Palestinian National Authority
Palestinian Central Bureau of Statistics

ICT Business Survey, 2009

User Guide

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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).

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:
It is an enterprise, or part of an enterprise, which mainly produces a single group of goods (with the possibility of production from secondary activities) in which the principal productive activity accounts for most of the value added. Breaking down institutional units into establishments serves in creating more consistent statistical units in the productive sense.

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:
It is defined for this survey purposes as the basic uses of the Internet (during the last twelve months) like: access to certain sites, reading newsletters, and download 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.

Reference Date:
The date referred to in calculating all set of indicators in this survey is between 01/01/2009 to 31/12/2009.

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 physical wires.

Survey Questionnaire
In light of identifying data requirements, the survey instrument was developed following a review of international recommendations and experiences of countries in this area, and the experience of the BICT survey 2007 that implemented by PCBS. In addition to identification information and data quality control, BICT survey 2009 instrument consists of one main section studied the mechanisms and characteristics of use and access for the basic tools of ICT such as telephone, mobile phone, computer, internet, intranet, extranet, and e-commerce transactions on technology by the economic establishments in the Palestinian Territory. The survey aims mainly to provide comprehensive statistical data on the availability of the means, access and use of ICT tools in the establishments by the major economic activities, employment size, places and different goals as well as main features for the use of ICT.

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

Target Population
The sample is a regular stratified random sample of one stage. The strata of less than 30 establishments and establishments that operate 30 or more workers was included. establishments were divided into three levels, namely:
First level, geographical classification of establishments and classified into two regions: the West Bank and Gaza Strip.
Second Level, economic activity of the establishments classified according to International Industrial Classification for Economic Activities.
Third level, employment size category of the establishments classified according to the number of employees as follows:
1. establishments that operate with less than 5 employees.
2. establishments that operate with 5-10 employees.
3. establishments that operate with 11-29 employees.
4. establishments that operate with 30 employees and over.

Sample Size and Design Frame

Target Population
The target population consists of all operating private establishments in the Palestinian Territ.

Sampling Frame
The sampling frame is the list of all operating private establishments enumerated in the Establishments Census 2007.

Sample Size
The sample size is 1,905 establishments, of which 1,591 are establishments in the West Bank and 314 establishments in Gaza Strip.

Weighing

Weights have been calculated for each sampling unit. Weight reflects the sampling procedures. Adjusted weights are important to reduce bias resulting from non-responses. Also "adjusting" gave consideration to the changes since the time of the Population, Housing and Establishments Census, 2007 and the time of carrying out the survey.

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. Frequently they are measured by the stranded error, which is the positive square root of the variance. The variance of this survey has been computed by using the "programming package" SPSS whereby the method of Ultimate Cluster is used to calculate variance.

Data Collection

Instructions and Training manual

The training manual covered all aspects dealing with fieldwork and filling in questionnaires. Moreover, it dealt with the tasks of each fieldworker in interviewing, and completion of questionnaire. Training manuals for supervisors and editors were prepared in order to secure team training and success of the project. The training emphasized the objectives of the Survey and allowed practical exercises on filling in the questionnaire.

Main Fieldwork

A plan for the fieldwork was developed. At this stage, the fieldwork team and the tools (questionnaires, maps, sample lists) were prepared.

Data editing in the field

The project's management developed a clear mechanism for editing the data and trained the team of editors accordingly. The mechanism was as follows:

- Receiving completed questionnaires on a daily basis;
- Checking each questionnaire to make sure that they were completed and that the data covered all eligible establishments. Checks also focused on the accuracy of the answers to the questions.
- Returning the uncompleted questionnaires as well as those with errors to the field for completion.

Following up and Supervision

Special follow-up patterns were designed for handing in and receiving questionnaires for all levels as well as the daily accomplishments of the interviewers. Supervisors had the task of allocating work to the teams using the list of establishments. They provided daily and weekly reports to the fieldwork coordinator and the project's administration explaining the completed interviews, refusal cases, the inapplicable cases such as temporarily and permanent closed establishments, interviews where results were not determined, and the cases that could not be communicated (after three contact attempts). The reports also included the technicians and coordinators' supervisory field visits.

Data Processing

Preparation of Data Entry Program
At this stage data entry program was prepared using ACCESS package. Data entry screens were designed. Also, rules of entry were determined in a manner that guarantees successful entry of questionnaires and verification instructions to check data after each entry. These instructions examine the variables on the questionnaire level.

Data Entry
After having designed the data entry programme and testing it to verify readiness and, after having trained staff on dealing with data entry programme, data entry started on January 17, 2010, and was finished in July 30, 2010. The process of data entry was correlated with receipt of questionnaires from the field, where by 15 staff members were engaged in data entry and verification of questionnaires. Data entry took place during two shifts, morning and evening, to secure achievement of data entry on time. Final tabulation of results was performed using the Statistical Package for Social Sciences (SPSS) for Windows (version 12.0).

Reference Date
The date referred to in calculating all set of indicators in this survey is between 01/01/2009 to 31/12/2009.

Response Rates
The survey sample consists of about 3,011 establishments; 1,905 establishments completed the interview, of which 1,591 establishments were in the West Bank and 314 establishments in Gaza Strip. The response rate was 66.0%.

Accuracy of the Data
Since the data reported here are based on a sample survey and not on a complete enumeration, they are subjected to sampling errors as well as non-sampling errors. Data of this survey can be affected by statistical errors due to use of the sample. Therefore, the emergence of certain differences from the real values are expected to be obtained through a Census. Calculation of variation was done for the most important indicators in the survey; the sample error tables are attached in this report.

Data Comparison
As the survey is carried out for the second time there are national reference indicators with direct relationship to the survey indicators to be compared . Logic linkage of the survey indicators were done with each other in the same survey, and through such comparisons high consistency was noticed.

Technical Notes
Some notes that should be taken into consideration when reviewing this report:
- There is high variance observed for some variables such as: electronic transactions via internet, the variable of having networks, and the main purpose of using mobile.

Derived Variables

Variable name	Description	Values
ISIC	economic activity	1.Industry 2. Construction 3. Trade 4. Transport &Communication 5. Financial 6. Services
RW	Relative Weight	
RD	Research and development	1.Yes 2. No
Size	Employment size	1.0-4 2. 5-9 3. 10 and more