Household behaviour towards end-of-life mobile phones in Greece

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• Worldwide, over the last decades, technological evolution and reduced cost production have led to a staggering increase in the volume of WEEE

• At the same time, the development of recycling, repair and re-use activities arises
• Globally, WEEE generation is rising, with around 40 million tonnes of WEEE being produced annually

• WEEE generation in EU is rising dramatically and is expected to grow by 3-5% per year
• In the EU the collection rate of WEEE, has been lower than the targets defined in the WEEE directive, especially for appliances lighter than 1 kg and small WEEE, such as telecommunication equipment, which have a low return rate.

• E.g.
  o in Czech Republic only 3-6% of used mobile phones were collected for recovery and recycling
  o in Finland, 55% of a survey respondents have two or more unused mobile phones stored at home
The consumption rates, the growing popularity of smartphones, the constant upgrades, and their complicity in every aspect of our lives are leading to an accumulation of obsolete mobile phones in the drawer.

It is crucial that consumers’ perspective is examined and changed in order to avoid the significant impact of storing devices at home and exploit the reuse potential that functional equipment has but can be lost due to its short social life cycle.
Main goals of the study:

To estimate the current habits and practices of Greek households towards the storage, repair, second-hand purchase, and disposal of mobile phones
• emails were sent to potential participants containing a text explaining the purpose of the study, followed by a link to the online questionnaire (Google Forms)

• 20 questions of Yes or No and multiple-choice questions with single or multiple answers

• Before the full distribution of the questionnaire, a pre-test (pilot) was completed (10 responders participated).
Main results: Sociodemographic Characteristics

33.3% males, and 66.7% females

The age group with the most participation: 25-34 years old (66.7%) and 18-24 years old (15.8%)

57.9% technological or university degree and 19.3% masters degree

63.2% full-time employees and 22.8% students

43.9% of households had an annual income between 10,000 and 30,000 euros

73.68% of the participants live in Athens
Main results: Consumers’ use of mobile phone devices

For what reason have you replaced your old mobile phone?

- Didn’t meet my needs: 62.50%
- It was a very old mobile phone model: 12.50%
- I was bored and I replaced it with a new one: 12.50%
- It was functioning but with many problems: 1.80%
- It was broken: 6.25%
- Other: 1.80%

What have you done with the device that you have replaced?

- I gave it to someone for free: 62.50%
- I sold it: 12.50%
- I threw it to the rubbish bin: 12.50%
- I gave it for recycling: 1.80%
- I keep it at home: 1.80%
Main results: Consumers’ repairing behavior

For what reason your device didn’t function?

- Didn’t power on: 27.0%
- A part of the device was missing: 7.0%
- Button/Buttons didn’t function: 7.0%
- The power cord was worn out: 39.0%
- Problems with the software: 8.5%
- Problems with the battery: 3.0%
- Other: 8.5%

Which of the following do you trust to repair your device?

- I repeat it by myself: 7.0%
- I know a technician that I trust: 3.5%
- I arrange an appointment with a technician through a web platform: 14.0%
- To a neighborhood repair store: 31.6%
- To the service department of the store that I bought the device: 36.8%
- Brand’s authorized service: 1.8%
- Other: 5.3%
Main results: Consumers’ repairing behaviour

Regarding consumers’ repairing behaviour of mobile phones, 63% answered that in the past 10 years, have had a non-functional mobile phone.

Consumers who chose not to repair their devices and why

- I didn’t know where to take it for repair
- I think that it can’t be fixed
- Why bother?! I can buy another one
- I don’t trust devices after repair
- The device didn’t have a warranty anymore and I had to pay for the repair
- The repair cost is high

Consumers who chose to repair their devices and cost of repair

- It couldn’t be repaired
- It cost nothing. It had an active warranty
- Less than 20 euros
- 21 to 50 euros
- 51 to 100 euros
- Over 100 euros
Main results: Consumers’ perception about second-hand mobile phones

Significant reluctance towards 2\textsuperscript{nd} hand devices

- 22\% would not buy a 2\textsuperscript{nd} hand mobile at all
- 32\% would use a 2\textsuperscript{nd} hand mobile only if someone gives it to them for free

Main Reasons

- possible misuse of equipment by previous owners (33.3\%)
- possible defective products sold as 2\textsuperscript{nd} hand (26.3\%)
- the quality of the used device (19.3\%)
Main results: **Consumers’ Recycling Activity**

11% answered that in the last 10 years had recycled a mobile phone.

39% do not recycle their old mobile phone and keep the device as back-up.

27% have difficulties finding a recycling point.
The consumers’ awareness survey indicates a public well informed about the importance of this particular type of waste stream.

Unfortunately, in practice, 55% of the responders confirmed that they had thrown a device, sometime in their lives, to the rubbish bin.
Greek consumers:

• keep their old mobile phones at home (62,5%) in case they need them,

• are not willing to repair their devices unless they have a warranty,

• are reluctant to use and buy second-hand mobile phones in fear of deception and malinvestment

• demonstrate a relatively limited recycling behavior regarding mobile phones
Thank you for your attention!