
هيئة الاتصالات وتقنية المعلومات
Communications and Information Technology Commission



Communications and Information Technology Commission

Internet Usage in the Kingdom of Saudi Arabia

Business establishments

The first year (2007) Report .

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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 such 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 **Business establishments** in the Kingdom of Saudi Arabia.

2.0 Methodology

The detailed methodology report has been highlighted in the appendix of this report.

2.1 Research Design

- A quantitative research exercise was conducted.
- A total of around 1300 interviews for the listing module and 700 interviews for the detailed module were conducted.
- Corporate 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
- Interviews were conducted at the head offices.

2.3 Coverage and Sampling

- Interviews were conducted in Riyadh, Makkah, Jeddah, Dammam, Khobar, Joubil, Maddinah as these cities constitute 90% of the universe.
- Since there were no official numbers for the corporate universe available in the Kingdom. The sample for corporate interviews was designed using the Business Directory from Chamber of Commerce.

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, 1296 organizations from the private sector were contacted for the purpose of this research. The following sectors were covered in the sample.

Exhibit 3.1 Sample Composition by Sectors

| Sectors | % of Total Sample |
|----------------------|-------------------|
| <i>Base: All</i> | 1296 |
| Construction | 20% |
| Food sector | 13% |
| Manufacturing sector | 12% |
| Service sector | 11% |
| IT / Communication | 9% |
| Oil & Gas | 5% |
| Other Sectors | 30% |

The following provinces were covered in the sample.

Exhibit 3.2 Sample Composition by Province

| Province | % of Total Sample |
|------------------|-------------------|
| <i>Base: All</i> | 1296 |
| Riyadh | 54% |
| Makkah | 27% |
| Madinah | 03% |
| Eastern | 16% |

For analysis purpose we have classified the organizations into 3 sizes based on number of full time employees in the company.

Exhibit 3.3 Sample Composition by Employee Size

| Employee Size | % of Total Sample |
|----------------------|-------------------|
| <i>Base: All</i> | 1296 |
| Small (Less than 50) | 68% |
| Medium (51 to 300) | 22% |
| Large (300 plus) | 10% |

Majority of the organizations contacted in the sample do not have international presence, as only 6% of them have their branches outside Kingdom. However, almost one out of every two organization contacted have more than one office in the Kingdom.

Key decision makers on IT related issues

In more than 50% of organizations, IT manager and General Manager / CEO are both involved in the decision making process.

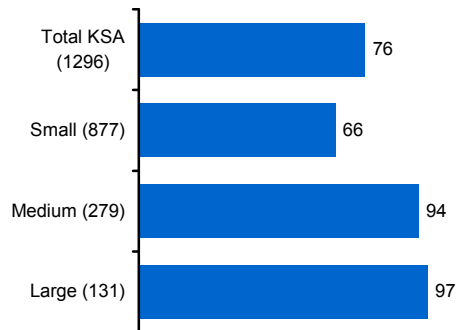
4.0 Infrastructure & Investments

4.1 Computer Penetration

Penetration of computers in Kingdom amongst corporate is 76%. So, currently one in every four organizations still does not use computer devices.

The size of the organization plays a vital role, as wider presence is observed in large and medium sizes companies.

Exhibit 4.1 Computers Penetration by Organization Size



Computer penetration: % of business establishment owning a computer even if it's only one computer.

As expected the ratio of computer to employees is highest amongst small company with all the employees having access to computer.

| | Base | Ratio of Computer to Employees |
|--------------|------------|--------------------------------|
| Total | 556 | 57 |
| Small | 292 | 1 |
| Medium | 160 | 4 |
| Large | 98 | 10 |

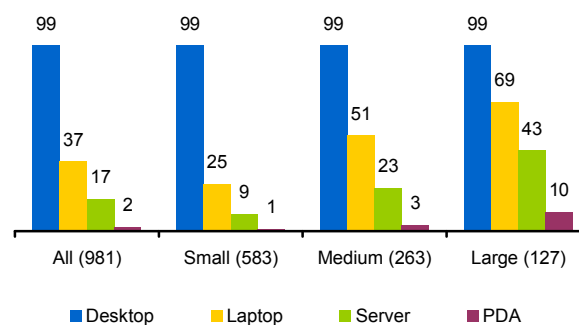
Calculation: No. of employees / No. of computer x % of computer provided to employees

Large organizations in Kingdom are equipped with advanced devices and operating systems. All Small and Medium Enterprises do not have the needed infrastructure.

4.2 Devices

Desktop is the most widely used computer device, followed by Laptops and Servers. PDA is the least used. As expected, modern computer devices (Laptops, Servers and PDA) usage increases in line with the size of the organization.

Exhibit 4.2 Computer devices by Organization Size



Base: All Corporate which use Computer Devices (981)

The computer devices market in Kingdom is predominantly branded with more than 9 out of 10 computer devices currently used being branded.

4.3 Depth of usage

The density of computers owned is directly linked to the size of the organization with larger organizations providing computer devices to a higher proportion of their employees.

Exhibit 4.3 Percentage of Employees Provided with Computer Devices

| | Small | Medium | Large |
|----------------|-------|--------|-------|
| Base: All | 292 | 160 | 98 |
| % of Employees | 29% | 28% | 43% |

Base : All corporate which use computer devices

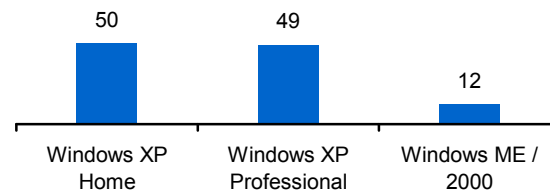
75% of the corporate which have branches use computer devices in both head office and branches.

4.4 Operating Systems

Microsoft is the most dominant operating system in the Kingdom. 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 currently very low (4%).

Exhibit 4.4 Operating systems used



Base : All Corporate which use Computer Devices (564)

Arabic is the most preferred language for operating systems with it being preferred by 7 out of 10 organisations. English is the other language used for the operating systems.

4.5 Investments

In a month, an organization in the Kingdom spends on an average of about 2500 SR on hardware, software maintenance and training. As expected the IT spends are higher for the larger organizations given the higher usage of devices and internet. The larger organizations spend more the SR 9,000 per month on an average. Smaller organizations invest very little on IT.

On the other hand the practice of providing IT related training to employees is relatively uncommon in Kingdom. Almost 70% of organizations do not provide any IT related training to their employees. Even amongst Larger organizations, almost 50% do not conduct any training programs

Among those who provide IT related training, database management and accounting packages are most popular.

**Low investments on IT
amongst SME
organizations**

**IT Training not a practice
amongst the businesses**

4.6 Barriers and Motivators

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'Computers are not a part of core business activity' is the key barrier to using computers in an organization. Some of the other reasons mentioned for not using computers are 'Lack of staff knowledge' and 'Lack of funds'.

Exhibit 4.6 Barriers

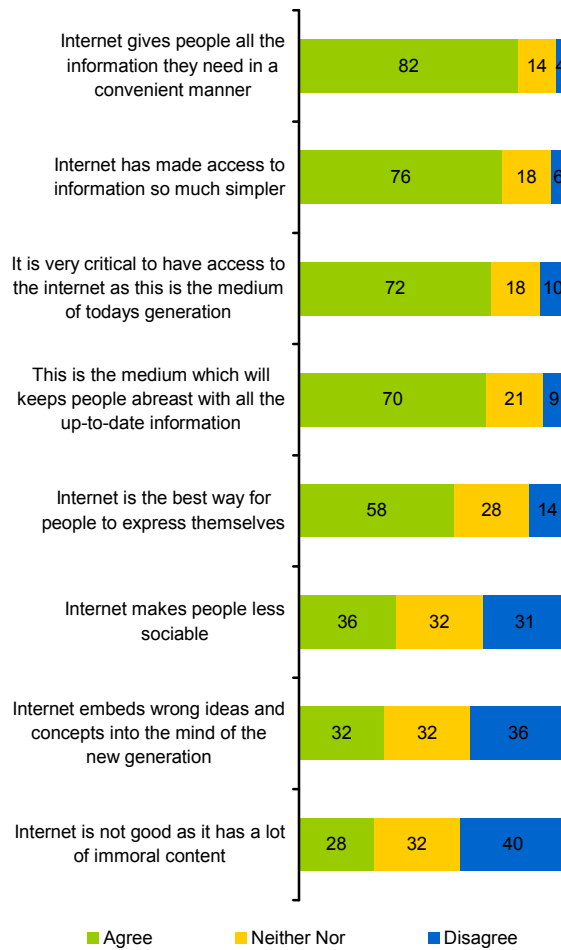
| Barriers | All |
|---|-----|
| <i>Base : Amongst Corporate who do not have computers</i> | |
| Not related to the core of our business | 70% |
| Employees don't know how to use it | 22% |
| There is no budget to buy | 13% |
| The management does not allow any computer devices | 10% |
| Administrative staff don't know how to use | 6% |
| Management staff don't know how to use | 5% |

However 28% of the current non users are positively inclined to buy computer devices in the next 12 months. 'Improved documentation' and 'Computerization of accounting system' would be the key triggers.

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 60% 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



However these advantages of internet also come with a fear of making people less sociable.

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

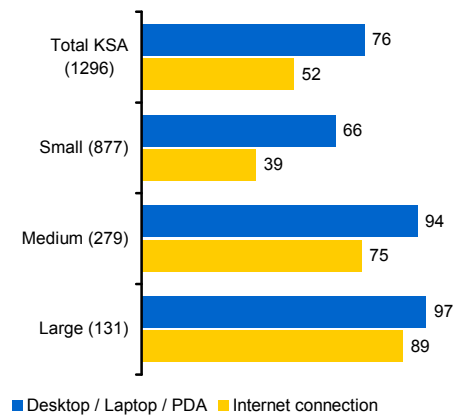
6.0 Internet Usage

6.1 Internet Penetration

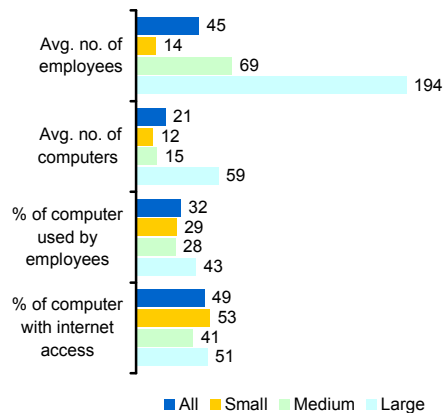
The penetration of internet connection amongst corporates in Kingdom is 52%, with its usage being lowest amongst small organizations at 39%.

The advancement from just using computers to computers plus internet is the least amongst the small organizations.

Exhibit 6.1 Computers and Internet Penetration by Organization Size



Base : All organizations (1296)



6.2 Barriers to using Internet

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As seen for computerization, lack of identified need for internet is the key barrier mentioned for internet adoption as well. 'Not necessary for work' and 'Lack of budget' are the key reasons mentioned for not using internet.

6.3 Type of connection

The broadband connection is most popular type of internet connection. Almost 7 out of every 10 internet using organization use broadband internet. The bandwidth of 256 kb/sec and 512 kb/sec in broadband connection is most popular.

The dial-up connection is more popular with small sized organizations. Wireless, Satellite and ISDN lines are relatively less used.

Exhibit 6.3 Types of Internet Connections

| | All | Small | Medium | Large |
|-----------------|-----|-------|--------|-------|
| <i>Base</i> | 672 | 340 | 210 | 116 |
| Dial-up | 27 | 35 | 22 | 11 |
| DSL / Broadband | 69 | 58 | 75 | 84 |
| Others | 4 | 3 | 4 | 8 |

Base : All organizations using internet. (672)

6.4 Online Activities

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

Exhibit 6.4 Online Activities

| | All | Small | Medium | Large |
|---------------------|-----|-------|--------|-------|
| <i>Base</i> | 410 | 180 | 133 | 92 |
| Getting information | 84 | 80 | 88 | 88 |
| Communication | 74 | 71 | 74 | 80 |
| Business | 71 | 63 | 78 | 76 |
| Entertainment | 23 | 24 | 19 | 27 |

Base : All organizations those who use internet in head office (410)

Despite the various applications mentioned above, only 53% of the organizations in Kingdom claim that their work is dependent on internet. As expected the larger organizations are more dependent on internet.

Enterprises in the Kingdom have only a moderate internet penetration and dependence

6.5 Browser

'Internet explorer' from Microsoft Windows is the most dominant web browser in Kingdom with current usage at 96%. Netscape is the only other web browser used. The usage of other web browsers like Mozilla Firefox and Opera is negligible in KSA.

6.6 Mobile Internet

The mobile internet usage in Kingdom is low (8%). Currently, it is predominantly being used by large organizations only. Almost 15% of respondents interviewed were not even aware of mobile internet connection.

Among those who have used mobile internet connection, only 39% claim to use it as an alternative to conventional internet connections.

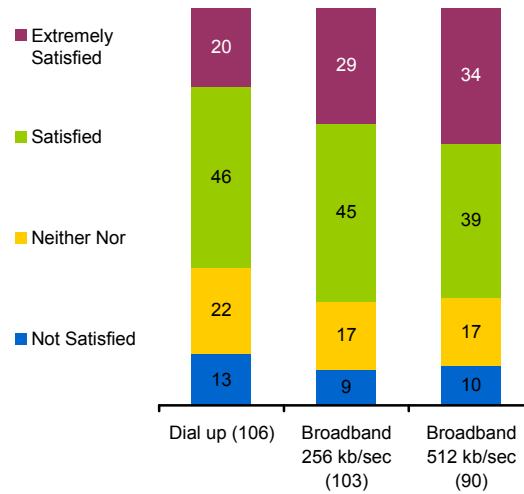
Evolved services like Mobile Internet yet to show an impact on the Saudi Corporate Sector

7.0 Internet Satisfaction and Concerns

7.1 Satisfaction

Most organizations express satisfaction with the internet service. The organizations using a broadband connection are more satisfied vis-à-vis those using a dial up connection.

Exhibit 7.1 Satisfaction



*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.

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

7.2 Ease of subscribing

Sourcing a new broadband connection in Kingdom is not perceived to be difficult as two out of every three organizations claim that getting of an internet connection is extremely easy

Exhibit 7.2 Ease of subscribing **All**

Base : All corporate which use internet 410

| | |
|-------------------------|-----|
| Extremely difficult [1] | 3% |
| [2] | 10% |
| [3] | 22% |
| [4] | 31% |
| Extremely Easy [5] | 34% |

7.3 Cost Perceptions

The costs perceptions on internet connection in KSA are polarized. Almost 30% claim that internet connection is expensive; while about 40% of them find it to be affordable. Broadband users perceive the costs to be expensive for the service offered to them. In comparison, Dial up internet users perceive the costs to be affordable.

Exhibit 7.3 Cost Perceptions

| | |
|-------------------------|-------------------|
| Base | All 410 |
| Extremely expensive [1] | 9% |

| | |
|--------------------------|-----|
| [2] | 21% |
| [3] | 30% |
| [4] | 28% |
| Extremely Affordable [5] | 12% |

7.4 Concerns

Information filtering is stated as a concern by 12% of organizations.

Exhibit 7.4 Filtering Concerns



Base : All Internet Users (410)

SPAM email is the other area of concern for internet users. On an average, 23% of those with an internet connection receive SPAM mails. However it is not a major concern as most organizations indicate that SPAM mails are less than 10% of their total mails

8.0 Websites and e-commerce

8.1 Websites

The presence of website is directly influenced by the size of the organization. Almost four out of every ten organizations with an internet connection have their own website.

Exhibit 8.1 Own Website

| | All | Small | Medium | Large |
|--------------|-----|-------|--------|-------|
| Base | 410 | 180 | 133 | 92 |
| Host Website | 39% | 26% | 41% | 64% |

Base: All corporate using internet

Website is predominantly used to provide information about the organization. Some of the other popular services offered include information on events, products / services and news. Other advanced services like webinar / e-conferencing are relatively less popular in KSA.

Exhibit 8.2 Services offered on the website

| | All |
|------------------------------------|-----|
| Base | 160 |
| Information about the organization | 82 |

| | |
|--------------------------|----|
| Webmail | 73 |
| Events | 48 |
| Products / Services | 30 |
| News | 28 |
| Webinar / E-conferencing | 7 |

Base: All corporate hosting a website (160)

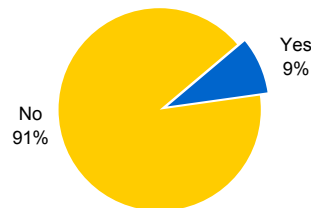
About 56% of websites are hosted in English only, while the others use both English and Arabic languages.

There is no clear preference for hosting the site; as both outside and internal networks are popularly used to host the company website.

8.2 e-commerce

Only one out of every 10 organizations implements 'e-commerce' into their way of doing business in Kingdom. e-commerce is the least popular among smaller organizations.

Exhibit 8.2 Practice e-commerce



Base : All respondents (710)

e-commerce is used as a medium to display the product and services offered by the organization by all those who implement e-commerce. Only seven out of every ten provide an option to sell online. 'Cash on delivery' is the more popular method of payment.

Only 6% of the organizations with internet connection uses internet to make purchases. The most popular online purchases made by these organizations are software, spare parts and travel tickets.

9.0 Conclusions

All businesses in Kingdom are yet to be computerized. About 25% of the organizations contacted do not use computers in their offices. These were mainly from Food Sector. The perceived '*no application of computers in the regular course of business*' is the major barrier amongst non users.

Computers and Internet usage is directly related to the size of the business organizations. While the large organizations in the Kingdom have the required infrastructure, the SMEs suffer from the lack of it.

Desktops are most widely used; contemporary computer devices like laptops, servers and PDA are more popular in larger organizations.

Windows is the most used operating system. Arabic is the most preferred language for the operating system.

IT Training is not conducted by most organizations. Investments on IT amongst the smaller organizations are also very low.

While most decision-making officials perceive Internet to provide information in simple and convenient manner, the internet penetration is only moderate amongst the Saudi corporate. The key barrier to adoption of internet remains the same as for computerization 'no perceived need'

Only the basic activities - Information Sourcing and Communication are undertaken by corporate organizations. Even amongst the users, the claimed dependence on internet is only moderate, which indicates that internet has not become 'the must have infrastructure' amongst the organizations.

Among those using internet, Broadband is used by most organizations. Dial-up internet is relatively more popular with small sized organization. All Internet users in general are quite satisfied with the performance. Broadband users express better satisfaction but indicate that it is expensive.

There are no concerns expressed on the ease of subscribing to internet. Some concerns that were raised by the customers are 'Slow Speed', 'Interruptions', 'Filtering, and 'Spam'

Websites are relatively less popular as only 4 out of 10 organizations with internet connection have their own websites. E-Commerce usage is quite low.

10.0 Summary (Key Figures)

Related to Computers

| | Saudi Arabia | |
|---|-------------------------------------|----------|
| Proportion of corporates with computers | 76% | |
| Type of PC (<i>among corporates with computers</i>) | Desktop | 99% |
| | Laptop | 37% |
| | Server | 17% |
| Investments on IT | Average per month per corporate | SR 2,500 |
| Operating system usage (<i>among corporates with computers</i>) | Windows XP Home | 50% |
| | Windows XP Professional | 49% |
| | Windows ME/2000 | 12% |
| Reasons for not using computers (<i>among corporates not using computers</i>) | Not related to core of our business | 70% |
| | Employees don't know how to use it | 22% |
| | There is no budget to buy | 13% |

Related to Internet

| | Saudi Arabia | |
|--|---|-----|
| Proportion of corporates which use internet | 52% | |
| Type of internet connection (<i>among corporates using internet</i>) | Broadband | 69% |
| | Dial up | 27% |
| Web browser usage (<i>among corporates using internet</i>) | Internet Explorer | 96% |
| | Netscape | 4% |
| Proportion with staff using mobile internet | 8% | |
| Satisfaction with Internet Services (<i>among corporates using internet</i>) | Satisfied | 66% |
| | Dissatisfied | 13% |
| Perception on Internet cost (<i>among corporates using internet</i>) | Expensive | 30% |
| | Affordable | 40% |
| Concerns on internet filtering (<i>among corporates using internet</i>) | 12% | |
| Receiving spam emails (<i>among corporates using internet</i>) | 23% | |
| Corporates with websites | 39% | |
| E-Commerce | Proportion of corporates that have implemented e-commerce | 9% |

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) |
| Proportion of businesses with a Local Area Network (LAN) | Number of Organizations having a LAN (A local area network (LAN) refers to a network connecting computers within a localized area such as a single building, department or site; it may be wireless) |
| 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.) |
| PC penetration | Proportion of people who have personal computer (Desktop computer / Laptop computer / PDA (portable / handheld computer) |
| 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.) |
| Frequency of internet usage | How many times does the Respondent use the Internet (Frequency of use can be: at least once a day, at least once a week but not every day, at least once a month but not every week, or less than once a month.) |
| 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.). |
| Visiting Arabic web sites | Percentage the of the Arabic web sites users visit among all the web sites they visit |
| Concerns on internet filtering | How big of a concern users feel the filtering of the information that can be searched via internet causes (Of very little concern, somewhat of a concern, A major concern) |
| Receiving SPAM emails | The percentage of SPAM e-mails among all mails received on a day |
| Mobile Internet Connection Usage | Usage of Mobile Internet Connections (GPRS – 3G – WIMAX – HSDPA) |
| 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 |
|--|---|
| Reason of Organization Internet Usage | Reasons for Organizations use of the Internet (Internet activities are: use of the Internet for getting information for sending or receiving emails, for performing Internet banking or accessing other financial services, for dealing with government organizations, for providing customer services and for delivering products online. Businesses can respond in respect of more than one activity) |
| 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 |
| Investments in training | IT related trainings provided: <ul style="list-style-type: none"> - MS Office - Programming languages - Networking - Accounting packages - Web designing - Autocad - Database management |