

A knowledge-driven society – challenges for the Polish official statistics

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Abstract

The CSO of Poland recognizes the unique role of the official statistics in modern knowledge-driven society as well as the challenges it poses. The actions taken by the CSO are oriented on keeping the position of a main data provider through the delivery of products and services adjusted to users' needs. The constant drive for innovate high-quality products and the increased users' awareness also demand activities aiming at the enhancement of statistical education and communication.

Keywords: information overload, statistical education, development monitoring.

1. Introduction

With rapid progress of societies the awareness regarding the significance of data, information and knowledge has raised in every sphere of life. Information has become the most wanted resource, sometimes taking priority over tangible assets. The development of new information and communication technologies has, however, strengthen not only the value of information, but also its amount. The ease with which vast quantities of information can be gathered and processed nowadays is both a blessing and a curse. The most pressing problem that individuals face regards an overload of data and information, which does not necessarily translate into

knowledge. Following Shenk (1997) “At a certain level of input the glut becomes a cloud of data smog that no longer adds to our quality of life but instead begins to cultivate stress, confusion, and even ignorance”.

With the aim to address these challenges, the Central Statistical Office of Poland has taken activities aiming at enhancing not only the quality of statistics, but also its comprehensibility through statistical education and communication.

2. Identification of user needs and expectations

Keeping the position of a main data provider is one of the challenges which the official statistics faces. With changing reality there is a need for new measures helping to observe the new areas and phenomena. The development of IT technologies makes the access to data easier and faster. The official statistics confronting the demand for more, better and faster data need to observe the surroundings constantly as well as to anticipate changing users’ needs.

The identification of users’ needs is crucial for the adjustment of statistical offer to various expectations. To meet these expectations it is required to communicate with users effectively, analyse their needs and draw appropriate conclusions. Special model of users’ needs identification is under preparation in the CSO of Poland. This model aims at identification of needs originated from various sources and then mapping them with data gathered in statistical surveys. It covers the sources of information to be analysed as well as methods and technics used to collect the information, the way of gathering, processing and description of tools used in the process. The basis of needs constitute requirements defined by law (obligations coming from national and the EU regulations). This base is expanded by additional information, e.g. needs learned from users during the consultations provided regularly under the arrangement of annual programme of surveys of official statistics. Another source of users’ needs is tracking their activities on statistical website. Apart from commonly available online

applications, a special tool is being prepared for detailed analyses of products and records searched for and used most frequently.

Needs for statistical information differ depending on users' age, interests etc. Therefore the following users groups has been distinguished:

- public sector (which includes i.e. general government, Narodowy Bank Polski – the Central Bank of Poland)
- business sector (i.e. enterprises, financial institutions)
- scientific and educational sector (i.e. scientific and research institutes, higher education institutions, schools and educational units)
- media
- individual users
- foreign users (institutional as well as individual ones)
- units related to official statistics services (i.e. partners of the CSO engaged in preparations and implementation of programme of surveys of official statistics, institutional providers of data as well as responders).

Products and services offered by official statistics take into account the unique needs of the above mentions types of users, which can include scope of information, dissemination forms and channels. An example of product dedicated to a special needs and to specific users' is a system STRATEG, described in point 4 of this paper.

3. Importance of statistical education and communication

The efficiency of statistical education and communication determine perception of information and its appropriate usage and, thus, also their attitude and expectations towards statistics. In the face of new technological advances, statistical offices as key providers of official data, carry the burden of shaping the appropriate relation with various groups of users and face the challenge of deepening their interest and engagement in education and communication processes. Nowadays users are aware of the importance of data, information and knowledge in almost every sphere of life, as decisions are quite often evidence-based. On the other hand, they also face the increasing problem of information overload. The widespread availability of

information does not necessarily involve their appropriate selection and use, as well as understanding and interpretation.

Statistical education and communication constitute one of priority tasks for official statistics. Educational initiatives of official statistics contribute to further development of the knowledge-driven society, in which information is of the utmost importance. Being aware of the addressed challenges, the Polish statistical community has taken activities aiming at the enhancement of statistical education and communication for the benefits of the knowledge-driven society. The mission of statistical education system is to ensure diffusion of statistical knowledge and its exploitation among external beneficiaries (i.e. public administration, students, pupils, academics) as well as among the statistical community. The main goal of statistical education and communication is to enhance social awareness of statistical research and its significance for the further development of the country.

Among educational activities organized by the official statistics there are traditional forms of knowledge transfer, among others, trainings, workshops, lectures, competitions, exhibitions, open days and conferences. The forms of knowledge sharing result primarily from the users' needs and expectations as well as the development directions of the official statistics. Statistical education of the CSO enjoys growing popularity among external beneficiaries. Within 2013-2015 more than 100 thousand people participated in such activities. There are more than 2,5 thousand educational activities organized annually by official statistics.

With the aim to enrich educational services through the use of new media and technologies, since 2015 the Educational Portal (available at <http://stat.gov.pl/portal-edukacyjny>) supporting statistical education of external users has been launched. It is an instrument of statistical education system created with the aim to provide and promote knowledge on statistical research and products as well as on statistics as a scientific discipline. The Educational Portal ensures access to multimedia forms of knowledge transfer, such as infographics, presentations, educational games, audio and video materials. Furthermore, it is a medium presenting the

development of official statistics over the years. Another interesting element of the portal is a tab dedicated to the youngest users, who can enter the world of statistics through educational games. In addition, the offer of Educational Portal contains e-learning trainings aimed at external beneficiaries interested in improving professional knowledge and competencies essential for proper understanding of statistical issues.

Facing new challenges and increasing requirements of data recipients, it is also necessary to provide professional trainings for people engaged in promoting statistics through education. The effective performance of educational services requires appropriate preparation of human resources with knowledge and skills. To meet the demands, apart from general training sessions, a special initiative Internal Trainer Programme was launched to improve the process of knowledge sharing among employees of statistical community. The project will cover approx. 70 persons.

In the face of diversity of socio-economic phenomena, growing public demand for more complex analytical works facilitating better understanding of socio-economic situation, there is a greater need for response of official statistics towards comprehensive description of reality. Changing human expectations and information behaviour of the modern society have contributed to the creation of professional teams within official statistics dedicated to analytical works. The process of building such teams is a long-lasting initiative, preceded by the appropriate selection of human resources, through organization of trainings sessions, cooperation development and encouragement to share knowledge and experience. The role of the analytical teams is to strengthen permanently the analytical potential of official statistics by dissemination of statistical and economic knowledge as well as analytical skills among statistical community. Apart from participation in diversified trainings, the constant use of 'new media' is desired to systemize socio-economic knowledge, to intensify cooperation with research centers and to encourage employees to life-long learning.

Education and development of human resources towards the enhancement of analytical skills contribute to the building of information society and knowledge-based economy by the system of official statistics. The transfer of knowledge and skills between members of the analytical resource is the key element of creation and further development of specialised analytical unit.

4. The STRATEG system – a platform for improving communication with users

Taking into account the growing public demand for more innovative communication channels and data dissemination services, the CSO created the STRATEG system, which meets the requirements of novel statistical solutions enhancing communication with users. The system, available directly at <http://strateg.stat.gov.pl>, is a database application designed for supporting programming and monitoring of development policies and reinforcement of social cohesion. From the very beginning of its creation, the needs of policymakers to conduct evidence-based policies were taken into account. The expectations of future users of the system were crucial for determining the structure of the system as well as its functionalities. The dialogue with users, conducted at almost each stage of the project, allowed for constructive discussions, identification of suggestions and development of shared solutions. The analysis of users' expectations as well as good practices used in international databases enabled a selection of best functionalities which ensured STRATEG a perfect balance between modernity, utility and efficiency. Finally, the STRATEG system appeared to be an innovative statistical product co-created by users with the final shape adjusted to their needs.

With a view to meet increasing demands of users, meticulous attention was paid, apart from extensive information resources, also to ensure visually-attractive forms of data dissemination like maps, charts, reports, easily adjustable to individual needs. Since its creation, the STRATEG system is being used as an excellent channel for effective communication with various groups of users and education in the field of statistics. Therefore, the educational function of the system is supported by a separate integrated module named *Metadata and analyses*. It is a collection of methodological information, analytical reports and statistical

publications, thematically grouped. Moreover, detailed indicator profiles, created for resources gathered in the system, present a set of useful information, inter alia: indicators' descriptions, overall methodological explanations, data source and data availability, available variables, territorial level of availability. Apart from a wide set of indicators concerning various thematic domains, STRATEG collects a range of analytical reports, statistical publications and short analytical comments on the current socio-economic situation and trends concerning a given subject.

In response to growing demand for support in correct perception and interpretation of statistical measures, the CSO of Poland carried out a project aiming at compiling a conceptual and methodological framework for indicators, gathered in the STRATEG system, concerning the development policy. The compilation was created to serve as a necessary guide for those frequently using statistical data, but not professionally related to statistics. It responds to the needs of users aware of the importance of statistical data as well as the ability to use them properly. Conscious of possible difficulties related to the selection of statistical information and its correct application, a statistical compendium of knowledge was created, including the most important and frequently used measures and indicators in the analyses of particular phenomena. Being aware that statistical indicators can represent methodological challenges, the manual used as navigation through key indicators on development monitoring provides a general understanding and scientific definitions, clear descriptions facilitating analysis and interpretation of statistical measures as well as explanation of possible consequences or implications. What distinguishes this guide from other methodological compilations is creating guidelines for data interpretation and calls for attention to be focused on their specific nature or some limitations of measures used to describe the surrounding reality. Despite some potential limitations in the use of indicators, i.e. dependence on the context, serving precise purposes or misleading interpretation of results, they provide input in global, national and local policies by translating often intangible, abstract objectives into measurable targets against which progress and achievements can be monitored. The guide will allow users in-

depth comprehension of statistical indicators, which will translate into the increased awareness of socio-economic phenomena.

5. Conclusions

The CSO of Poland recognises the unique role of official statistics in modern knowledge-driven society. One of its priorities is to provide accurate and reliable statistics through various communication channels adjusted to different users' needs. Every day, millions of individual and collective decisions are taken on the basis of statistical data. Using objective, reliable and high-quality information in decision-making processes substantially improves their effectiveness. The knowledge of its proper usage and interpretation is also of great importance. All the actions taken by the CSO are oriented to address challenges related to the modern reality.

6. References

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