Palestinian National Authority
Palestinian Central Bureau of Statistics

ICT Business Survey, 2011

User Guide

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Introduction

The main objective of this survey is to provide statistical data on ICT for Establishments in the Palestinian Territory. Enriching ICT statistical data on the availability and actual use of ICT by economic Establishments. Identifying the characteristics of the equipment and means of ICT used in the economic activity, the type of economic activity and the size of Establishments.

Concepts and Definitions

Computer Use:
It is defined for this survey's purposes as the basic uses of the computer (during the last twelve months) such as: opening the computer and files as well, create, copy, paste, and saving files.

Domain Name:
It is the unique name by which a network-attached device. It is used to identify a particular host in various forms of electronic communication such as the World Wide Web, e-mail.

E-mail:
It is a mean for exchange messages, texts and attached files among internet or intranet users.

Economic Activity:
Referring to a process, that is to say, to the combination of actions carried out by a certain entity that uses labour, capital, goods and services to produce specific products (goods and services). In addition to that, the main economic activity refers to the main work of the enterprise based on the (ISIC, rev4) and that contribute by the large proportion of the value added, whenever more than one activity exist in the enterprise.

E-Commerce:
It is the conducting of business communication and transactions over computer networks and through individual computers linked to the Word Wide Web. Strictly defined, e-commerce is the buying and selling of goods and services, and the transfer of funds, through digital communications.

Establishment:
An establishment is an enterprise, or part of an enterprise, that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

Extranet:
It is a private network that uses Internet protocols, network connectivity, and possibly the public telecommunication system to securely share part of an organization's information or operations with suppliers, vendors, partners, customers or other businesses. An extranet can be viewed as part of a company's Intranet that is extended to users outside the company (e.g.: normally over the Internet).

ICT:
It is used to describe the tools and the process to access, retrieve, store, organize manipulate, produce present and exchange information by electronic and other manual automated means.

Intranet:
It is a private computer network that uses Internet protocols and network connectivity to securely share part of an organization's information or operations with its employees. Sometimes the term refers only to the most visible service, the internal website.

Internet:
It is a worldwide public computer network. Organizations and persons can connect their computers to this network and exchange information across a country and/or across the world. The Internet provides access to a number of communication services including the World Wide Web and carries email, news, entertainment and data files.

Internet Use:
For the purposes of this survey, defined as the basic uses of the Internet (during the last twelve months), such as access to certain sites, reading newsletters, and downloading files or programs from the Web.

Local Area Network (LAN):
It is a computer network covering a small geographic area, like a home, office or group of buildings, e.g., a school. The defining characteristics of LANs, in contrast to wide-area networks (WANs), include their much higher data-transfer rates, smaller geographic range, and lack of a need for leased telecommunication lines.

Website:
Location on the World Wide Web identified by a web address. Collection of web files on a particular subject that includes a beginning file called a home page. Information is encoded with specific languages (Hypertext mark-up language (HTML), XML, Java) readable with a Web browser, like Netscape's Navigator or Microsoft's Internet Explorer.

Wide Area Network (WAN):
A computer network that covers a broad area (i.e., any network whose communications links cross metropolitan, regional, or national boundaries. The largest and most well-known example of a WAN is the Internet

Wireless:
Includes fixed wireless, mobile wireless and satellite Internet connections.

Wireless Network:
Type of computer network that is wireless, and is commonly associated with a telecommunications network whose interconnections between nodes is implemented without the use of wires, such as a computer network (a type of communications network). Wireless telecommunications networks are generally implemented with some type of remote information transmission system that uses electromagnetic waves, such as radio waves, for the carrier and this implementation usually takes place at the physical level or "layer" of the network.

Virtual Private Network (VPN):
A computer network in which some of the links between nodes are carried by open connections or virtual circuits in some larger network (e.g., the Internet) instead of by by physical wires

Survey Questionnaire

The survey was developed following a review of international recommendations and the experiences of countries in this area, in addition to discussions with stakeholders. The BICT 2011 survey also includes forms of data quality control and means of assessing existing access to ICT in terms of infrastructure for the use of technology and equipment in business and the availability of computer and Internet service. It also looks at a range of devices associated with technology such as telephones, fax machines, mobile phones, and printers.

The survey includes questions about the use of Internet and computers in various activities of economic Establishments, such as using the Internet for commercial transactions and the obstacles faced by Palestinian Establishments in using the Internet for economic activities and commercial transactions.

Data Set Linkage

The data set are merged into one data file there is no need for key variable.

Sample Design

The sample was a regular stratified random sample of one stage and included the strata of less than 30 Establishments and Establishments that employ 30 workers or mores. Establishments were divided into three levels, namely:

First: Establishments classified geographically into two regions: the West Bank and Gaza Strip.

Second: the economic activity of the Establishments classified according to the International Industrial Classification for Economic Activities.

Third: Establishments classified by size according to the number of employees, as follows:

1. Establishments with less than 5 employees.
2. Establishments with 5-10 employees.
3. Establishments with 11-29 employees.
4. Establishments with 30 employees or more.

Sample and Sampling Frame

Target Population

The target population consists of all operating private Establishments in the Palestinian Territory. The sampling frame was the list of all private Establishments in operation as enumerated in the Establishments Census 2007.

Sample Size

The sample size was 3,006 Establishments, of which 2,281 were located in the West Bank and 725 located in the Gaza Strip.

Weighing

Weights were calculated for each sampling unit and reflect the sampling procedures. Adjusted weights are important to reduce the bias resulting from non-responses and also to take account of changes since the Population, Housing and Establishments Census of 2007 was conducted.

Variance Calculation

It is necessary to compute standard errors of the principal survey estimations so that a user can identify the accuracy of estimations and the survey reliability. Statistical errors can be measured by the standard error, which is the positive square root of the variance. The variance

of this survey has been computed by using the SPSS program, in which the Ultimate Cluster method is used to calculate variance.

Data Collection
Instructions and Training manual
The training manual covered all aspects dealing with field work and filling in questionnaires. Moreover, it dealt with the tasks of each field worker in interviewing and completion of the questionnaire. Training manuals for supervisors and editors were prepared in order to ensure team training and the success of the project. A training course was held for field workers supervisors, editors, and assistants.

The training course was divided into three parts: The first part discussed general issues such as designing statistical surveys, reaching selected Establishments, interviewing, tasks and duties and running the field work. The second part was a lecture given by a specialist in ICT who clarified the technical concepts and terminology referred to in the questionnaire. The third part emphasized the objectives of the survey and included practical exercises on filling in the questionnaire

Data editing in the field
The project management team developed a clear mechanism for editing the data and trained the team of editors accordingly as follows:
- Receipt of completed questionnaires on a daily basis;
- Checking each questionnaire to ensure that they were complete and that the data covered all eligible Establishments. Checks also focused on the accuracy of the answers to the questions.
- Returning incomplete questionnaires, as well as those with errors, to the field for completion.

Following up and supervision
Special follow-up procedures were designed for receipt of questionnaires at all levels as well as for the daily achievements of the interviewers. Supervisors had the task of allocating work to the teams using the list of Establishments. They also provided daily and weekly reports to the field work coordinator and the project management on completed interviews, refusal cases, inapplicable cases such as Establishments closed temporarily or permanently, interviews where the results were unclear and cases where contact could not be made (after three attempts). The reports also included comments resulting from field visits by technicians and supervisory coordinators.

Data Processing
The data entry program was set up using the ACCESS program and data entry screens were designed. The rules of data entry were determined to guarantee successful entry of questionnaires and instructions for verification to check data after each entry. These instructions addressed variables relating to the questionnaire.

Data Entry
Once the data entry program had been established and tested and staff trained on the data entry program. The data entry process was correlated with receipt of questionnaires from the field, with 15 staff members engaged in data entry and verification of questionnaires. There

were two working shifts, morning and evening, to secure that data entry was completed on schedule.

The final tabulation of results was performed using the Statistical Package for Social Sciences (SPSS) for Windows (version 18.0).

Reference period
The reference date for the survey was from 01/01/2011 to 31/12/2011.

Response Rates
The survey sample consisted of 3,006 Establishments: 2,366 Establishments completed the interview, of which 1,796 Establishments were in the West Bank and 570 Establishments in the Gaza Strip. The response rate was 84.9%.

Data Quality

Since the data reported here are based on a sample survey and not on complete enumeration, they are subjected to two main types of errors: sampling errors and non-sampling errors.

Sampling errors are random outcomes of the sample design and are, therefore, easily measurable.

Non-sampling errors can occur at various stages of the survey implementation in data collection and data processing and are generally difficult to be evaluated statistically. They cover a wide range of errors, including errors resulting from non-response, sample frame coverage, data processing and response (both respondent and interviewer-related). The use of effective training and supervision and the careful design of questions are measures that have direct bearing on the magnitude of non-sampling errors and, hence, on the quality of the resulting data.

Technical Notes

A high level of variance can be observed in electronic transactions via the Internet among small Establishments due to the minimal use by small Establishments. Please refer to the attached sample error table in this report for the value of variation.

Derived Variables

Variable name	Description	Values
Region	Region	1.West Bank 2.Gaza Strip
ISIC	economic activity	1.Industry 2. Construction 3. Internal Trade 4. Services 5. Transportation &Storage 6. Information & Communication 7. Financial Intermediation
RD	Research and development	1.Yes 2. No
Size	Employment size	1.0-4 2. 5-9 3. 10 and more