
هيئة الاتصالات وتقنية المعلومات
Communications and Information Technology Commission



Communications and Information Technology Commission

Internet Usage in the Kingdom of Saudi Arabia

Education Sector

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 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 in the **Education Sector** 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 700 interviews were conducted.**

2.2 Target Respondents

The interviews were conducted with the IT head/ computer teacher/ principal or equivalent position holding individual working within each institute.

2.3 Coverage and Sampling

- Interviews were conducted across all the provinces in Saudi Arabia.
- The corresponding universe size of educational institutions is close to about 19,000 (source: Yellow Pages) spread across the Kingdom and across types of institutions. The same was used to arrive at the sample.
- The error levels for the sample size is 3.7%, at 95% confidence level.

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 interview length 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, 700 organizations across different types of institutions in the education sector were contacted for the purpose of this research. The following types of organizations were covered in the sample.

Exhibit 3.1 Sample Composition

	% of Total Sample
<i>Base: All</i>	<i>700</i>
Preliminary Education / Kinder garden	36
Primary Education	31
Secondary Education	28
College/Technical institutes/Universities	5

The average number of students enrolled in the schools visited, range between 551 at preliminary level to 1082 at college/technical institute level.

Exhibit 3.2 Sample Composition by region

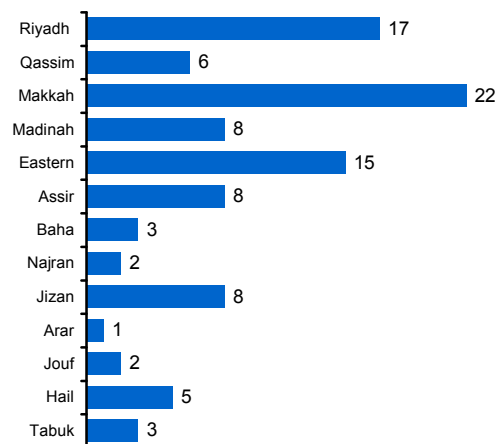


Exhibit 3.3 Sample Composition by gender

	% of Total Sample
<i>Base: All</i>	<i>700</i>
Total Boys	52%
Total Girls	48%
Preliminary Education / Kinder garden - Boys	20%
Preliminary Education / Kinder garden - Girls	18%
Primary Education - Boys	15%
Primary Education - Girls	15%

Secondary Education - Boys	15%
Secondary Education - Girls	13%
College/technical institutes/university - Boys	2%
College/technical institutes/university - Girls	2%

Key decision makers on IT related issues

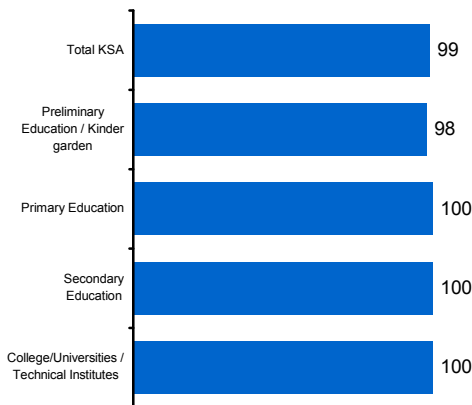
In more than 50% of organizations, IT head and the Principal are both involved in the decision making process.

4.0 Infrastructure & Investments

4.1 Computer Penetration

A total of 700 institutions were visited under study. Only 4 of these educational institutions reported not owning computer devices; thereby implying that the computer penetration in the education sector at 99%. The institutions not owning a computer are preliminary schools (3 in south and 1 in west zone).

Exhibit 4.1 Computer Penetration



Base: All educational institutes (700)

However when we calculate the ratio of computers to students the lowest is for primary education (1 computer for 72 students) and the highest is for colleges/universities/technical institutes (1 computer for 38 students).

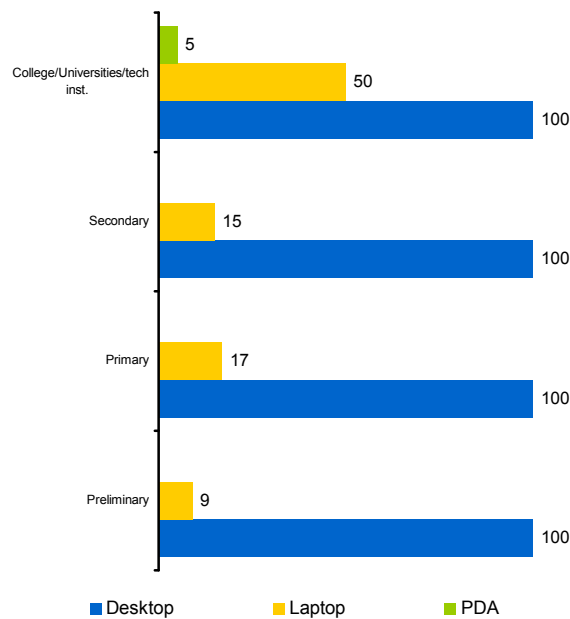
	Base	Ratio of Computer to Students
Total	696	57
Preliminary	257	46
Primary	219	72
Secondary	198	59
College/Universities / Technical Institutes	22	38

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

4.2 Devices

Desktop computers have 100 percent penetration across institutions where as Laptops are generally owned by Colleges/Universities/ technical institutes (50%). PDA has the least penetration (5%), that too only among the colleges/universities/technical institutes. Further, it is seen that ownership of server is the highest among colleges/universities/technical Institutes.

Exhibit 4.2 Computer Devices



Base : All Institutions using Computer Devices (696)

Branded computers are much more common (85%) than the unbranded ones.

4.3 Depth of usage

Relatively more number of computer devices is owned by colleges/university/technical institutions in line with the number of students enrolled with them. On an average less than 20 computers are owned by preliminary and primary schools. A little more than 30 devices are owned by Secondary schools. On an average 121 computers are installed across 22 colleges/ universities/ technical institutes contacted.

Exhibit 4.3 Average Number of Computer Devices

	Preliminary	Primary	Secondary	Colleges/ Universities/ tech inst.
Base	257	219	198	22

Avg. no. of computers	18	18	32	121
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Base : All institutions using computer devices (696)

4.4 Distribution of Computers by users

It is interesting to note that teachers emerge as the least users of computers installed across institutions. Overall, around 50% of the computers are used by administrative staff for their day to day activities and maintaining records. Students too, do not seem to be extensively involved in using the same.

Exhibit 4.4 Distribution of Computers

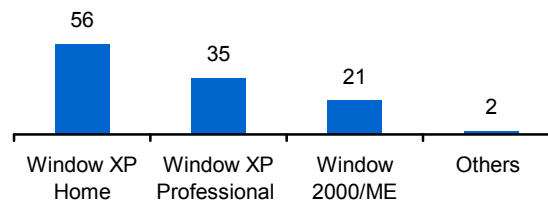
Average Distribution of Computers	All
<i>Base :</i>	696
Teachers	14%
Students	34%
Admin Staff	50%

Base : All institutions using computer devices (696)

4.5 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.

Exhibit 4.5 Operating systems used



Base : All institutions using computer devices (696)

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.

4.6 Investments

At aggregate level more than 70% of the institutions spend 1000 or less SR on IT related expenses from their annual budget. Data suggests that, expenses increases with an increase in the level of education.

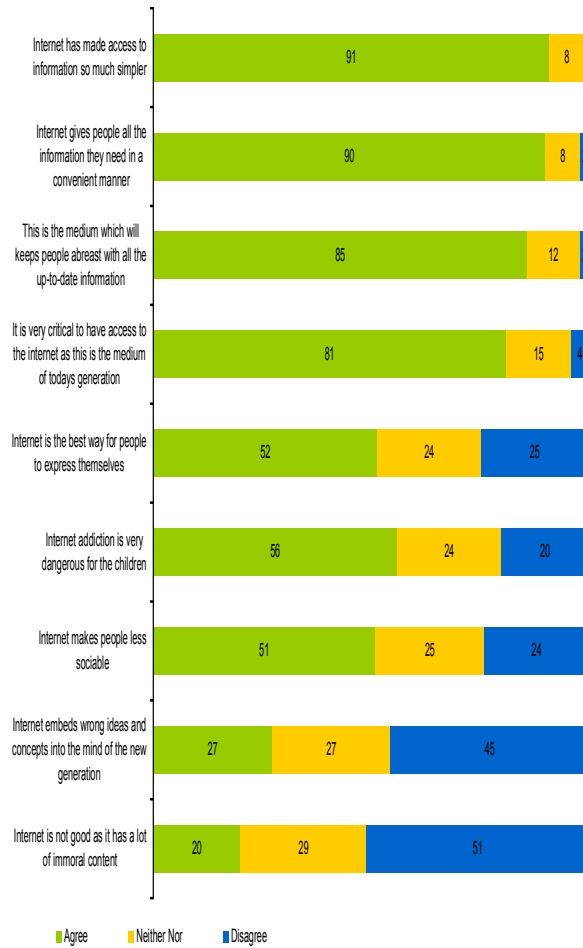
Overall 42% of the institutions did not provide any IT related training. Among those who reported to have received training, MS office and Database Management were the common area of training (26% and 27% respectively). Percentage for other topics /areas of training stood was quite less (20%).

Low investments on IT
IT Training for employees
is not a general practice

5.0 Opinion about Internet

The study made an attempt to gauge the perception on internet as medium. Findings reveal that 90% of the respondents agree that internet gives people all the information and has been access to information much simpler, while 81-85% agrees that it is critical medium of today's generation and keeps people abreast with all the latest information.

Exhibit 5.1 Opinion about Internet



Base: All respondents (700)

However, there are fairly good proportion who perceives that internet make people less social and children may get addicted to internet.

Further, there is 20-27% who believes internet has immoral content and embeds wrong ideas in the mind of younger generation.

Internet is regarded as useful and informative medium in the contemporary world.

6.0 Internet Usage

6.1 Internet Penetration

Overall, around 74% of the institutions contacted reported to have internet facility however only around 20% of the educational institute computer has access to internet and 9% of the students have access to the internet. Students accessing internet goes up as we move from preliminary to college/university/technical institutes.

	All	Preliminary	Primary	Secondary	College /University/Technical institutes
<i>Base</i>	696	257	219	198	22
Avg. no. of students	658	568	532	800	1708
Avg. no. of computers	28	18	18	32	121
% of computer with internet access	20%	19%	22%	18%	45%
% of student accessing internet	9%	6%	8%	12%	25%

6.2 Barriers to using Internet

Overall, 26% of the computer owning education institutions did not have internet connection. When asked for the reasons for being a non user of internet, 'not necessary' was the most common response. The other reasons mentioned were 'is not available', 'employees misuse it'; and so on.

6.3 Type of connection

Majority across all types of institutions except universities/technical institution reported to have dial-up/prepaid facility. Over half of the universities/ technical institutions had DSL/Broad Band 256 mbps connection.

Exhibit 6.3 Type of Internet Connections

	Base	Dial-up	Broadband
<i>Base</i>	Nos.	%	%
Total	519	78	22
Preliminary	179	77	23
Primary	161	78	22
Secondary	161	83	17
College/University /technical institute	18	28	74
Boys school/college	286	80	20
Girls school/college	233	75	25

Base: All institute using internet.

6.4 Online Activities

According to most of the respondents sending and receiving emails, dealing with government bodies or getting information from government authorities were mentioned as the most common usages of internet. Using internet as information source for research and studies was almost negligible.

Exhibit 6.4 Online Activities

<i>Base</i>	All
	519
Receiving and sending e-mails	64
Dealing with government organizations	58
Getting information from government bodies	52
Education or learning activities	38
Browsing	25
Getting information about services	14
Reading newspaper	14
Reading electronic books	9
Downloading electronic books	9

Base: All institute using internet

It is interesting to note that, in most of the cases computers with internet connections are used by the administrative staff of the institutions. This clearly shows that access to internet was almost nil or very minimal to teachers and students. However at University level where the students and teachers are the primary user of internet.

6.5 Browser

'Internet explorer' from Microsoft Windows is the most dominant web browser in Kingdom with current usage at 91%. Netscape is the only other web browser used. The usage of other web browsers like Mozilla Firefox and Opera is non existent in KSA education sector.

**Except for universities,
internet usage in Saudi
Education Sector limited
amongst administrative
officials**

7.0 Internet Satisfaction and Concerns

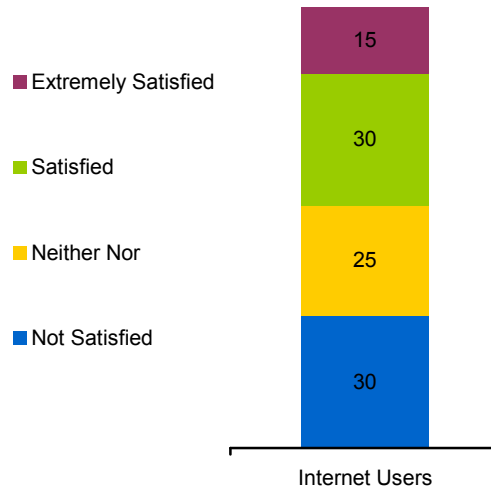
7.1 Satisfaction

Internet Usage in the Kingdom of Saudi Arabia
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Around 45% of the internet using institutions expressed satisfaction with the internet service. Mean satisfaction score is calculated around 3 out of 5.

'Web service is slow', was mentioned as a reason by 77% of the users who were dissatisfied. 20% of these dissatisfied users also mention 'interruptions in connections'.

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 inconsistent connectivity are commonly faced issues as most education institutions have dial up internet connection

7.2 Cost Perceptions

When asked to express the views on internet cost within Kingdom, majority of responses were neutral (neither expensive nor affordable). The mean satisfaction score ranged between 2 and 3 out of 5.

Exhibit 7.2 Cost Perceptions

Base	All
Extremely expensive [1]	10%

[2]	17%
[3]	39%
[4]	19%
Extremely Affordable [5]	7%
Don't Know / Can't Say	8%

On average educational institute spends around SAR290 per month on internet and nearly two third (60%) find easy to apply for broadband connection.

7.3 Intention to use in future

An analysis of the data suggests that at the aggregate level 57% of the current non users of internet show interest in subscribing the facility in the next 12 months. Institution wise analysis reveals that majority of institutions visited are open to using internet. *'Establishing communication with education directorate and develop education process'* were cited as key reasons for having internet facility. Further, DSL/Broad Band was preferred over dial up facility.

8.0 Websites and E-Learning

8.1 Websites

Less than 40% of all the educations institutions host a website. Over 60% of the preliminary, primary and secondary schools do not have a web site, whereas 72% of colleges/ universities/technical institutes contacted have websites.

Further, it was observed that these sites were mostly in Arabic; however, most of the universities had their sites both in English and Arabic.

Website is predominantly used to provide information about the educational institute.

Exhibit 8.1 Services offered on the website

	All
<i>Base</i>	<i>196</i>
Information about the school/institute	69%
Forums	58%
Web mail	49%
Registration	44%
Extra-curricular activities	40%
Schedules	34%

Base: All institutions hosting a website

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-Learning

Generally, e-learning does not seem to be popular among the institutions. The study shows that only around one fourth of the institutions visited offered e-learning related service. Materials (video, lecture, course guides etc.) were reported to be offered by majority (64%) followed by off line materials. Some among those who did not offer e-learning services reported that such a service was not introduced by Education Directorate, while some did not seem to possess required skill/manpower to avail and use such a service.

9.0 Conclusions

Almost all the educational institutions contacted were computerized. Usage was relatively higher among the administrative staff.

Desktops are most widely used; contemporary computer devices like laptops, servers and PDA have very minimal presence in the education sector.

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

IT Training for employees is not conducted by most education organizations. Investments on IT were also very low.

The internet penetration in the education sector is fairly good with almost 3/4th organization having the facility. However the usage in the educational institute is mainly by the administrative staff. The key barrier to adoption of internet amongst the non-users remains the same as for computerization 'no perceived need'.

Among those using internet, Dial-up was used by majority of institutions. Moderate level of satisfaction. '*Slow speed*' and '*inconsistent connectivity*' are concerns expressed by the institutions which expressed dissatisfaction. The education institutions are also neutral about the perceived costs for internet

Internet is used mainly for basic activities – Communication and Sourcing Information.

Websites are relatively less popular as less than 40% of education institutions have a website of their own. The hosting of the website is mainly limited to Colleges and Universities. Most of the lower grade

education institutions do not host a website. Website is used mainly for providing information about the institution. e-Learning is also not very popular amongst the education institutions in Saudi Arabia.

10.0 Summary (Key Figures)

Related to Computers

	Saudi Arabia	
Institutions with computers	99%	
Type of PC (based on institutions with PCs)	Desktop	100%
	Laptop	15%
	Servers	10%
Average number of computers per institute (based on institutions with PCs)	Preliminary	18
	Primary	18
	Secondary	32
	College/University/Technical Institute	121
Operating system usage (based on institutions with PCs)	Windows XP Home	56%
	Windows XP Professional	35%
	Windows 2000	20%
	Others	3%
IT Training provided	58%	

Related to Internet

	Saudi Arabia	
Proportion of institutions that use the internet	74%	
Type of internet connection (among institutions with internet connection)	Broadband	78%
	Dial-up	22%
Key online activities (among institutions with internet connection)	Receiving and sending e-mails	64%
	Dealing with government organisations	58%
	Getting information from govt. bodies	52%
	Browsing	25%
Web browser usage (among institutions with internet connection)	Internet Explorer	91%
	Netscape	5%
	Opera	1%
Satisfaction with Internet Services (among institutions with internet connection)	Satisfied	45%
	Dissatisfied	30%
Perception on Internet cost	Expensive	27%
	Affordable	26%
Institutions with web sites	38%	
Institutions offering e-learning	24%	

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
Ownership of a Computer	Ownership of a Computer Device (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 institutions 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.)
Schools connected to the Internet	Proportion of schools with the internet connection
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.).

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
e-education	Providing and receiving e-education
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