

UNECE

Workshop on Human Resources Management and Training

Developing Capabilities for the Future

7- 9 September 2016, Krakow, Poland

Topic 2: Capabilities development

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STRENGTHENING ANALYTICAL POTENTIAL OF OFFICIAL STATISTICS

In the face of diversity and complexity of socio-economic phenomena, accurate picture of changing reality becomes an increasingly difficult challenge for the official statistics. A response to growing public demand for more complex and universal analytical compilations requires appropriate research competencies and specialised knowledge from various disciplines. A necessary condition for the efficient performance of analytical works includes preparation of human resources with knowledge and skills enabling analysis of statistical results, consideration on the causes of observed dependencies and formulation of relevant conclusions.

Recognizing new challenges, the Central Statistical Office of Poland has taken activities to build professional analytical resource with the task to explain socio-economic phenomena, based on statistical information, and to adjust the content and presentation forms of analytical compilations to diverse users' needs. Such a resource, going beyond statutory organisational structures, is to be based on professional knowledge and abilities of specifically selected employees from various units of official statistics. The creation of such resource is a long-lasting process, oriented to the appropriate selection of human resources, organisation of trainings, cooperation development and stimulation of motivation to share their knowledge. Slightly formalized working procedure, based on team work and cooperation beyond any structures, requires an innovative approach to human resources management.

The paper presents Polish experience in creation and development of analytical resource within the system of official statistics. The first measurable outcomes of its analytical performance will serve as an example confirming that systemic approach towards strengthening of analytical potential is a step in the right direction.

Keywords: official statistics, analytical potential, education, sustainable development

Introduction

The rapid progress of civilisation, including digital technologies used for data production and collection, is a stimulus for the continuous development of official statistics. In Poland, the visible results of improving data production and analyses included, among others, the so-

called specialisation of regional statistical offices introduced in 2009. With the coordinating role of the central unit (the Central Statistical Office), sixteen regional offices were assigned nationwide tasks in particular thematic areas, performed for the whole official statistics. One of the positive effects of such reorganisation was the creation of strong, competent regional units specialised in such areas as enterprise statistics, labour market, innovations, environment, etc.

The growing complexity of researched phenomena and processes contributed to the increased need for comprehensive information and analyses, expanding beyond the description of a single thematic area. The Polish official statistics has faced the challenge to use processed data effectively and rationally in order to explain complex socio-economic phenomena based on various sources (statistical and non-statistical) and to perform cross-sectional analyses meeting expectations of various information recipients. The answer lies in the modification of existing solutions and modernisation directed towards the development of analytical potential as well as the creation of teams functioning beyond formal structures of official statistics, but fully drawing on the knowledge and experience of its human resources. The effectiveness of actions undertaken is based on the creation of informal networks, simultaneously minimizing procedures and rigid rules of cooperation. Key to this development are effective and competent employees, being able to conduct complex evidence-based analyses.

Identification of analytical potential within official statistics

The creation of professional analytical team is a long-lasting process oriented at the appropriate selection of human resources, and then organisation of education and trainings, cooperation development, as well as creation and strengthening of networks. One of the initial stages of the aforementioned process included the diagnosis of the current situation concerning analytical potential – particularly given the activities of the official statistics. The recognition of the current state implied the identification of employees within particular statistical units across the whole country with competencies and experience desired for conducting analytical works, and then to engage them in the analytical resource. The diagnosis of analytical potential included identification of knowledge, skills and analytical capabilities. Simultaneously, individual interests and development directions indicated by particular candidates were taken into account. The analytical resource constitutes a basis for domain analytical teams being created successively, when needed.

The analytical resource comprises of 400 people, both from the Central Statistical Office of Poland and regional offices. It is worth mentioning that it is open for new members, who can

join the resource at any time. It needs to be emphasized that the process of employees' selection to face analytical challenges was not a single undertaking, but a long-term action. The effective selection of people with distinctive analytical potential, and eager to further development of desired competencies will ensure appropriate and successful functioning of analytical background within official statistics. Moreover, it enhances the success of professional career paths dedicated to this group of people, gradually deepening its integrity.

Activities of domain analytical teams

The formalisation of building analytical teams was kept to a minimum and it was reflected in the appointment of the Team for analytical works by the Internal Regulation of the CSO President. The team coordinates activities and sets the framework for further development, i.e. through creating the analytical resource, initiating the enhancement of knowledge and competence of its members and coordinating activities of domain analytical teams.

The main aim of domain analytical teams is to create cooperation among units of official statistics, especially within specialisation. The incentive for creating such teams was the need for modern, innovative work going beyond the scope of tasks conducted by one organisational unit, for which the knowledge and experience of wider circle of employees is indispensable. Multi-domain analyses, combining information from different surveys and sources are preferred.

According to the initial assumptions of the domain analytical teams within official statistics, their primary responsibilities include:

- conducting analyses with the use of advanced methods and tools for economic analyses,
- enhancement and pursuit of perfection in compiling information and statistical publications,
- declaration of training needs and application for analytical tools,
- exchange of knowledge and experience related firstly to analytical works.

Teams are created and run by leaders – experts appointed in a certain domain, who choose associates from the members of the analytical resource, equipped with the necessary knowledge and skills. People from the analytical resource can also put forward their own initiative to become engaged in the work of a particular team. The target range of thematic issues as well as the number and size of the domain analytical teams are flexibly determined and adjusted to the changing needs. Currently, within official statistics there are six domain analytical teams:

- the Team for labour market analysis,
- the Team for agriculture,

- the Team for financial markets and financial instruments,
- the Team for multi-domain territorial analyses,
- the Team for sustainable development,
- the Team for the corporate sector analyses.

The main aim of creating domain analytical teams is to integrate a group of people, oriented towards the expansion of specialized knowledge, including also detailed methodological information on the conducted statistical research. Particular domain analytical teams are formed by analysts, specializing in certain issues and being able to face more and more demanding analytical challenges. Such way to enhance the analytical potential of official statistics, under the assumption of mutual sharing of knowledge and experience, will minimize the consequences of losing valuable knowledge resources in the case of “key” expert leaving the institution. Daily practice and gradual gaining of experience will also positively contribute to the implementation of new employees.

It is worth mentioning that the new analytical challenges taken on by the employees of the official statistics would be possible, among others, through the implementation of appropriate training programmes enabling the development of competences and improving the skills indispensable in the process of data analysis. Successive acquisition and expansion of knowledge and skills would allow members of the analytical domain teams to accept analytical assignments interdisciplinary oriented. Further development of the analytical domain teams would be focused on improving professional competences, mutual cooperation and exchange of experience between the teams.

Analytical teams in practice – the Team for sustainable development

An excellent example of the effectiveness of the idea of analytical teams, as an element stimulating the activity of official statistics and enhancing the quality of its products, is the Team for sustainable development.

Sustainable development ensures meeting the needs of the present generations without compromising the development opportunities for future generations; it is a multidimensional area integrating activities in the field of economy, society and environment. Its observation and monitoring is therefore a major challenge, which requires a broad approach and knowledge of different domains. The issue especially gained importance in September 2015, when the UN adopted the Sustainable Development Goals (the so-called Agenda 2030) and empower official statistics to monitor progress in this area.

The issue of sustainable development has aroused the interest of both central and regional Polish statistical units for years, encouraging at the same time to take various initiatives. The appointment of inter-structural, analytical Team for sustainable development enabled to coordinate previously dispersed activities, integrate and give them the common direction. The scope of its activity comprised of several areas: information support of decision-makers, international and inter-ministerial cooperation, research and analyses, promotion of sustainable development idea as well as of the official statistics activities within this areas.

The work of the Team engages the representatives of three departments from the central unit and three regional statistical offices. They all bring different experience to the team in terms of sustainable development, e.g. related to the monitoring sustainable development in Poland at the national, regional and local level, examining environmental issues and the so-called green economy as well as knowledge resulting from participation in cooperation and international initiatives. The Team is supported by people experienced in analytics, graphics and informatics. The appointment of people with different, complementary competencies from different units across the country allowed to create efficient comprehensive team, without the need to appoint new formalized structures and search for suitable employees from the outside. This solution focuses on achieving positive outcomes while reducing costs.

In accordance with the idea of analytical teams activities, all members of the Team for sustainable development, together with its leader, are experts participating in the project on a voluntary basis. It allows to organize cooperation based on partnership and mutual trust. Moreover, it is not an additional burden for the management staff. Transfer of responsibility for a certain area directly on experts contributes to the increased engagement in work as well as the enhanced creativity, autonomy and initiative. Primarily, it brings much greater satisfaction with the outcomes than the work ordered by a superior authority.

The activity of the Team comprised of people dispersed in various areas of the country demands different organisation than the teams gathered in one place. The members organize regular direct meetings, however, most of the cooperation is realised remotely. It is enabled by technical solutions: communication via e-mail and Lync communicator widespread within the official statistics units.

The Team for sustainable development operates only for a year, but it can boast about tangible results. The first task was the inventory work performed in individual statistical units, as well as its promotion. Consequently, this year the CSO Information Portal provided a browser tab dedicated to the sustainable development. It collects all available information about its ideas, connected initiatives (including international issues), legislative acts, researches

and products of official statistics. Therefore, it constitutes the richest source of knowledge on sustainable development in Poland. The browser tab has an application, prepared by one of the regional statistical offices, equipped with tools for data visualization in the form of tables, graphs and maps. In accordance with the area of interest of the authorial unit, initially, application had to support the analyses carried out at national level. Owing to the integration of initiatives of all units involved in the Team, the application has been adjusted to the needs of the observation of sustainable development at lower territorial levels and to the needs of international comparisons. In the future, it will be used to fulfil the commitments related to the monitoring the implementation of the Agenda 2030 goals and targets.

Recognizing the need to promote the idea of sustainable development and the role of official statistics therein, the current work of the Team focused on preparing a thematic brochure, as well as the organisation of a seminar for representatives of official statistics, government authorities and scientific community. The challenge to define indicators monitoring the goals of Agenda 2030 at the country level will also be implemented using the potential of the team members.

Education of analytical resource – Internal trainers programme

Creating the analytical resource has been inspired by the idea of strengthening the capacity and skills of its members, which results in improving the quality of analytical statistical studies. The education system for analytical teams' members serves this purpose. It comprises a number of educational forms, including trainings, conferences and seminars, postgraduate and/or doctoral studies, workshops, case studies, etc. One of the basic elements of the education system is a program „Share Your Knowledge and Experience” implemented, among others, through the programme of internal trainers.

The primary goal of the internal trainers programme is to transfer teaching competencies to the analytical resource, which enables to continue training projects for its members with the help of own staff, comprising of talented, experienced and engaged employees possessing professional teaching skills. The programme is a successful alternative for external trainings, usually more costly and not meeting specific needs of official statistics. The idea behind the program is to prepare training teams operating in the statistical offices throughout the country, specialised in various disciplines (mainly in the area of the methodology of statistical surveys, and as far as possible, in statistical analysis, econometrics, economics or mathematics).

The first effect of the programme aims at starting in the current year the workshops conducted by educated internal trainers – experts in the field of tabular and graphical

presentation of data and analytical description of socio-economic phenomena. These people, from various regions of Poland, attended the comprehensive programme for the development of training skills, i.e. the analysis and evaluation of their own work, work methodology, presentation, exchange of knowledge and the establishment of contact with the group. At the same time, work on the substantive side of the training continued, conducted under the help of supervisors, i.e. employees with experience in conducting workshops in this area. The process which started from the acquisition of expert knowledge as well as experience, and concluded by pilot training conducted under the guidance of supervisors, enabled future trainers to gradually gain independence and improve their skills from the perspective of both participant and operator training. Over one-year cycle of workshops, consulting and conceptual work in subgroups resulted in a model programme and training content, which can be parallel implemented by several sub-teams in different regions of Poland. It allows to extend the range of previously centralized training and simultaneously to guarantee its unity and high quality.

The measurable benefit of building a specialized group of trainers is a sense of community, mutual trust, inspiration and support in the search for new solutions created within it. Trainings are performed in pairs, which positively affects the dynamics of activities and enriches their content. Additionally, it gives leaders the opportunity to observe their work, which helps to identify strengths and areas requiring development. Constant care of supervisors guarantees the maintenance of a single course of action, it also offers support in problem-solving.

Conclusions

The growing globalisation of economies and societies, the emergence of new phenomena and processes, as well as the need for conscious decision-making (evidence-based policy) contribute to the rising importance of information. Readiness to ensure statistical and analytical support of the official statistics services, in accordance to the expectations, requires flexibility and appropriate adjustment of the statistical production process organisation, including data analysis.

The experience of the Central Statistical Office related to the enhancement of analytical potential within official statistics responds to the growing needs for comprehensive explanation of the surrounding reality. The total implementation of the proposed solutions strengthening analytical potential of the official statistics is, apart from appropriate preparation and development of human resources, subject to some crucial conditions, including possessing of adequate interdisciplinary information resources and tools. It is expected that the newly launched initiative will contribute directly to the tangible strengthening of analytical potential

of the Polish official statistics. Among the expected effects of the successful modernisation of the analytical activities organisation there are:

- shaping proper attitude and behaviour of the official statistics services,
- considerable improvement of qualifications and strengthening mostly desired skills,
- creating opportunities for the use of advanced analytical tools, their current updates and adjustment to the changing needs,
- enhancement of international cooperation networks and information exchange,
- intensification of cooperation with the research and scientific environment,
- facilitating performance of analytical works with scientific activities.

Taking into account constantly changing users' information needs, as well as rapid development of advanced technologies, the Polish official statistics faces a challenge to meet expectations towards complex analytical works through the creation and development of strong analytical background.