**Communications and Information Technology Commission**

# Internet Usage in the Kingdom of Saudi Arabia

## Government sector

**The first year ( 2007 ) Report .**

**For Any comments regarding this study :**
P.O Box 75606 – Riyadh 11588 – Kingdome of Saudi Arabia
Phone : +966 (1) 4618000
Email  : **InternetStudy_feedback@citc.gov.sa**

## 1.0 Background

**Communications and Information Technology Commission (CITC)** was established under the name of Saudi Communications Commission pursuant to the Council of Ministers Decision No. (74) Dated 5/3/1422H. The Commission was entrusted with new tasks related to information technology to become (Communications and Information Technology Commission) under the Council of Ministers Decision No. (123) dated 21/5/1424H and the name was changed to CITC. The Mission Statement of the Commission is to ***"Ensure the provision of universally available, high quality and affordable communication and information technology services"***

Internet service was officially made available in the Kingdom of Saudi Arabia in 1997. Internet is becoming an integral part of the Saudi Society and Economy. CITC wants to understand the Internet status and potential growth within the Kingdom. To this end, a comprehensive study covering a wide range of the Internet related indicators in Saudi Arabia was needed. Nielsen was entrusted to conduct the study in 2007.

The study evaluates the current situation of Internet in Saudi Arabia. The study aims to identify the penetration levels, habits and usage patterns and the future potential of Internet in Saudi Arabia. It covers a wide range of information areas from infrastructure to satisfaction. It covers different types of users – individual users, home users, government agencies, educational institutes and corporate users. The research was designed, to

ensure national representation.  Further, the
study would be repeated annually for a minimum of three times in order to measure progress and growth.

**Salient Features of the Research**
- ▶ **National Representation**
- ▶ **Across Customer Types : Consumers, Corporate and Government**
- ▶ **Annual Tracking to measure progress**

This document details the findings of the survey carried out among **Government sector** in the Kingdom of Saudi Arabia.

## 2.0  Methodology

### 2.1  Research Design

- A quantitative research exercise was conducted.
- **A total of around 440 interviews for the listing module and 90 interviews for the detailed module were conducted.**
- Government department representatives across the country were interviewed.

### 2.2  Target Respondents

- Respondents interviewed for the survey were:
  - IT / Telecom managers or the officials who are responsible for such decisions.

### 2.3  Coverage and Sampling

- Interviews were conducted in all the provinces of Saudi Arabia.

- The sample for Government interviews was designed using the Yellow Pages Directory.

### 2.4 Research Instrument

- Interviews were conducted using a structured questionnaire. The questionnaire was translated into Arabic. Interviews were done in Arabic / English as convenient to the respondent.
- The questionnaires were a mix of close and open-ended questions.
- The length of the listing interview was around 10-15 minutes while the detailed interview was approximately 30-35 minutes long.

### 2.5  Quality Control

- Rigorous quality controls were followed at both the field and data processing levels. A minimum of 25% of the questionnaire were back checked by the Field Supervisors and Field Managers.
- At the data processing stage, questionnaire which were not filled in properly were rejected and only after ensuring 100% cleaned data were considered for the analysis.
- For details on the Quality Control standards please refer to the CITC Inception Report Section 6 and 7.

## 3.0 Sample Profile

In total, 441 Government offices were contacted for the purpose of this research. The following provinces were covered in the sample.

*Exhibit 3.1 Sample Composition by Provinces*

| Sectors | % of Total Sample |
|---|---|
| *Base: All* | *441* |
| **Central Region** | **36%** |
| Riyadh Province | 23% |
| Qassim Province | 13% |
| **Western Region** | **21%** |
| Makkah Province | 17% |
| Madinah Province | 4% |
| **Eastern Region** | **10%** |
| **Southern Region** | **16%** |
| Assir Province | 8% |
| Others | 8% |
| **Northern Region** | **17%** |

The information will be analyzed on the base of the number of offices in the various provinces / regions.

Majority of the departments contacted in the sample have more than five branches in the various provinces, while 18% of the departments do not have branches in the Kingdom other than the head office.

### Key decision makers on IT related issues

In more than 50% of departments, IT manager and Manager of the department are both involved in the decision making process.
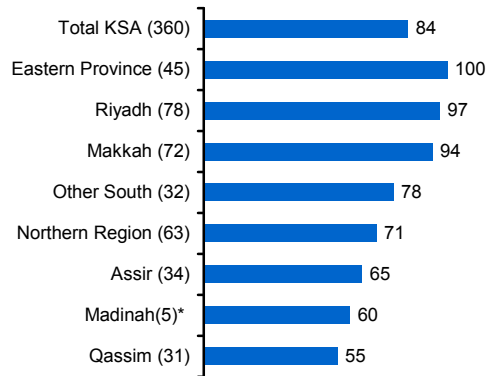
## 4.0 Infrastructure & Investments

### 4.1 Computer Penetration

Although the penetration of computers in the head offices of Government departments is nearly universal, amongst branch offices the figure is lower at 84%. So, currently one in every six branch offices still does not use computer devices.

The penetration varies by provinces with the larger provinces having a higher penetration.

*Exhibit 4.1 Computer Penetration in branch offices by Province*



| Province | Value |
|----------|-------|
| Total KSA (360) | 84 |
| Eastern Province (45) | 100 |
| Riyadh (78) | 97 |
| Makkah (72) | 94 |
| Other South (32) | 78 |
| Northern Region (63) | 71 |
| Assir (34) | 65 |
| Madinah(5)* | 60 |
| Qassim (31) | 55 |

*Note: * Base too small to analyze*

*Computer penetration: % of educational institutes owning a computer even if it's only one computer.*

The ratio of computer to employees in the head office is 1.52.

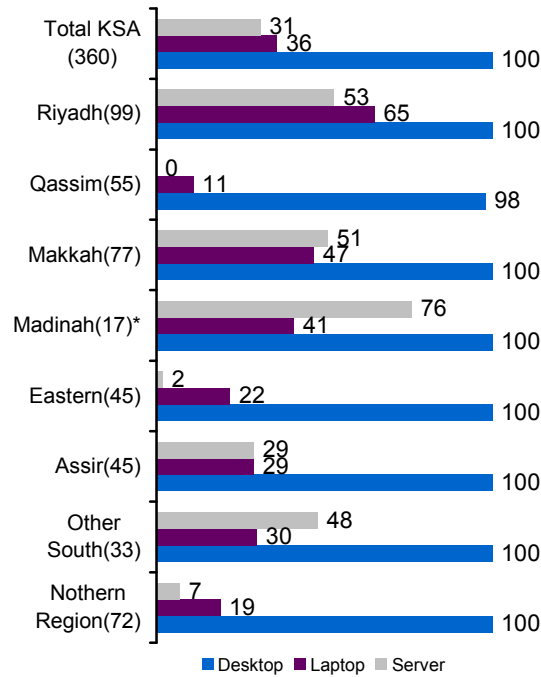*Calculation: No. of employees / No. of computer x % of computer used by students*

**Near universal penetration of desktops seen in the Government departments.**

**Computer devices used are largely branded.**

## 4.2 Devices

Desktop is the most widely used computer device, with presence in all Government departments while Laptops are used in 36% and Servers in 31% departments. PDA is the least used. Laptop usage is higher in Riyadh and Makkah provinces.

*Exhibit 4.2 Computer devices by Province*



| | Desktop | Laptop | Server |
|---|---|---|---|
| Total KSA (360) | 100 | 36 | 31 |
| Riyadh(99) | 100 | 65 | 53 |
| Qassim(55) | 98 | 11 | 0 |
| Makkah(77) | 100 | 47 | 51 |
| Madinah(17)* | 100 | 41 | 76 |
| Eastern(45) | 100 | 22 | 2 |
| Assir(45) | 100 | 29 | 29 |
| Other South(33) | 100 | 30 | 48 |
| Nothern Region(72) | 100 | 19 | 7 |

*Base : All Departments which use Computer Devices (433)*

*Note: * Base too small to analyze*

The computer devices used in the departments are predominantly branded with more than 9 out of 10 computer devices currently used being branded. Desktops are the only unbranded computer devices in use.

## 4.3 Depth of usage

Each head office, on an average has 166 computer devices compared to 115 in a branch office.

The density of computers owned is higher in the head offices with computer devices being provided to a higher proportion of employees as compared to the branch offices.

*Exhibit 4.3 Percentage of Employees Provided with Computer Devices*

| | Head Office | Branch Office |
|---|---|---|
| Base: All | 89 | 60 |
| % of Employees | 56% | 49% |

*Base : All Departments which use Computer Devices*

## 4.4 Operating Systems

Microsoft is the most dominant operating system in the Government departments. Windows XP (Home and Professional) is the most widely used version of Windows. Other operating systems like Macintosh and Linux have negligible usage.

The awareness of 'Open Source' applications is moderate (22%).

*Exhibit 4.4 Operating systems used by Province*



**■ Windows XP Professional  ■ Windows XP Home**
**■ Windows ME / 2000**
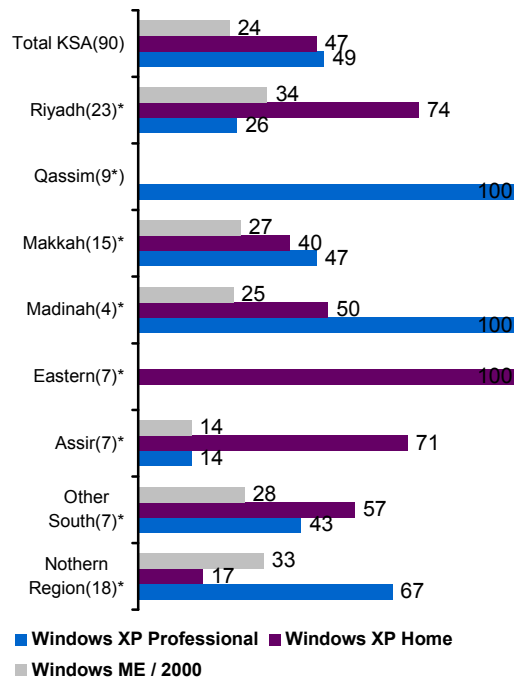
*Base : All Departments  which use Computer Devices (90)*
*Note: * Base too small to analyze*

Arabic as a language for operating systems is used by almost all departments. However, 1 out of 3 departments use both Arabic and English language operating systems.

Employees and administrative staff largely prefer Arabic while nearly half of the management staff show a preference for English as the language for the operating system.


## 4.5 Investments

In a year, a department in the Kingdom spends on an average of about 10,774 SR on hardware, software maintenance and training. The IT spends in the Government departments are much lower as compared to spends in the corporate entities.

The practice of providing IT related training to Government employees is relatively uncommon in Kingdom. Almost 40% of departments do not provide any IT related training to their employees.
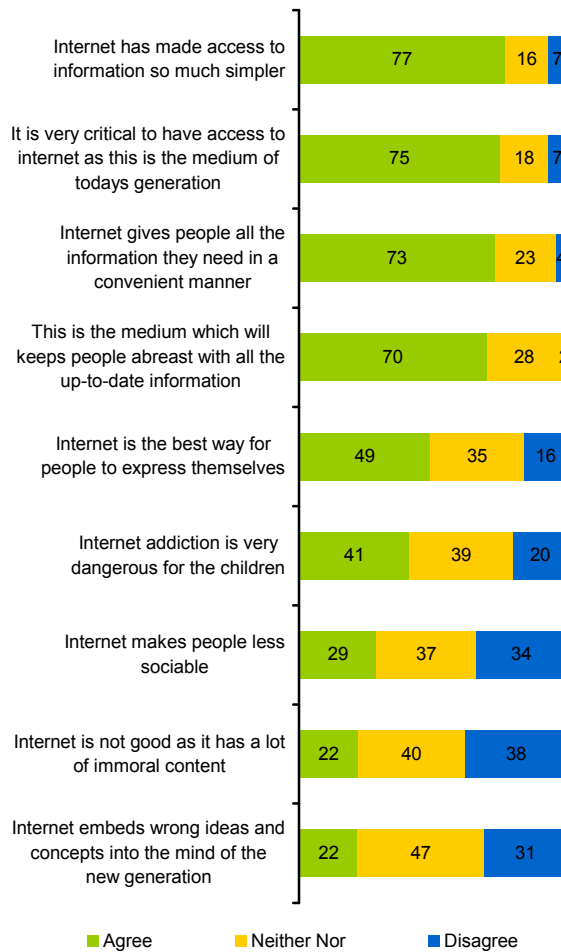
Among departments that provide IT related training, MS Office, database management and accounting packages are most popular.

**IT Training not a common practice in departments**

5.0 Opinion about Internet

Internet is perceived as a medium that provides access to all the information in a convenient and simpler way. It is also believed to be a medium that is critical for the next generation. Almost 50% of IT managers also find internet as the best way for people to express their views, ideas and thoughts.

*Exhibit 5.1 Opinion about Internet*

| Statement | Agree | Neither Nor | Disagree |
|---|---|---|---|
| Internet has made access to information so much simpler | 77 | 16 | 7 |
| It is very critical to have access to internet as this is the medium of todays generation | 75 | 18 | 7 |
| Internet gives people all the information they need in a convenient manner | 73 | 23 | 4 |
| This is the medium which will keeps people abreast with all the up-to-date information | 70 | 28 | 2 |
| Internet is the best way for people to express themselves | 49 | 35 | 16 |
| Internet addiction is very dangerous for the children | 41 | 39 | 20 |
| Internet makes people less sociable | 29 | 37 | 34 |
| Internet is not good as it has a lot of immoral content | 22 | 40 | 38 |
| Internet embeds wrong ideas and concepts into the mind of the new generation | 22 | 47 | 31 |

■ Agree   ■ Neither Nor   ■ Disagree

However these advantages of internet also come with a fear of internet addiction among children.

**The IT managers across departments in the Kingdom are convinced that internet provides information in a convenient and simple way.**

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## 6.0 Internet Usage

### 6.1 Internet Penetration

The penetration of internet connection amongst Government departments in Kingdom is 65%, with its usage being lowest in Asir and Qassim province at 39% and 49% respectively.
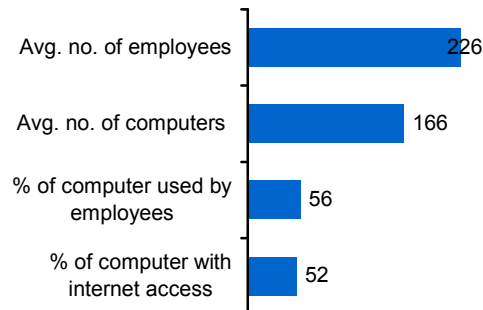
*Exhibit 6.1 Internet Penetration by office type*



Head Office: 65
Branch office: 49
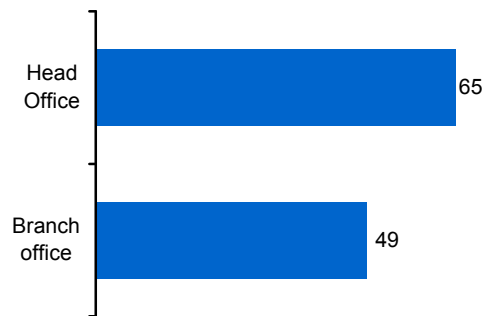
*Base : All respondents (441)*

Nearly 52% of the Personal computer at internet connection.

*Exhibit 6.2 Internet access*



Avg. no. of employees: 226
Avg. no. of computers: 166
% of computer used by employees: 56
% of computer with internet access: 52

### 6.2 Barriers to using Internet

Non availability and lack of identified need for internet is the key barrier mentioned for internet adoption in the departments. '*It is not available*' and '*Not necessary for work*' are the key reasons mentioned for not using internet.

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## 6.3 Type of connection

The broadband connection is most popular type of internet connection. Almost 7 out of every 10 internet using departments use broadband internet. The bandwidth of 512 kb/sec and 1 Mb/sec in broadband connection is most popular. No difference seen between head offices and branch offices.

The dial-up connection, Wireless, Satellite and ISDN lines are relatively less used.

*Exhibit 6.2 Types of Internet Connections*

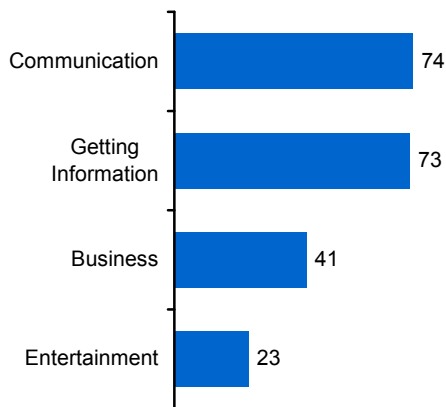|  | Head Office | Branch Office |
| --- | --- | --- |
| *Base* | *288* | *178* |
| Dial-up | 16 | 21 |
| DSL / Broadband | 69 | 70 |
| Others | 17 | 6 |

*Base : All Departments using internet.*

43% of the head office had LAN connection.

## 6.4 Online Activities

Some of the popular online activities undertaken by departments in KSA are communication (sending and receiving emails) availing information (from government organization / for goods/services), and performing business activities (internet banking and online buying).

*Exhibit 6.3 Online Activities*



*Base: All Internet Users (66)*

**Departments in the Kingdom have only a moderate internet Penetration. This is mainly true for branch offices**

## 6.5 Browser

'Internet explorer' from Microsoft Windows is the universally dominant web browser in Government departments in the Kingdom with current usage at 100%.

## 6.6 Mobile Internet

The mobile internet usage in Government departments in the Kingdom is very low (5%). Almost 19% of respondents interviewed were not even aware of mobile internet connection.
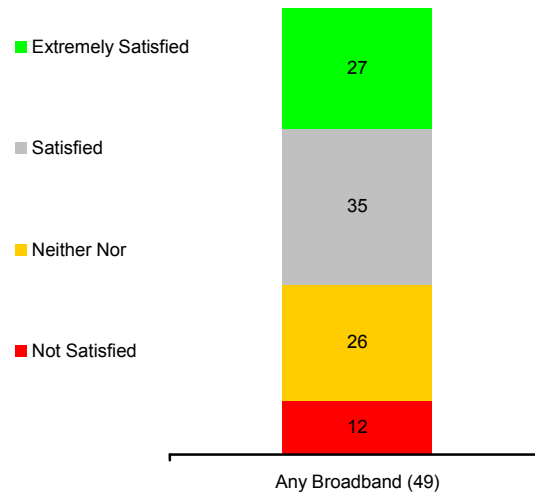
**Evolved services like Mobile Internet yet to show an impact on the Saudi Government Departments**

## 7.0  Internet Satisfaction and Concerns

## 7.1  Satisfaction

Over 60% departments express satisfaction with the broadband internet service which is the most predominantly used form of internet service.

*Exhibit 7.1 Satisfaction*



- ■ Extremely Satisfied — 27
- ■ Satisfied — 35
- ■ Neither Nor — 26
- ■ Not Satisfied — 12

Any Broadband (49)

'*Slow speed*' and '*Interruptions*' are mentioned as reasons for dissatisfaction.

*The norm for top 2 box score (extremely satisfied + somewhat satisfied) in Saudi Arabia is 70% as the acquiescence bias in the kingdom is high due to gratitude factor (cultural reasons). Source: Nielsen Studies conducted in KSA.*

## 7.2 Ease of subscribing

Sourcing a new broadband connection in Kingdom is perceived to be slightly difficult as one out of every five departments claim that getting of an internet connection is difficult.

| *Exhibit 7.2 Ease of subscribing* | **All** |
|---|---|
| *Base: All departments using broadband internet* | *46* |
| Extremely difficult [1] | 9% |
| [2] | 13% |
| [3] | 37% |
| [4] | 24% |
| Extremely Easy [5] | 17% |

## 7.3 Cost Perceptions

Internet connection in KSA is perceived to be expensive. Almost 40% claim that internet connection is expensive; while only 22% of them find it to be affordable.
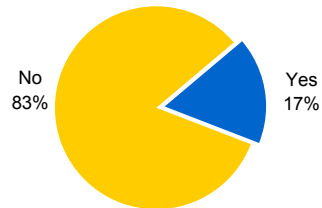
| *Exhibit 7.3 Cost Perceptions* | **All** |
|---|---|
| *Base: All departments using internet* | *66* |
| Extremely expensive [1] | 18% |
| [2] | 21% |
| [3] | 33% |

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16

| | |
|---|---|
| [4] | 17% |
| Extremely Affordable [5] | 5% |

## 7.4 Concerns

Information filtering is stated as a concern by 17% of departments.

*Exhibit 7.4 Filtering Concerns*



No
83%

Yes
17%

*Base: All Internet Users (66)*

SPAM email is the other area of concern for internet users. On an average, one out of three of those with an internet connection receives SPAM mails. And it is a major concern as most departments indicate that nearly 28% of their total mails are SPAM.

# 8.0 Websites and e-commerce

## 8.1 Websites

Almost six out of every ten Government departments with an internet connection have their own website. Only 10% of the websites are hosted only in English. Websites that use only Arabic and those which use both English and Arabic are equal in number at 45% each.

*Exhibit 8.1 Language of Website*

| | Total |
|---|---|
| Base: All having own website | 40 |
| Arabic | 45% |
| English | 10% |
| Both English and Arabic | 45% |

Website is predominantly used to provide information about the department. Some of the other popular services offered include news / contact information and web mail. Other advanced services like webinar / e-conferencing are relatively less popular.

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*Exhibit 8.2 Services offered on the website*

| | Total |
|---|---|
| *Base: All having own website* | *40* |
| Information about the department | 95 |
| News | 68 |
| Contact information | 55 |
| Web mail | 48 |
| Events | 45 |
| Webinar / E-conferencing | 8 |

A larger proportion of the websites, nearly 63% are hosted using internal networks.

## 8.2 e-commerce

Implementation of 'e-commerce' in Government departments is almost non-existent with only 3% departments implementing it.

*Exhibit  8.2 Practice e-commerce*
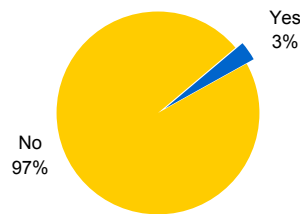


*Base : All (91)*

## 9.0  Conclusions

All Government departments in Kingdom are largely computerized. About 16% of the branch offices contacted do not use computers. These were mainly from Assir and Qassim provinces. All the head offices are computerized.

Similar trends are observed for Internet usage. 65% of the head offices use internet as compared to 49% of the branch offices. Internet usage is lower in Asir and Qassim provinces.

Desktops are used universally; while contemporary computer devices like laptops (36%) and servers (31%) are making their way in the Government departments. Use of PDAs though, is limited.

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Windows is the most used operating system. Arabic is the most preferred language for the operating system and Internet Explorer is universally used by all departments.

Nearly half of the government department does not provide any training (42%). Amongst those who provide training they are largely provided for MS Office, database management and accounting packages.

Most decision-making officials perceive Internet to provide information in simple and convenient manner. Internet is also seen as a medium critical for the next generation.

The key barrier to adoption of internet is 'Non-availability' and 'no perceived need'.

Only the basic activities – Communication and Information Sourcing are undertaken by Government departments.

Among those using internet, Broadband is used by most departments. Dial-up internet is relatively less popular. Most Internet users in general are quite satisfied with the performance. Some concerns that were raised by the customers are 'Slow Speed' and 'Interruptions'.

SPAM email is another area of concern with one out of three using internet receiving SPAM mails. 28% of total mails are estimated to be SPAM.

There are some concerns expressed on the ease of subscribing to internet. Internet is also perceived to be expensive with only one in five finding it affordable.

Websites are quite popular with 6 out of 10 departments with internet connection having their own websites.  E-Commerce usage is quite low.

## 10.0 Summary (Key Figures)

### Related to Computers

| | Saudi Arabia | |
|---|---|---|
| Penetration of computers in branch offices | 84% | |
| Type of PC *(among organisations which use computer devices)* | Desktop | 100% |
| | Laptop | 36% |
| | Server | 31% |
| Operating system usage *(among organisations which use computer devices)* | Windows XP Professional | 49% |
| | Windows XP Home | 47% |
| | Windows ME | 24% |
| Language of the operating system *(among organisations which use computer devices)* | Arabic | 100% |
| | English & Arabic | 33% |
| Investments on IT | Average per organization (annually) | SR 10,774 |

### Related to Internet

| | | Saudi Arabia | |
|---|---|---|---|
| Proportion of organisations who use the internet | | Head office | 65% |
| | | Branch office | 49% |
| Type of internet connection | | Head office | Branch Office |
| | Dial-up | 16% | 21% |
| | DSL/Broadband | 69% | 70% |
| | Others | 17% | 6% |
| Online Activities | Communication | | 74% |
| | Getting information | | 73% |
| | Business | | 41% |
| | Entertainment | | 23% |
| Web browser usage *(among organisations which use computer devices)* | Internet Explorer | | 100% |
| Use of mobile internet | 5% | | |
| Satisfaction with Internet Services *(among organisations which use computer devices)* | Satisfied | | 62% |
| | Dissatisfied | | 12% |
| Perception on Internet cost | Expensive | | 39% |
| | Affordable | | 22% |

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## Appendix A: Indicators

| Indicator | Definition |
|---|---|
| Having a web site | The number of organizations having a website (A Web presence includes a Web site, home page or presence on another entity's Web site (including a related business). It excludes inclusion in an online directory and any other Web pages where the business does not have substantial control over the content of the page) |
| Type of Internet connection | Internet connection types currently used ((Dial-Up, DSL, Wireless, Satellite) |
| Network Type | What type of Internet connection is the household subscribed to (To present the proportion of households with broadband access, therefore the response categories chosen allow aggregation to narrowband and broadband. As households can use more than one type of access service, multiple responses are possible) |
| Type of PC | Desktop, portable or handheld computer (e.g. a personal digital assistant |
| Operating system usage | An operating system (OS) is a set of computer programs that manage the hardware and software resources of a computer. An operating system rationally processes electronic devices in response to approved commands i.e. Windows95, Windows NT, Mac OS etc. |
| Language of the operating system | Operating system of the computer can be available in different languages relevant to users (Arabic, English etc.) |
| IT Related Trainings | Trainings taken by the respondents within past 6 months (MS office, programming languages, networking, accounting packages, web designing, AutoCAD, database management etc.) |
| Current ownership of computer in the organization | Number of computers within the organization (A computer includes: a desktop, portable or handheld computer (e.g. a personal digital assistant), minicomputer, mainframe. A computer does not include equipment with some embedded computing abilities: such as mobile phones or TV sets, nor does it include computer-controlled machinery or electronic tills.) |
| Proportion of employees using computers | Number of employees using a computer within the organization (A computer includes: a desktop, portable or handheld computer (e.g. a PDA), minicomputer, mainframe. A computer does not include equipment with some embedded computing abilities: such as mobile phones or TV sets, nor does it include computer-controlled machinery or electronic tills.) |
| Proportion of employees using the Internet | The number of employees that are using the Internet within an organization (The Internet refers to Internet protocol (IP) based networks: WWW, an extranet over the Internet, EDI over the Internet, Internet accessed by mobile phones and Internet email. Employees refer to all persons working for the business, not only those working in clerical jobs. They include working proprietors and partners, as well as employees.) |
| Proportion of businesses using the Internet by type of access | What type of Internet connection is the Organization subscribed to (To present the proportion of businesses with broadband access, therefore the response categories chosen allow aggregation to narrowband and broadband. As businesses can use more than one type of access |

| | service, multiple responses are possible) |
|---|---|
| Proportion of businesses using the Internet | The number of organizations subscribed to the Internet (The Internet refers to Internet protocol (IP) based networks: WWW (the World Wide Web), an extranet over the Internet, EDI over the Internet, Internet accessed by mobile phones and Internet email.) |
| Web browser usage | Web browser is a software application that enables a user to display and interact with text, images, and other information typically located on a Web page at a website on the World Wide Web or a local area network (Windows Explorer, Netscape, Opera etc.). |
| Receiving SPAM emails | The percentage of SPAM e-mails among all mails received on a day |
| IT Related Trainings companies provide for the employees | IT trainings provide for the employees (MS Entity, Programming languages, Networking, Accounting packages, Web designing, CAD (Computer Aided Design), Database management) |

## Diagnostics Information

| Indicator | Definition |
|---|---|
| Reasons of Internet usage by the government | Reasons of government officers using internet during the work (getting Information, communication, business, downloading, dealing with government organizations/public authorities, education or learning activities) |
| Reasons for not using, Intent to use in the next 12 months | Reactions internet usage, whether people tend to subscribe internet within the next 12 months |
| Barriers to use of internet | Non users' reasons for not using internet |
| Investments in training | IT related trainings provided:<br>– MS Office<br>– Programming languages<br>– Networking<br>– Accounting packages<br>– Web designing<br>– Autocad<br>– Database management |

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