ESM00385X1 Field Observation of Shopping Bag Behaviour

Technical note

# Methodology

The observation study was conducted across four different supermarkets in both England and Wales to assess changes in shoppers’ bag use before and after the introduction of the English plastic bag charge of October 2015. The study was approved by the Welsh School of Architecture Research Ethics Committee at Cardiff University (EC1506.237).

Observations were made in July 2015, when only the Welsh bag charge was in place, and in July 2016, after the English bag charge was introduced. Fieldwork in 2015 was undertaken between the 25th June to 25th July, and fieldwork in 2016 undertaken from 22nd June to 23rd July.

The study was conducted in Cardiff, Wales and Bristol, England: two cities that located near each other and of similar population sizes. Observations of bag use took place at four different types of supermarkets found within each city:

* Local supermarket, located in the middle of a city centre
* Budget supermarket, located on the edge of a city centre
* Mid-range supermarket, located on the edge of a city centre
* Premium supermarket, located on the edge of a city centre

Supermarket brand status was derived from YouGov Profiles (<https://yougov.co.uk/find-solutions/profiles/>) using data from a survey panel representative of the UK. YouGov Profiles provides descriptive data on shoppers who are likely to visit supermarket chains, which includes the proportion of fit the National Readership Survey (NRS) social grade classifications of ABC1 (Upper and upper middle class), and those of C2DE social grade (working and non-working class). Data from YouGov Profiles suggests that the UK population generally has 53% classified as ABC1 social grade, and proportions of those using the observed supermarket brands are: 46% of shoppers at the Budget supermarket were ABC1, 58% of shoppers at the mid-range supermarket were ABC1, and 73% of shoppers at the Premium supermarket were ABC1.

Observations were carried out by a pair of trained researchers who visited each supermarket for one hour at three different times: a weekday morning (10:30 to 11:30am), a weekday afternoon (4:30 to 5:30pm), and on a Saturday (either 11:00 to 12:00pm or 1:00 to 2:00pm). The total number of shoppers observed is shown in the table below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Wales | | England | |
|  | 2015 | 2016 | 2015 | 2016 |
| Local supermarket | 192 | 279 | 203 | 236 |
| Megastore 1 | 209 | 357 | 200 | 239 |
| Megastore 2 | 210 | 270 | 208 | 260 |
| Premium supermarket | 207 | 237 | 208 | 249 |
| Total | 818 | 1,143 | 819 | 984 |

The observational researchers would identify shoppers leaving the supermarkets, and independently record the person’s approximate age, gender, and record the number and type of bags used.

Observation of bag use fell into different categories:

* **Single-use plastic bags (SUPBS)** which are thin plastic bags distributed by stores, typically designed to be used only once, and prior to the English and Welsh bag charges, were available for free to all shoppers.
* **“Bags for Life” (B4L)** which are thicker plastic bags offered by stores to customers for a small fee, designed to be re-used several times, and often include deals by the store where damaged B4L can be returned and exchanged for free.
* **Canvas/Woven/Tote** bags, which are again made of thicker materials that are woven together to make a stronger shopping bag, typically made from plastic/hemp/fabric. These bags are more expensive than B4L, and designed to last for even longer periods of time.
* **Non-conventional shopping bags** which are bags designed for other purposes than carrying shopping, or atypical bags for the shopping experience. These include the use of Rucksacks or Backpacks, the use of handbags for carrying shopping, or the use of alternative carriers for shopping, including cardboard boxes or personal trolleys.

Observations were conducted on public space outside of the supermarkets. After recording the details, the researchers would compare observations and resolve any disagreement in recording.

# Notes

## Items in hands/loose & Non-bag use

Originally we planned for observers to record whether people were carrying their shopping loose in hands/trolleys without using any shopping bags at all. The intention was to establish whether people were avoiding the use of plastic bags or other purchased bags for life in order to avoid the bag charge. However in practice, observing loose items or items carried in hands was extremely difficult for the field researchers. The researchers often found that they could not see whether items were carried in hands, in pockets, or carried elsewhere. Due to the difficulty of observing items carried loose, this variable was not included for analysis.

## Gender

As people do not always shop alone, recording the classification of gender may be difficult when two or more people are observed. To accommodate this, gender classification of observations should only be used when analysing individual shoppers. Approximately 81 % of all observations (n = 3,060) were people shopping alone however, which is a respectable size to offer for most comparisons.