STATISTICAL SERVICE OF CYPRUS

INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) USAGE AND E-COMMERCE SURVEY IN ENTERPRISES

2012

SUMMARY RESULTS

Nicosia, November 2012

C O N T E N T S

INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) USAGE AND E-COMMERCE SURVEY IN ENTERPRISES 2012

PREFACE

This report presents the results of the survey on ICT Usage and e-Commerce in Enterprises 2012. The aim of the annual survey is to collect data on ICT usage, on Internet usage and on electronic commerce in enterprises. These data are necessary for the implementation of policy programs of both the Government and the Private Sector.

The survey, which is cofounded by the European Community, conforms to the regulation (EC) No. 808/2004 of the European Parliament and of the Council of 21 April 2004 concerning Community statistics on the information society. The objective of this Regulation is to establish a common framework for the systematic production of Community statistics on the information society.

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Director
Statistical Service

November 2012

A. SURVEY METHODOLOGY

The survey covers enterprises with 10 or more employees in the following statistical codes of economic activities NACE Rev.2 (Detailed description in annex):

|	
C	Manufacturing
D	Electricity, Gas, Steam and Air Conditioning Supply
E	Water Supply; Sewerage, Waste Management and Remediation Activities
F	Construction
G	Wholesale and Retail Trade. Repair of motor vehicles, motorcycles and personal and household goods
H	Transport and Storage
I	Accommodation and Food Service Activities
J	Information and Communication
L	Real Estate Activities
M	Professional, Scientific and Technical Activities
N	Administrative and Support Service Activities
S	Other Service Activities

The sampling method used was stratified random sampling. Two variables were used for stratification, NACE group and size of the enterprise. There were 14 NACE groups and 3 size groups.

The 14 NACE groups (of economic activities) were the following: 10-18, 19-23, 24-25, 26-33, 35-39, 41- 43, 45-47, 49-53, 55, 58- 63, 68, 69- 74, 77-82 and 95. The 3 size groups were: Small enterprises (10-49 employees), Medium enterprises (50-249 employees) and Large enterprises (250+ employees).
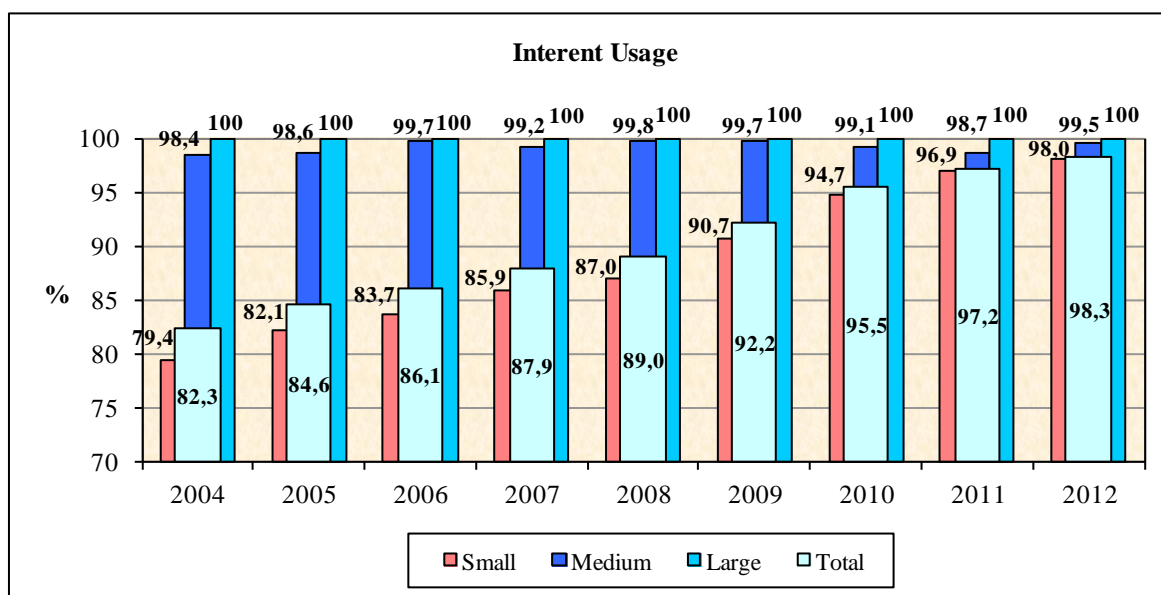
B. MAIN FINDINGS

Use of Computers and Computer Networks

In January 2012, computers were used in almost all enterprises in Cyprus with 50 or more employees (i.e. medium and large enterprises). The percentage of small enterprises (10 − 49 employees) using computers increased to 96,3% compared to 91,8% in 2011.
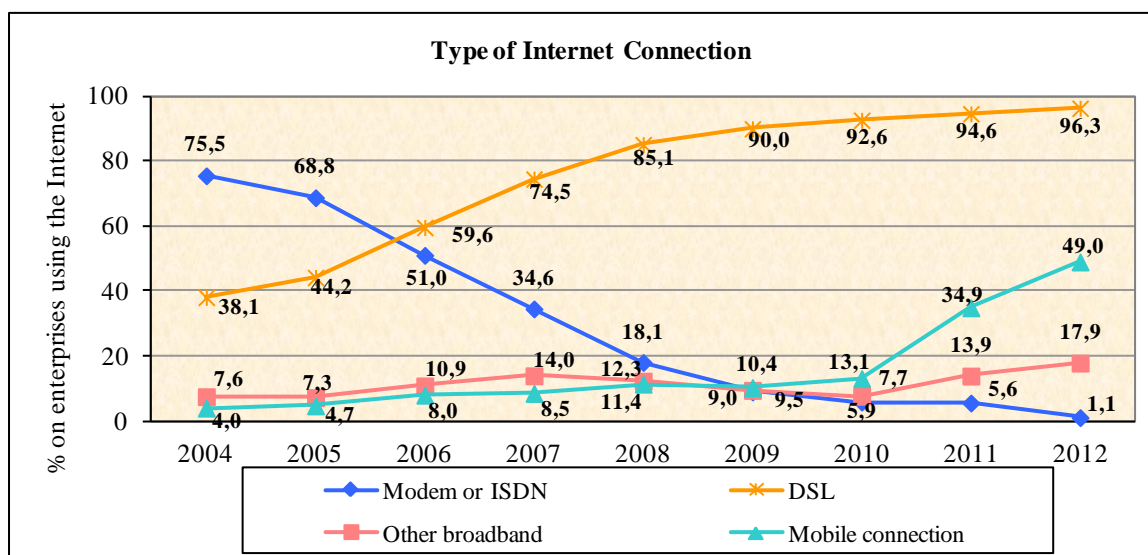
Use of Computers
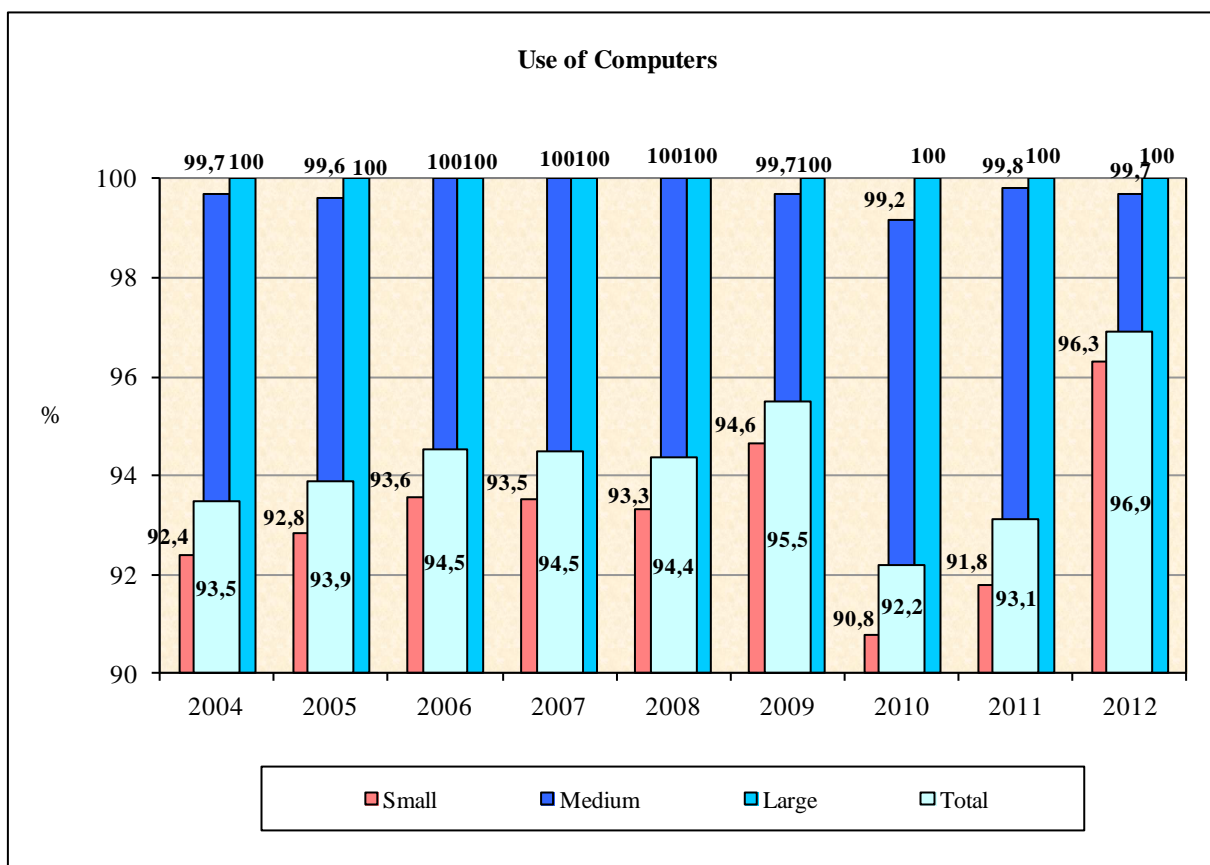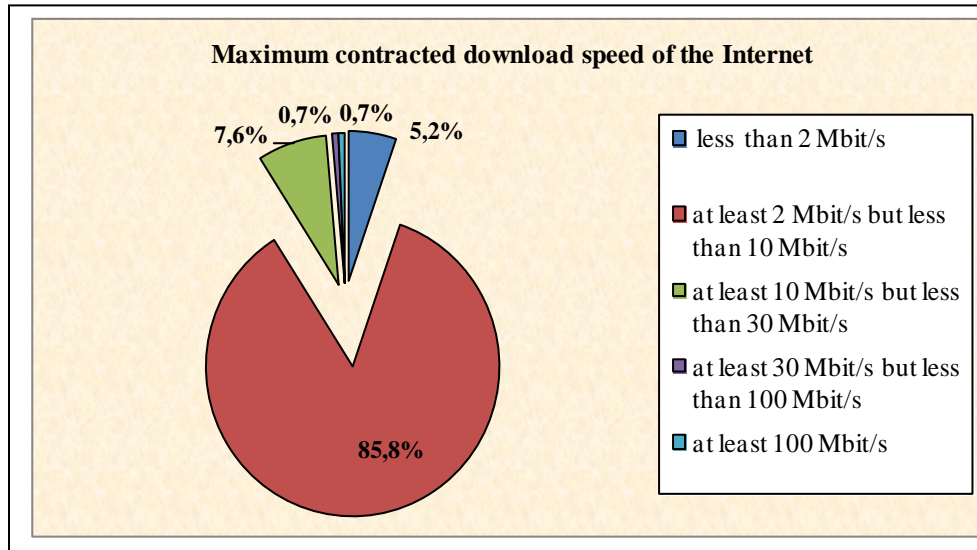
Access and Use of the Internet

Over the last years, Internet usage in enterprises was steadily increasing. 98,3% of enterprises (employing 10 or more persons) had access to the Internet in 2012. The same percentage was 82,3% in 2004. The Internet was used in all large and almost all medium enterprises. Internet usage in small enterprises kept increasing to go over 90% (79,4% in 2004, 82,1% in 2005, 83,7% in 2006, 85,9% in 2007, 87,0% in 2008, 90,7% in 2009, 94,7% in 2010 and 96,9% in 2011) and reach 98,0% in 2012.

Interent Usage

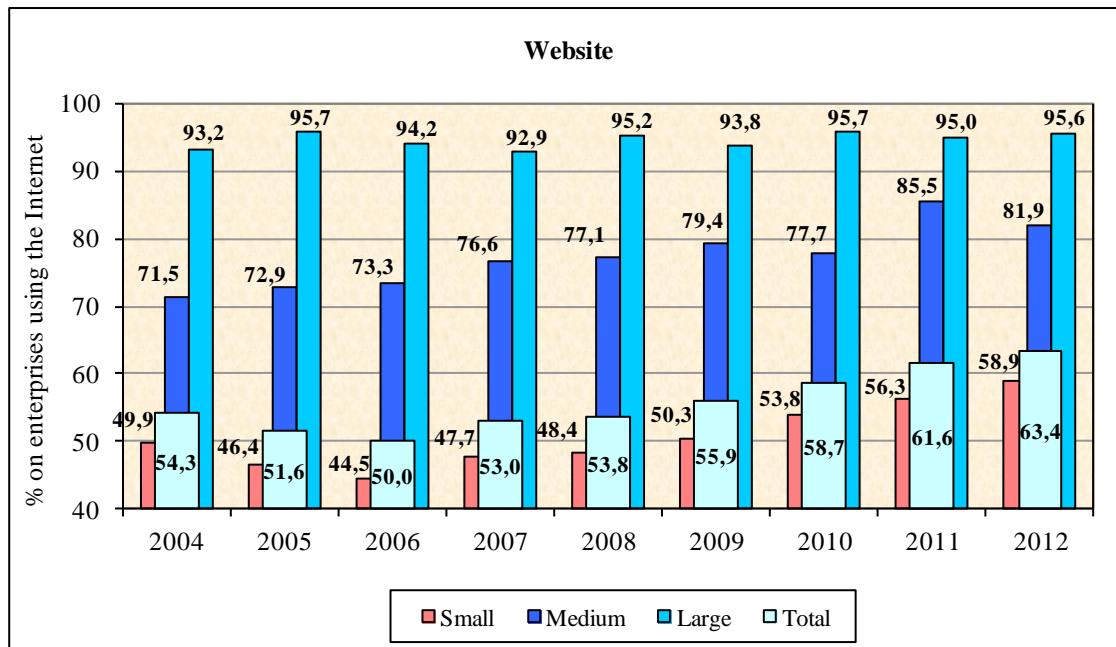|	2004	2005	2006	2007	2008	2009	2010	2011	2012
Small	79,4	82,1	83,7	85,9	87,0	90,7	94,7	96,9	98,0
Medium	98,4	98,6	99,7	99,2	99,8	99,7	99,1	98,7	99,5
Large	82,3	84,6	86,1	87,9	89,0	92,2	95,5	97,2	98,3
Total	100	100	100	100	100	100	100	100	100

In the last years there was a significant increase in broadband connections to the Internet. The modem used to be the most popular type of access to the Internet by enterprises in 2004. Over the years the use of a modem to connect to the Internet is decreased (1,1% in 2012), giving rise to broadband connections, and thus making DSL the most popular type of Internet access from 2006 onwards. In 2012, 96,3% of the enterprises with access to the Internet have a DSL connection. A significant increase is observed in mobile connection in 2012 (49,0%) compared to the previous years.

Type of Internet Connection

% on enterprises using the Internet

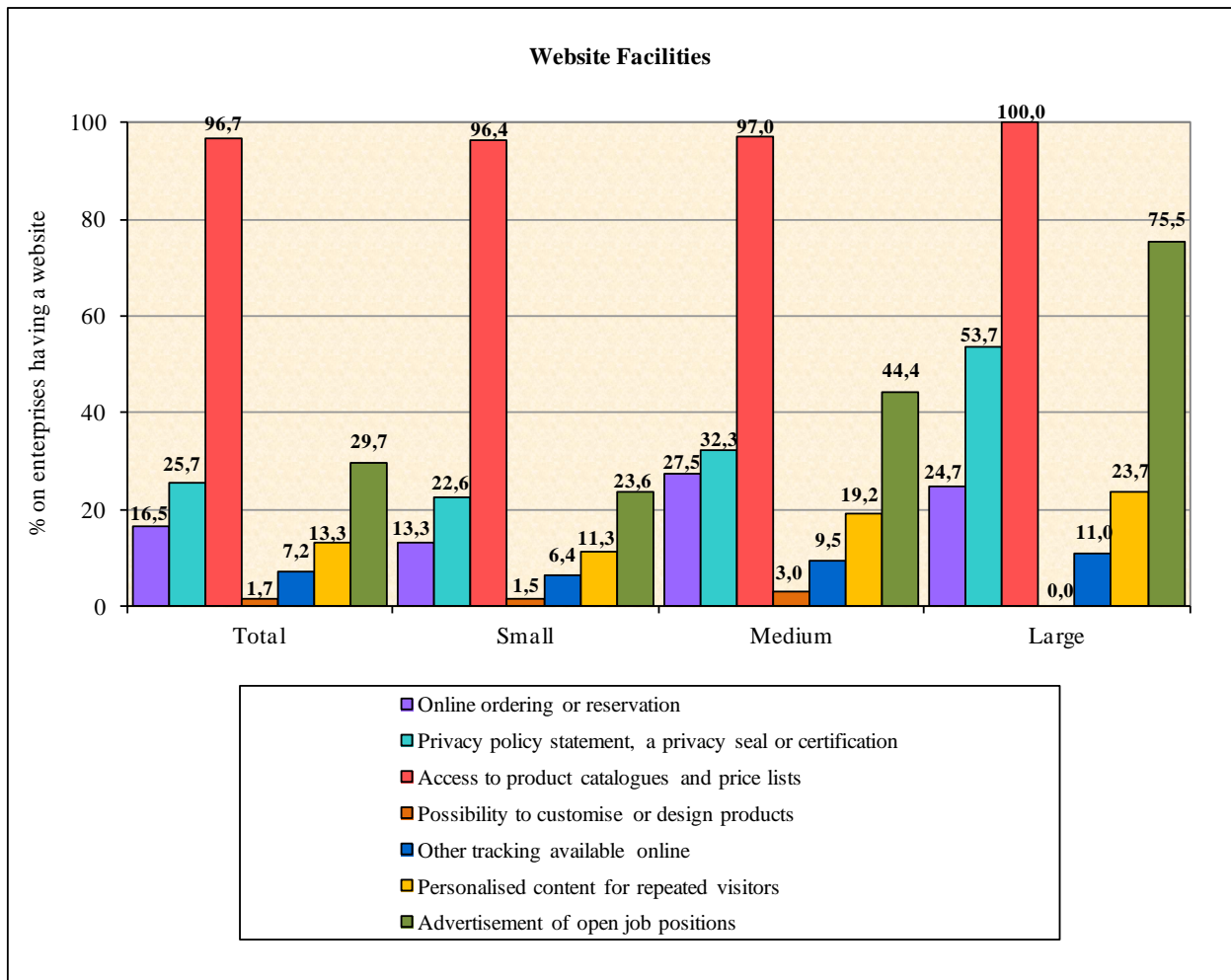|	2004	2005	2006	2007	2008	2009	2010	2011	2012
Modem or ISDN	75,5	68,8	51,0	34,6	18,1	9,0	5,9	5,6	1,1
DSL	38,1	44,2	59,6	74,5	85,1	90,0	92,6	94,6	96,3
Other broadband	7,6	7,3	10,9	14,0	12,3	10,4	13,1	13,9	17,9
Mobile connection	4,0	4,7	8,0	8,5	11,4	9,5	7,7	34,9	49,0

The vast majority of the enterprises (85,8%) in Cyprus has maximum contracted downloaded speed at least 2 Mbit/s but less than 10 Mbit/s. By maximum contracted speed it is meant the maximum theoretical speed according to the contractual obligations of the Internet provider at which data can be downloaded.

Maximum contracted download speed of the Internet

- less than 2 Mbit/s
- at least 2 Mbit/s but less than 10 Mbit/s
- at least 10 Mbit/s but less than 30 Mbit/s
- at least 30 Mbit/s but less than 100 Mbit/s
- at least 100 Mbit/s

7,6% 0,7% 0,7% 5,2%

85,8%

Compared to 2011, a small increase is observed on the percentage of enterprises that have a website (63,4% in 2012 from 61,6% in 2011). Almost all large enterprises (95,6%) had a website.

Website

% on enterprises using the Internet

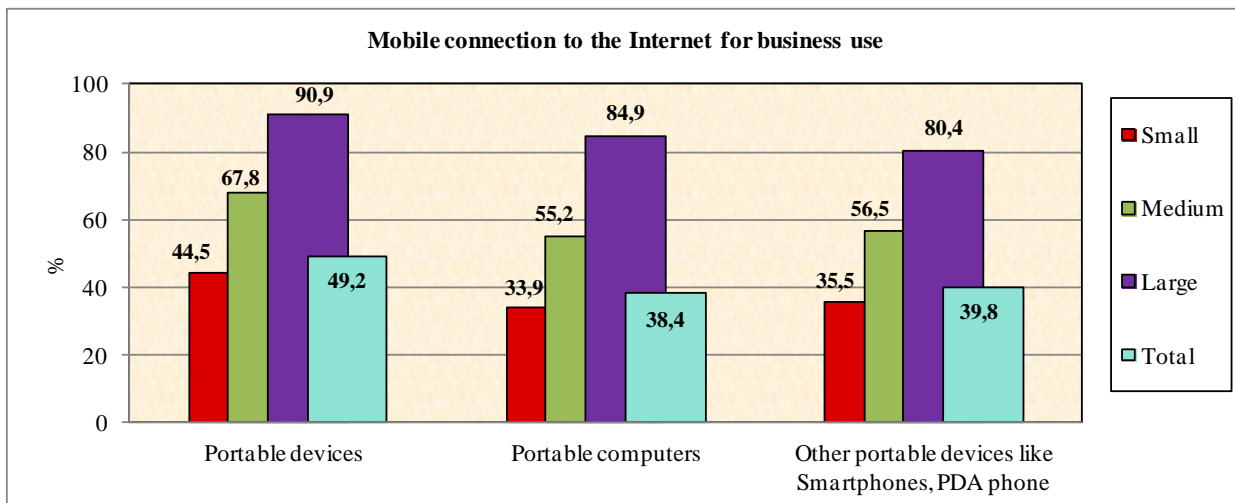| Year	Small	Medium	Large	Total
2004	49,9	71,5	93,2	54,3
2005	46,4	72,9	95,7	51,6
2006	44,5	73,3	94,2	50,0
2007	47,7	76,6	92,9	53,0
2008	48,4	77,1	95,2	53,8
2009	50,3	79,4	93,8	55,9
2010	53,8	77,7	95,7	58,7
2011	56,3	85,5	95,0	61,6
2012	58,9	81,9	95,6	63,4

■ Small ■ Medium ■ Large □ Total

Among the facilities provided by enterprises through their website, the most predominant is the access to product catalogues and price lists (provided by 96,7% of enterprises having a website). 16,5% of the enterprises with a website, provide the possibility of online ordering or reservation to their customers, while only 13,3% the possibility of personalized content for repeated visitors. 25,7% of the enterprises with a website, have a privacy policy statement, a privacy seal or certification. This percentage is much higher for large enterprises (53,7% of the enterprises that had a website). Advertisement of open job positions on a website was a common facility among enterprises that have a website with a significant percentage in large enterprises (75,5%).

Website Facilities

Legend:
- Online ordering or reservation
- Privacy policy statement, a privacy seal or certification
- Access to product catalogues and price lists
- Possibility to customise or design products
- Other tracking available online
- Personalised content for repeated visitors
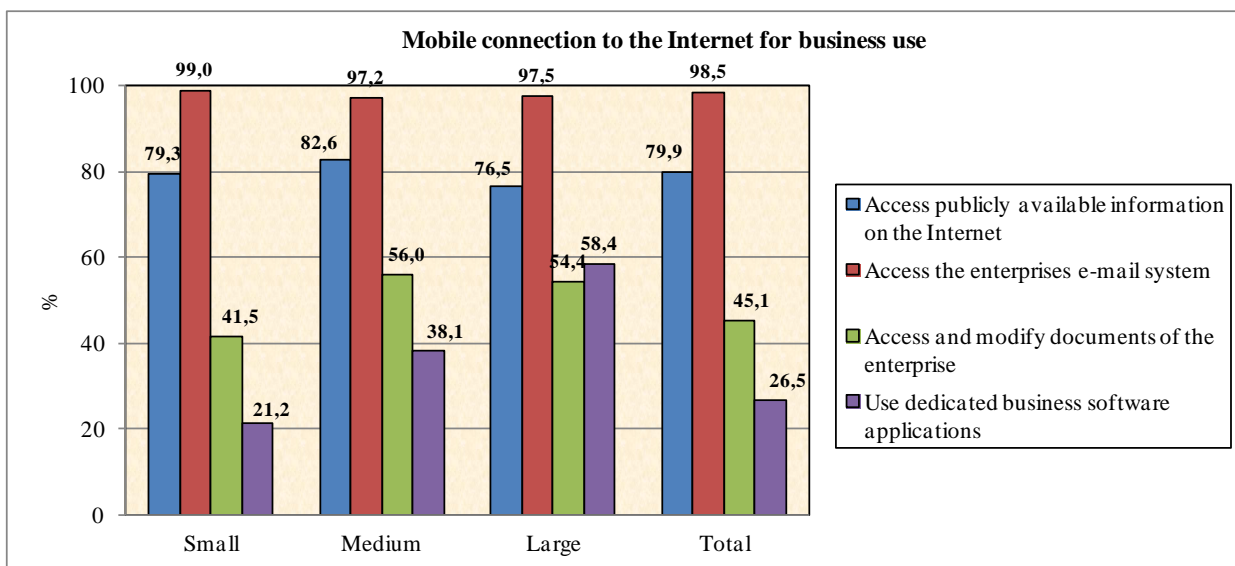- Advertisement of open job positions

Mobile connection to the Internet for business use

Almost half of the enterprises with 10 or more employees provide to the persons employed portable devices that allow a mobile connection to the Internet for business use, and pay for all or at least up to a limit, the subscription and the use costs. Large enterprises are most probable to provide their employees with portable devices as can be seen from the graph below. Portable devices are classified in two broad categories: portable computers (e.g. laptops, notebooks or netbooks, tablet etc.) and other portable devices like smartphones, PDA phone. There are no significant differences between portable computers and other portable devices.

Mobile connection to the Internet for business use

Legend: Small, Medium, Large, Total

| Category	Small	Medium	Large	Total
Portable devices	44,5	67,8	90,9	49,2
Portable computers	33,9	55,2	84,9	38,4
Other portable devices like Smartphones, PDA phone	35,5	56,5	80,4	39,8

The main reasons that enterprises provide their employees with portable devices that allow a mobile connection to the Internet are to access the enterprises e-mail system (98,5%) and to access publicly available information on the Internet (79,9%).

Mobile connection to the Internet for business use

Legend: Access publicly available information on the Internet; Access the enterprises e-mail system; Access and modify documents of the enterprise; Use dedicated business software applications

| Category	Access publicly available information on the Internet	Access the enterprises e-mail system	Access and modify documents of the enterprise	Use dedicated business software applications
Small	79,3	99,0	41,5	21,2
Medium	82,6	97,2	56,0	38,1
Large	76,5	97,5	54,4	58,4
Total	79,9	98,5	45,1	26,5

Automated Data Exchange

Automated Data Exchange (ADE) between an enterprise and other ICT systems outside the enterprise is the exchange of messages via the internet or other computer networks in an agreed format which allows its automatic processing without the individual message being manually typed. In January 2012, the percentage of enterprises using such a data exchange increased to 23,9% compared to 2011 when the same percentage was 21,3%.

Automated Data Exchange
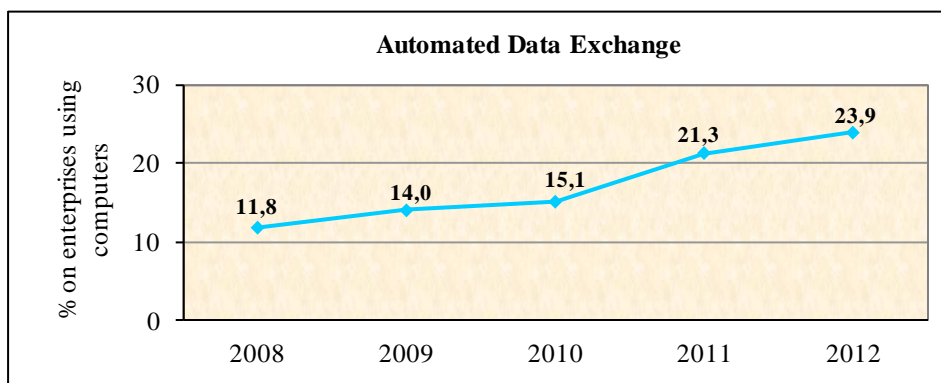
More than half of the large enterprises that use computers are exchanged messages suitable for automatic processing to/from systems outside the enterprise.

Use of Automated Data Exchange
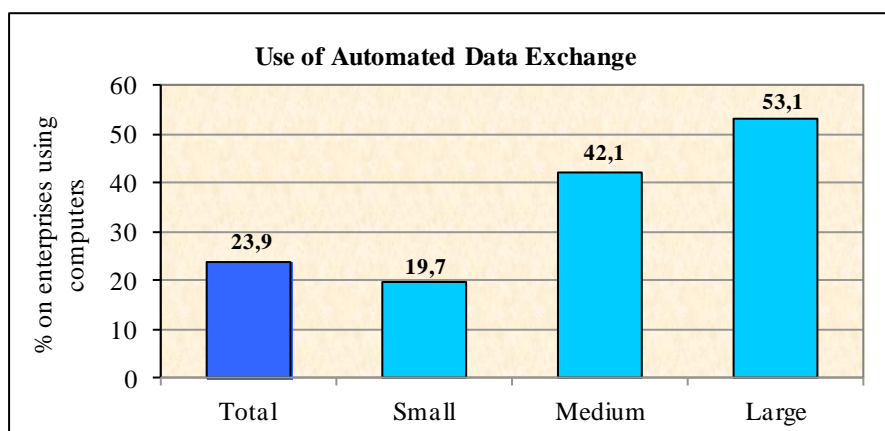
Most of the enterprises using ADE are sending payment instructions to financial institutions via ADE (63,0%).


Purposes for using ADE
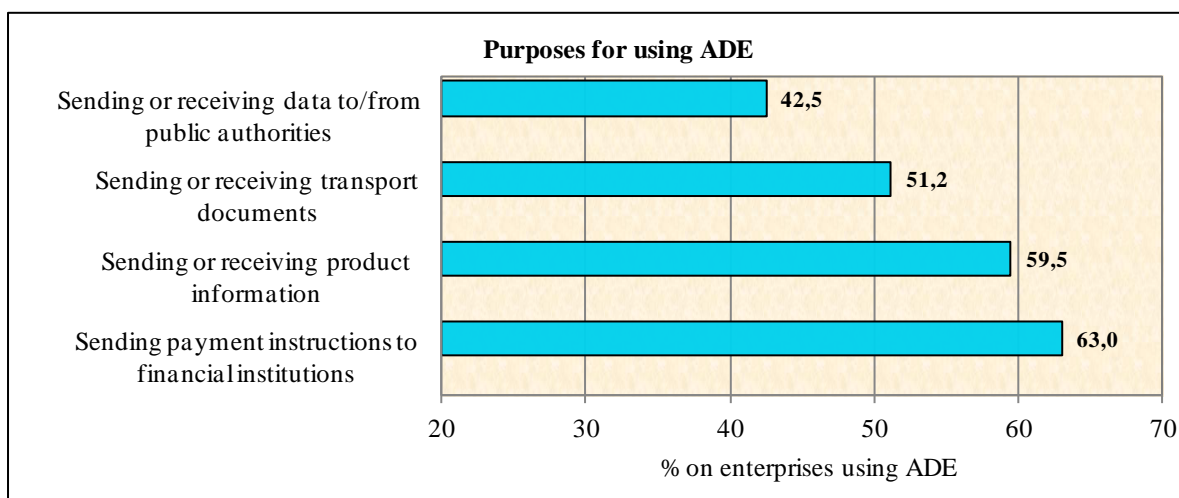
**Automatic share of information within the enterprise**

Sharing information electronically and automatically between different functions of the enterprise means any of the following: using one single software application to support different functions of the enterprise, data linking between the software applications that support the different functions of the enterprise, using a common database or data warehouse accessed by the software applications that support different functions of the enterprise; within this enterprise, sending or receiving electronically information that can processed automatically.
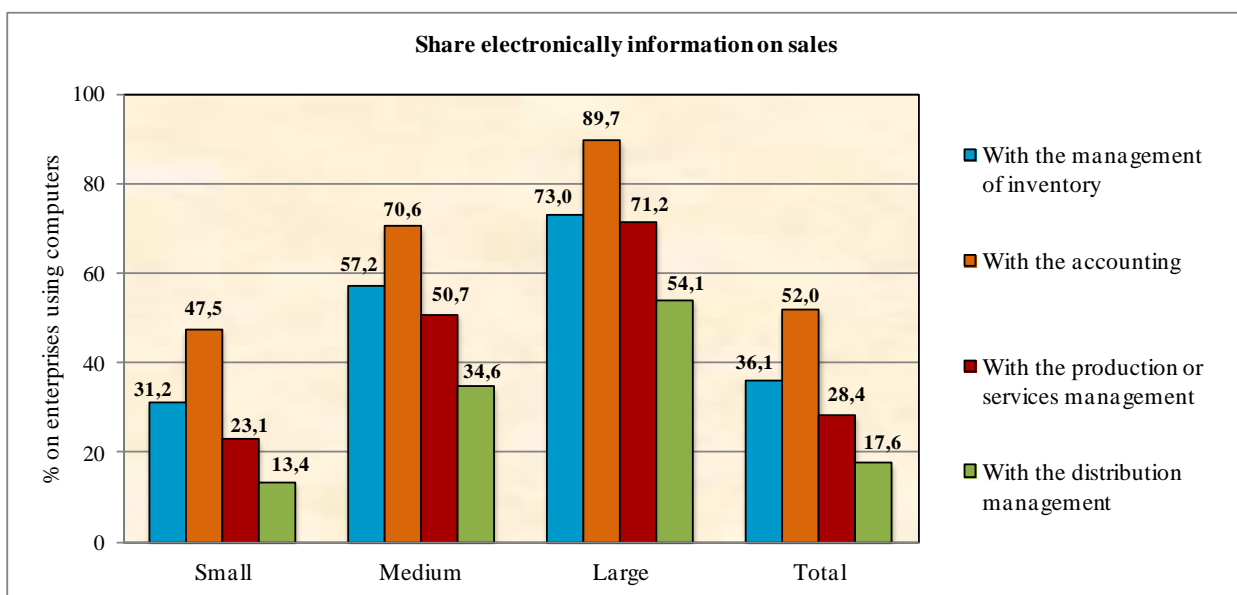

In January 2012, automatic share of information within enterprise was most common in large enterprises that receive a sales order or sent a purchase order. Approximately half of the enterprises that were using computer, when they receive a sales order (52,0%) or sent a purchase order (42,9%) , the relevant information about it shares electronically and automatically with the software used for the accounting.
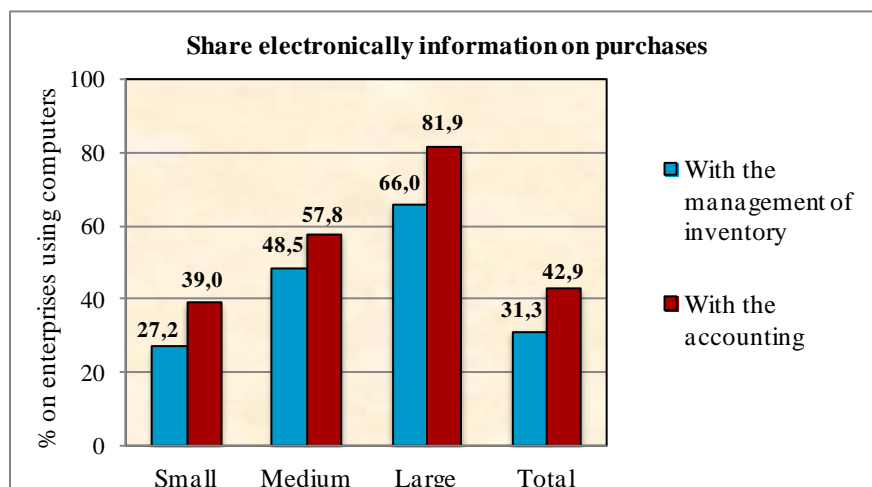
An Enterprise Resource Planning (ERP) software package is a set of applications that integrate information and processes across the several business functions of the enterprise. 21,8% of enterprises that used computers said that they had an ERP software package to share information on sales and purchases with other internal functional areas of the enterprise, during January 2012. ERP software package is most common in large enterprises that used computers, with percentage 73,3%. Regarding NACE Rev.2 group, the highest percentage of enterprises having ERP is 59,0% in NACE Rev.2 group J: Information and Communication.

Enterprise Resource Planning - ERP

* Description of NACE codes provided in Annex1
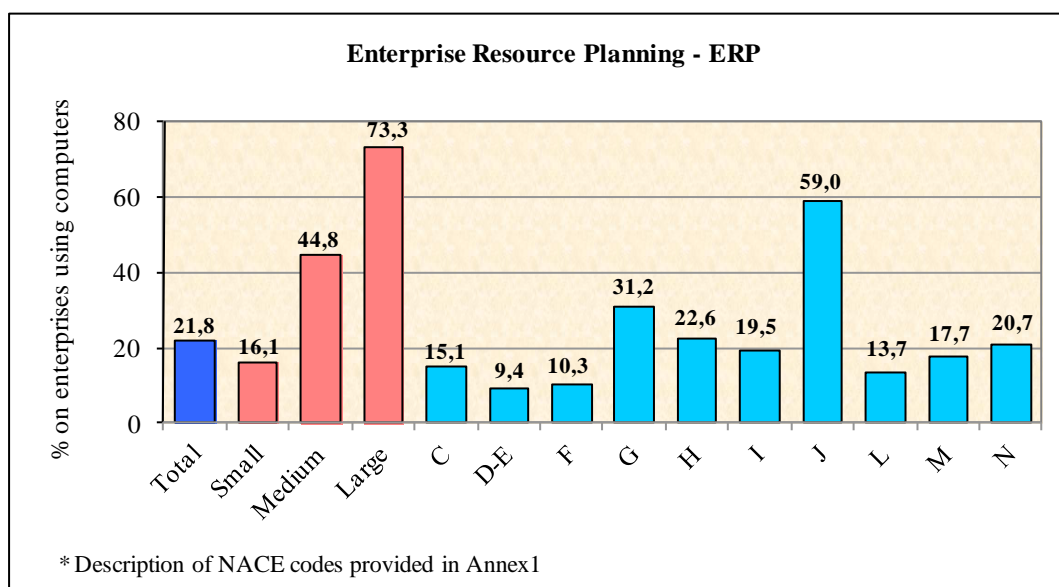
Among enterprises using computers 25,0% have Operational CRM (Customer Relationship Management) software application for managing information about clients, either to capture, store and make available to other business functions the information about clients, and 19,4% have Analytical CRM to make analysis of the information about clients for marketing purposes. Both Operational and Analytical CRM are most common in large enterprises (55,6% and 53,7% respectively).

Customer Relationship Management - CRM

■ Operational CRM   ■ Analytical CRM

*Descritption of NACE codes provided in Annex1
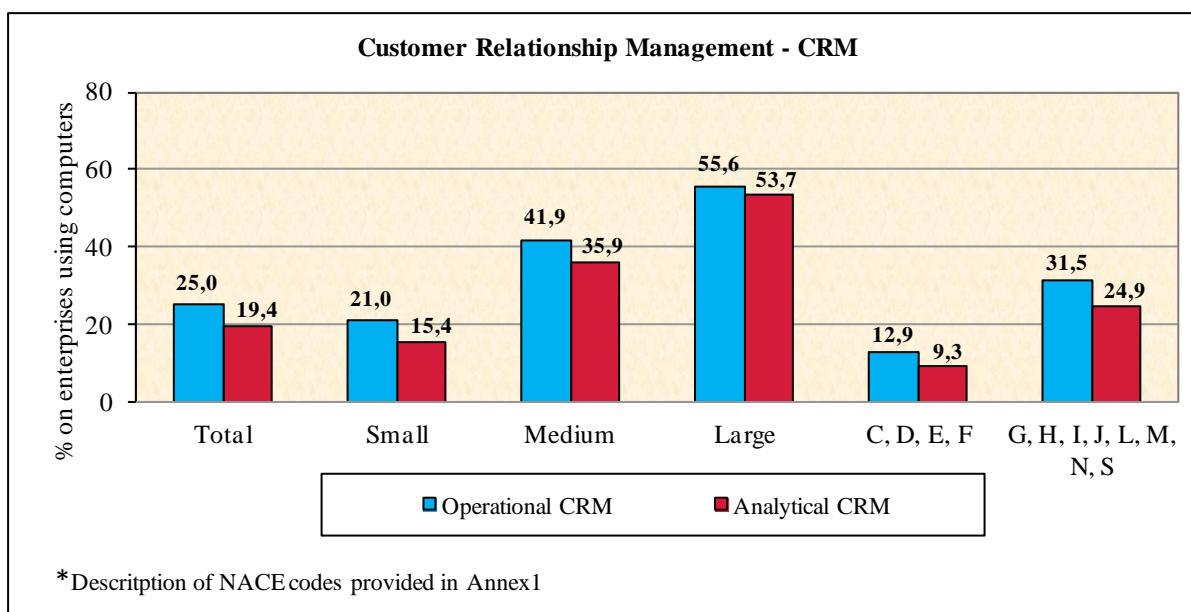
In summary, ERP and CRM are most common in large enterprises with a percentage above 50,0% while the percentage for the enterprises with 10 or more employees is fluctuate between 20,0% and 25,0%.
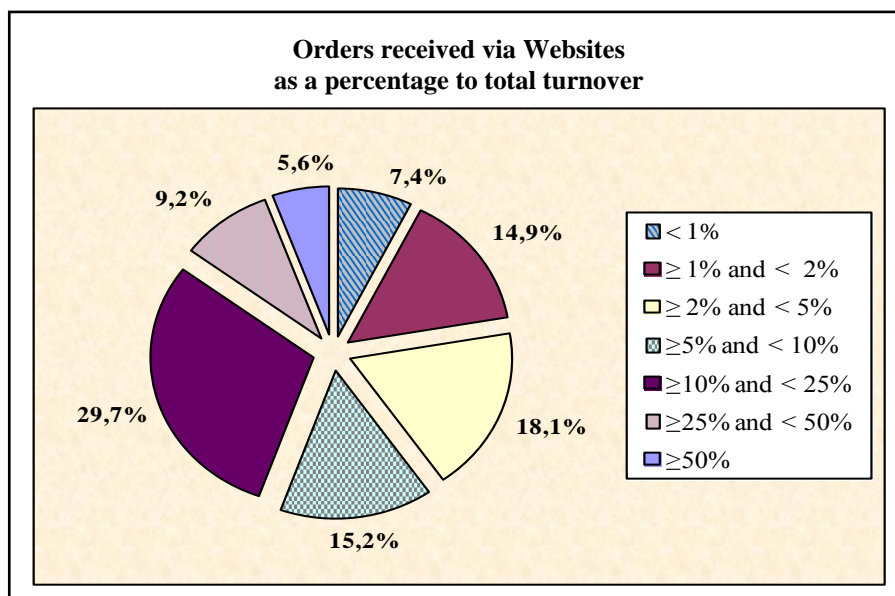

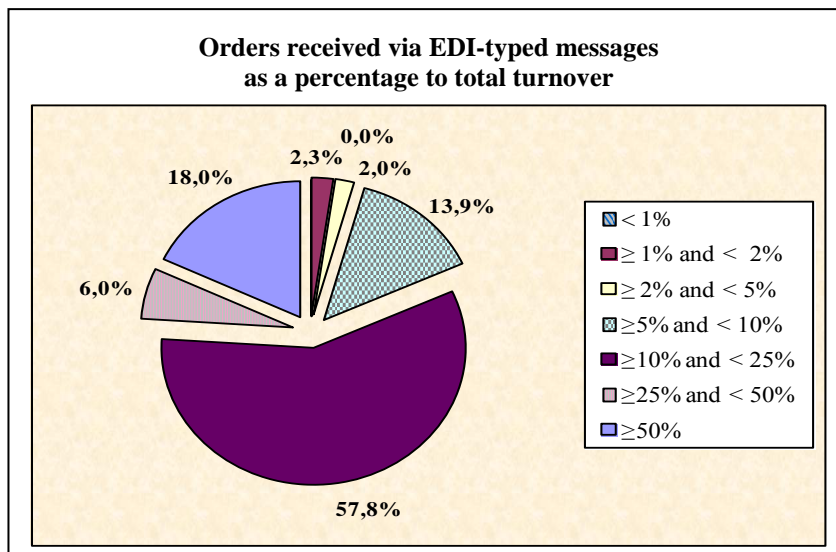**ERP and CRM**
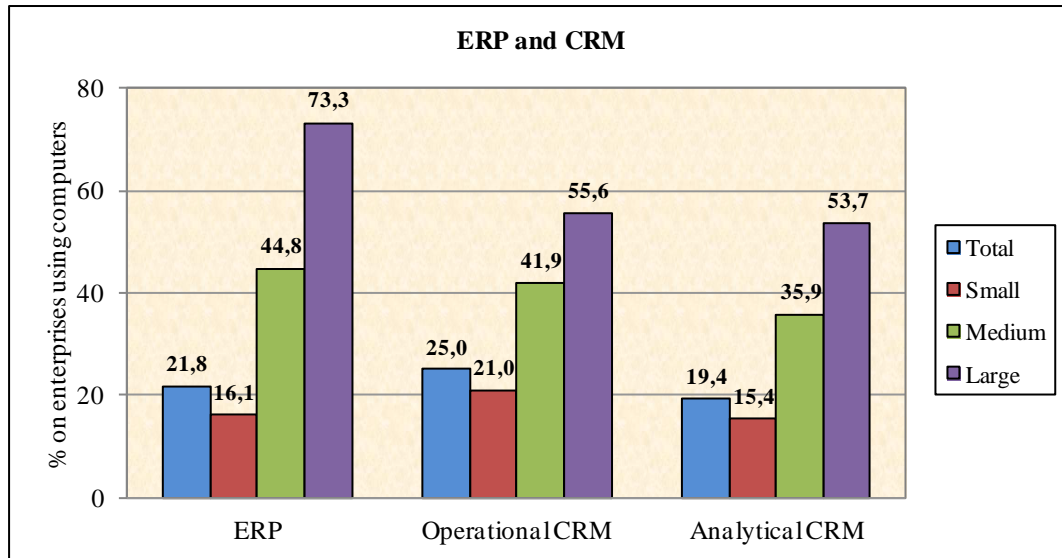
e-Commerce

E-Commerce is not very popular among enterprises in Cyprus. Only 7,7% of enterprises using computers had received orders via computer networks (excluding manually typed e-mails), during 2011. Enterprises receiving online orders in Cyprus seemed to be mostly the ones that belong in NACE Rev.2 group G, H, I, J, L, M, N, S (See Annex) with percentage 11,1% which is much higher than in other economic activity (C, D, E, F: 1,4%). It is worth mentioning that large enterprises received more orders via computer networks.

**e-Commerce
Sales via the Internet**

* Description of NACE codes provided in Annex1
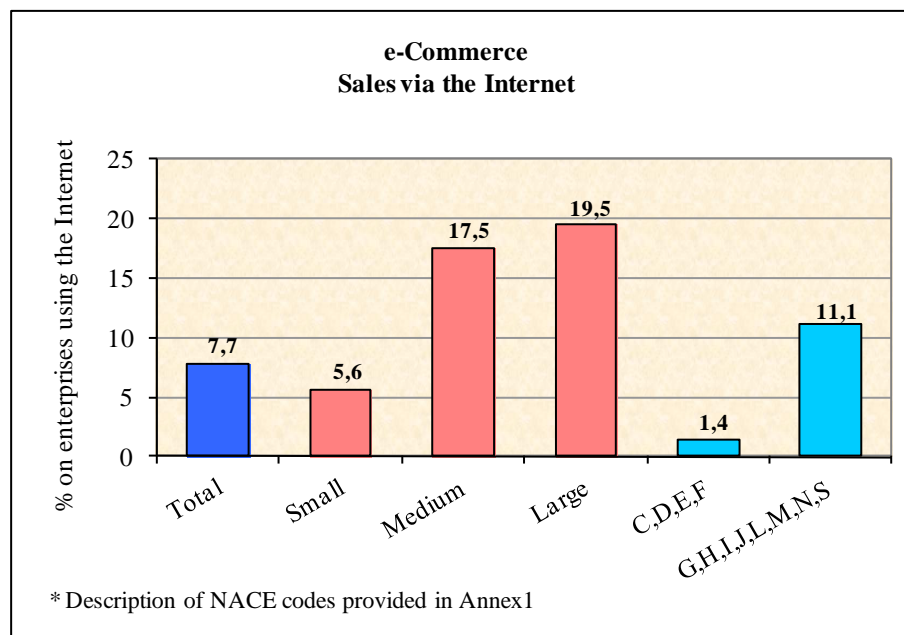
In relation to the total sales (in monetary terms, excluding VAT) sales via Websites represented only a small percentage in many of the enterprises. Only in 5,6% of the enterprises that received electronic orders, the value of the turnover resulted from those orders represented more than 50% of their total turnover and in 40,4% of the enterprises that received electronics orders, the value of the turnover resulted from those orders represented less than 5% of their total turnover.

**Orders received via Websites
as a percentage to total turnover**

| Legend |
|---|
| < 1% |
| ≥ 1% and < 2% |
| ≥ 2% and < 5% |
| ≥5% and < 10% |
| ≥10% and < 25% |
| ≥25% and < 50% |
| ≥50% |

5,6% 7,4% 9,2% 14,9% 29,7% 18,1% 15,2%

On the other hand, 18,0% of the enterprises that received electronic orders via EDI-typed messages, the value of the turnover resulted from those orders represented more than 50% of their total turnover. The majority of the enterprises that received electronic orders via EDI-typed messages (57,8%), the value of the turnover resulted from those orders represented more than 10% but less than 25% of their total turnover.

**Orders received via EDI-typed messages
as a percentage to total turnover**

Legend
< 1%
≥ 1% and < 2%
≥ 2% and < 5%
≥5% and < 10%
≥10% and < 25%
≥25% and < 50%
≥50%

0,0% 2,3% 2,0% 18,0% 13,9% 6,0% 57,8%

Only 18,6% of enterprises with 10 or more employees using computers made orders of products or services via computer networks during 2011. In large enterprises the percentage of ordering via computer networks was 35,9%.

* Description of NACE codes provided in Annex1
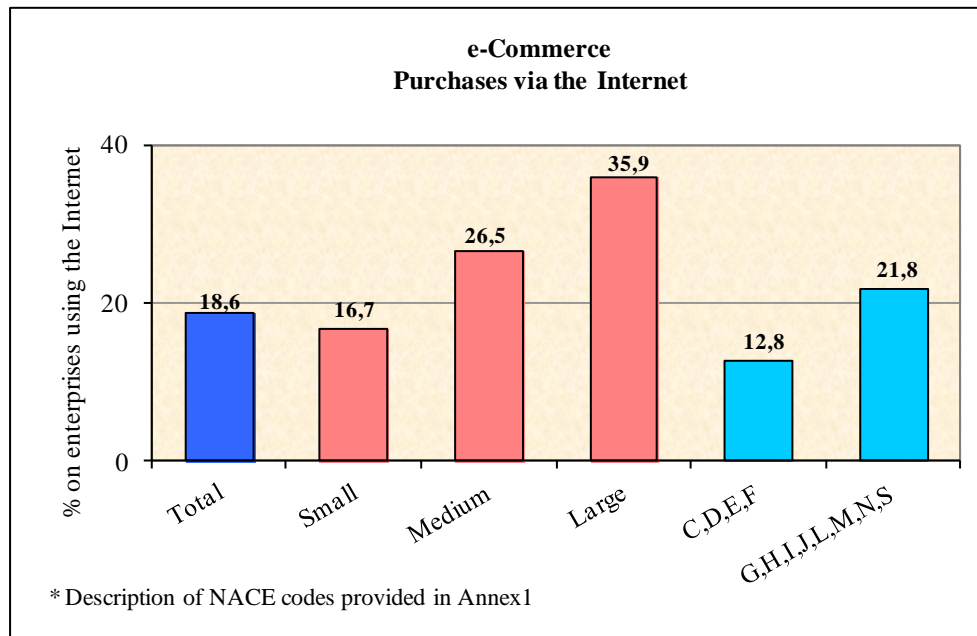
As with sales via computer networks, purchases via computer networks (in monetary terms, excluding VAT) represented only a small percentage in most of the enterprises. In the majority of enterprises that made electronic orders (74,5%) these orders represented less than 5% of the total value of orders of the enterprise. However, there were 18,6% of enterprises for which their online orders value was more than 25% of their total value of orders.
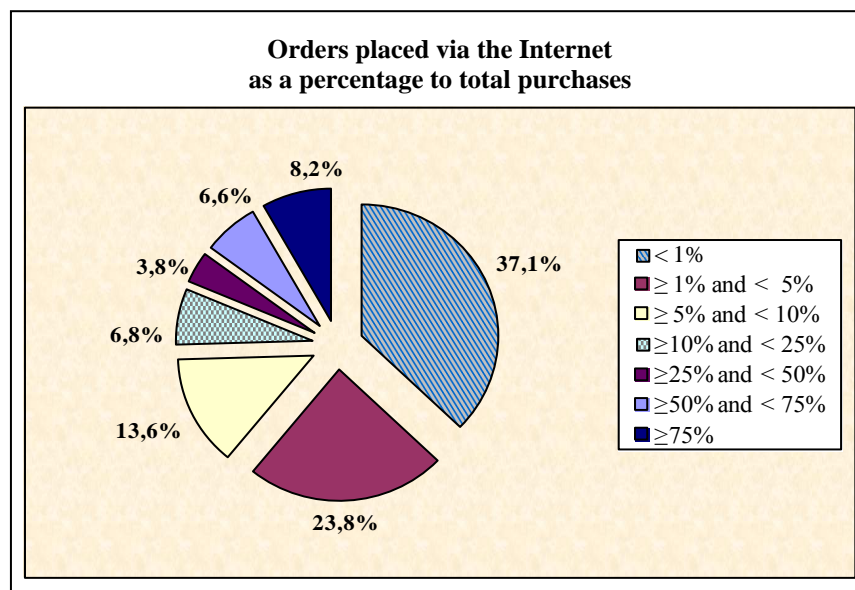
Annex
Description of NACE Codes included in the Survey
NACE Rev.2

C   **MANUFACTURING**
C10   MANUFACTURE OF FOOD PRODUCTS
C11   MANUFACTURE OF BEVERAGES
C12   MANUFACTURE OF TOBACCO PRODUCTS
C13   MANUFACTURE OF TEXTILES
C14   MANUFACTURE OF WEARING APPAREL
C15   MANUFACTURE OF LEATHER AND RELATED PRODUCTS
C16   MANUFACTURE OF WOOD AND OF PRODUCTS OF WOOD AND CORK, EXCEPT
         FURNITURE; MANUFACTURE OF ARTICLES OF STRAW AND PLAITING
         MATERIALS
C17   MANUFACTURE OF PAPER AND PAPER PRODUCTS
C18   PRINTING AND REPRODUCTION OF RECORDED MEDIA
C19   MANUFACTURE OF COKE AND REFINED PETROLEUM PRODUCTS
C20   MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS
C21   MANUFACTURE OF BASIC PHARMACEUTICAL PRODUCTS AND
         PHARMACEUTICAL PREPARATIONS
C22   MANUFACTURE OF RUBBER AND PLASTIC PRODUCTS
C23   MANUFACTURE OF OTHER NON- METALLIC MINERAL PRODUCTS
C24   MANUFACTURE OF BASIC METALS
C25   MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND
         EQUIPMENT
C26   MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS
C27   MANUFACTURE OF ELECTRICAL EQUIPMENT
C28   MANUFACTURE OF MACHINERY AND EQUIPMENT N.E.C.
C29   MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS
C30   MANUFACTURE OF OTHER TRANSPORT EQUIPMENT
C31   MANUFACTURE OF FURNITURE
C32   OTHER MANUFACTURING
C33   REPAIR AND INSTALLATION OF MACHINERY AND EQUIPMENT

D   **ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY**

E   **WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDATION
         ACTIVITIES**
E36   WATER COLLECTION, TREATMENT AND SUPPLY
E37   SEWERAGE
E38   WASTE COLLECTION, TREATMENT AND DISPOSAL ACTIVITIES; MATERIALS
         RECOVERY
E39   REMEDATION ACTIVITIES AND OTHER WASTE MANAGEMENT SERVICES

F   **CONSTRUCTION**
F41   CONSTRUCTION OF BUILDINGS
F42   CIVIL ENGINEERING
F43   SPECIALIZED CONSTRUCTION ACTIVITIES

G   **WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES**
G45   WHOLESALE AND RETAIL TRADE AND REPAIR OF MOTOR VEHICLES AND MOTORCYCLES
G46   WHOLESALE TRADE, EXCEPT OF MOTOR VEHICLES AND MOTORCYCLES
G47   RETAIL TRADE, EXCEPT OF MOTOR VEHICLES AND MOTORCYCLES

H   **TRANSPORT, STORAGE AND COMMUNICATION**
H49   LAND TRANSPORT AND TRANSPORT VIA PIPELINES
H50   WATER TRANSPORT
H51   AIR TRANSPORT
H52   WAREHOUSING AND SUPPORT ACTIVITIES FOR TRANSPORTATION
H53   POSTAL AND COURIER ACTIVITIES

I   **ACCOMODATION AND FOOD SERVICE ACTIVITIES**
I55   ACCOMODATION
I56   FOOD AND BEVERAGE SERVICE ACTIVITIES

J   **INFORMATION AND COMMUNICATION**
J58   PUBLISHING ACTIVITIES
J59   MOTION PICTURE, VIDEO AND TELEVISION PROGRAMME PRODUCTION, SOUND RECORDING AND MUSIC PUBLISHING
J60   PROGRAMMING AND BROADCASTING ACTIVITIES
J61   TELECOMMUNICATIONS
J62   COMPUTER PROGRAMMING, CONSULTANCY AND RELATED ACTIVITIES
J63   INFORMATION SERVICE ACTIVITIES

L   **REAL ESTATE ACTIVITIES**

M   **PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES**
M69   LEGAL AND ACCOUNTING ACTIVITIES
M70   ACTIVITIES OF HEAD OFFICES; MANAGEMENT CONSULTANCY ACTIVITIES
M71   ARCHITECTURAL AND ENGINEERING ACTIVITIES; TECHNICAL TESTING AND ANALYSIS
M72   SCIENTIFIC RESEARCH AND DEVELOPMENT
M73   ADVERTISING AND MARKET RESEARCH
M74   OTHER PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES

N   **ADMINISTRATIVE ABD SUPPORT SERVICE ACTIVITIES**
N77   RENTAL AND LEASING ACTIVITIES
N78   EMPLOYMENT ACTIVITIES
N79   TRAVEL AGENCY, TOUR OPERATOR RESERVATION SERVICE AND RELATED ACTIVITIES
N80   SECURITY AND INVESTIGATION ACTIVITIES
N81   SERVICES TO BUILDINGS AND LANDSCAPE ACTIVITIES
N82   OFFICE ADMINISTRATIVE, OFFICE SUPPORT AND OTHER BUSINESS SUPPORT ACTIVITIES

S   OTHER SERVICE ACTIVITIES
S951   REPAIR OF COMPUTERS AND PERSONAL AND HOUSEHOLD GOODS