Information Technology Observatory

Survey on ICT access and usage by households and individuals in Morocco, 2015

April 2016

SUMMARY

1. INTRODUCTION 3

2. METHODOLOGY 4

3. ICT EQUIPMENT AND USES IN 2015 5

3.1. Main ICT equipment end uses in 2015 5

3.2.Mobile telephony equipment and uses 6

3.3. Fixed telephony equipment and usage within households 9

3.4. Households' equipment with computer/tablet 11

3.5. Internet equipment and usage 133

3.6. Social Networks 200

3.7. Mobile Applications 22

1. INTRODUCTION

This document summarizes the results of the 12th edition of the annual Information and Communication Technologies (ICT) survey conducted by ANRT. This survey aims to follow and monitor the evolution of access to and use of ICT by households and individuals in Morocco in 2015.

The survey is part of the "The Information Technology Market Observatory" established by ANRT since 2005.

The goals of this observatory can be summarised as follows:

- To complete the information collected from operators in the fixed line, mobile and Internet services markets and to process questions on how ICT is used and how users behave in the context of ICT in order to analyze qualitative aspects such as the drivers or the barriers for access to ICT equipment and its usage;
- To promote accurate, quantitative knowledge of the situation and developments in information society in Morocco;
- To provide a communication medium at the national level;
- To feed international databases (in particular ITU databases) to enable Morocco to be included in classifications of ICT indexes which evaluate and compare the level of ICT development in countries on a worldwide scale.

Apart from the survey methodology, the report is going to present the results for the different ICT services and equipment as follows:

- Mobile telephony ;
- Fixed telephony ;
- Computer ;
- Internet ;
- Social networks ;
- Mobile applications.

2. METHODOLOGY

The survey targets the households living in urban and rural areas which are equipped with electricity; it also concerns the individuals aged 5 years or older. The reference population is established in accordance with the results of the General Census on Population and Housing conducted in 2014 by the HCP (High Commissioner's Office for Planning). The sample is chosen according to geographic criteria and stratification, based on recent and available HCP's publications along with the 2014 Statistical Yearbook.

The field survey respects quota sampling standard and was conducted in February and March 2016. It covered several cities of the Kingdom representing the different regions of Morocco.

The sample of 1 940 individuals and households, 1 269 in urban areas and 671 in rural areas, was constructed based on the following five levels of stratification:

- Region ;
- Gender;
- Age ranges/groups ;
- Area of residence ;
- Type of housing.

3. ICT EQUIPMENT AND USES IN 2015

3.1. Main ICT equipment end uses in 2015

The equipment of individuals (12-65 years) with a mobile phone (94.4% in 2015) shows a slight stagnation (94.1% in 2014).

Meanwhile, the number of people equipped with a Smartphone displays a significant increase from 38.2% in 2014 to 54.7% in 2015.

Regarding the equipment of households with computers, it's established at 54.8% in 2015 and shows an increase of more than two points compared to 2014.

In terms of households' equipment with Internet, the rate is 66.5%, recording an evolution of more than sixteen points compared to 2014. This growth is due to the mobile technology.

Fixed telephony continues to decline in 2015. Hence, the proportion of households equipped with fixed telephony decreased by about two points from 24.1% in 2014 to 22.3% in 2015.

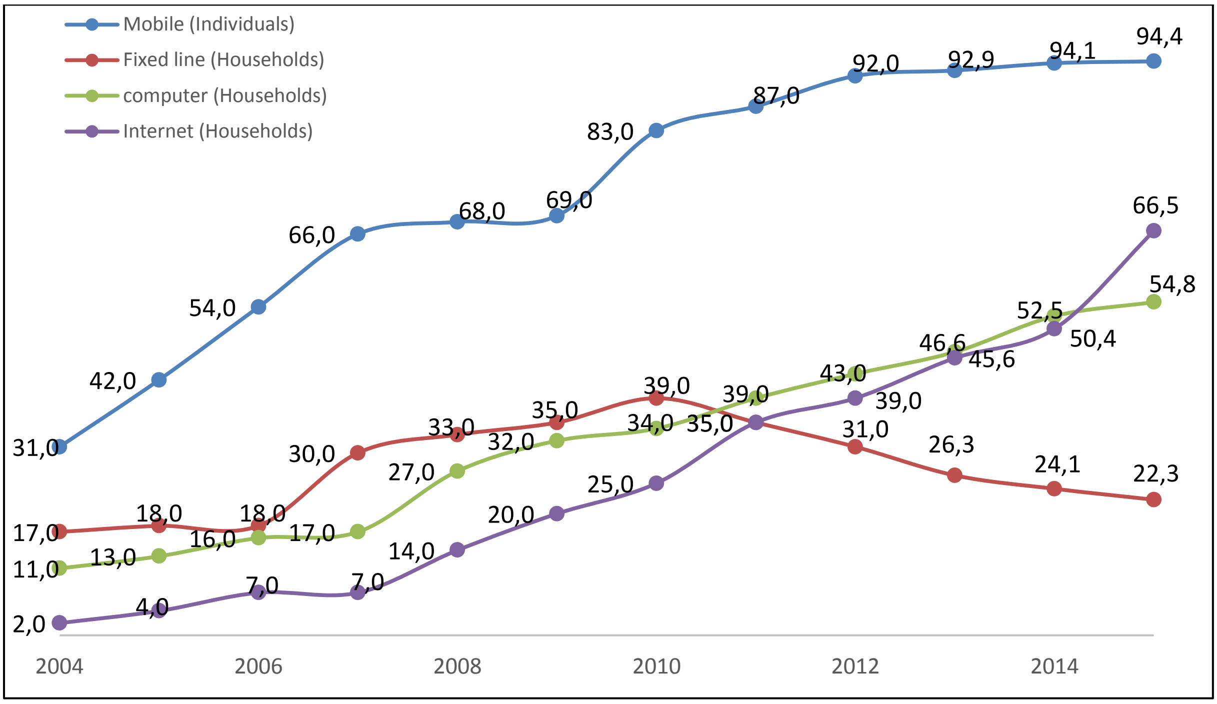


Figure 1 : Evolution in % of individuals and households' ICT equipment (2004-2015)
(% of individuals aged 12-65 years/ % of households in areas connected to the electric grid)

3.2. Mobile telephony equipment and uses

HOUSEHOLDS' EQUIPMENT WITH MOBILE TELEPHONY

Mobile telephony is present in almost all households, in both urban and rural areas.

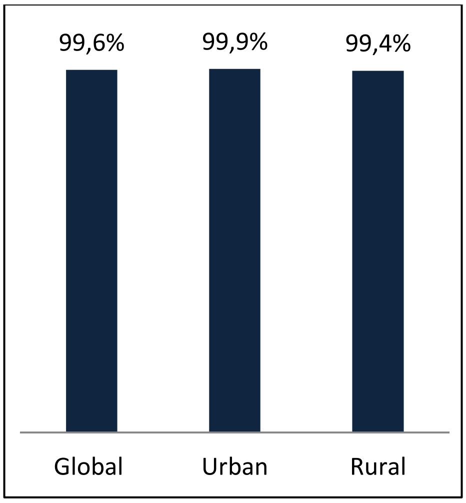


Figure 2: Households equipped with at least one mobile phone (% of households)

INDIVIDUALS EQUIPPED WITH MOBILE TELEPHONY

94.4% of individuals aged 12-65 years are equipped with mobile telephony. This rate reached 97.1% in urban area and 89.8% in rural areas.

Overall, the mobile equipment within individuals shows stagnation in 2015, a slight decrease in urban area and an increase of more than 2 points in rural area which reduces the gap in mobile telephony equipment between the two areas.

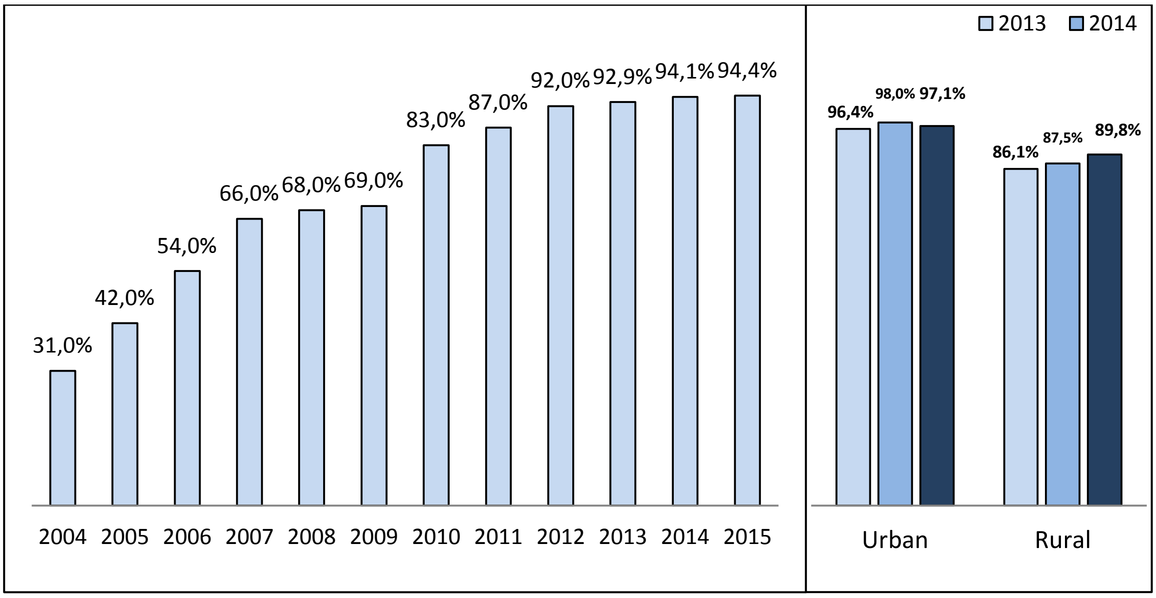


Figure 3 : Evolution of individuals equipment with mobile telephony, by area of residence (12-65 years)

MOBILE TELEPHONY MULTI-EQUIPMENT

In 2015, the rate of individuals (12-65 years) equipped with more than two SIM cards is practically stable compared to 2014.The average number of SIM cards per individual remains unchanged (1.15 cards).

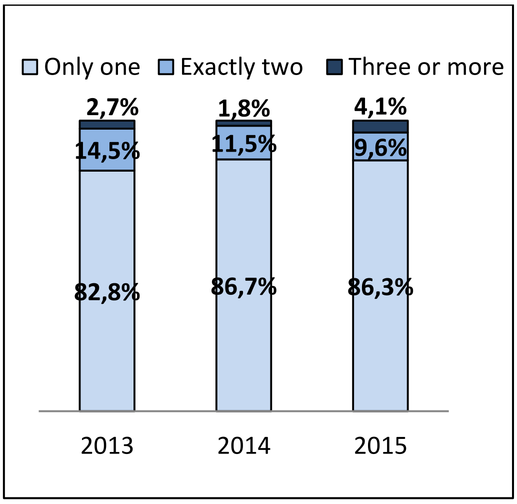


Figure 4 : Individuals equipped with a SIM card (Individuals aged 12-65 years)

INDIVIDUALS EQUIPPED WITH A SMARTPHONE

54.7% of individuals (12 - 65 years) equipped with a mobile phone own at least one Smartphone in 2015, showing a significant growth compared to previous years.The estimated number of smartphones is 14.7 million units in 2015, which represents a significant increase of 5.3 million units compared to 2014.

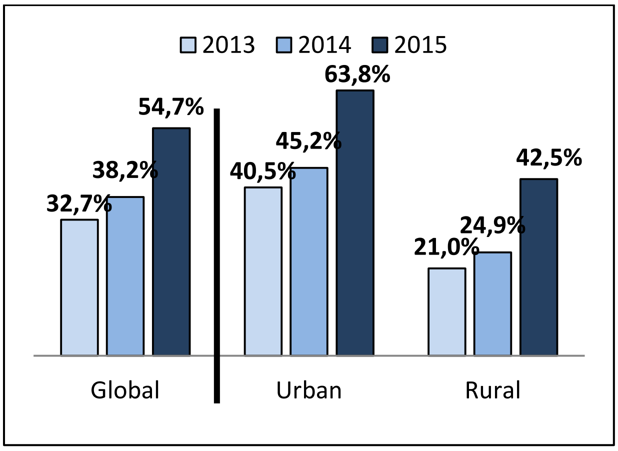


Figure 5 : Individuals equipped with a Smartphone, per area of residence
(Individuals 12-65 years equipped with a mobile phone

BARRIERS TO INDIVIDUAL BEING EQUIPPED WITH A SMARTPHONE

The main barriers to people acquiring a Smartphone are the perceived lack of usefulness and the complexity of usage.

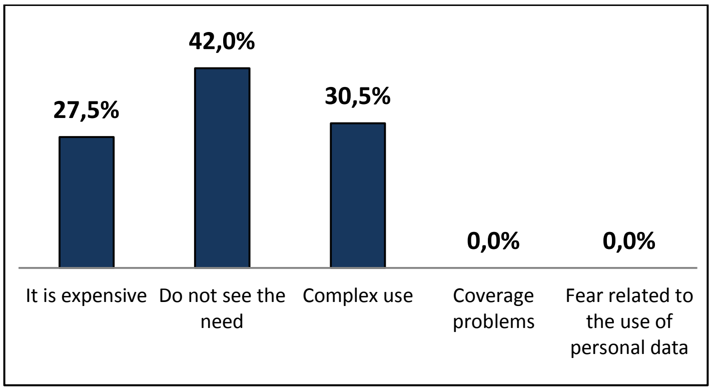


Figure 6 : Barriers to people being equipped with a Smartphone
(% of Individuals aged 12 - 65 years without a Smartphone)

INTERNET ACCESS ON MOBILE PHONE

More than half of the individuals (12-65 years) equipped with mobile phones use their mobile phones to access internet. This proportion is slightly higher in urban areas (59.1%) and stands at around 35% in rural area. In terms of gender, male users are more numerous (56.3%) than female users (45.5%).

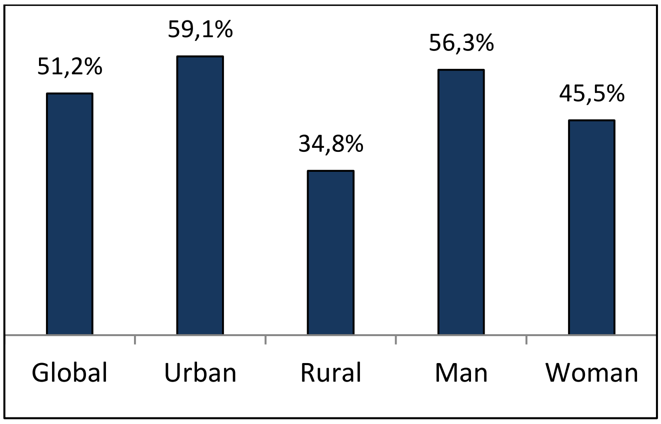


Figure 7:Internet users on mobile phone
(% Individuals aged 12 to 65 years equipped with a mobile phone)

INTERNET USAGES ON MOBILE PHONE

Individuals do access the Internet from their mobile phones particularly to visit websites and participate in social networks (9/10), download mobile applications (3/4), exchange text messages (2/3), check e-mails (1/2), share Internet access (1/3), and use geotagging (1/4).

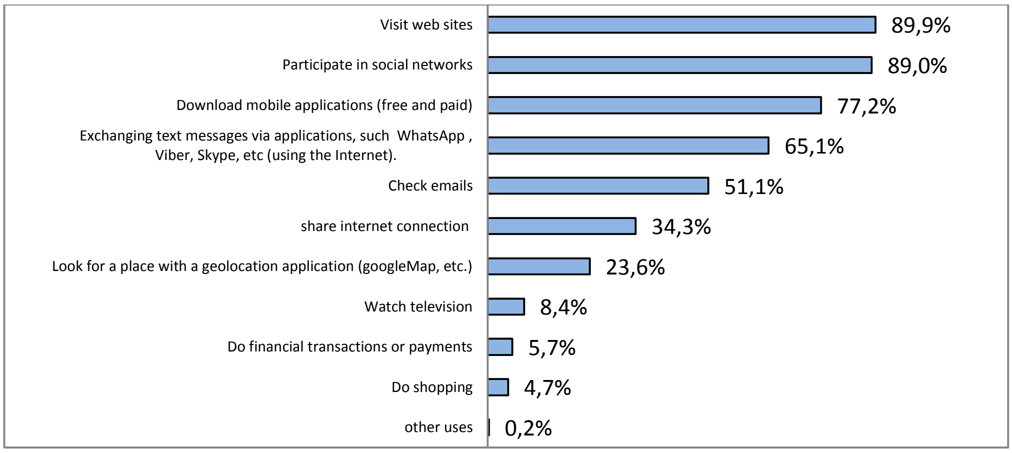


Figure 8: Motivation to internet use from a mobile phone
(% of individuals aged 12 to 65 years equipped with a mobile phone who use it to access the internet.)

MAIN BARRIERS TO INTERNET USE ON MOBILE PHONES

The lack of skills is the main barrier to internet use on mobile phone (32.6%), followed by the lack of need (26.1%) and the price (17.4%). The lack of coverage is rarely mentioned (2.2%).

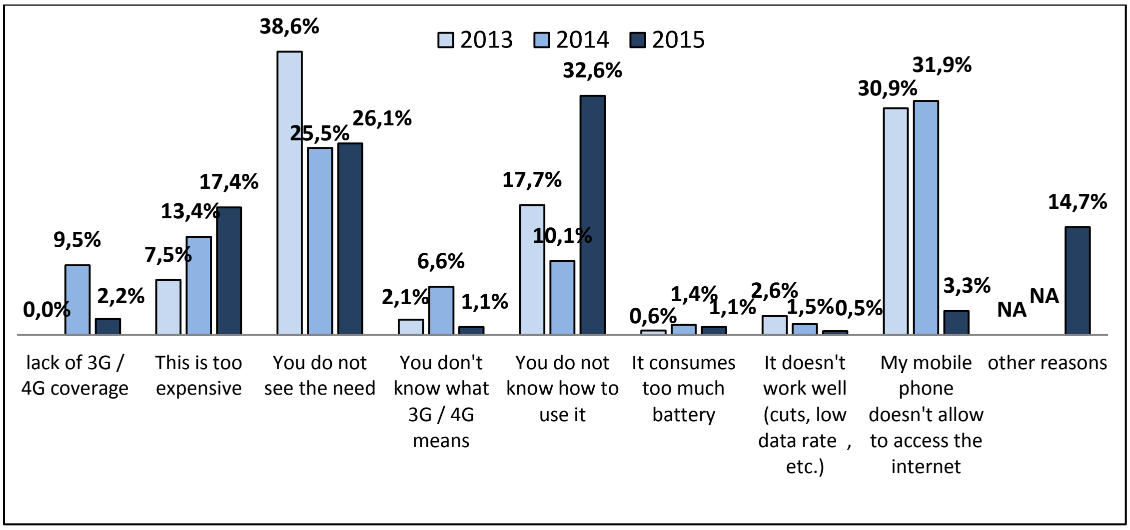


Figure 9 : Main barriers to internet use on mobile phone
(% of individuals aged 12 to 65 years who don't access Internet on mobile phone)

3.3. Fixed telephony equipment and usage

HOUSEHOLDS' EQUIPMENT WITH A FIXED LINE

The proportion of households equipped with a fixed line has been decreasing during the past six years with less than one in four households that was equipped in 2015 (22.3%).

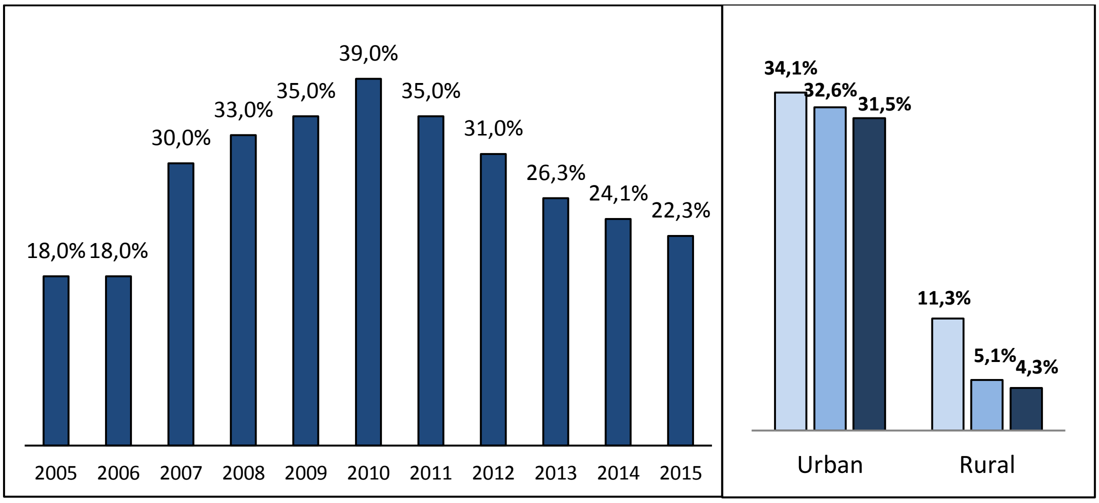


Figure 10 : Households' equipment with fixed telephony (% of Households)

BARRIERS TO HOUSEHOLD'S EQUIPMENT WITH A FIXED LINE

About 7 out of ten households report that they do not need fixed telephony because of their equipment with mobile telephony.

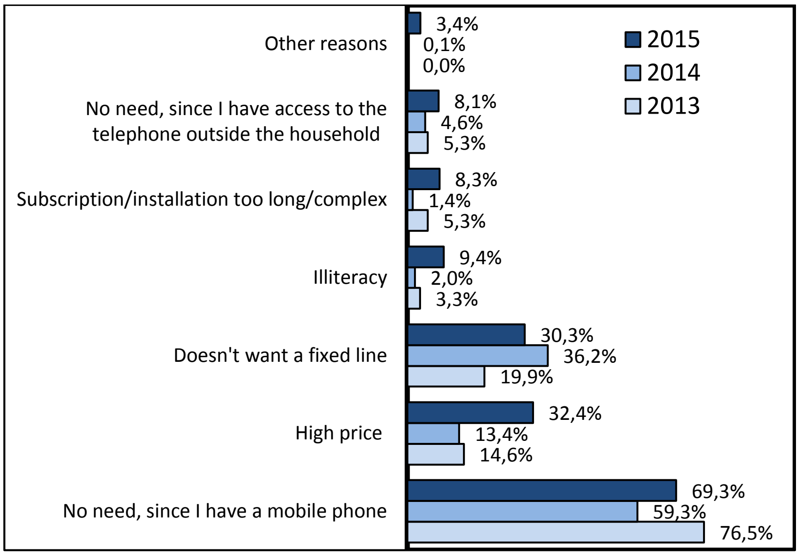


Figure 11 : Barriers to households' equipment with fixed telephony (Households non-equipped with fixed telephony)

INTENTION TO EQUIPMENT WITH FIXED TELEPHONY

Only 7.2% of households which are not equipped with fixed telephony intend to get equipped.

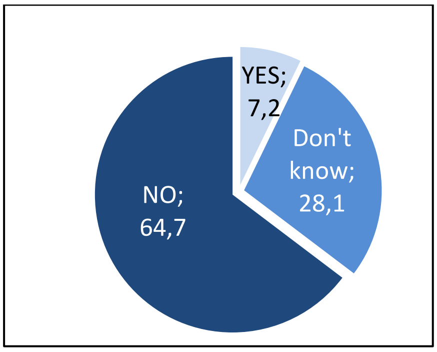
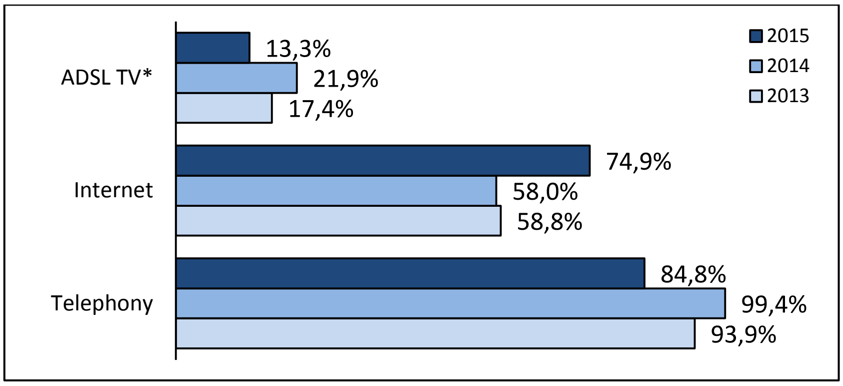


Figure 12 : Intentions of equipment with fixed telephony
(Households non-equipped with fixed telephony)

MOTIVATIONS FOR EQUIPMENT WITH FIXED TELEPHONY

Access to Internet ADSL was reported by three quarters of households to be one of the main reasons that motivate the households' equipment with fixed telephony. This proportion shows a significant increase compared to 2014.



* Including Dream Box

Figure 13 : Motivations for equipment with fixed telephony
(Households non-equipped with fixed telephony)

3.4. Households' equipment with computer/tablet

HOUSEHOLDS' EQUIPMENT WITH COMPUTERS/TABLETS

54.8% of households are equipped with a computer/tablet. This proportion varies according to the area (urban or rural), with nearly 7 in 10 urban households versus one quarter of rural households.

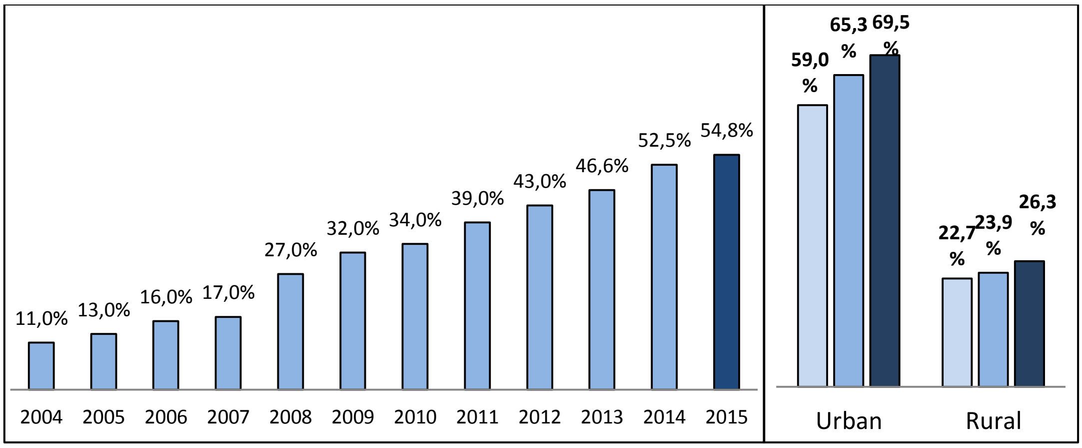


Figure 14 : Households' equipment with computer by area of habitation
(% Households)

HOUSEHOLDS' MULTI-EQUIPMENT WITH COMPUTERS

Nearly half of households equipped with computers have more than one computer/tablet. 47.8% of equipped households own more than two computers/tablets. This proportion increased by 6 points between 2014 and 2015.

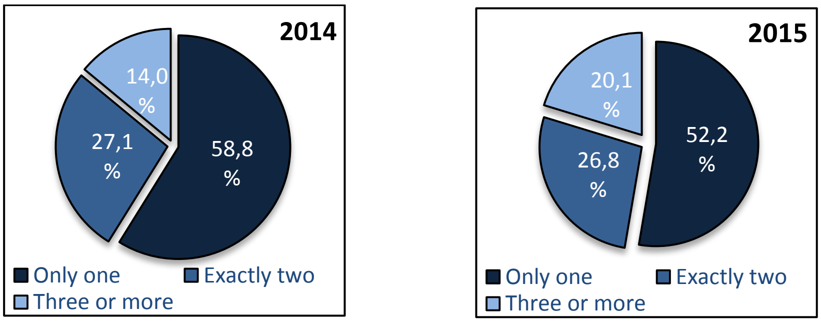


Figure 15 : Proportion of households according to the number of owned computers
(Households' equipped with computers)

HOUSEHOLDS' EQUIPMENT BY COMPUTER'S TYPE

The tablets are continuing their positive trend and represent more than one quarter of the total owned computers/tablets. This evolution has occurred at the expense of desktops which experienced a significant fall.

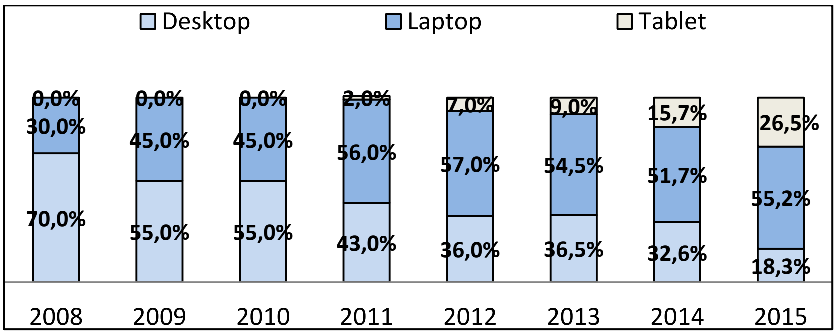


Figure 16 : Type of the computer owned by the households
(% Computers in the households)

INTENTION TO REPLACE OR BUY A COMPUTER

Almost one of ten households intends to replace or buy a laptop. The proportion of households with intentions to replace or buy a laptop or a tablet is larger than those who intend to replace or buy a desktop.

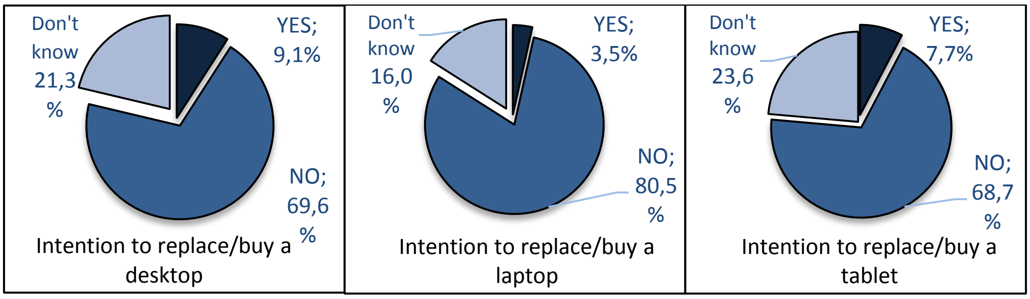


Figure 17 : Intention to get equipped with a computer/tablet (% of Households)

COMPUTER SKILLS

Copy and move files, use the copy/paste functions and send e-mails are the most mastered skills by users of computers/tablets.

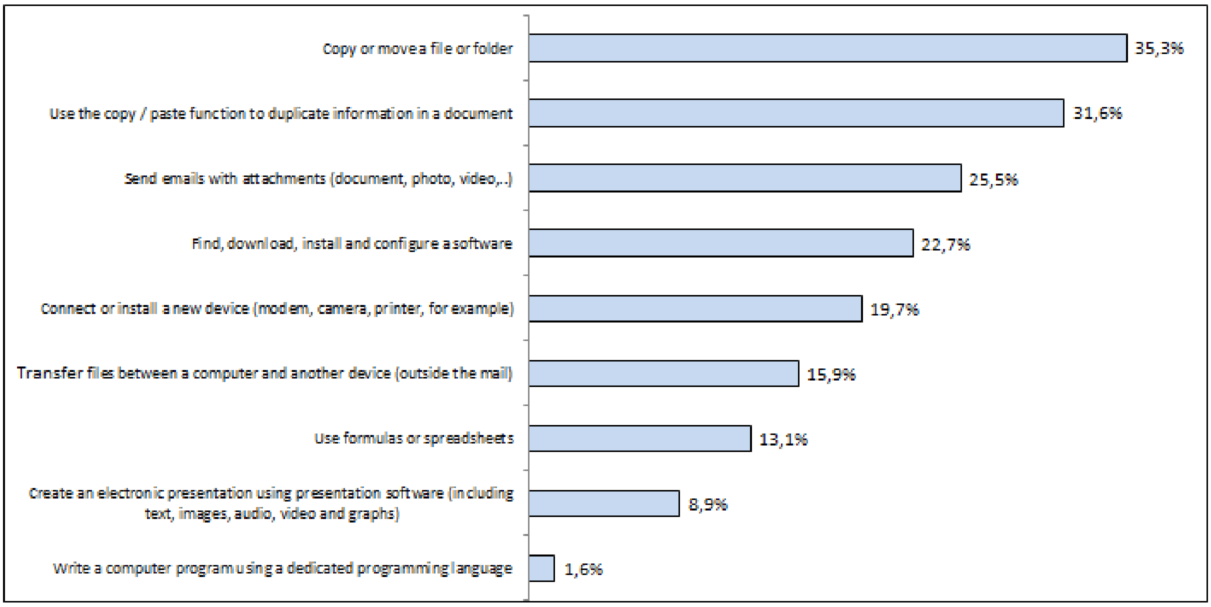


Figure 18 : Computers skills (Individuals 05 years and older)

3.5. Internet equipment and usage

HOUSEHOLDS' EQUIPMENT WITH INTERNET

66.5% of households have Internet access. More than three-quarters of urban households have access to the Internet (76.3%) versus 47.3% in rural areas. Internet equipment shows a considerable increase in both areas between 2014 and 2015.

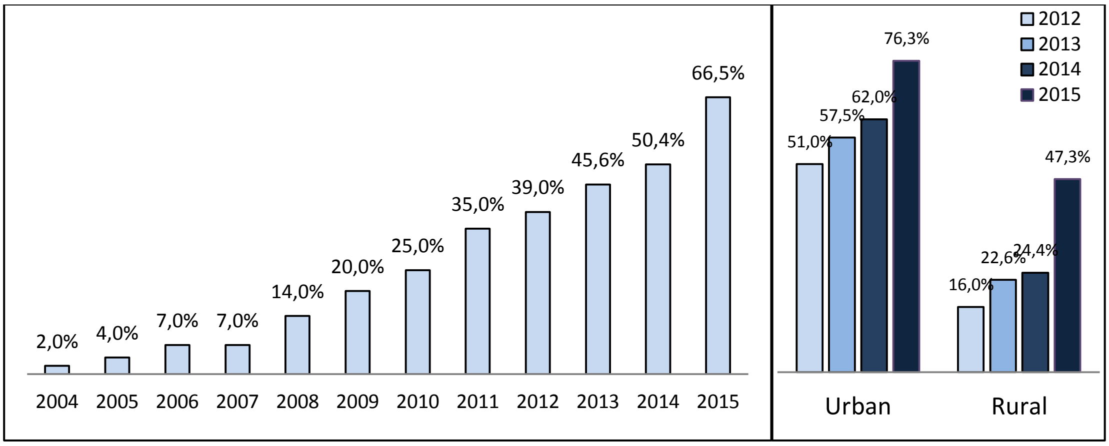


Figure 19 : households' equipment with Internet (2004-2015)

HOUSEHOLDS' EQUIPMENT WITH INTERNET PER TYPE

The mobile internet access has increased, moving from 45.6% in 2014 to 65% in 2015 while fixed internet access (ADSL) has increased from 14.5% to 16.3% during the same period.

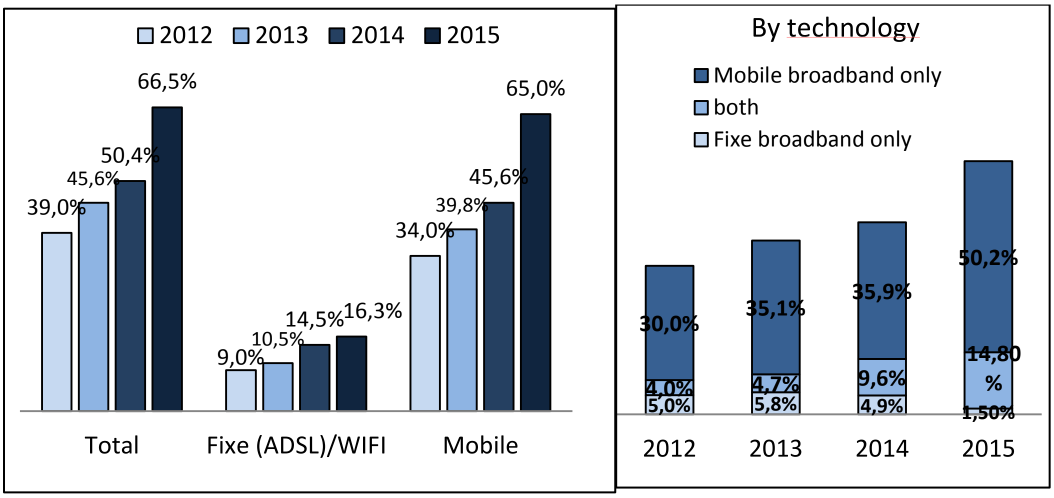


Figure 20 : Internet Access per type
(% of households)

BARRIERS FOR HOUSEHOLDS TO GET EQUIPPED WITH THE INTERNET

The lack of knowledge or skills, the cost of the equipment, the cost of the service, and the lack of need are the main barriers for households who wish to be equipped with Internet access.

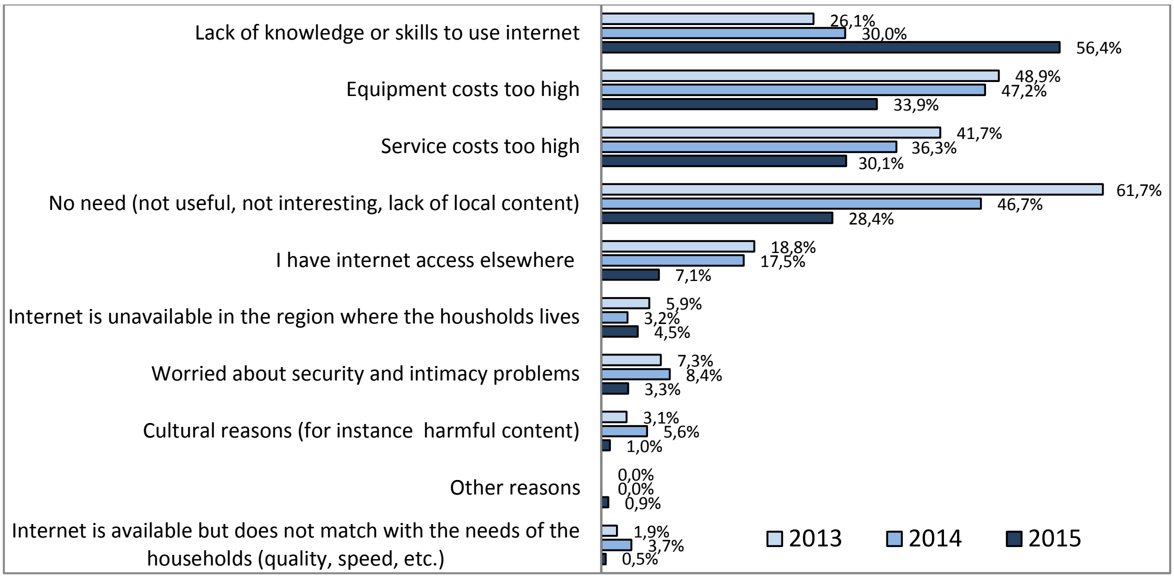


Figure 21 : Barriers for internet equipment (Households non-equipped with internet)

INTENTION TO BE EQUIPPED WITH INTERNET ACCESS

Only 3.8% of households not equipped with Internet access intend to get equipped over the next 12 months. 43.5% among them intend to get equipped with fixed internet access and 44.1% of them with mobile internet access on mobile phones.

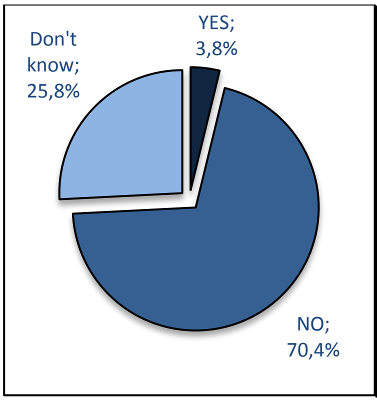


Figure 232: Intention to be equipped with Internet access
(% of Households non-equipped)

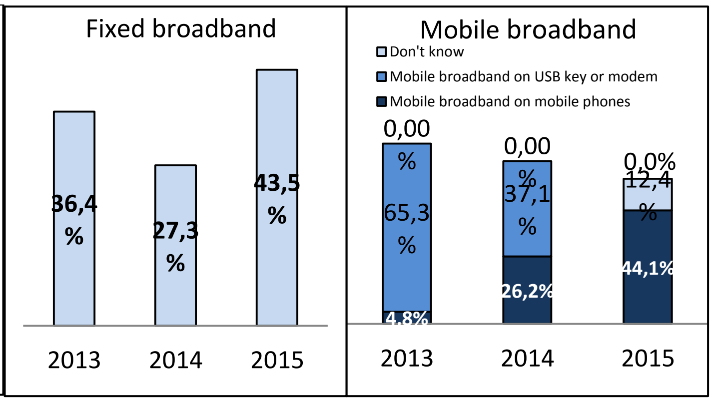
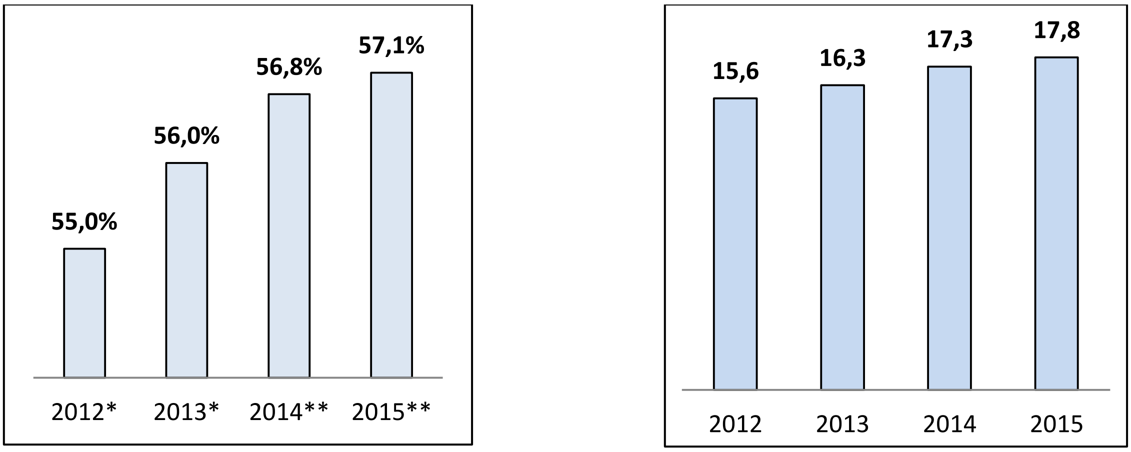


Figure 22 : Intention to acquire equipment in the next 12 months per type of equipment
(% of households not equipped with internet and intend to get equipped)

PROPORTION, NUMBER AND PROFILE OF INTERNET USERS

17.8 millions of Moroccans aged 5 years and older did connect to the internet in the last three months of 2015. The proportion of Internet users has increased compared to 2014, rising from 56.8% to 57.1% in 2015.



* Internet users during the 12 last months ** Internet users during the 3 last months

Figure 24 : Internet users in the last three months (In percentage and in million)
(Individuals 5 years and older in 2015)

Two of three Internet users in urban areas and four of ten Internet users in rural areas did connect during the last three months of 2015. Gender-wise, 62.8% of men and 51.4% of women got connected during the same period.

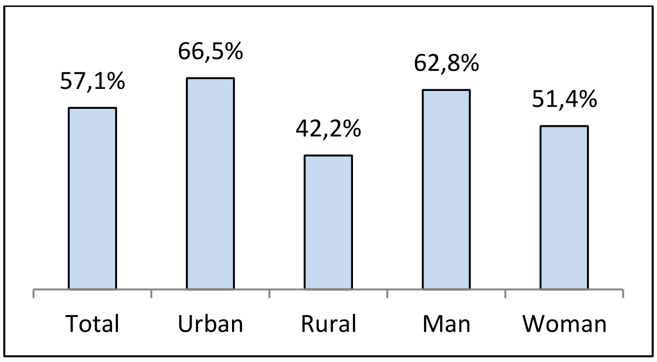


Figure 25 : Internet users
Per gender and housing area (Individuals 5 years and older)

88.5% of internet users access the internet from the mobile broadband network and 62.8% from the fixed broadband network (ADSL/Wi-Fi).

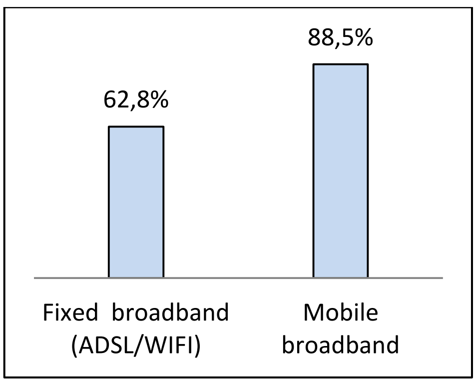


Figure 26: Type of connection used in the last three months
(% Internet users aged 5 years and older in 2015)

FREQUENCY AND DURATION OF INTERNET CONNECTION IN THE LAST 3 MONTHS OF 2015

72.6% of Internet users access the Internet at least once a day, while 14.9% access the Internet at least once a week but not every day, and 12.8% less than once a week.

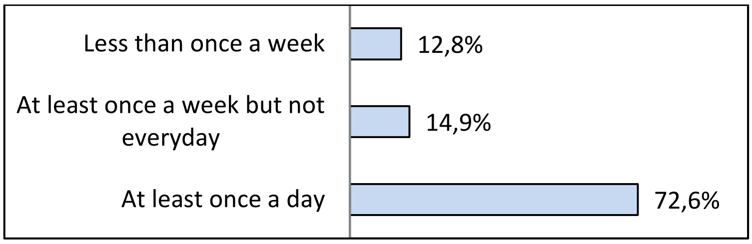


Figure 27 : Internet connection frequency during the last three months (Internet users 5 years and older)

Nearly half of Internet users spend between 1 hour and 4 hours a day on the Internet, while 40% of users log in for less than one hour a day. Only 13% spend more than 4 hours a day on the Internet. 8 out of 10 internet users spend more than one hour connected to the Internet on the mobile phone. This proportion becomes 6 out of 10 for people connected through computers/tablets.

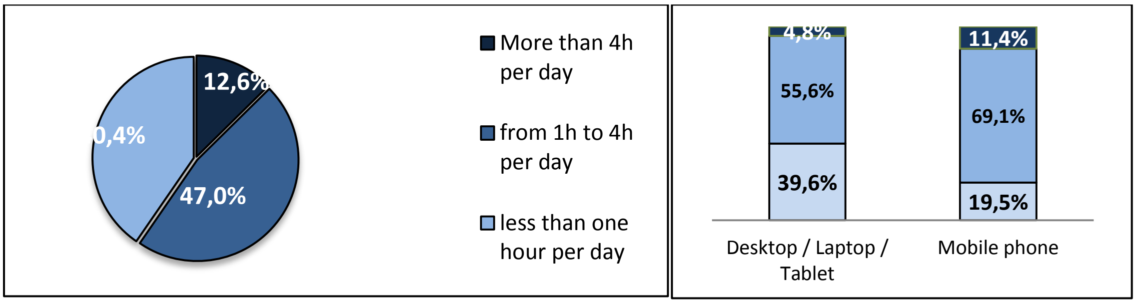


Figure 28 : Daily time of connection to the internet (% of internet users aged 5 years and older during the last three months; 2015)

LOCATION OF INTERNET CONNECTION IN THE LAST 3 MONTHS IN 2015

77.2% of internet users access the Internet at home, and to a lesser extent, from any location via a mobile cellular telephone, from a free Internet access center or from the house of another individual.

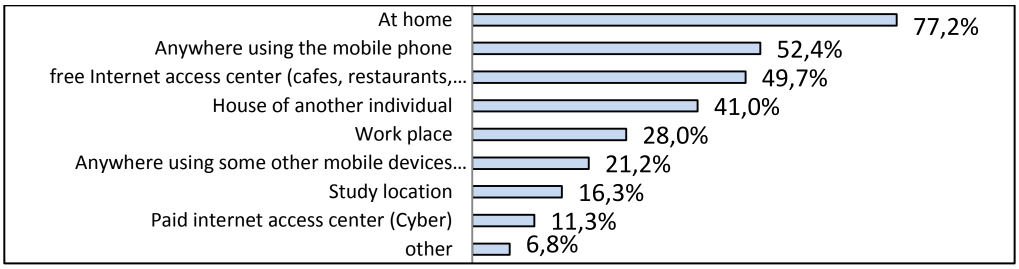


Figure 29 : Location of internet connection during the last three months (Internet users 5-75 years)

WEB SITES VISITED AND FAVORITE CONTENTS FOR INTERNET USERS

Internet users visited international websites (77.8%) more than national ones (22.2%).The proportion of Internet users visiting the national sites has increased compared to 2014.

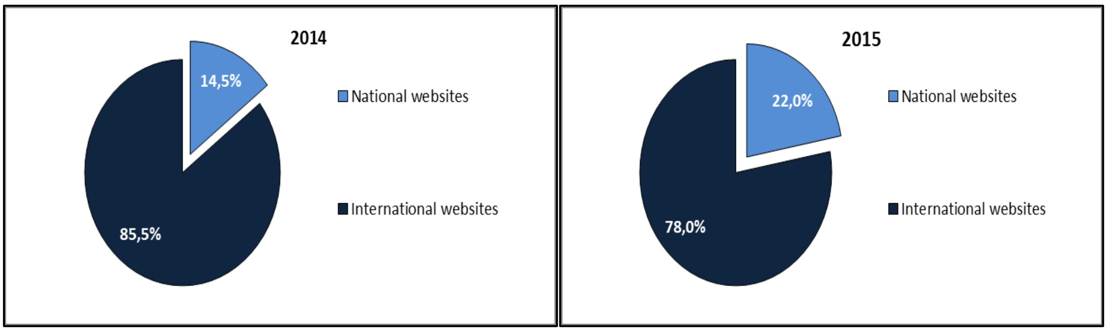


Figure 30 : Type of the most visited Websites by Internet users
(% Internet users aged 5 years and older)

Social networks, the media and the news, sports, as well as gaming and leisure represent the favorite types of content for internet users. They are followed successively by health, economy and finance, education and training, but also by advertisement

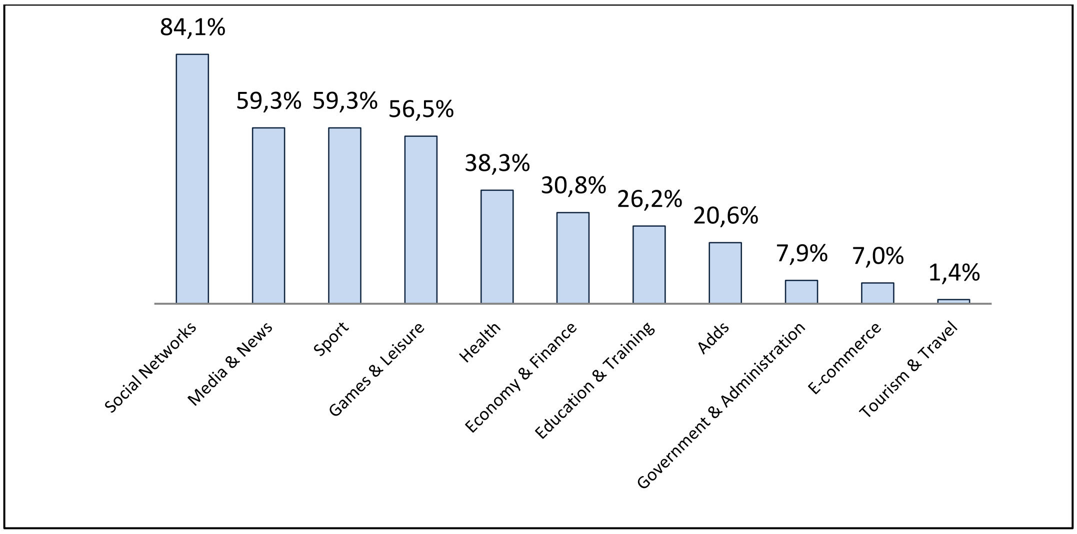


Figure 31 : Types of favorite contents for Internet users
(% of internet users aged 5 years and older during the last three months; 2015)

INTERNET USES

82.1% of Internet users mainly access the Internet to participate in social networks, 67.3% watch and download multimedia content, 58.9% use Internet for downloading software and applications, and 42.9% use Internet for electronic messaging.

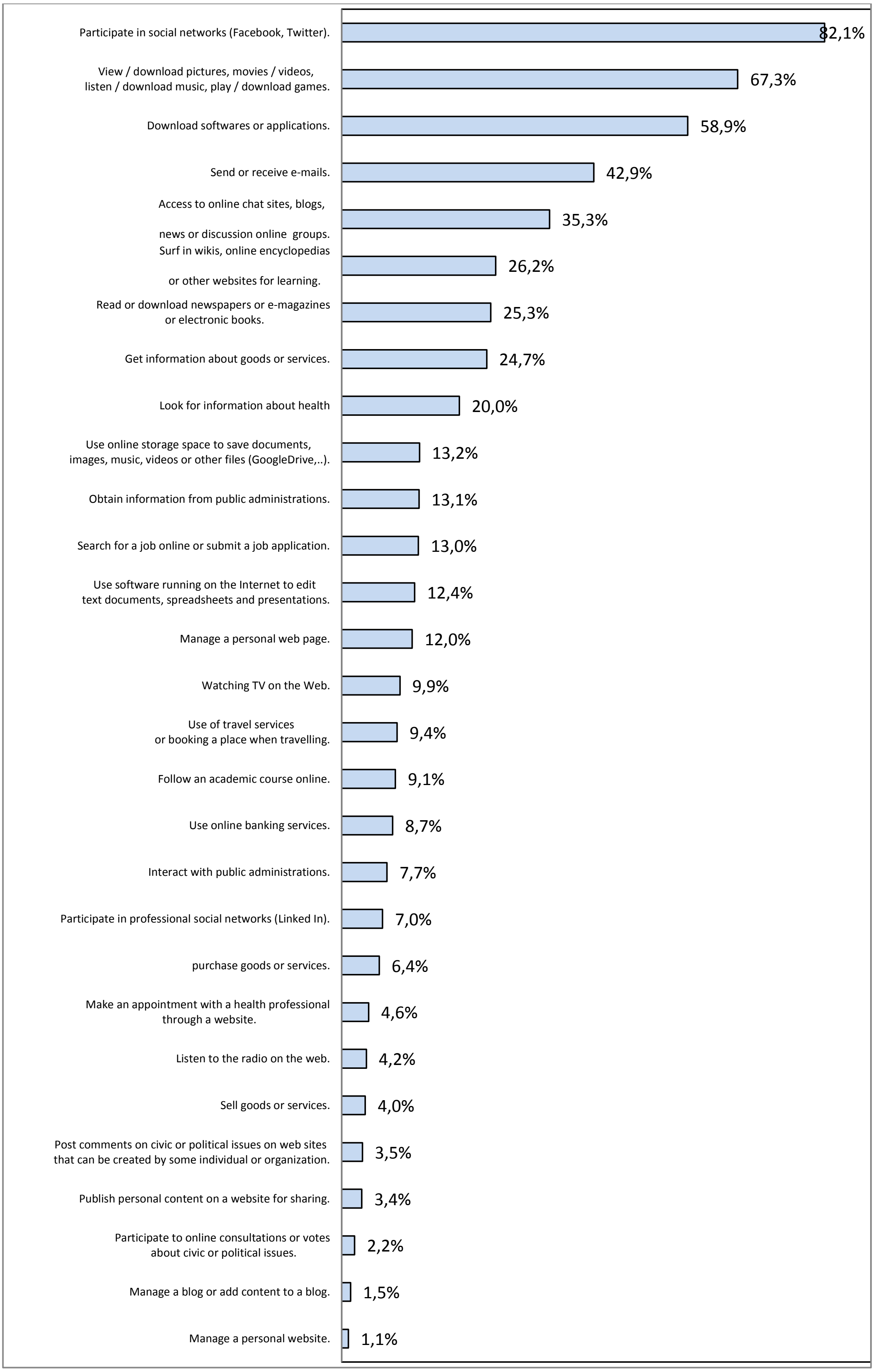


Figure 32 : Internet uses during the last three months (Internet users aged 5 years and older)

3.6. Social Networks

SOCIAL NETWORK'S FREQUENCY OF USE

Nearly two of three social networks users surf daily on these networks. In urban areas, this proportion is slightly above two thirds (67.1%). In rural areas, this indicator is slightly more than half of social networks users (51.5%) who visit on a daily basis the websites of social networks. When analyzed per gender, one can see that women access social networks on a daily basis relatively more than men.

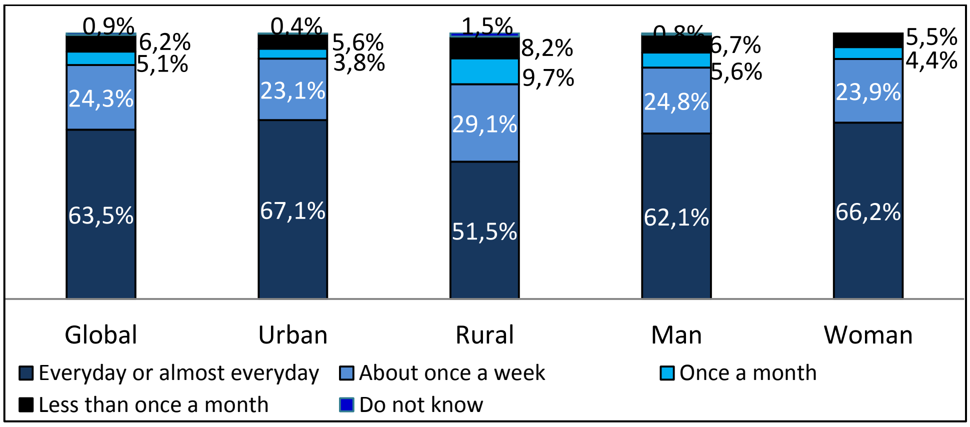


Figure 33 : Frequency of social network use during the last three months (Social networks users 5-75 years)

Daily access to social networks is more important for the youth aged 15 to 29 years and is less for individuals aged 40 and older.

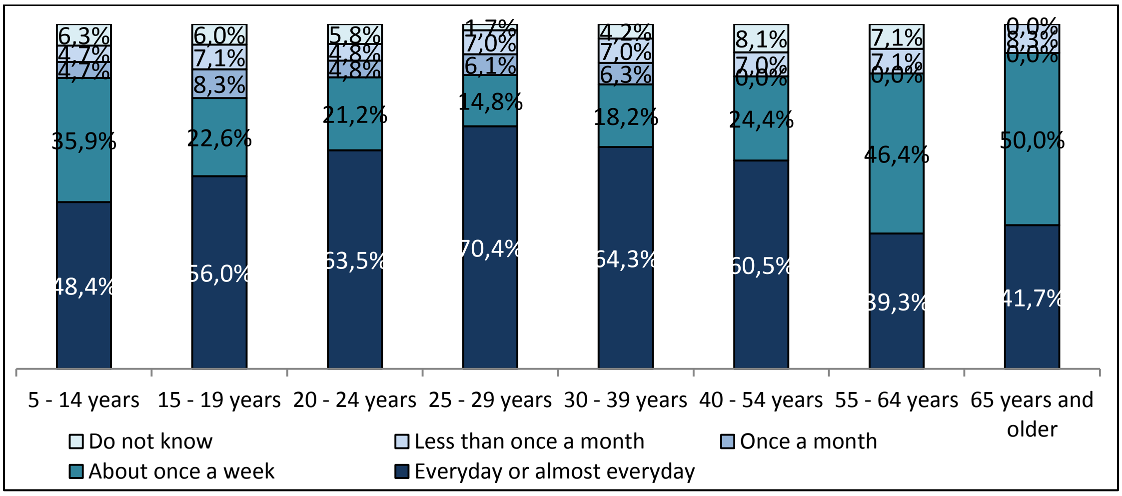


Figure 34 : social network's frequency of use per age groups
(Social networks users aged 5 years and older during the last three months of 2015).

The mobile phone is largely the most used device for accessing social networks, with 79.8% of mobile phone users who access social networks every day or almost. Only four out of ten internet users access social networks every day or almost every day, using a computer/tablet.

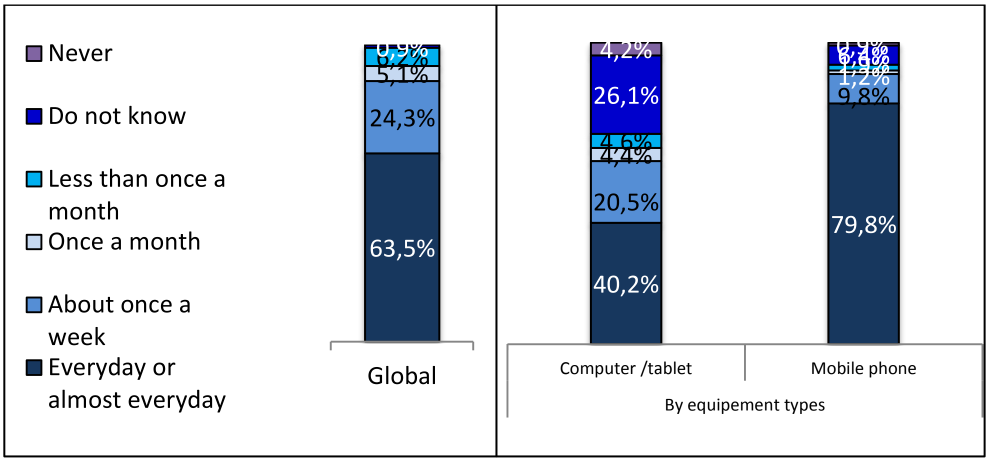


Figure 35 : Frequency of social network use during the last three months per type of equipment (Social networks users, 5 years and older)

DAILY TIME SPENT ON SOCIAL NETWORKS

52.8% of Internet users spend more than one hour a day connected to social networks. Nearly three-quarters of Internet users spend on average less than two hours a day each time they access social networks, regardless of the device used to access the Internet.

70.6% of social networks users spend an average duration of less than one hour a day connected on the desktop, laptop or tablet, while a little more than half of Internet users spend more than one hour connected from their mobile phones.

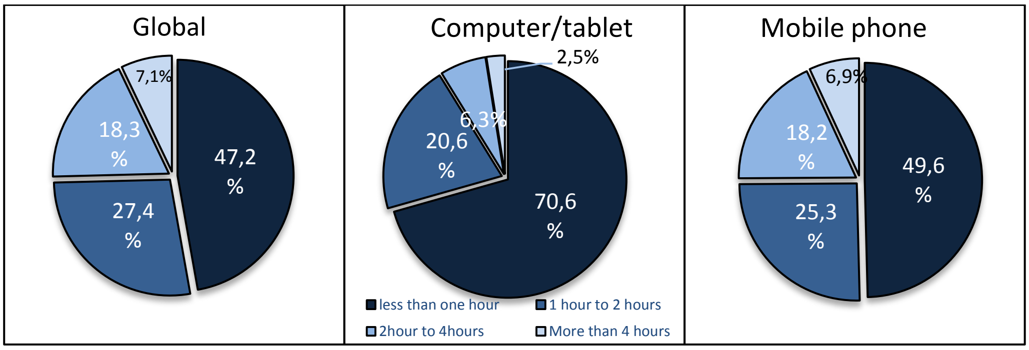


Figure 36 : Total time spent on social network (Social networks' users 5years and older)

FAVORITE SOCIAL NETWORKS AND THEIR MAIN USES

Nine out of ten regular users of social networks connect to Facebook and nearly 85% to WhatsApp. About eight out of ten social networks users get connected in order to chat and six out of ten to keep in touch with friends or family, learn, share, or view pictures or videos and make comments.

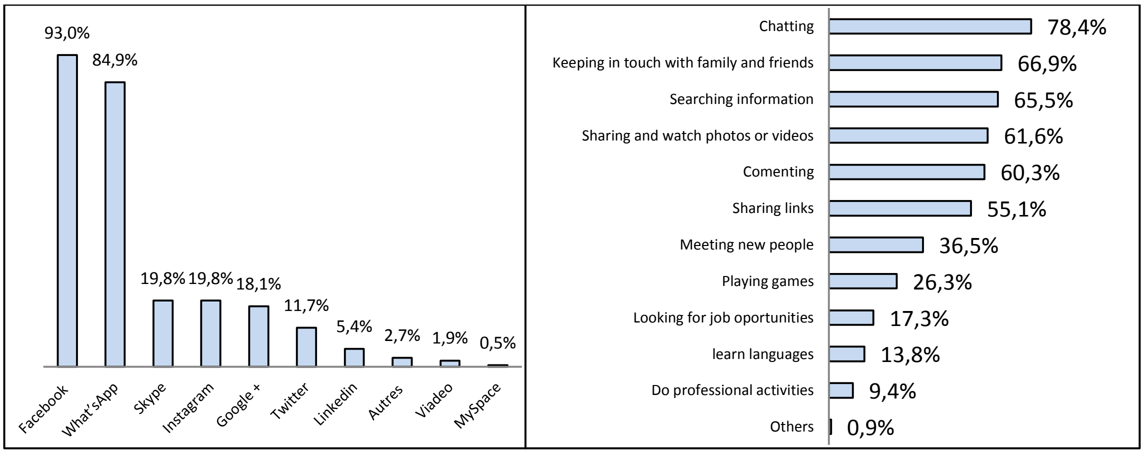


Figure 37 : The favorite social networks and their main uses
(Social networks' users aged 5 years and older)

BARRIERS TO THE USE OF SOCIAL NETWORKS

The main reported reasons that prevent some internet surfers from accessing social networks are the complex use (47.4%) and lack of interest (39.1%),. followed by the lack of time available to users (37.6%).

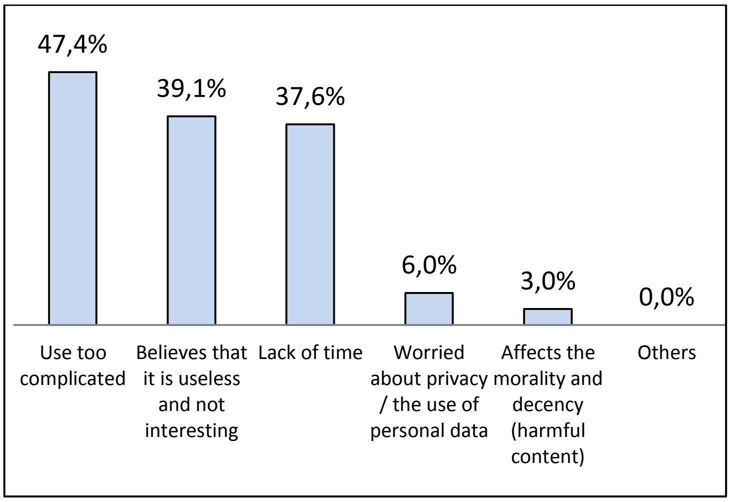


Figure 38 : Main barriers to the use of social networks
(Internet users aged 5 years and older who don't use social networks)

3.7. Mobile Applications

MOBILE APPLICATIONS USAGE

Nearly three out of 10 individuals use frequently 2 to 5 mobile applications in a week and 62,1% has no frequent use of mobile applications during the week.

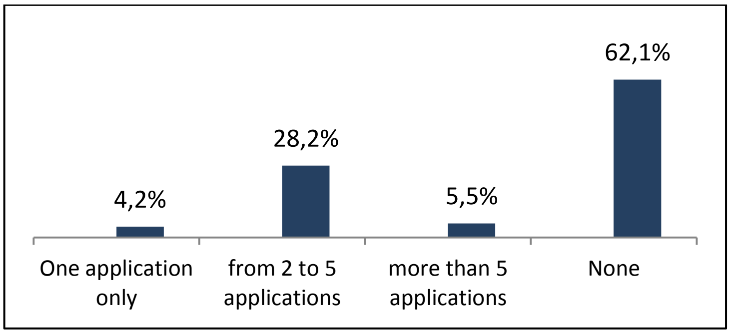


Figure 39 : Frequent usage of mobile applications (Individuals aged 12-65 years)

NUMBER OF DOWNLOADED MOBILE APPLICATIONS

65,9 % of mobile applications users have downloaded one to five applications during the last three months in 2015.

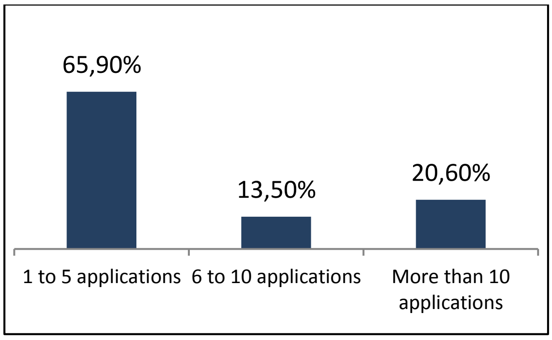


Figure 40 : Number of downloaded mobile applications during the last three months in2015 (Mobile applications users aged 12-65 years)

TYPES OF MOST USED MOBILE APPLICATIONS

7 out of 10 mobile applications users use it to access social networks, but also to access games and entertainment (14.0%), health (6.9%), and education and studies (4.2%).

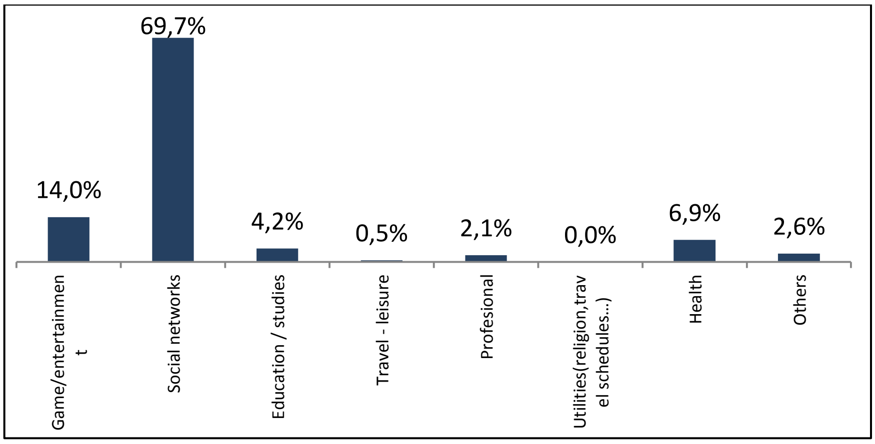


Figure 41 : Types of mobile applications used (Mobile applications users aged 12-65 years)

LIST OF FIGURES

Figure 1 : Evolution in % of individuals and households' ICT equipment (2004-2015) 5
Figure 2: Households equipped with at least one mobile phone 6
Figure 3 : Evolution of individualsequipment with mobile telephony, per area of residence (12-65 years) 6
Figure 4 : Individuals equipped by SIM card (Individuals 12-65 years) 7
Figure 5 : Individuals' equipment with smartphone, per area of residence 7
Figure 6 : Barriers to individual's equipment with smartphone 8
Figure 7: Internet users on mobile phone 8
Figure 8 : Motivation to internet use from mobile phone 9
Figure 9 : Main barriers to internet use on mobile phone 9
Figure 10 : Household's equipment with fixed telephony 10
Figure 11 : Barriers to household's equipment with fixed telephony 10
Figure 12 : Intentions of equipment with fixed telephony 11
Figure 13 : Motivations for equipment with fixed telephony 11
Figure 14 : Households' equipment with computer by area of habitation 12
Figure 15 : Proportion of households according to the number of computers owned 12
Figure 16 : Type of the computer owned by households 122
Figure 17 : Intention forgetting equipped with a computer/tablet 13
Figure 18 : Computers skills 133
Figure 19 : Households' equipment with Internet (2004-2015) 14
Figure 20 : Internet Access per type 144
Figure 21 : Barriers to Internet equipment (Households non-equipped with internet) 15
Figure 22 : Intentions to get equipped with Internet Access 155
Figure 23 :Intentions of equipement in the next 12 months by type of equipment 155
Figure 24 : Internet users in the last three months (In percentage and in million) 16
Figure 25 : Internet users 166
Figure 26 : Type of connection used in the last three months 166
Figure 27 : Internet connection frequency during the last three months 17
Figure 28 : Daily time of connection to the internet 177
Figure 29 : Location of internet connection during the last three months 177
Figure 30 : Type of the most visited Websites by Internet users 188
Figure 31 : Types of favorite contents for Internet users 188
Figure 32 : Internet uses during the last three months (Internet users 5 years and older) 19
Figure 33 : Frequency of social network use during the last 3 months (Social networks users aged 5-75 years) 20
Figure 34 : social network's frequency of use per age groups 200
Figure 35 : Frequency of social network use during the last three months 211
Figure 36 : Total time spent on social networks (Social networks' users aged 5 years and older) 211
Figure 37 : The favorite social networks and their main uses 222
Figure 38 : Main barriers for social networks use 222
Figure 39 : Frequent usage of mobile applications 233
Figure 40 : Number of downloaded mobile applications during the last three months in2015 233
Figure 41 : Types of mobile applications used (Mobile applications users aged 12-65 years) 233