

The Need for Information and Communication Technologies Statistics in the Republic of Macedonia

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1. Introduction

Different countries from different geographic areas are at different socio-economic level with regard to their opportunities to use the benefits from information and communication technologies (ICT). In order to measure these differences, a number of indicators are established.

Republic of Macedonia belongs in a group of countries with low socio-economic level of usage of information and communication technologies. Having in mind that the information society has been on the top of the EU agenda and Macedonia's long-term strategy for association in European community, the challenge for the country is either will step into the information age, or the future of the country will be compromised.

However, because development and access to information, communication and e-commerce resources are increasingly viewed as crucial for economic and social development for reasons of efficiency and because of network effects, Macedonia has begun to examine the best way for ensuring access for citizens and business to these technologies and services. To do so efficiently and effectively, it is important that the Government has information about the nature and extent of the digital divide and about the kinds of measures that can help to overcome it.

Taking into account recent development of activities raised with e-commerce, we recognize that monitoring of the information society should consist of three parts: measuring the ICT sector, measuring the ICT usage in enterprises and measuring the ICT usage in households.

2. Measuring of ICT sector

Definitions of ICT sector differ to some extent from country to country. Common acceptable ICT sector definition is that one accepted by OECD in 1998 represented in terms of principles for manufacturing and services industries and in terms of ISIC classes.

National classification of activities applied in the Republic of Macedonia since 1998 was prepared by State Statistical Office and is in accordance with and comparable with the European classification NACE Rev. 1 and International classification ISIC Rev.3.

When suggested ISIC classes that belong to ICT sector are compared to adequate classes of National classification of activities, there is little difference because National classification is supplemented with certain additional subclasses for the reason of continuity. But these differences do not make any difficulties in the process of recognition of classes that belong to ICT sector in accordance with OECD recommendations.

In this way it is possible to implement OECD definition of ICT sector in terms of ISIC classes, to calculate indicators of ICT sector and compare it with the same indicators of other countries. Main variables like production, employment and salaries can be measured using the data from business register and the data from House of payments, with additional data processing.

We want to point out that the part of the classes of National classification which coincide with ISIC classes suggested by OECD contain products and services which are suspicious in the sense whether they really belong to this sector. The other part of classes contains products and services that do not belong to ICT sector, but because of methodological imperfections can not be separated and excluded from the rest of products and services.

3. Measuring of ICT usage in enterprises and households

So far, State Statistical Office just marginally included variables which reflect the level of ICT usage, and factors that influence that level in the enterprises and households. Besides the data available by Statistical Office, these indicators in the Republic of Macedonia can be measured in two ways.

The first one is the usage of data that are available by enterprises that are intermediaries in ICT sector. This can be explained by two arguments. The first argument is the fact that the Republic of Macedonia is small country with poor e-commerce activities and small number of Internet intermediaries. The second reason is the fact that there is only one main telecommunication enterprise who at this moment completely provide fixed and mobile telecommunication access paths. At the same time this enterprise is one of the main Internet providers in the country.

Therefor for one part of indicators like the number of Internet hosts, number of Internet users, number of fixed and mobile telecommunication access paths it is relatively easy to collect the appropriate data. On the other hand it is difficult to recognize the factors that influence the usage of information and communication technologies. For this reason, and having in mind the importance of monitoring of indicators from the point of view of using the Internet and e-commerce activities, more official practice should be established. One possibility is creating the questionnaire for enterprises and households and surveys should be conducted on periodical basis.

4. Conclusion

The accelerated penetration of information and communication technologies including Internet and e-commerce in all areas of human activity is rapidly changing the way we live, work and do business. Imperative of the countries with low level of ICT access and usage is to apply policies for reducing the digital divide. In this seance it is very important to monitor indicators that reflect ICT sector and ICT usage in enterprises and households with internationally accepted methodologies and with clear definition of ICT products and services.

REFERENCES

National Classification of Activities, *Statistical Office of the Republic of Macedonia, Skopje 1999*
Measuring the ICT sector, *OECD 2000*
Understanding the Digital Divide, *OECD, 2001*

RÉSUMÉ

La pénétration accélérée des technologies d'information et de la communication (ICT) autant que l'Internet et le commerce électronique, dans toutes les domaines de l'activité de l'homme, changes la manière de notre vie et la manière de notre travail. Toutes les états avec un niveau bas d'accès et d'utilisation des technologies d'information et de la communication, cherchent politiques pour un diminution de le "digital divide". Dans le sens préliminaire, il est très important observer les indicateurs qui manifestent l'utilisation des technologies d'information et de la communication dans les entreprises et les ménages.