

Impact of Deposit Return Scheme on Small Grocers

Results Report

November 2019

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Impact of Deposit Return Scheme on Small Grocers

PROJECT NO: RESAS/006/18

A report setting out a table of the values which have been derived and the approach that was taken to generating them.

Report prepared by the edinburgh numberworks (ehnw)

on behalf of the Scottish Government

ehnw

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Section 1 : Introduction

1.1 Background

In the 2017 Programme for Government, the Scottish Government committed to introducing a deposit return scheme (DRS) on drinks containers for Scotland.

The Scottish Grocers' Federation (SGF) has highlighted two routes by which the introduction of such a scheme could impact financially on small grocers. They are:

- Cost per square metre (Cost M₂)
- The cost of staff time spent maintaining machines or processing returns (Staff cost per hour)

SGF members operate a diverse variety of premises, general small and medium convenience stores, and the impacts on their businesses are likely to be different depending on whether returns are carried out on a manual or mechanised basis and on what products are in scope.

Given these uncertainties, this research has delivered a set of scalable costs which can be fed into any system design in order to allow an evidence-based discussion regardless of what system design is selected.

This Results Report includes a table of the values which have been derived in this study and the methodology that was taken in generating them.

Section 2 : Table of Values

2.1 Cost M₂

£4,541 per annum

2.2 Staff cost per hour

£9.59 per hour

2.3 Note about tax

- The costs are shown pre-tax, however the actual effect on the store will be post tax. Stores can be set up as Ltd Companies, Partnerships or Sole Traders and as such pay different business taxes - either corporation tax or income tax.
- VAT has been excluded from the cost calculations.

Section 3 : Methodology & Analysis

3.1 Data Collection

3.1.1 Multiple Group | Data Collected on location

A significant contributor to the sample was a Multiple Group which has 187 stores generally located throughout Scotland (with some also in the north of England).

The vast majority of its stores are less than 280m² in size (although it does both smaller and larger ones – covering 99m² to 1,200m²) and a number of these were selected for the analysis – these being the ones large enough to accommodate a DRS machine (or a manual return process).

It should be noted that each of the stores selected has a unique characteristic (either in its size, the way it is laid out, how it is operated or in its location – covering inner-city through to rural) and that there is no such thing as a ‘standard’ or ‘typical’ store.

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The sample therefore provided a really good population for this study; the data collection being undertaken at the Head Office of the Multiple Group, attended by The Director of Retail, The Head of Commercial Finance, A Senior Accountant, and the Edinburgh Numberworks.

Over a 3.5-hour interactive meeting, data was extracted from a live database, discussed and analysed. The Management Team also made further comments which are included in Section 5.

3.1.2 Small Independents | Data Collected by telephone & email

The smaller, independent stores selected were contacted by phone and data was then requested by email.

3.1.3 A Final Sample of 40 stores makes up the Study Sample

It was agreed with the Scottish Grocers Federation that the sample of 40 was more than adequate for a useful study and would provide an excellent population to calculate the results from.

As noted previously, each of the 40 stores was different and provided an excellent range for the study. It was also noted that obtaining data from smaller stores is typically hard – either getting hold of the owner, getting their time to provide the information, or simply them knowing the information required in adequate detail.

3.2 Analysis of the Data

3.2.1 What constitutes Cost?

There are a number of costs likely to be incurred by a Store running a DRS scheme:

3.2.1.1 Loss of profitable floor space

This being the gross profit generated by stock items which would be lost to a DRS machine replacing them.

Certain income streams do not require floor space (which a DRS machine would take up) such as gaming/lottery cards placed at the counter or cigarettes (which are kept behind the counter); so the profit on these types of items was excluded.

The wider costs of running a store would need to be covered whether a DRS machine was in place or not, for example overheads such as rents, accountancy fees and window cleaning. Gross Profit was therefore used (rather than operating profit) since it excludes such non-relevant expenditure. Gross Profit is a more relevant figure as it is this profit which will be lost by installing a DRS machine. Non-relevant expenditure will continue whether a DRS machine is in place or not.

The study also took a year's worth of profit – as close to the study date as possible – to even out (for example) the highs of Christmas and the lows of January trading.

This is the cost which is included in the 'Table of Values' in Section 2.

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3.2.1.2 Staff Costs

This second type of cost is addressed in Section 4 and included in the 'Table of Values' in Section 2.

3.2.1.3 Other Costs

Other costs are noted in Section 5 but are not included in the 'Table of Values' in Section 2, since these may (or may not) be a cost to the Store (the Scheme is yet to confirm the responsibility for each of these costs).

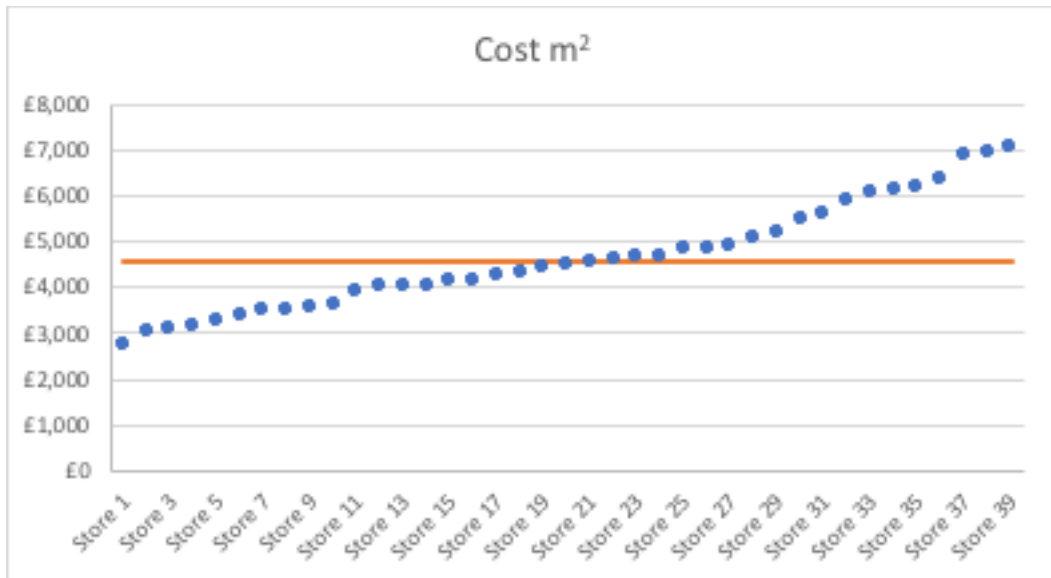
3.2.2 Which "square metres" have been included?

The study was only interested in the relevant sales area of the store. Areas that would not be affected were excluded, including for example: the store room, the till areas, staff kitchen and outside areas.

In other words, only the 'square metres' used in selling the items that were included in the profit (3.2.1.1 above) were included in the calculation.

3.2.3 Cost m² – analysis of the Sample of 40 stores

The red line shows the average of the 40 stores, which is shown in Section 2 Table Of Values **£4,541**:



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Section 4 : Staff Cost per hour

4.1 Staff costs per hour

An excel model has been produced by the Edinburgh Numberworks which calculates a fully loaded employee cost per hour based on the User inputting a number of criteria:

- **Hourly wage rate**
Which can be selected from a grid of National Minimum or Real Living wages currently in place, or any other value determined by the User.
- **Employer NIC**
Which picks up the current HMRC contribution rate.
- **Pension cost**
Which picks up the current legal minimum percentage.

The Multiple Store estimated that 1 staff hour would be required each day to cover the cleaning and administration of the machine (or process), moving returned containers to and from a store area, and arranging and supervising collections.

On top of this (and especially in the early days after installation) it is expected that additional staff time would be required to 'help' the public use the machine (or process), answering questions and generally helping.

The cost per hour included in Section 2 Table of Values has been calculated this way:

4.2 Extract of the staff cost model:

Total Direct Cost		8.21
Employers NIC Rate	13.80%	
Employers NIC £		1.13
Employers Pension Contribution	3.00%	
		0.25
Total Cost before Tax		9.59

Based on an employee, at least 25 years old, earning the expected National Living Wage for 2019 of £8.21 ph.

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It also assumes that the employee has opted into a pension scheme under Automatic Enrolment, with the Employer contributing the minimum percentage:

Date	Employer minimum contribution	Staff contribution	Total minimum contribution
Current rates from 6 April 2018 to 5 April 2019	2%	3%	5%
6 April 2019 onwards	3%	5%	8%

It also assumes that the Employer is required to pay the full HMRC NIC amount (in that the employee earns above the NIC threshold and that the Employer has no Employment Allowance available to offset this cost.)

All criteria can easily be changed in the model.

Section 5 : Other Points (outside the scope of the review)

During the review, other points were noted by the Sample stores that (although not part of the review's requirements) are nevertheless relevant to the bigger picture.

5.1 Costs of installation

During the review, the sample businesses were keen to understand the initial costs of set up and who would be responsible for these. Examples of these costs include:

- The initial cost of purchasing the machine.
- If installation of the DRS machine (or even more so a manual process) is near or part of the counter area, there would be a cost of redesign.
- If installation of the DRS machine (or manual process) is near a 'clean' area (for example a fresh food counter) additional costs would be needed for redesign and physical protection of the two areas from each other.
- Any installation or redesign would need to be out of hours and so overtime costs would be involved (as well as additional costs to keep the store open to the installers – light, manager on duty, etc.).
- Rejig costs would also be required – this being a shuffle of the existing sales areas to accommodate the DRS machine or manual process. For example, if the DRS machine was placed nearer the entrance door (replacing high profit items), these items may need to be relocated nearby, which in turn replaces the slightly less profitable items next to them, and so on – effectively re-shuffling all items from the front profitable area of the shop right through to the back of store.

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- An additional cost for cabling a power supply to the machine would be required.

5.2 Additional on-going costs

During the review, the sample businesses were also keen to let us know that there would be additional on-going costs (additional to the loss of profit and staff costs detailed in section 2) that would have to be taken into account.

The Multiple Client estimated the following annual costs:

General Repairs	520	£10 pw
Electricity	520	£10 pw
Insurance	100	Additional insurance cost of insuring the machine itself for damage
Waste Sacks	1,040	£20 pw
Cleaning Product	250	
Admin (controlling, monitoring and accounting)	1,000	
TOTAL	3,430	

The cost of the machine (fully installed) was also noted. Estimating it to be (say) £15,000 which would be written off over (say) 5 years, adds a further depreciation cost each year of £3,000 (and interest costs should borrowing fund the purchase).

5.3 Return on Investment

Given the costs in section 2 (loss of profit and staff costs) and those additional ones in section 4, a return on investment could be derived.

At this stage, the amount that a store would receive per returned container under the DRS is yet to be established. However, the Multiple undertook a study during the meeting with the Edinburgh Numberworks which estimated this:

If 50% of the containers sold by a store were returned, the DRS would need to pay the Store 13.7 pence per container just for the store to break even (which includes all costs in sections 2 and 5). It used a sample of its top 39 largest stores to calculate this.

5.4 Location of a DRS Machine

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The question of 'where' to locate a DRS machine was much discussed with all the sample stores. Originally, we had assumed that such a machine would be located in a less profitable area nearer the back of a store, but in fact the Sample Stores considered the 'customer journey' more important, explaining it as this:

A customer returning 'used' containers would want to off-load them first (and easily) before continuing their purchasing activities. In other words: customers want to "drop off, then buy".

Even if a customer had no further purchasing, the process should be made easy: 'nipping' into a store and off-loading easily, as opposed to (for example) carrying a box load of glass bottles through tight aisles to the back of the store.

This consideration of the "customer experience" would more likely mean that a DRS machine (or manual process) be located nearer the front of the store, taking up more of the profitable areas, where Promotional Stock is displayed.

The cost per square metre of placing a DRS machine nearer the entrance to the store would be higher, simply because it would replace higher gross profit items. We refer to this higher cost as the promotional cost, which was calculated to be:

£6,812
per
annum



5.5 Cost per m² could be affected by other factors

The cost per m² could well be affected by how well a particular store is performing. A busy store may have a higher cost per m² than a quiet store since it's generating more gross profit each year. Similarly, a store with little local competition may be more profitable than one that needs to keep its selling prices low to compete.

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The multiples for example benefit from central purchasing power, ensuring that their stock items cost less, so their gross profit is higher, and so the cost of replacing them with a DRS machine is higher.

So there are many store-specific factors which may affect the cost m2.

Section 6 : Conclusion

This Study has provided three key outputs:

1. An estimate of the cost a store may suffer each year should they partake in the Deposit Return Scheme. However, this cost does not take into consideration the additional income that a Store would receive from the Scheme. Nor does it estimate the additional revenue a Store might receive from its existing customers visiting the store more regularly to deposit their used containers, or from new customers whose existing store does not run such a scheme; or the goodwill from simply being part of a 'green' scheme.
2. An estimate of the staff cost per hour and a model which can be used to flex this cost once more is known about the scheme – for example, the number of additional hours an employee would be required to work. The model also allows for inputs to be changed (for example, increases in the wage rate of an employee).
3. An analysis of other points raised during the Study – for example, the likely location of a DRS machine or manual process, and the other set-up and on-going costs that are yet to be estimated (and who would be responsible for paying for them).

Finally, all the Sample Stores that we spoke to were in favour of such a scheme and considered it something that they have a responsibility to be a part of. They were all keen to know more about the scheme during the study and look forward to knowing more about it.

Any further questions may be directed to Edinburgh Numberworks at www.edinburghnumberworks.co.uk

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