

QUALITY REPORT FOR STATISTICAL SURVEY
Annual Survey on Usage of Information and Communication
Technologies (ICT) in Enterprises (IKT-POD)
for 2011

Organisational unit: Education, Culture and
Information Society Department
Prepared by: Hrvoje Markuš

November 2022

0. Basic information

- Purpose, goal, and subject of the survey

Information and communication technologies (ICT) is a significant part of the European Union's productivity and they transform our society and economy. The process of measuring the information society by using statistics on business processes and productivity is a domain that can be continuously revised and improved. The European Commission introduced an annual survey on the information society aimed at measuring ICT-driven development in enterprises. In this respect, a selection of appropriate set of variables is crucial. The survey is aimed at data collection on usage of information and communication technologies in enterprises and their impact on enterprises' business results.

- Reference period

Calendar year

- Legal acts and other agreements

Official Statistics Act (OG, Nos 103/03, 75/09, 59/12 and 12/13 – consolidated text) Annual Implementation Plan of Statistical Activities of the Republic of Croatia 2011

Regulation (EC) No 808/2004 of the European Parliament and of the Council of 21 April 2004 concerning Community statistics on the information society

- Classification system

National Classification of Activities 2007

- Concepts and definitions

The main statistical variables are usage of the internet and other electronic networks, ways of internet access, agreed speed of internet connection, usage of social networks and services, having own website and services, electronic exchange of information and services with public administration (e-administration), e-commerce (purchase and sale of goods and services), usage of ERP and CRM systems in e-commerce (purchase and sale of goods and services on the website or using the EDI system), obstacles in using the website as a medium in sale of goods and services, volume of e-commerce compared to conventional commerce, economic activity according to NKD, number of employed persons, value of generated turnover from sale of goods and services (turnover) and value of realised purchase of goods and services (expenditure).

- Statistical units

The observed statistical unit is an enterprise.

- Statistical population

The survey includes all medium-sized and large enterprises, while the share of small enterprises has been selected by using a random sample method. Enterprises must be active and employ more than ten persons.

1. Relevance

1.1. Data users

External users: ministries and state administration bodies – data on request; scientists and researchers – data on request; business entities – data on request

1.1.1. User needs

External users frequently request more detailed data than those that are available.

1.1.2. User satisfaction

The user satisfaction survey is not carried out. There is no feedback information.

1.2. Completeness

Data collected in the survey are completely harmonised with Eurostat's guidelines and regulations.

1.2.1. Data completeness rate

35%

2. Accuracy and reliability

2.1. Sampling error

Standard error for key statistics was calculated by following the SAS SURVEYMEANS procedure, which made possible the inclusion of 42 strata and final weights in the sample design. The standard error was calculated by applying the Taylor linearization method in the SAS SURVEYMEANS procedure. Impact of unit non-response has been taken into account, which means that only units that participated in the survey make up the final size, while weights are calculated again, proportionally to the non-response rate. Impact of calibration to variance has been taken into account in the calculation of final weights.

2.1.1. Sampling error indicators

Sampling error indicators for selected variables:

%				
Statistic	Domain	Value	Notice	Value
ENTERPRISES THAT ALLOW EMPLOYEES TO ACCESS PERSONAL INFORMATION ELECTRONICALLY	CROATIA	CROATIA		0.912
ENTERPRISES USING ELECTRONIC DATA INTERCHANGE (EDI)	CROATIA	CROATIA		0.923
ENTERPRISES THAT SELL GOODS AND SERVICES VIA WEBSITE	CROATIA	CROATIA		0.707
ENTERPRISES THAT SELL GOODS VIA EDI SYSTEM	CROATIA	CROATIA		0.558
ENTERPRISES THAT PURCHASE GOODS AND SERVICES VIA WEBSITE OR EDI SYSTEM	CROATIA	CROATIA		0.914

(continued)

%

Statistic	Domain	Value	Notice	Value
ENTERPRISES USING RFID TECHNOLOGY	CROATIA	CROATIA		0.492
ENTERPRISES THAT HAVE A WEBSITE	CROATIA	CROATIA		0.828
ENTERPRISES THAT HAVE A WEBSITE	ENTERPRISE SIZE	SMALL		1.287
ENTERPRISES THAT HAVE A WEBSITE	ENTERPRISE SIZE	MEDIUM-SIZED		1.144
ENTERPRISES THAT HAVE A WEBSITE	ENTERPRISE SIZE	LARGE		1.642

2.2. Non-sampling error

Non-sampling errors include coverage errors and non-response errors. Non-response errors result from the non-response of a statistical unit (unit non-response) and the non-response to a particular variable (item non-response). The item non-response is negligible.

2.2.1. Coverage error

The sampling framework is based on data from the Statistical Business Register. The rate of eligible units is 99.3%. Coverage errors include enterprises that are no longer active and misclassified enterprises.

2.2.2. Over-coverage rate

Over-coverage rate is 0.46%

2.2.3. Measurement errors

Logical errors are avoided by designing the questionnaire in a way to disable erroneous entries as well as by additional explanations provided to a respondent by the interviewer in the case when the respondent is not technically competent enough to give an accurate answer. Prior to the collection of data, interviewers must attend a training. Interviewers are specially notified and trained in terms of sensible questions. Data collection is followed by random checks of the validity of variable coding within the microdata set.

2.2.4. Non-response errors

A non-response error means a number of statistical units that did not respond to the questionnaire. The non-response rate is 36.1%.

2.2.5. Unit non-response rate

Unweighted non-response rate is 36.08%.

Weighted non-response rate is -.

2.2.6. Item non-response rate

The indicator is not computed.

2.2.7. Processing errors

Errors after data collection that would require imputations have not been detected.

2.2.8. Imputation rate

The indicator is not applicable.

2.2.9. Model assumption error

Not applicable.

2.3. Data revision

2.3.1. Data revision – policy

The users of statistical data are informed about revisions on the website of the Croatian Bureau of Statistics (preliminary data, final data).

2.3.2. Data revision – practice

Provisional figures are not published in this survey and therefore regular revisions are not planned.

2.3.3. Data revision – average size

The indicator is not applicable.

2.4. Seasonal adjustment

Not applicable.

3. Timeliness and punctuality

3.1. Timeliness

Transfer of data to Eurostat is T + 7 months.

Publishing and availability is T + 8 months.

3.1.1. Timeliness – first results

Timeliness of first results is T + 3 months.

3.1.2. Timeliness – final results

Timeliness of final results is T + 5 months.

3.2. Punctuality

Data are delivered within the set deadlines.

3.2.1. Punctuality – delivery and publication

Punctuality is 100%.

4. Accessibility and clarity

Printed publications: First Release, Statistical Yearbook, website of the Croatian Bureau of Statistics – electronic versions of First Release and Statistical Yearbook, user demands as requested

4.1. News release

2.3.1. Usage of Information and Communication Technologies (ICT) in Enterprises

4.2. Online database

Not applicable.

4.3. Microdata access

Conditions under which certain users can have access to microdata are regulated by the Ordinance on the Conditions and Manner of Use of Statistical Data for Scientific Purposes. Microdata are available at the level of variables defined in the EU methodology.

4.4. Documentation on methodology

Notes on methodology are published in First Release, while other methodological documents on the survey are available on the website of the Croatian Bureau of Statistics.

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

Not applicable.

5.2. Comparability over time

Data are comparable in two time series: 2007 – 2009 and 2009 – 2011, due to change of the NACE classification from version 1.1 to version 2.0.

5.2.1. Length of comparable time series

Length of comparable time series is five years.

5.2.2. Reasons for break in time series

The break in the 2009 time series was due to the new version of the NACE classification.

5.3. Coherence – short-term and structural data

The indicator is not applicable.

5.4. Coherence – national accounts

The indicator is not applicable.

5.5. Coherence – administrative sources

The indicator is not applicable.

6. Cost and burden

6.1. Cost

The Ipsos PULS Agency was hired to carry out the survey and do the primary data processing. The agreed price amounted to about 160 000 kuna.

6.2. Burden

A part of the data is taken over from administrative sources in order to reduce the burden on respondents. It takes 10 to 20 minutes to fill in the questionnaire.