

**ELECTRONIC COMMUNICATIONS SERVICES  
CONSUMER SURVEY**

**RESIDENTIAL POPULATION – DECEMBER 2007**

**INDEX**

<b>I.</b>	<b>Penetration of electronic communications services .....</b>	<b>1</b>
<b>II.</b>	<b>Overall satisfaction, complaints and operator switching.....</b>	<b>2</b>
<b>III.</b>	<b>Residential users' profile .....</b>	<b>3</b>
<b>IV.</b>	<b>Other results.....</b>	<b>5</b>
1.	Mobile telephone service .....	5
2.	Fixed telephone service .....	9
3.	Internet service.....	12
4.	Television service .....	16
<b>V.</b>	<b>Notes on methodology.....</b>	<b>18</b>

AUGUST 2008

## I. Penetration of electronic communications services

According to the Electronic Communications Services Consumer Survey carried out in December 2007, around **90 per cent of Portuguese** 15-year or older **individuals** living in private households **had a mobile phone**, 2 per cent more than in the previous year (Dec. 2006).

The percentage of individuals using the **mobile telephone service with a 3G handset** went from 17 to 30 per cent over a year's period (between 2006 and 2007).

**Table 1 - Evolution of the possession of electronic communications services**

	Feb. 06	Dec. 06	Dec. 07
<b>Percentage of individuals with ...</b>			
Mobile telephone service	84	88	90
Mobile telephone service with 3G handset	12	17	30
<b>Percentage of households with ...</b>			
Fixed telephone service	60	59	56
Internet service	35 <sup>(1)</sup>	40 <sup>(1)</sup>	51
Paid television service	:	43	51
None of these 3 services	:	:	13

: Data not available.

<sup>(1)</sup> Survey on the Use of Broadband, Jan. 2006 and Dec. 2006

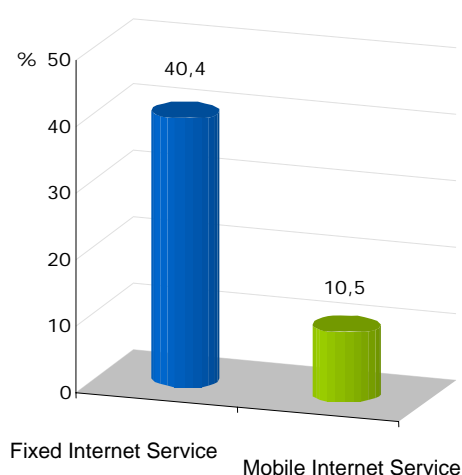
Source: Electronic Communications Services Consumer Survey, Feb. 2006, Dec. 2006 and Dec. 2007

The **fixed telephone service was available on 56 per cent of Portuguese households**. Although this is the second most used service, it has been decreasing over time. Regarding the previous year, it recorded a 3 per cent decrease.

Between December 2006 and December 2007, **possession of Internet** recorded the greatest increase, followed by the possession of the **paid television service**. In December 2007, about **half of Portuguese households** had these services.

The **fixed Internet service** was available on 40.4 per cent of Portuguese households and the **mobile Internet service** on 10.5 per cent. It should be noted that according to this survey's results the rate of households that simultaneously have fixed and mobile broadband is quite small.

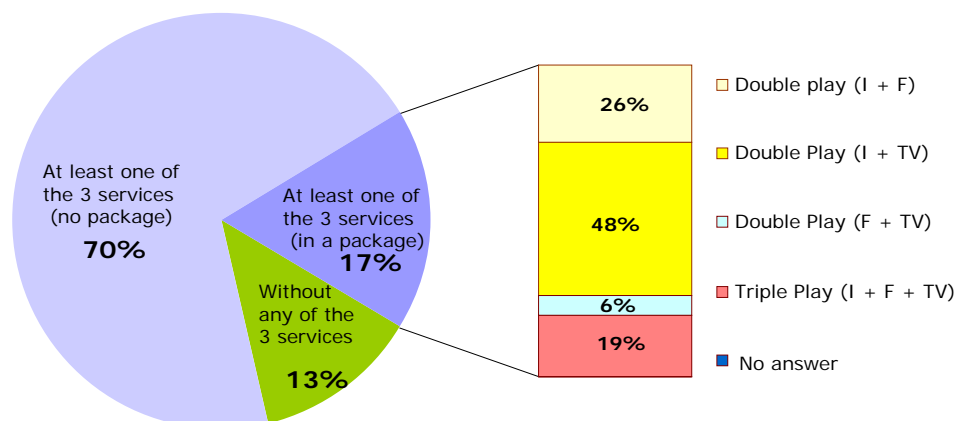
**Graph 1 - Percentage of households with fixed and mobile Internet service, 2007**



Source: Electronic Communications Services Consumer Survey, Dec. 2007

**Multiple play offers** were available on 17 per cent of households, *double play* packages prevailing: Internet and television, which represented 48 per cent of this type of offers. Triple play was used by 19 per cent of households with package services.

**Graph 2 - Possession of multiple play offer services, 2007**



Source: Electronic Communications Services Consumer Survey, Dec. 2007

## II. Overall satisfaction, complaints and operator switching

Data from the current survey show that the **mobile telephone service** stood out from the other services, with the lowest operator switching and complaint rates (18.6 per cent and 13.2 per cent, respectively), and consequently the highest average satisfaction level (3.16).

**Table 2 - Comparison of electronic communications services indicators, 2007**

	Penetration rate		Overall satisfaction		Complaint rate		Operator switching rate	
	%		Average <sup>(1)</sup>		%		%	
Mobile telephone service	89.8	1 <sup>o</sup>	3.16	1 <sup>o</sup>	13.2	2 <sup>o</sup>	18.6	1 <sup>o</sup>
Fixed telephone service	56.2	2 <sup>o</sup>	2.98	2 <sup>o</sup>	12.2	1 <sup>o</sup>	29.9	3 <sup>o</sup>
Internet service	50.6	4 <sup>o</sup>	2.98	2 <sup>o</sup>	30.4	4 <sup>o</sup>	29.5	2 <sup>o</sup>
Paid television service	50.9	3 <sup>o</sup>	2.94	3 <sup>o</sup>	25.2	3 <sup>o</sup>	:	

<sup>(1)</sup> Scale from 1 (Very dissatisfied) to 4 (Very satisfied)

: Data not available

Source: Electronic Communications Services Consumer Survey, Dec. 2007

The highest complaint rate was registered in the **Internet service** (30.4 per cent).

In spite of registering a complaint rate that is lower than the Internet service's, the paid television service was the one that least satisfied consumers (2.94). The **fixed telephone service** showed the highest operator switching rate (29.9 per cent), followed by the Internet access service (29.5 per cent).

### III. Residential users' profile

According to the survey under analysis, the higher the social class, the greater the propensity to subscribe to the **mobile phone, Internet and television services**. This effect is particularly obvious in the Internet service.

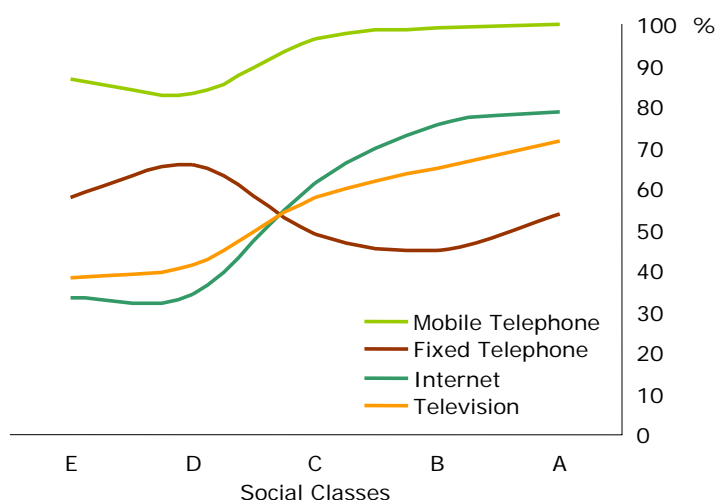
The three mentioned services were also more subscribed by medium-sized households (3 to 4 individuals). The influence of children's presence in the household on the possession of these services should be stressed out, particularly regarding the Internet service.

The **fixed telephone service** had a greater penetration in households of lower social class families and in households made up of two individuals, namely those with no children.

At the **regional level**, Lisbon, the North, Alentejo and Algarve stand out with mobile telephone service penetration rates around 90 per 100 inhabitants. The A. R. Azores is the only region where the fixed telephone service is above 70 per 100 inhabitants.

Lisbon and the Algarve are the only regions where Internet penetration is above 50 per 100 inhabitants. It should also be mentioned that the paid television service in the Autonomous Regions shows penetrations close to 80 per 100 inhabitants.

**Graph 3 - Possession of electronic communications services per Social Class <sup>(1)</sup>, 2007 (%)**



<sup>(1)</sup> Determined with base on the education level and the occupation of the main provider of the family household. Social class A corresponds to the highest education and professional levels.

Source: Electronic Communications Services Consumer Survey, Dec. 2007

**Table 3 - Possession of electronic communications services per NUTS II and household type, 2007 (%)**

	Mobile Telephone	Fixed Telephone	Internet	Television
<b>NUTS II Region</b>				
North	91	45	48	43
Centre	87	68	48	35
Lisbon	93	54	58	69
Alentejo	91	58	44	38
Algarve	90	58	52	43
A.R. Azores	82	71	43	78
A.R. Madeira	88	54	46	80
<b>Number of individuals in the household</b>				
1	80	51	34	39
2	85	64	37	47
3	93	53	62	58
4	94	53	64	56
5 or more	93	54	60	52
<b>Household with children</b>	96	45	60	57
<b>Household with no children</b>	87	61	47	48

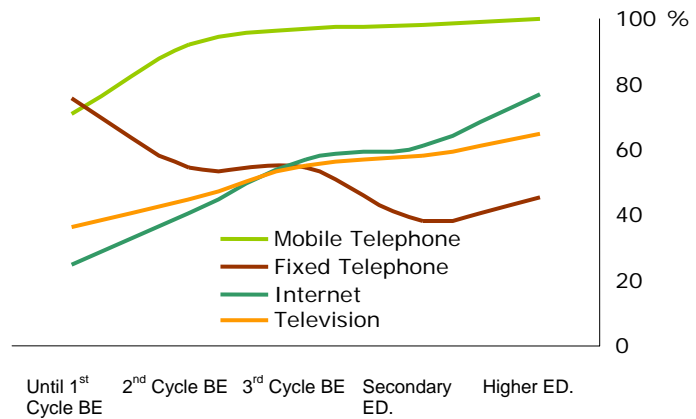
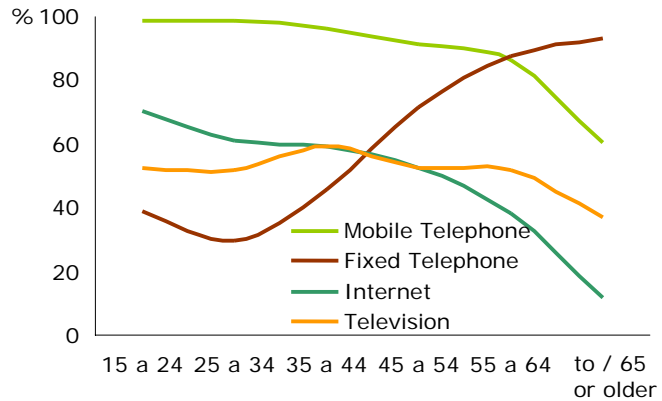
Source: Electronic Communications Services Consumer Survey, Dec. 2007

Some **individual characteristics**, obtained through this survey, make it possible to build the residential consumer profile for each service.

The older the individual and the lower the education level, the greater the propensity to possess the **fixed telephone service**. On the contrary, the younger the individual and the higher the education level, the greater the propensity to possess **mobile phone and Internet**.

The penetration of the **paid television service** is quite constant along the individual's life cycle (except for the elderly population), and is associated to the usually higher education levels, although not as much as in the Internet service.

**Graph 4 - Possession of electronic communications services per age group and education level <sup>(1)</sup>, 2007 (%)**



<sup>(1)</sup> In the case with the fixed telephone, Internet and television service, the age of the individual answering the survey was taken into account, i.e., the household representative and the education level of the individual that most provided for the household's income. In the mobile telephone service, the individual's education level was considered.

Source: Electronic Communications Services Consumer Survey, Dec. 2007

## IV. Other results

### 1. Mobile telephone service

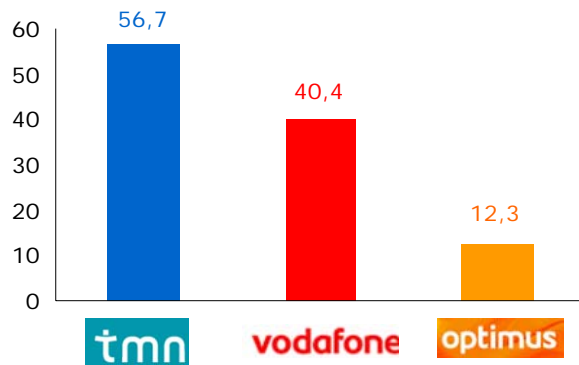
#### 1.1. Operators and operator switching

According to this survey, one out of every five individuals with mobile phone had **more than one active card** (specifically, 21.3 per cent). However, only 9.4 per cent of individuals used **more than one different operator** to access this type of service.

More than half the mobile telephone service users are TMN customers, followed by Vodafone's (40.4 per cent) and Optimus's (12.3 per cent).

There is a strong tendency (40.1 per cent) for **customers to choose the operator mostly used by the persons that they contact more**. This fact is more obvious for operators with higher user rates (TMN and Vodafone).

**Graph 5 - Percentage of mobile telephone service users per operator, 2007 (%)**



Note: Multiple answering question.

Source: Electronic Communications Services Consumer Survey, Dec. 2007

The survey under analysis also made it possible to estimate that almost **19 per cent of mobile telephone service customers have already switched operator**. It showed that 46.2 per cent of these customers had TMN as their previous operator, 31.5 per cent had Optimus and 22.3 per cent had Vodafone.

The percentage of customers **using number portability** stood practically the same between 2007 and 2006 (almost 5 per cent of mobile service users).

On the other hand, the percentage of customers **with no knowledge of the portability possibility** was 37.8 in December 2007, showing an improvement regarding the previous year (10.4 per cent less)

**Table 4 - Evolution of mobile network operator switching and the use of number portability**

	Feb. 06	Dec. 06	Dec. 07
<b>Operator switching (%)</b>			
Customers that have switched	19.3	19.9	18.6
<b>Number portability (%)</b>			
Customers using the service	2.2	4.7	4.5
Customers not using the service	57.7	47.1	57.7
Customers that do not know the service	40.1	48.2	37.8
Total	100	100	100

Source: Electronic Communications Services Consumer Survey, Feb. 2006, Dec. 2006 and Dec. 2007

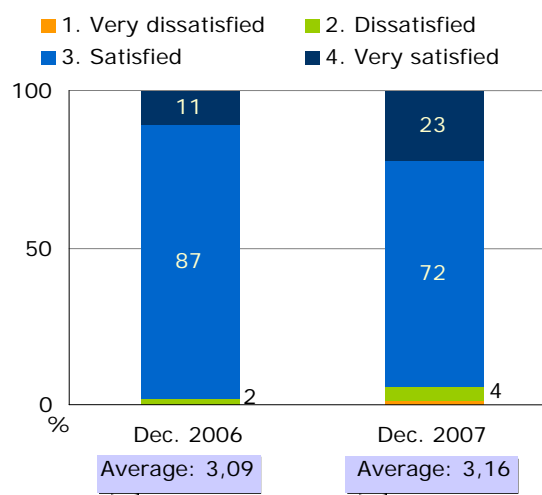
## 1.2. Satisfaction and Complaints

On average, on a scale from 1 (Very dissatisfied) to 4 (Very satisfied), mobile telephone service's residential customers slightly increased their **satisfaction level regarding the overall quality of the service** (3.09 in 2006 and 3.16 in 2007).

Although the percentage of users that were dissatisfied with the quality of the service has increased slightly, the **percentage of "very satisfied" residential users** increased even further, which translates into the average improvement that was recorded.

Concerning specifically the **price of the mobile telephone service**, the average satisfaction level stands below the overall quality of the service, and is equal to the figure recorded in 2006 (2.78 in 2006 and 2.80 in 2007).

**Graph 6 - Evolution of the quality of the mobile service as perceived by residential customers**



Source: Electronic Communications Services Consumer Survey, Dec. 2006 and Dec. 2007

The **tariff monitor on the website of ICP-ANACOM** was used by about 2.3 per cent of mobile telephone service customers.

The **rate of customers that did not know this service** was 80.1 per cent, close to the figure of the previous survey.

The mobile telephone service's **complaint rate** was 13.2 per cent in December 2007.

The main **reasons for those complaints** regard technical problems (39.9 per cent) and invoicing errors (30.2 per cent).

### 1.3. Equipment

There is a trend towards the **reduction of the average age of equipment**.

In December 2007, almost 19.5 per cent of customers had mobile phones that were less than 6 months old (2.1 per cent more than a year before).

In December 2007, 33.2 per cent of mobile telephone service users said that they **had a 3G handset**, a 11 per cent increase regarding the same period of the previous year. This corresponds to 29.9 per cent of the Portuguese population aged 15 years or older.

**Table 5 - Evolution of the awareness and use of the mobile telephone service Tariff Monitor (%)**

	Dec.06	Dec.07
Knows and has used it	3.0	2.3
Knows but never used it	16.5	17.6
Does not know it	80.5	80.1
Total	100	100

Source: Electronic Communications Services Consumer Survey, Dec. 2006 and Dec. 2007

**Table 6 - Reasons for complaints presented, 2007 (%)**

Technical problems (Voicemail, unsent messages, etc.)	39.9
Invoicing errors	30.2
Network failures	17.0
Contract conditions	10.5
Device malfunctions	4.0
Other issues	4.5
N.A.	2.8

Note: Multiple answering question.

Source: Electronic Communications Services Consumer Survey, Dec. 2007

**Table 7 - Evolution of equipment age (%)**

	Dec.06	Dec.07
Less than 6 months	17.4	19.5
6 to 12 months	16.5	20.8
1 to 2 years	27.2	27.8
Over 2 year	38.9	31.9
Total	100	100

Source: Electronic Communications Services Consumer Survey, Dec. 2006 and Dec. 2007



There is a greater tendency for 3G mobile phone users to use the most common functions available on mobile phones (calls and SMS sending), with a considerable drop, between 2006 and 2007, in the use of **video calls, MMS sending and download** functions.

**Table 8 - Evolution of some services used with the 3G mobile phone (%)**

	Feb. 06	Dec.06	Dec.07
MMS sending	63.9	47.0	28.0
Internet access	12.8	24.9	22.5
E-mail access	14.1	12.9	7.8
Video calls	26.6	21.7	6.1
Downloads:			
Ring tones and images	35.3	19.7	:
Music	:	:	9.3
Videos	:	:	3.8

Note: Multiple answering question

: Data not available

Source: Electronic Communications Services Consumer Survey, Feb. 2006, Dec. 2006 and Dec. 2007

## 2. Fixed telephone service

### 2.1. Operators and operator switching

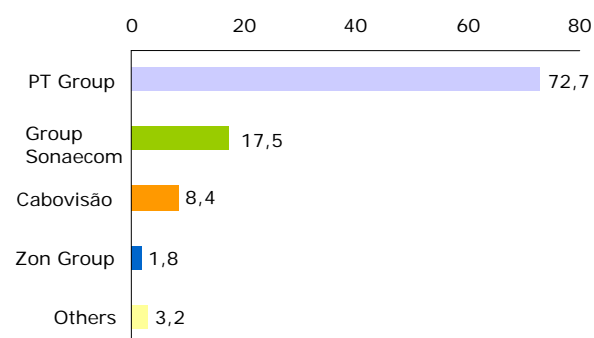
5.3 per cent of the households that replied to the December 2007 Electronic Communications Services Consumer Survey and that had the fixed telephone service were **customers of more than one operator**.

72.7 per cent of the households with fixed telephone service were **customers of PT Group**, and 17.5 per cent of Sonaecom Group.

**PT Group was chosen** as a fixed network operator namely because the household could not access another operator from their area, or even because the alternatives were not known.

The **option for other operators** besides PT Group was associated to lower prices, better satisfaction of the consumer's specific needs, and to the integration with the Internet service.

**Graph 7 - Percentage of users of the fixed telephone service per operator, 2007 (%)**



Note: Multiple answering question.

Source: Electronic Communications Services Consumer Survey, Dec. 2007

**Table 9 - Main reasons for operator selection, 2007 (%)**

	PT	Other
The only one existing in the area	<b>57.3</b>	6.2
The one that best satisfied the needs	<b>12.0</b>	<b>23.3</b>
Did not know any other	<b>10.9</b>	1.6
Lower prices	5.8	<b>48.5</b>
For the Internet service	3.9	<b>12.6</b>

Note: Multiple answering question.

Source: Electronic Communications Services Consumer Survey, Dec. 2007

In December 2007, **29.9 per cent of residential customers** of the fixed telephone service mentioned that they **had already switched operator**. It should be noted that 2/3 of these customers had PT as their previous operator.

A high percentage of customers that switched operator used **number portability**, namely 73.1 per cent.

“Dissatisfaction with prices” continued to be the main **reason for switching fixed network operator** (50.7 per cent in December 2007), followed by the fact that the new operator charges no monthly fee (19.1 per cent).

**Table 10 - Evolution of the reasons for switching fixed network operator (%)**

	Feb. 06	Dec. 06	Dec. 07
Dissatisfaction with prices	64.7	48.9	50.7
The new operator charges no monthly fee	6.0	19.0	19.1
Dissatisfaction with the quality of service	4.0	5.6	6.6
The previous operator did not offer a package with the possibility of accessing Internet and TV	2.0	5.7	6.7
Interest in trying out news services/products	8.1	9.9	5.8
Other motives	14.1	8.7	9.0
Don't know / Didn't respond	1.1	2.2	2.2
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Electronic Communications Services Consumer Survey, Feb. 2006, Dec. 2006 and Dec. 2007

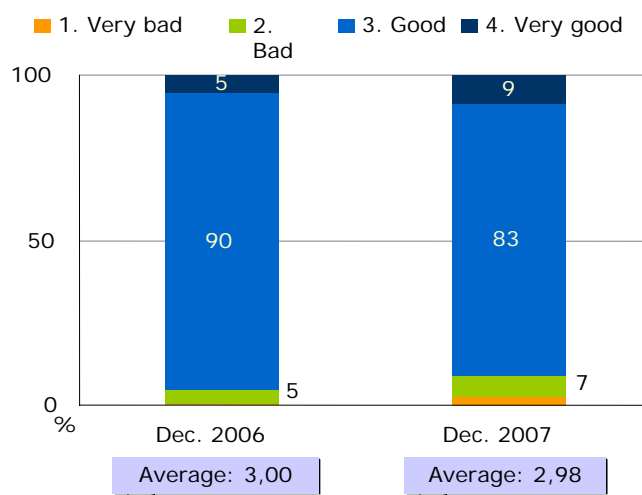
The **switching process was considered** *easy* or *very easy* by about 70.6 per cent of the customers who have tried it. 7.1 per cent of the customers, for which the process was *difficult* or *very difficult*, had an opposite opinion.

## 2.2. Satisfaction and complaints

On average, on a scale from 1 (Very bad) to 4 (Very good), fixed telephone service consumers did not vary their **satisfaction level regarding the overall quality of the service** (3.00 in 2006 and 2.98 in 2007).

However, the percentage of households with a **negative evaluation** (bad or very bad) went from 5.1 per cent in 2006 to 8.8 per cent in 2007.

**Graph 8 - Evolution of the overall quality of the fixed service as perceived by consumers**

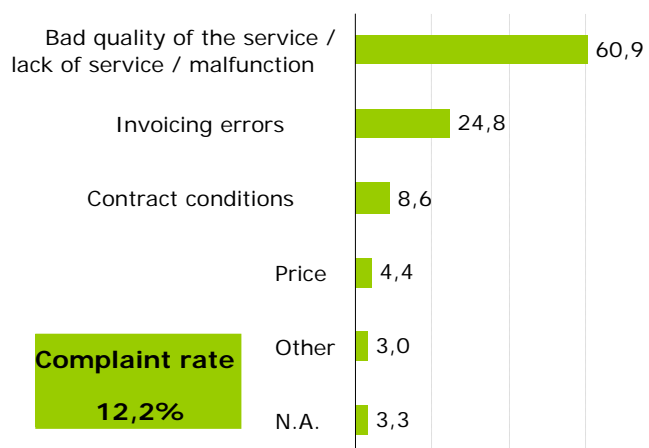


Source: Electronic Communications Services Consumer Survey, Dec. 2006 and Dec. 2007

In December 2007, the **complaint rate** of the fixed network service was 12.2 per cent, 1 per cent less than for the mobile network operators.

The **“bad quality of service or malfunctions”** justified 60.9 per cent of those complaints, followed by “invoicing errors” (24.8 per cent).

**Graph 9 - Reasons for complaints of the fixed network service, 2007 (%)**



Note: Multiple answering question

Source: Electronic Communications Services Consumer Survey, Dec. 2007

### 2.3. Barriers to using the fixed service

In the current survey, 43.8 per cent of the inquired households **did not have a fixed network telephone**. Nonetheless, 8.4 per cent of these household **stated that they intended to subscribe this service** within less than a year (only 4.2 per cent had stated that intend a year before).

As registered in previous years, the main **reasons for not having a fixed network telephone** were “Uses mobile phone”, “Doesn’t need fixed telephone service” and “Doesn’t need to communicate at home”.

**Table 11 - Evolution of the reasons for not using the fixed telephone service (%)**

	Feb. 06	Dec. 06	Dec. 07
Uses mobile phone / Doesn't need fixed telephone service / Doesn't need to communicate at home	65.7	77.1	67.2
Prefers not to pay monthly fee	16.5	19.5	19.9
Too expensive	4.2	0.0	7.7
Other	12.3	3.1	4.6
N.A.	1.3	0.3	0.7
Total	100	100	100

Source: Electronic Communications Services Consumer Survey, Feb.06, Dec.06 e Dec. 2007

### 3. Internet service

#### 3.1. Internet connection and services used

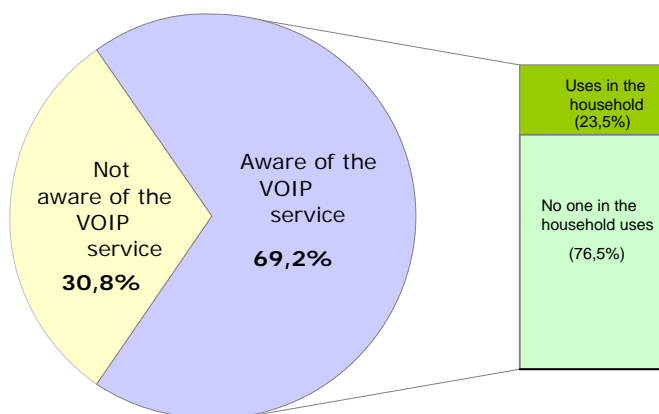
According to the data of the current survey, the percentage of households **with narrow band Internet connection** considerably decreased between December 2006 and December 2007, from 15.5 per cent to 3.0 per cent of Portuguese households with Internet.

In December 2007, the main reasons for not using broadband were “No interest” (23.3 per cent), “Satisfied with current access” (22.7 per cent) and “Lack of geographic coverage” (21.3 per cent).

**Graph 10 - Knowledge and use of the VOIP service, 2007 (%)**

Data from this survey makes it possible to estimate that nearly 70 per cent of Internet customers were aware of the **possibility to make online calls (VOIP)**.

However, only 1 out of each 4 households stated that they had the habit of using this possibility.



Source: Electronic Communications Services Consumer Survey, Dec. 2007

### 3.2. Operators and operator switching

Data from the current survey show that 79.8 per cent of households were **fixed Internet operators' customers** and that 20.7 per cent were **mobile Internet operators'** customers. It should be noted that the joint subscription of both types of Internet access service (fixed and mobile) is quite small.

36.4 per cent of the households with **fixed Internet service** had Group PT as their operator and 33.3 per cent had Zon Group.

In the **mobile Internet** service market, 39.6 per cent of the households had subscribed to Vodafone and 32.9 per cent to TMN.

**Table 12 - Percentage of users of fixed Internet service per operator, 2007 (%)**

<b>Fixed Internet Service</b>	PT Group	36.4
	Zon Group	33.3
	Cabovisão	14.4
	Sonaecom Group	13.5
	Other	2.7
	Vodafone (3G)	39.6
	TMN (3G)	32.9
	OPTIMUS (Kanguru - 3G)	22.0
	Radiomóvel (Zapp)	6.2

Note: Multiple answering question.

Source: Electronic Communications Services Consumer Survey, Dec. 2007

In December de 2007, the Portuguese households with Internet access had an Internet operator switching rate of 29.5 per cent.

Internet operator switching mostly occurred on the **fixed Internet service** (89.3 per cent of households that switched operator had a previous fixed Internet service operator), **PT Group** standing out with a higher percentage of household abandon (52.7 per cent).

**Table 13 - Internet operators before switching, 2007 (%)**

<b>Fixed Internet Service</b>	<b>89.3</b>
Zon Group	25.3
Cabovisão	6.5
PT Group	52.7
Sonaecom Group	14.6
Other	0.9
Total	100
<b>Mobile Internet Service</b>	<b>3.1</b>
<b>N.A.</b>	<b>7.6</b>
<b>Total</b>	<b>100</b>

Source: Electronic Communications Services Consumer Survey, Dec. 2007

According to the collected data, about 3 out of 10 fixed broadband users that switched operators switched from fixed broadband to mobile broadband.

### 3.3. Satisfaction and Complaints

In December 2007, about 89 per cent of Portuguese households were **satisfied with the overall quality of the Internet service**. In average terms, the satisfaction level towards this service is equal to the level previously presented for the fixed telephone service.

Analyzing in particular the **satisfaction regarding the speed of the Internet service**, there was a decrease in the average satisfaction level between 2006 and 2007, from 3.12 to 2.93.

The **complaint rate** for the Internet service was 30.4 per cent in December 2007. It should be noted that this is the highest rate among the four electronic communications services under analysis.

More than half of the **complaints related to** malfunctions or to lack of service, followed by problems with the Internet access speed (32.9 per cent).

**Table 14 - Evolution of the overall quality of the Internet service and its speed as perceived by consumers**

	Service Speed		Service overall quality
	Dec.06	Dec.07	Dec.07
<b>Distribution (%)</b>			
1. Very dissatisfied	1.6	2.6	1.6
2. Dissatisfied	6.9	14.4	9.7
3. Satisfied	69.5	70.2	78.2
4. Very satisfied	21.9	12.8	10.5
<b>Average</b>	3.12	2.93	2.98

Source: Survey on the Use of Broadband, Dec. 2006 Electronic Communications Services Consumer Survey, Dec. 2007

**Table 15 - Rate of complaints and reasons, 2007 (%)**

<b>Complaint rate</b>	30.4
<b>Reasons for complaints</b>	
Didn't work / malfunction	51.7
Slow Internet access	32.9
Invoicing errors	16.1
Delay in installing service or switching operator	4.5
System malfunctions / connection failures	5.4
Other reason	3.4
N.A.	1.1

Note: Multiple answering question

Source: Electronic Communications Services Consumer Survey, Dec. 2007

### 3.4. Barriers to using the Internet service

In December 2007, 49.4 per cent of Portuguese households **did not have Internet service**. 19.0 per cent of these households had the intention of subscribing the broadband Internet service within a year.

As in December 2006, most households that **didn't have Internet service** supported that they had no need or interest for this type of service (51.8 per cent in 2007).

Other reasons also justified not using this service, such as "Doesn't have computer / computer lacks capacity" and "Access price is high".

**Table 16 - Reasons for not using the Internet service, 2007 (%)**

Doesn't need / Has no interest	51.8
Doesn't have computer/ Computer lacks capacity	14.4
Access price is high	13.3
As access from another location	10.4
No one knows how to use the Internet in the household	6.0
Doesn't have time	5.9
Computer's cost is high	4.4
Other reasons	4.1
N.A.	0.6

Note: Multiple answering question

Source: Electronic Communications Services Consumer Survey, Dec. 2007



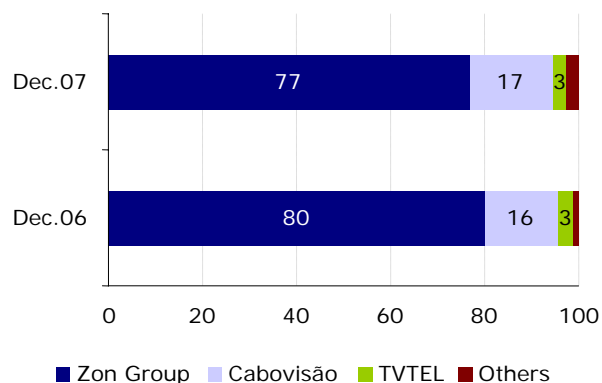
## 4. Television service

### 4.1. Operators

According to the survey under study regarding December 2007, Zon Group is the **main operator of the paid television service**. It is used by 77.0 per cent of the households (2.8 per cent less than a year before).

Cabovisão is the second largest operator (17.3 per cent).

**Graph 11 - Percentage of television service users per operator (%)**



Source: Electronic Communications Services Consumer Survey, Dec. 2006 and Dec. 2007

The **main reason for television service customers to choose Zon Group** is its geographical coverage (44.2 per cent).

The remaining television service operators are chosen for charging lower prices (31.8 per cent).

**Table 17 - Reason for selecting paid television service operator, 2007 (%)**

	Zon Group	Other
Better geographical coverage	<b>44.2</b>	16.6
Best satisfies needs	17.2	<b>25.3</b>
Better channels	<b>10.6</b>	6.5
Was a gift / someone else's choice	7.8	3.1
Lower prices	6.3	<b>31.8</b>
Dint' know another operator	5.8	1.6
No special reason	5.4	4.1
Was contacted by the operator	4.7	7.4
Was already an operator's customer for another service	3.7	<b>11.1</b>
For the Internet / telephone service	2.0	8.2
Another reason	5.0	6.4
N.A.	2.6	0.7

Note: Multiple answering question

Source: Electronic Communications Services Consumer Survey, Dec. 2006 and Dec. 2007

## 4.2. Satisfaction and Complaints

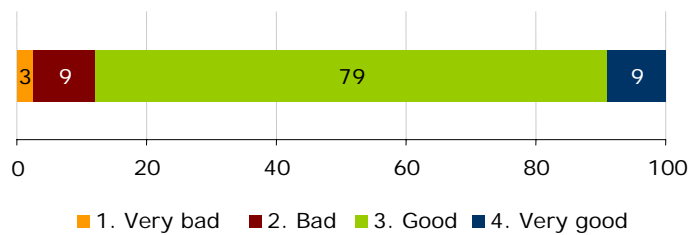
The average satisfaction of consumers regarding the overall quality of the paid television service stood at 2.94 on a scale from 1 (very bad) to 4 (very good).

About 12 per cent of this service's customers were **dissatisfied**.

The **complaint rate** for the paid television service was 25.2 per cent, the main reason for complaints being the bad quality of the service / lack of service / malfunction.

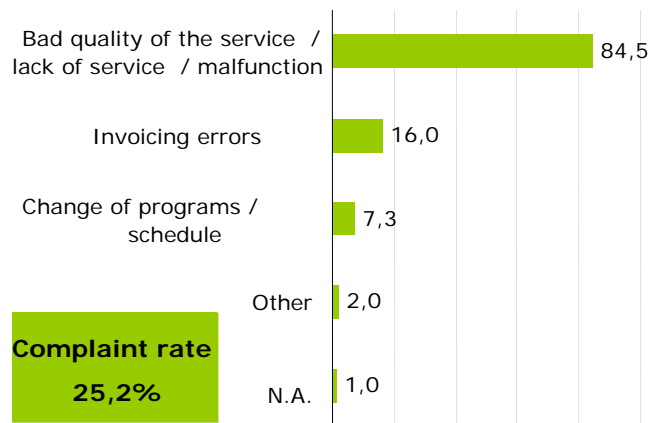
It should be noted that the paid television service was the second analyzed electronic communications service with the **highest complaint rate**.

Graph 12 - Quality of the paid television service as perceived by consumers, 2007 (%)



Source: Electronic Communications Services Consumer Survey, Dec. 2007

Graph 13 - Reasons for complaints in the paid television service, 2007 (%)



Note: Multiple answering question

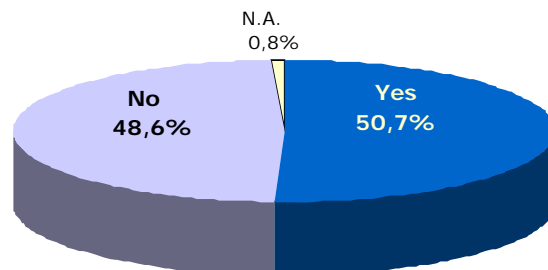
Source: Electronic Communications Services Consumer Survey, Dec. 2007

## 4.3. Digital Terrestrial Television

Half of the individuals inquired in the scope of the Electronic Communications Services Consumer Survey, in December 2007, had already **heard of Digital Terrestrial Television**.

It was also possible to establish that 19.9 per cent of households said that they had a **television set prepared to receive high definition television** (the question was "do you have a television set prepared to receive high definition television? (HDReady logotype)")

Graph 14 - Percentage of individuals that heard of Digital Terrestrial Television, 2007



Source: Electronic Communications Services Consumer Survey, Dec. 2007

## V. Notes on methodology

### ELECTRONIC COMMUNICATIONS SERVICES CONSUMER SURVEY

The universe targeted by this survey included individuals aged 15 or older, residing in Mainland Portugal or in the Autonomous Regions of Madeira or the Azores. The sample was selected by quota of sex, age and education and occupation, further to a previous structuring by region and habitat.

The table below describes the specifics of the inquiries for each of the periods:

Survey	Associated Company	Collection Method	Data collection	Sample size	Maximum error margin <sup>(1)</sup>	Electronic Communications Services
December 2007	GfK Metris	CATI	1.Nov.2007 to 17.Dec.2007	3504 Interviews (1724 – mobile net. 1780 – fixed net.)	1.66	FTS, MTS, Internet and paid television service
December 2006	Marktest	CATI	9.Nov.2006 to 29.Dec.2006	2519 Interviews (997 - mobile net. 1522 - mobile net.)	1.95	FTS, MTS and paid television service
February 2006	Marktest	Face to face	17.Jan.2006 to 22.Feb.2006	2020 Interviews	2.18	FTS, MTS and Internet

<sup>(1)</sup> Absolute error margin or absolute precision (half the amplitude of a 95% confidence interval for a proportion). Specific items within each electronic communications service obviously translate into higher errors. In the case with the December 2007 survey, the fixed telephone service presented a maximum error margin of 2.2, the mobile telephone service 1.7, and the Internet and television service 2.3.

The results were adjusted for the target population and households according to weightings. The individual weighting was applied in such a way that it is representative of the social-demographic structure of the Portuguese 15 years or older population residing in Portugal, and the household weighting was applied in order to guarantee that it is representative of the social-demographic structure of all Portuguese households. This process was based on INE's 2001 Census.

The results concerning the mobile telephone service result from the application of the weighting of individuals. Most results regarding the fixed telephone, Internet and television services result from the application of the household weighting, except in the cases where the individual answering the survey was asked for his direct opinion or experience (in which case the weighting of individuals was applied).

**SURVEY ON THE USE OF BROADBAND**

The universe targeted by this survey included individuals residing in Mainland Portugal or in the Autonomous Regions of Madeira or the Azores. The sample was selected by quota of sex, age and education and occupation, further to a previous structuring by region and habitat.

The table below describes the specifics of the inquiries for each of the periods:

<b>Survey</b>	<b>Universe</b> (1)	<b>Associate d Company</b>	<b>Collecti on Method</b>	<b>Data collections</b>	<b>Sample size</b>	<b>Maximum error margin</b> (2)
December 2006	Individuals aged 15 or less	GfK Metris	CATI	1.Nov.2006 to 21.Dec.2006	8676 Interviews (3036 broadband users)	1.8
January 2006	Individuals aged a8 or less	Tns Euroteste	CATI	19.Dec.2005 to 23.Jan.2006	4225 Interviews (1099 broadband users)	3.0

(1) Further to the previous specification.

(2) Absolute error margin or absolute precision (half the amplitude of a 95% confidence interval for a proportion) regarding broadband users.