover by residence of client. The responding units report data on the percentage of turnover generated by sale to clients with their residence in country, in countries of the European Union and in countries outside the European Union. Two firsts parts of questionnaire are common for all business services related activities while the third one specifies different products regarding the type of activity by PKD (Polish Classification of Activities). Respondents are asked to give information on the total value of turnover as well as the value of turnover from the sale of individual products.

Population Coverage

The survey comprises all operating enterprises with the number of persons employed 10 and more which run the following business services related activities:

- IT activities: software publishing (58.2 by NACE Rev.2), computer programming, consultancy and related activities (62 by NACE Rev.2), information service activities (63 by NACE Rev.2)
- legal activities (69.1 by NACE Rev.2)

- accounting, bookkeeping and auditing activities; tax consultancy book-keeping and auditing activities (69.2 by NACE Rev.2)
- management consultancy activities (70.2 by NACE Rev.2)
- architectural and engineering activities and related technical consultancy (71.1 by NACE Rev.2)
- technical testing and analysis activities (71.2 by NACE Rev.2)
- advertising (73.1 by NACE Rev.2)
- market research and official opinion polling (73.2 by NACE Rev.2)
- employment activities (78 by NACE Rev.2)

In the survey for 2011 there were 6050 respondents that were obliged to fill in BS questionnaire.

Data Collection

As the survey *Evaluation of business services related activities* was introduced to official statistics in 2010 with the first reference period 2009 the BS questionnaire *Report on turnover of business services* works only in electronic version. However, the profits resulted from new practices can be considered on the basis of experiences acquired from the pilot studies, which were conducted within the works of Eurostat's Working Group on Services Statistics, and the present survey during its functioning in the reference years 2009-2011.

Past practices

The survey *Evaluation of business services related activities* was preceded by two pilot studies for the reference years 2003 and 2004. The surveys concerned different business services related activities and collected the same scope of data like in the final survey. For reference year 2003 the following activities were surveyed:

- IT activities: software publishing (58.2 by NACE Rev.2), computer programming, consultancy and related activities (62 by NACE Rev.2), information service activities (63 by NACE Rev.2)
- accounting, bookkeeping and auditing activities; tax consultancy book-keeping and auditing activities (69.2 by NACE Rev.2) and management consultancy activities (70.2 by NACE Rev.2)
- architectural and engineering activities and related technical consultancy (71.1 by NACE Rev.2)
- advertising (73.1 by NACE Rev.2)

while for the reference year 2004 activities specified below:

- legal activities (69.1 by NACE Rev.2)
- technical testing and analysis activities (71.2 by NACE Rev.2)
- market research and official opinion polling (73.2 by NACE Rev.2)
- employment activities (78 by NACE Rev.2)

Both pilot studies covered all population of enterprises running the above mentioned activities regardless of the number of persons employed. The samples comprised the following enterprises depending on survey's year:

- for the reference year 2003 – all enterprises with the number of persons employed 50 and more and 25% sample of enterprises with the number persons employed 49 and less,
- for the reference year 2004 – all enterprises with the number of persons employed 10 and more and 45% sample of enterprises with the number persons employed 9 and less;

As a result the sample frames had suitably 44 442 (2003) and 28 549 (2004).

For each surveyed activity the separate questionnaire was designed regarding the type of services activity. The final version of paper questionnaires were delivered to the regional offices which sent out them to respondents according to settled sample frames by regular post. The timeliness for filling in the questionnaires was about 1 month. The enterprises sent back the questionnaires by post. After a deadline the staff of regional offices contacted with respondents who did not delivered the required data (by mail or telephone).

The pilot surveys were voluntary what, undoubtedly, significantly influenced the response rate of surveys. The forms for the reference year 2003 were filled in by 28% of enterprises from sample frame while for the reference year 2004 - by 20%. Moreover, the low response rates were caused by the fact that the sample comprised also enterprises with the number of persons employed 9 and less.

Data recorded in questionnaires were registered by staff of regional offices in the electronic database. If any part of questionnaire was not filled in or data did not meet the control procedures the staff contacted directly with enterprises (by mail or telephone). After having analyzed datasets by both regional offices and the CSO they were accepted. Then data were grossed up according to the established formula elaborated by experts on sampling and grossing up. Finally, the results for whole country were compiled.

New practices

Comparing the organization of data production within the pilot studies and final survey the latter one is carried in distinct statistical reality. The most significant differences are: the implementation of electronic reporting as well as the specialization of regional offices as, nowadays, the Statistical Office in Kielce cooperates with the CSO – Trade and Services Department in the scope of survey “Evaluation of business services related activities”.

In the edition of survey for the reference year 2009 ten different BS-questionnaires (e.g. BS-Leg, BS-Inf, BS-Arch, etc.) were official tools for collecting data required by survey. That was the consequence of the forms’ paper version conversion into electronic one, moreover the integration of questionnaires in one would have generated unreasonable printing costs of the forms and their delivering to responding units (all enterprises included in the sample frame of survey would have been to provided with the 16 pages of questionnaire of which they would have had to fill in only two pages). Since the reference year 2010 ten electronic questionnaires have been consolidated and they have worked at the reporting portal as one BS form *Report on turnover of business services*.

The sample frame of survey is prepared by the Statistical Office in Kielce with the usage of IT software, so called Generator of sample frames. It is one of functional modes of the Base of Statistical Units which includes information on the entities registered in the National Official Business Register (REGON) as well as the supplementary data from surveys and other data sources. After generating the sample frame it is placed on the reporting portal and the respondents are automatically informed by mail of their obligation to fill in the BS questionnaire. If the given enterprise does not have its reporting account it is provided by regular post with the paper letter which includes the guidance about the reporting obligation as well as the login and password to the reporting portal.

After logging to the reporting portal respondent can see all the questionnaires, among others BS form is, for which they are obliged to deliver data. When a given respondent starts to fill in BS form is directed to the first page of questionnaire and inserts the identification data. Then respondent goes to the second page “The structure of turnover by residence of client” which is common for all enterprises covered by survey. The next step depends on the kind of activity running by enterprise. Each respondent is directed to its page “The structure of turnover by product” which regards the services activity. As the electronic application of form includes the logical and book-keeping control data reported by respondents are checked when

they are delivered. The reporting units have the possibility to check the correctness of inserted data at each stage of filling in the form or at the end of questionnaire. If any inconsistencies emerge the control and validation procedure is activated. In case of the acceptable errors respondent can confirm the data correctness. When errors are impermissible there is no possibility for the confirmation and closing of questionnaire without its correction.

The BS questionnaire is usually open up for the respondents at the beginning of April after the reference year. After about 14 days the mails which remind about the coming up deadline are sent out to reporting units. The first edition of questionnaires at the reporting portal is closed at the beginning of May and the transfer of data (only from confirmed questionnaires) takes place. After the deadline the mail reminders are dispatched to units which did not fill in the questionnaire. The BS form is accessible for respondents at the portal twice more through 7 days for each time. In meantime the additional reminders are dispatched to respondents who did not meet their reporting duty. Each closure of reporting website is connected with data transfer to server. At the end of May the final edition of survey is closed at the reporting portal. In meantime all data warehoused at the server are provided to the IT system of survey.

In the IT system data are processed and controlled once again. The full control of data, introducing corrects, comparing unit data with data collected within other surveys and explaining any doubts takes about 2 months. The final set of units data is accepted 3 months after the end of the final edition of survey at the reporting portal. Then data estimation for respondents who did not provided data are made and final results are available at the end of year after the end of reference year.

Operational Efficiencies Gained from New Practices

When considering the advantages taken of applying the electronic BS questionnaire it has to be in mind that it is very difficult to compare the process of data production regarding the traditional and electronic data collection. The pilot studies and final survey differentiate to each other in the scope of surveyed population and status of survey in official statistics (voluntary pilot studies and obligatory survey).

Below there are specified efficiencies gained from electronic reporting concerning the BS questionnaire:

- 1) As far as the response rate is concerned it is not proven that access to the electronic questionnaire improve it. In case of pilot studies the response rate accounted for about 50% (after adjusting to the population of enterprises with the number of persons

employed 10 and more) while in case of final survey it is at the level of about 80%. Those two rates are not comparable as the pilot studies were optional while survey is mandatory.

- 2) Thanks to the logical and book-keeping control procedures applied in the electronic questionnaire the number of contacts statisticians with respondents is reduced. First control procedures are carried out at the stage of reporting data and minimize the possibility of making logical errors.
- 3) The implementation of electronic questionnaire diminished the burden of statisticians as the stage of manual inserting data to the IT survey system is omitted.
- 4) The share of reporting units which choosed the electronic questionnaire fluctuates at the level of 90%. It does not differentiate between various segments of questionnaire because application allows to close and confirm only fully filled in forms. The significant share of enterprises which made use of electronic BS questionnaire is caused by the fact that this way of data collection is stipulated in the Programme of Statistical Surveys of Official Statistics. Moreover, the survey comprises the population of enterprises with the number of persons employed 10 and more which are more prone to innovation.
- 5) Despite the lack of possibility for estimating the exact amount of costs savings and staff/resources savings resulting from the introduction of electronic reporting it can be stated that the savings concern the costs of:
 - printing the paper version of BS questionnaire as well as reminders;
 - stamps in order to dispatch questionnaires and reminders to respondents;
 - phone calls to respondents (who have active account at the reporting portal) in order to explain logical or book-keeping errors or to remind them about statistical obligation;
 - staff dealing with physical analyzing data reported in the paper questionnaires, and manual inserting data into the IT system of survey;
 - staff dealing with physical analyzing data reported in the paper questionnaires, contacting with respondents in order to explain any errors, inconsistencies and inserting data into the IT system of survey;

Next Steps

At present the electronic data collection is the main way of gathering data from respondents predicted by official statistics. Only few surveys obtain data by means of paper forms. Nevertheless, the coverage of all statistical surveys by this method of data collection is planned in the nearest years. Moreover, there is tendency to integrate questionnaires of the same statistical domain in one if it is of course reasonable and profitable.

Taking into account the general policy of official statistics there are the following plans for improvement of electronic data collection in the scope of BS questionnaire:

- integration of BS questionnaire *Report on turnover of business services* with SP questionnaire *Annual survey on enterprises*;

BS questionnaire collects data on turnover by product and turnover by residence of client while questionnaire SP is the main tool for collecting data for structural business statistics and acquires data on total turnover. The subjective scope of SP form incorporates population surveyed by BS form. Each respondent who would report data within the SP form and has the main activity classified to those covered by form BS after filling in the form SP would be directed to BS form. The connection of the BS questionnaire to the SP questionnaire would enable the direct comparison of reported turnover within those two questionnaires. It would eliminate one element of control procedures foreseen within the BS form.

- widening the coverage of survey by the population of enterprises with the number of persons employed 9 and less (for example every 5 years);

It is estimated that the population of enterprises with the number of persons employed 9 and less covered with the main activity covered by the survey *Evaluation of business services related activities* accounts for about 250 thous. of enterprises¹. Assuming 5% sample it would give 12,5 thous. of reporting units what is twice more than the number of respondents surveyed now by BS. The reduction of costs caused by implementing the electronic reporting rises the possibility for widening the scope of survey.

¹ Estimated on the basis of pilot studies' data for reference years 2003 and 2004