Information Technology Observatory

ICT indicators collecting survey 2010

Introduction

The seventh edition of the national survey on Information and Communication Technologies indicators (ICT) in Morocco has been carried out by the ANRT as the latest in a series of surveys used to compare and monitor key indicators.

The ANRT has carried out the ICT indicators collecting survey on an annual basis since 2005 in compliance with the international recommendations of the Partnership on Measuring ICT for Development (ITU, UNCTAD, WB, Eurostat, etc.).

The objectives assigned to the Information Technology Observatory are as follows:

- **Completing the information gathered from the operators** on the market for fixed, mobile and Internet services, and process questions on use and behavior with respect to ICT;

- Promoting and encouraging **accurate and assessed knowledge on the status and trends of** information society in Morocco;

- Establishing communication media/support at national level;

- Filling **international organizations databases** and helping calculate **ICT index.**

Methodological elements

The indicators

The indicators measured can be grouped into three main categories:

- Equipment level
- Access
- Usage

Individual sample

The target population of the Individual survey is made up of people between 12 and 65 years of age living in urban or electrified rural areas.

The reference base for the population being studied was established in keeping with the 2004 census and the 2010 projections carried out by the "Haut Commissariat au Plan" – HCP.

The sample was set at 1326 respondents (870 urban and 456 rural).

To ensure a representative sample of the population, quotas were set according to the following criteria:

- Place of residence ;
- Professional Category ;
- Gender ;
- Age.

The questionnaires were administered face to face, in French or in dialectal Arabic (according to the respondent's linguistic profile) during the period between **17 January and 7 March 2011**.

Business sample

For the Businesses survey, the ANRT used a sample of companies established in Morocco with staff greater than or equal to **10 people**, provided by the HCP. This sample was completed by a selection from Kompass in order to include companies from the Primary and financial Intermediation sectors.

The 500 companies that answered the questionnaire were classified according to 2 criteria:
- The number of employees (from 10 to 19, from 20 to 49, from 50 to 149, more than 150)
- Sector (Manufacturing, Construction and public works, Commerce, Services, Primary sector, Financial services).
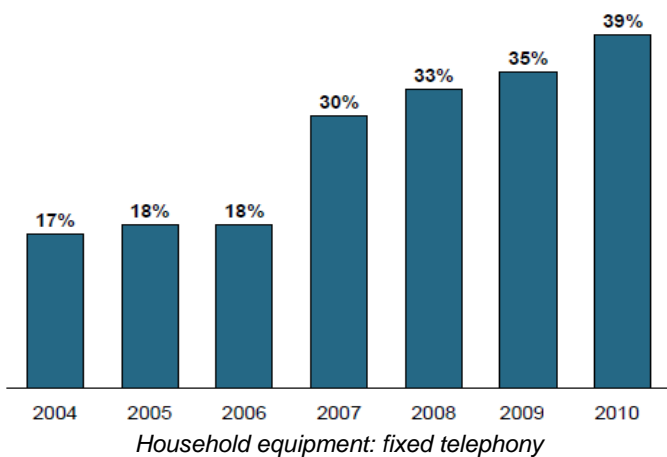
The questionnaires were carried out by phone, in French or in dialectal Arabic (according to the respondent's linguistic profile) during the period between **09 February and 14 March 2011**.

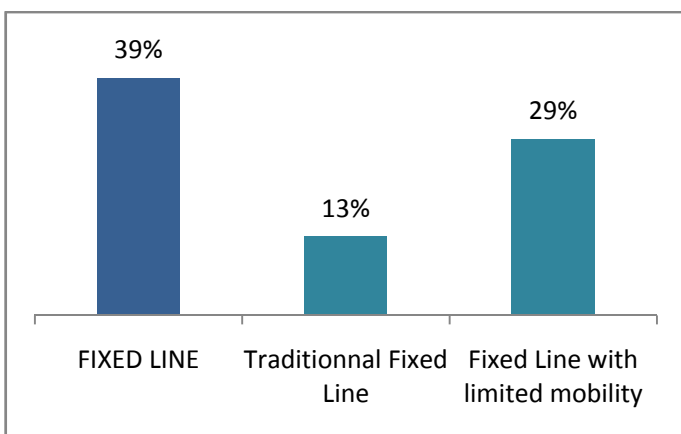### Results of the 2010 ICT survey

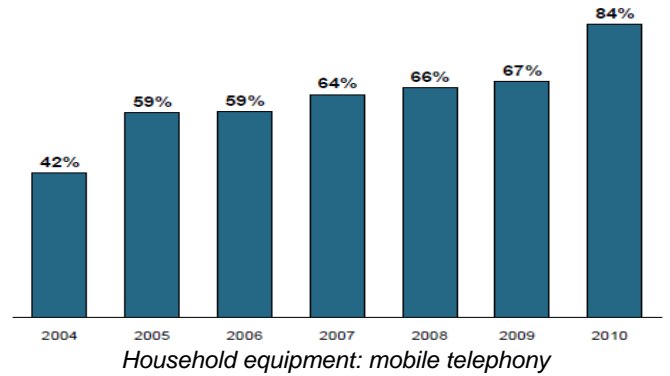### Households and ICT

Fixed and mobile telephony

Fixed telephony equipment had experienced a very strong growth in 2007, partly due to the launch, in particular, of new fixed telephony offers including limited mobility.

Household equipment: fixed telephony

After this significant increase, fixed lines penetration grew at the household level but then slowed down between 2007 and 2009 growing only by 2 to 3 points per year. In 2010, fixed telephony equipment increased by 4 points compared to 2009.

Limited mobility reached 29% of all households in 2010 while only 13% of Moroccan households benefit from traditional fixed telephony.

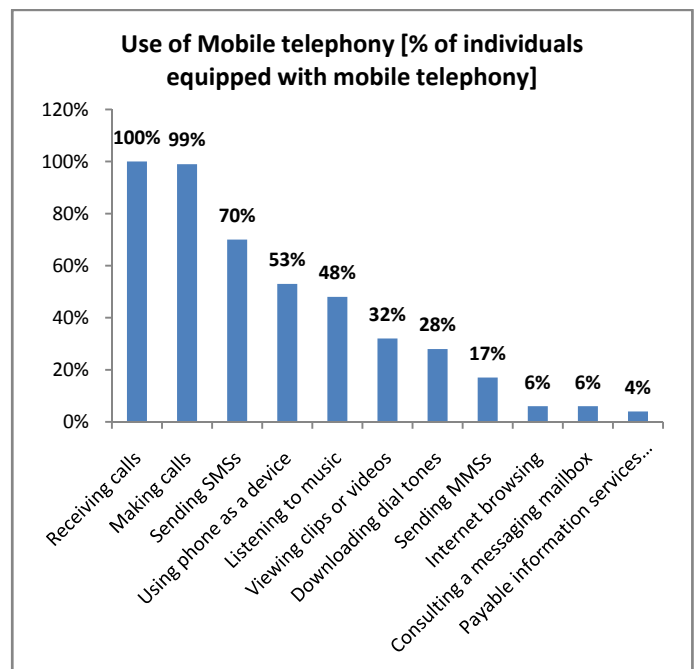*Household equipment: mobile telephony*

Mobile telephony penetration within households grew strongly in 2010 (+17 points compared to 2009). This increase is in parallel to the increase in mobile telephony penetration within population, which went from 81% in 2009 to 101% in 2010 (cf. observatory data[1]).

The granting of the 3rd 2G license had a significant impact on mobile telephony penetration.

The main use of mobile telephony continues to be for communication: sending and receiving calls (used by 99.5% of individuals equipped with a mobile telephone). The short messaging service (SMS) is also highly used (70% of individuals equipped with a mobile phone).

53% take photos/make videos and 48% listen to music. Internet navigation on mobile telephone starts to develop (6%).

Use of Mobile telephony [% of individuals equipped with mobile telephony]

Changing operator

4% of individuals equipped with mobile telephone changed operator in 2010; the reasons for changing are as follows:

– a promotional offer from a competing operator for 54% of them;
– the price of communications for 50% of them.

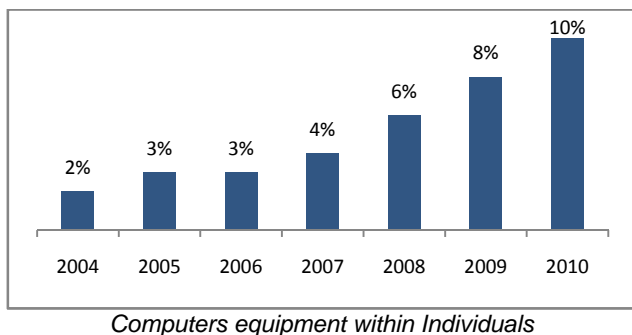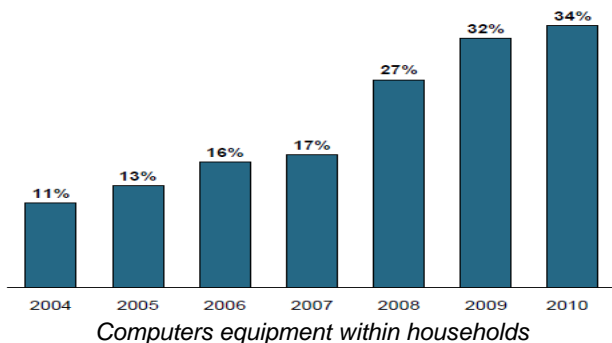4% of individuals equipped with mobile telephone plan to change operator in 2011.

Using 3G services on a mobile phone

6% of individuals equipped with a mobile telephone stated that they use 3G services. The main reasons for a less use of 3G services are as follows:

– Incompatibility of the terminal with 3G services for 63% of individuals not using 3G on their mobile phone;
– Little usefulness for 60% of them and;
– Difficulty of use for 47% of them.

14% of individuals equipped with mobile telephone plan to use 3G services on their mobile phone in 2011.

Personal computer

Computers equipment within households

Computers equipment within Individuals

The computer penetration rate within households strengthened again in 2010. It has now reached the level of 34% of households.

The computer penetration rate within individuals also knew the same trend in 2010 (10%).

Government initiatives and new offers from Internet service providers proposing computers at very attractive prices along with their Internet service offers furthered the increase in equipment in 2010.
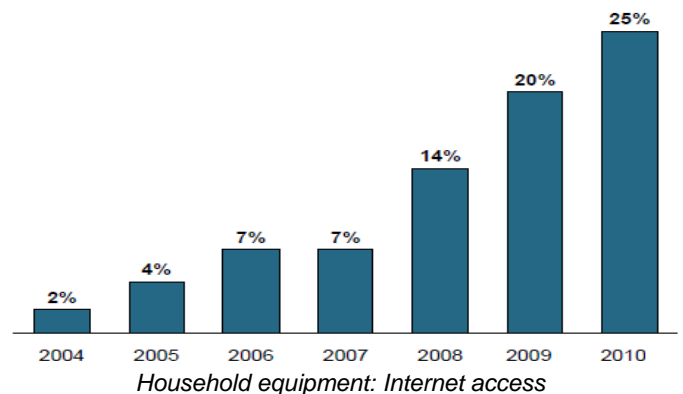
In 2010, 29% of computers were less than 1 year old. 45% of computers belonging to individuals are laptops compared to 55% desktops.

The main barrier to purchasing a computer is the expensive price, , and this holds for 57% of individuals who are not equipped with computer at home. Then, the lack of usefulness which holds for 51%.

Computer purchasing intentions are very high from non-equipped households (34% of households).

Internet

Household equipment: Internet access
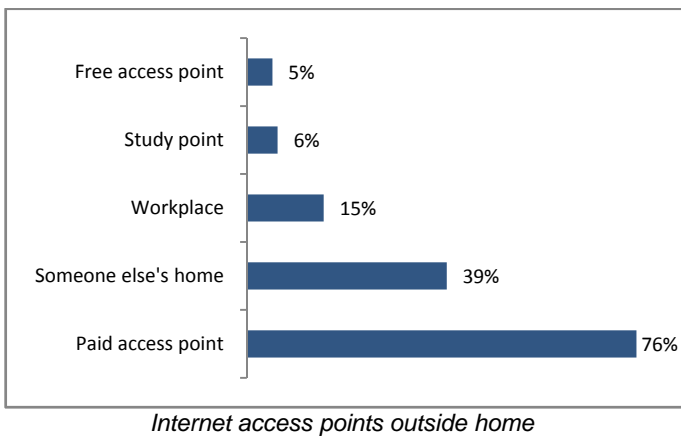

Household equipment: Internet access

The Internet penetration rate in households increased again this year, reaching 25% (+5 points compared to 2009).

The launch of 3G probably participated in democratizing household equipment.

In 2010, mobile broadband became the favorite household equipment mode: 78% of households with an Internet connection have 3G access compared to 32% with ADSL access.
27% of non-equipped households with Internet access want to get equipment in the next 12 months, and 92% of them with mobile broadband.
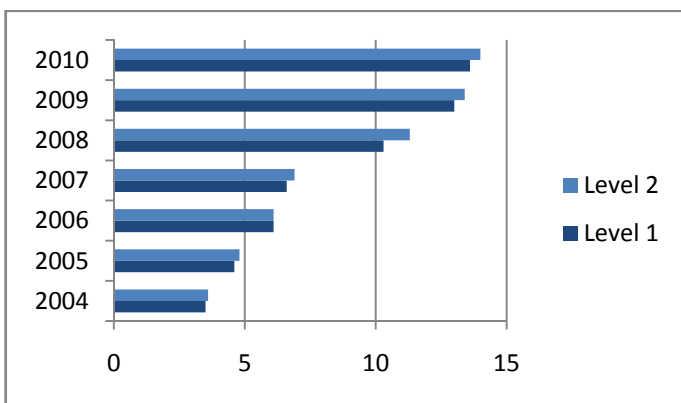
Internet access outside home

Access point	Percentage
Free access point	5%
Study point	6%
Workplace	15%
Someone else's home	39%
Paid access point	76%

Internet access points outside home

The main Internet access point outside home is the Internet cafe (76% of individuals connected outside home).

Number of Internet users

We distinguish two levels of Internet user:

- Level 1 Internet user: any individual who has been connected to the Internet at least once in the last month regardless of the location and the access method used.

- Level 2 Internet user: any individual who has been connected to the Internet at least once in the last 12 months regardless of the location and the access method used.
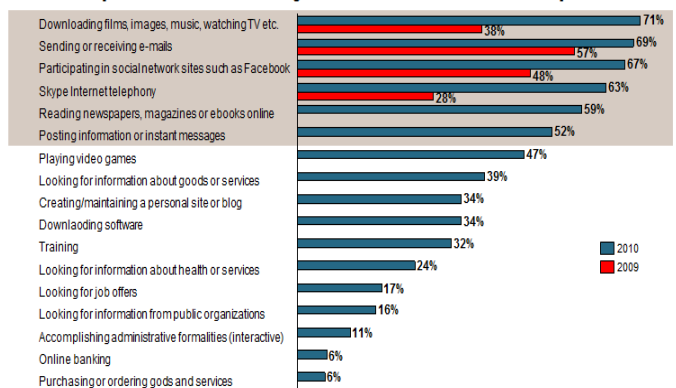
Internet users (in millions)	2004	2005	2006	2007	2008	2009	2010	2009/2010 dEcolution
Level 1	3.5	4.6	6.1	6.6	10.3	**13.0**	**13.6**	**+5%**
Level 2	3.6	4.8	6.1	6.9	11.3	**13.4**	**14.0**	**+4%**

Number of Internet users
[millions; 2010]

Main Internet uses

Internet use [% of individuals connecting to the Internet in the last 12 months]

Use	2010	2009
Downloading films, images, music, watching TV etc.	71%	38%
Sending or receiving e-mails	69%	57%
Participating in social network sites such as Facebook	67%	48%
Skype Internet telephony	63%	28%
Reading newspapers, magazines or ebooks online	59%	
Posting information or instant messages	52%	
Playing video games	47%	
Looking for information about goods or services	39%	
Creating/maintaining a personal site or blog	34%	
Downlaoding software	34%	
Training	32%	
Looking for information about health or services	24%	
Looking for job offers	17%	
Looking for information from public organizations	16%	
Accomplishing administrative formalities (interactive)	11%	
Online banking	6%	
Purchasing or ordering gods and services	6%	

For 71% of Internet users, the Internet is mainly used to download movies, pictures, music, to watch television or videos, or to listen to the radio or to music, activities that consume a great deal of bandwidth. Next comes electronic messaging, which is used by 69% of Internet users. 67% of Moroccan Internet users participate in social networking sites. The Internet is therefore seen as a means of leisure and communication, a source of information. On-line commerce or on-line banking are beginning to develop.

The development of various Internet uses from 2009 to 2010 brings out ever greater enthusiasm for downloading movies, music, etc. These types of use impose constraints and limits in terms of quality of access especially that 3G is the access type used by the majority of users, and it represents more than 76% of Internet access. It is also an issue raised at international level.

Barriers and fears related to the Internet

51% of households that are not equipped with Internet access consider that the price is a barrier to acquiring home Internet equipment, while 49% of them consider that they don't have any use for it. The third factor is the non-equipment with a computer for 48% of households; this explains much of the initial barrier to Internet access.

One has to relate the price factor as a barrier to Internet access to the price of purchasing a computer. Internet access presupposes the acquisition of a computer.

Dangerous and unadapted content for children as well as aspects linked to personal data security represent the main fears for more than 90% of Internet users.

On-line purchases

Only 4% of Internet users purchase online. 78% of Internet users who haven't purchased online in the last 12 months consider that they don't have any reason to do so, 67% don't trust in transaction security and the fact that they don't have physical access to the product is also a barrier to purchasing over the Internet for 57% of them.

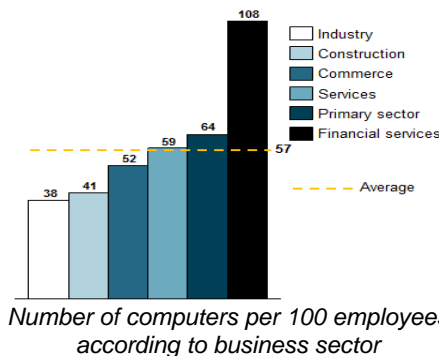## ICT and Businesses

Telephone equipment

98% of companies are equipped with fixed telephony and 78% with mobile telephony.

The number of fixed lines and mobiles increases with the number of employees.
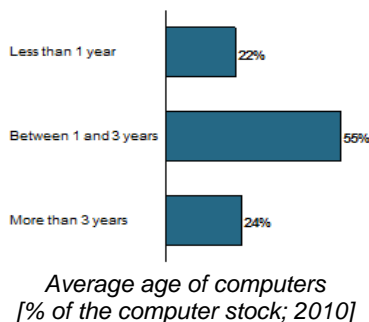
Computer equipment

98% of companies are equipped with computers.

The number of computers per employee is 0.57. This ratio changes according to company sector:

Number of computers per 100 employees
according to business sector

Differences are great according to sector: the financial services sector has 108 computers for 100 employees while industry has only 38.

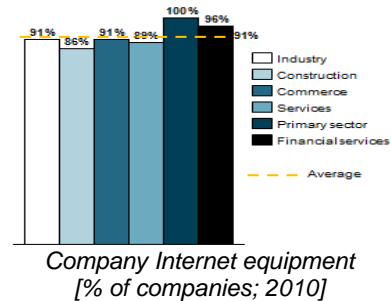The computer stock is mostly made up of desktop computers (81%) compared to 29% of laptops.

Average age of computers
[% of the computer stock; 2010]

More than half of computers are between 1 and 3 years old, and the rest of the stock is equitably distributed between less than 1 year and more than 3 years.
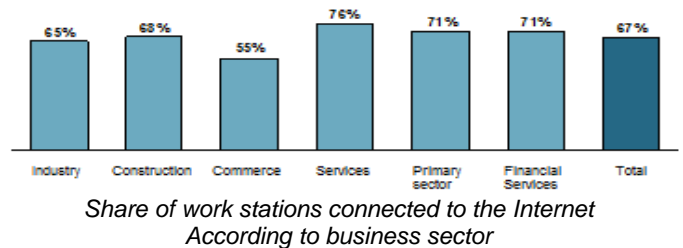
Internet

Internet connection

Company Internet equipment
[% of companies; 2010]

Almost companies questioned (91%) are connected to the Internet. Construction and public works is the least well equipped sector with Internet access (86%).
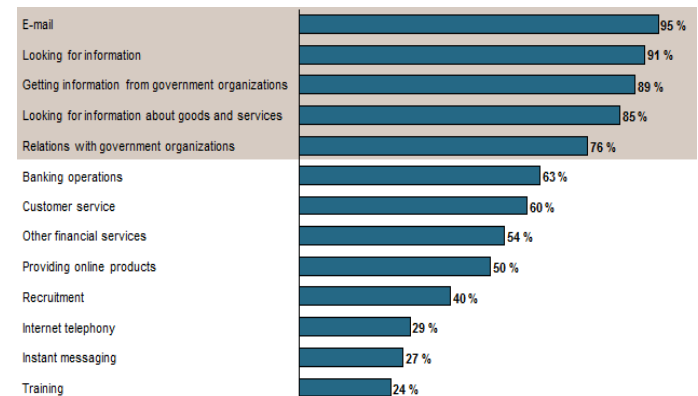
Among companies connected to the Internet, 88% have ADSL access compared to 7% with 3G on mobile telephone and 7% with 3G on a computer.

Personal access to the Internet

Share of work stations connected to the Internet
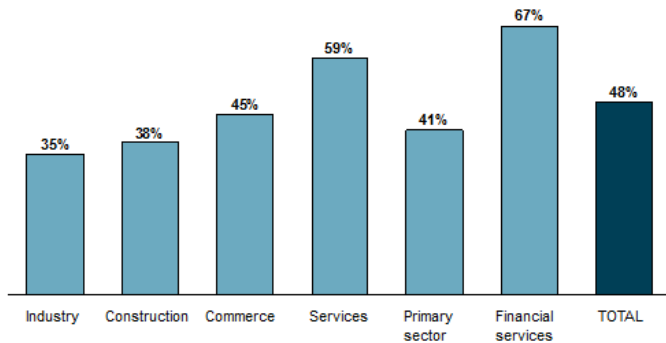*According to business sector*

On average, 67% of work stations are connected to the Internet. This ratio changes slightly between companies in different sectors.

Internet use in companies

Internet use in connected companies
[% of companies connected to the Internet;2010]

Nearly 9 out of 10 companies use the Internet to look for commercial or official information and for electronic messaging and more than ¾ of companies maintain relations with governmental organizations by Internet.
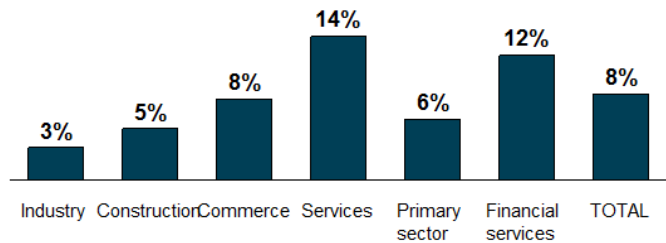
Web site and domain name

Companies with web sites
[% of companies connected to the Internet;2010]

48% of companies connected to the Internet have a web site. 67% of them subcontract site development.
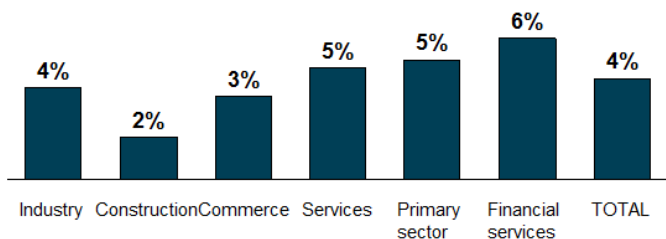
91% of companies that have a web site have their own domain name. For 59% of domain names, the domain name extension is ".ma", and for 37%, ".com".

ICT investment and training

Share of investment devoted to ICT
according to business sector
[% of the budget; 2010]

Companies devote 8% of their budget to investment in ICTs. Financial services and services devote a greater share of their budget to ICT (12% and 14% respectively) than industry and construction and public works (3% and 5% respectively).

Share of the training budget devoted to ICT
according to business sector
[% of the training budget; 2010]

4% of the training budget is related to training employees in ICT. Financial services spend 3 times more in ICT training (relative to their training budget) than the construction and public works sector (6% and 2% respectively).

On-line commerce

Buying and selling on-line

Companies don't practice e-commerce very much, whether for purchasing or selling. 17% of companies connected to the Internet purchase or place orders via the Internet; 11% sell their product or their service on line.

Despite the insignificant use of e-commerce, the evolutions observed this year show that it is developing in Morocco.

This trend is confirmed by intentions to practice e-commerce declared by companies: 26% of companies connected to the Internet plan to carry out purchases in the next 12 months.

Barriers to e-commerce

56% of companies declare that the main barrier to the use of electronic commerce is that their products are not adapted to online sale.

According to 23% of companies that do not practice online sales, the market would not probably be ready to accept this type of service. This creates a vicious circle for the development of e-commerce in Morocco.