



APPENDIX 2: An investigation into consumer perceptions of refills and refillable packaging

WR0113: Objective 1

Deliverable for DEFRA Waste and Resources Evidence Programme

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1 Background to project

In recent years the environmental impact of packaging has become a prominent issue in the UK as it is a very visible product in the waste stream, making up around one-third of household rubbish (LRRRA, 1996). The introduction of the European Packaging and Packaging Waste Directive in 1994, which requires Member States to ensure that all packaging placed on the EU market complies with certain 'essential requirements' has made packaging a more important issue for consideration in many businesses. Over the past 40 years considerable efforts have been made to reduce the environmental impacts of packaging by focusing on issues such as light-weighting and material selection (Lewis et al., 2001; Holdway et al., 2002). However, although these redesign approaches are commendable and should be encouraged, they are not having a radical effect on the impact of packaging. Whilst the weight of packaging per unit of product has decreased, demographic and lifestyle changes such as smaller family size and a demand for greater convenience (INCPEN, 2001) have led to increases in the total amount of packaging used. A key report by the Environmental Services Association (Environmental Services Association, 2004) identified that in 2003, the total packaging waste going to landfill in the UK rose to over 10 million tonnes per annum. The use of refillable packaging has long been cited as a possible solution to this problem, however in the past attempts to extend the use of refillables beyond a few traditional areas have met with little success and as of mid 2003 no major retailers in the UK operated any schemes in the reuse of primary packaging (Darlow, 2003).

It is felt that recent progress in the field of 'product service systems' might offer an opportunity to address this issue. In light of this, this project set out to develop refillable packaging systems using a product service system approach, and to investigate their feasibility within the personal care market.










2 Report focus

The first objective of the 'Refillable packaging Systems' project, and the focus for this report, was: 'To investigate current consumer perceptions of refills and refillable packaging', with the intention to better understand the success factors associated with existing refillable packaging (from a consumer perspective) and the types of prejudices that refillable packaging systems might have to face. It was anticipated that the findings would help to support the development of refillable packaging systems which are relevant to the consumer.

3 Classification of refills and refillable packaging

In the early stages of the project, the team recognised that there are many different types of refillable packaging, but that this was not immediately obvious to the layperson. It was quickly recognised that this might lead to some confusion when trying to engage with customers about their experiences with refills. It was recognised that it was important that participants did not immediately associate one particularly good or bad experience that they had had with *all* refills without being aware of the different types of systems available. We needed to unpick their experiences carefully. Through a market analysis and a literature review, sixteen different types of refillable packaging were identified

and classified with respect to their delivery mechanism and the level and nature of their consumer/business interaction. These findings are outlined in Table 1 along with images and examples to further explain the way in which each type of refill is used. Each of the sixteen different types of refills combines a unique set of features which make them more or less suitable to different types of markets.

	Refill Example	Refill Approach	Description
1		Lightweight self contained refill delivered through dispenser	Customer buys a self contained refill which they take home and put into their durable dispenser. Applications include wipes, face creams, razors, cosmetics, fabric conditioner & air fresheners.
2		Lighter weight refill through part reuse	Customer buys a new bottle of product and reuses the spray pump. Applications include cleaning products.
3		Empty packaging refilled in shop	Customer takes the original packaging back to the store for it to be refilled with the same product. Applications include shampoo, conditioner, shower gel, bath products and fabric conditioner.
4		Self dispense	Customer takes reusable container back to the store where they refill it with the same product. Applications include dry goods, personal care products and cosmetics.
5		Original packaging swapped for new product	Customer returns empty packaging to a unit where they leave it and pick up a new product. The old packaging is refilled for future use by someone else. Applications include toner cartridges and single use cameras.
6		Door to door delivery – packaging replaced	On demand the customer receives full packaging and leaves empty packaging for supplier to collect, when they are finished. Returned packaging is refilled for other customers. Applications include milk bottles and vegetable box system.
7		Deposit system	Customer returns empty packaging to supplier for a financial incentive. Applications include soft drinks bottles and beer bottles.
8		Top up card	Customer pays for a service which is delivered on the production of the payment card. Applications include downloadable music and payment systems for services such as mobile phones.
9		Creation	Customer buys the constituent parts to make the product themselves. They buy refills to allow them to repeat the process. Applications include soft drink makers and orange juicers.








10		Door to door delivery – packaging refilled	Customer dispenses quantity required from a delivery van, using special containers and only paying for the quantity taken. Applications include detergent products.
11		Refilled with different product	Once original packaging has been used it is refilled with a different product. Applications include toys filled with sweets or durable packaging used to store other products in.
12		Dispensed concentrate	Customer buys a dispensing unit. They also purchase refills containing concentrated product which are delivered through the dispenser. Applications include coffee machines.
13		Dispensed product	Customer buys a dispensing unit. They also purchase refills which are delivered through the dispenser. Applications include personal care products in showers.
14		Concentrate mixed in original packaging	Customer buys a concentrated refill which they dilute with water and mix using the old packaging. Applications include laundry products.
15		Fill your own packaging	Customers fill their own packaging with product in shop.
16		Bulk purchase	Customer buys in bulk and refills a sampler package at home. Applications include cooking ingredients (such as oil, vinegar, peppercorns) and household cleaning products.

Table 1 Summary of the 16 types of refillable packaging identified and defined to aid the investigation into consumer perceptions of refills

These classifications of refills were used to organise the data collection in the first 6 months of the project and will be referred to again later in the report.

4 Methodology

A review of the literature identified that although there is a useful body of work on consumer attitudes of packaging (INCPEN, 2003a) and consumer perceptions of green or environmental packaging (INCPEN, 2003c; INCPEN, 2003b), there is little evidence of investigation into consumer perceptions of refills or refillable packaging.

On the understanding that a person's 'perception' of refills and refillable packaging is their **interpretation** of how refills and refillable packaging perform and affect their receipt of particular functions - five key questions, that would enable a more detailed understanding of consumers' experiences to be developed, were identified:

1. Are consumers especially aware of refills?

2. What types of refills do consumers have experience of buying/using?
3. Which types of refills lead to consumers having positive experiences and which lead to consumers having negative experiences?
4. Do consumers actively seek out refills or actively avoid them – why?
5. How broad are people's experiences of refills?

A questionnaire which investigated these questions was developed, piloted on 15 participants and then refined before it was distributed via an over the counter survey to 200 people through the Boots Evaluation Suite (see Annex A). The people who use the Evaluation Suite are volunteers who are intended to represent a cross section of society. In total 120 questionnaires were picked up and 36 were returned, which equates to a 30% return rate which is significantly higher than the average survey response rate of 8% recognised in the methodology literature (Robson, 2002). 89% of the respondents were female. The participants ranged in age from 21 to 60, reflecting a relatively even split across the ages (ages 21-30 = 9; ages 31-40 = 7; ages 41-50 = 11; ages 51-60 = 6)

A questionnaire methodology, rather than focus groups, was selected for this stage of the project in recognition of the fact that it would provide us with the best opportunity to investigate the perceptions of the widest range of people. Whilst writing the proposal we envisaged that focus groups would be necessary in order to allow us to distribute samples for discussion. However the success of the classification exercise (outlined in section 3) which enabled us to clearly define different types of refills meant that this was not necessary. The classification exercise allowed us to develop a questionnaire which clearly presented different types of refill and allowed focused questions to be asked about each approach. Consequently it was possible to reach a broader range of people and generate more detailed information.

Though a number of technological packages such as NUDIST were available for analysing qualitative data, it was felt that they were more suited to studies where vast quantities of data are collected. For this project it was decided that this type of support was inefficient when weighed against the time required for learning a new package.

Analysis was carried out by hand. 'Coding and clustering' is a common procedure for analysing qualitative data and was chosen for the analysis within this project as it allows the researcher to derive meaning from words and build theory from data (Strauss and Corbin, 1990; Robson, 1993; Miles and Huberman, 1994). During this process the coding allows the researcher to cluster together "...instances of a particular kind" (Robson, 1993). In preparation for the analysis the raw qualitative data was transferred into a computer based format, broken up into a series of observations, sentences and paragraphs, known as data threads and transferred to a database. The data threads were then labelled with broad macro-codes that were derived from the literature and the Pilot Study. Each of the macro-codes, 'Price', 'Ch', 'Pos' etc. represented a particular phenomenon regarding consumers and

their interactions with refillable packaging, for example 'Ch' relates to issues regarding why people actively buy refills.

The data threads were then grouped into clusters, so that for example, all data labelled with 'Con' was grouped together. The data was analysed further within these clusters and micro-codes which described the situation in more detail were developed, for example 'price-cheap-que' refers to the fact that refills should be cheaper but aren't necessarily. The coding was applied on the basis of 'recurrence' and 'importance'. 'Recurrence' was considered to be frequently recurring themes and 'importance' was where selection criteria was aided and informed by the researcher's subject knowledge, and the iterative nature of the inductive research process (Miles and Huberman, 1994). This meant that the research did not have to rely on more than one person recognising a phenomenon for it to be considered important, which was considered to be beneficial in such a young research field. Internal validity was adhered to by the process of pattern matching and explanation which took place during the data analysis (Yin, 1994). The complete coding system is illustrated in Annex B.

In February 2006 the project team were invited to attend a seminar with James Ross Consulting (Technical packaging consultants) & Butcher Gundersen (Graphic and Brand consultants), run by WRAP, to review different types of refills. The study reported on at the seminar reflected on two issues which are relevant to this report: 'Consumer related problems with refills' and 'Consumer motivations'. In the conclusions of this report, the findings from this study and the findings from the WRAP study are compared.

5 Refining categories for the development of the questionnaire

The 16 types of refills outlined in section 3 were recognised as being a valuable way of grouping refills for discussion. However, in order to develop a manageable questionnaire that participants would be able to complete in a reasonable timescale, it was recognised that it would be beneficial to reduce the number of refill types being investigated. Any approaches which had been considered to have adverse impacts on business, the consumer or sustainability were discounted, as were any approaches which did not fit into Boots' business model. 'Creation' was also discounted at this stage as it was felt that it was not clearly a type of refillable packaging. Table 2 provides a summary of the refillable packaging approaches rejected for the analysis of consumer perceptions activity and the reasons why they were rejected.

Approach	Reason for rejection
Empty packaging refilled in shop	Inconvenient for customer and business
Lighter weight refill through part reuse	Not an innovative enough approach
Door to door delivery – packaging refilled	Does not fit into Boots' business model
Refilled with different product	Does not fit into Boots' business model - trying to establish a closed loop system
Door to door delivery – packaging replaced	Does not fit into Boots' business model
Creation	Not obviously a refill
Fill your own packaging	Does not fit into Boots' business model
Bulk purchase	Does not fit into Boots' business model - wholesale not high street

Table 2 Refillable packaging approaches rejected for the analysis of consumer perceptions activity and the reasons why they were rejected

6 Findings: issues associated with the different types of refills

6.1 Lightweight self contained refill delivered through dispenser



This type of refill approach was the most widely used type of refill reported on by the respondents. It has been used for razor blades, sticky tape, after shave, electric toothbrush heads, glue and wipes. A number of the respondents simply considered this to be the normal way of delivering these products.

42% of the respondents rated the experience as good or very good citing that they were pleased with the quality of the product and product delivery mechanism, the ease, convenience, increased hygiene, flexibility, reduction in waste and price. 8% rated the experience as negative. These dissatisfied customers were mainly disappointed by the cost, though the quality of the packaging was also cited as a problem.

When referring to a Thierry Mugler aftershave which can be refilled the respondent states,

"...I certainly didn't realise that it could be refilled... it is a clever system and quite useful I suppose – as he can buy refills without having to buy the dispenser again. It did, however, take us a while to figure out how to open the dispenser, take out the empty canister and insert the old one." (A)

This raises the issue of clear communication, but shows how refills can be effectively used for high end products.

6.2 Self dispense



Only 14% of respondents had used this type of refill, but their experiences covered a wide range of products including; fabric conditioner, Angel perfume, Body Shop products and coffee. Generally the respondents rated their experiences as good or very good, citing ease, price and lack of mess as reasons for their pleasure. One respondent

specifically stated that she chose this approach to reduce her environmental impact. Another respondent explained that using this approach was strongly linked to a product that she liked, that could be purchased in this way to save money.

On the negative side it was recognised that although it was felt that refills should be cheaper, this was not necessarily always the case which was frustrating. Another respondent complained that,

“you have to travel to the city centre to get it refilled, more money and time to do it”
(B11)

Whilst another warned that although the approach is

“easy and saves waste [it does] feel a bit cheap if the bottle has seen better days”(B15)

The requirement of having to finish the bottle and clean it before buying a new product was not recognised as an inconvenience by anyone.

6.3 Original packaging swapped for new product



The majority of respondents referred to their experiences of having milk delivered, the single use camera and ink cartridges. 92% of the respondents had found the experience to be positive, citing reasons such as ease, convenience, cost, and suitability for children (for the single use camera). Some of the respondents recognised that this approach reduces the amount of waste going to landfill.

The other 8% of responses rated their experience as neutral, with product quality and cost being the factors which reduced their satisfaction. Although most respondents actively chose to use a product delivered in this way 27% considered that they did not have a choice. The experience of all of the people who did not feel they had a choice was still rated as good or very good.

6.4 Deposit system



Only 24% of the respondents had any experience of using a deposit system. Their experiences related to glass drinks bottles, aluminium drinks cans and plastic carrier bags. Most respondents reported a good or very good experience. The price incentive was recognised by most as being a driver for engaging in this system. A couple of respondents referred to the activity of collecting the items as being a positive driver. One respondent stated;

“it gave my son extra pocket money, cleaned them [cans] from the street, gave us some exercise and instilled into him that there were always ways of making a little extra money.” (B21)

This demonstrates a distinct positive social agenda associated with this type of refill.

One respondent highlighted that although they used to deposit their drinks bottles, they now have the facility to recycle them at home (via kerbside recycling schemes). This raises a number of interesting issues relating to how a refill system should/would sit along side the widespread kerbside recycling schemes which are now available in the UK.

Only one respondent had a negative experience with deposit systems, and identified inconvenience as the reason. Inconvenience might also be the reason why so few participants had any experience with deposit systems. However this lack of experience might also be a reflection of the fact that in the UK deposit systems are considered a little old fashioned and are not widely used. Unlike in Finland where 98% of all soft drink and beer packaging is refillable, in Demark where 90% is refillable and the Netherlands where 80% is refillable (Platt and Rowe, 2002).

6.5 Top up card



This type of refill approach was the second most widely used type of refill reported on by the respondents. Their experiences cut across many different products; phone cards, travel cards, library cards and food delivery. Positive experiences related to ease, speed, and convenience. One respondent explained that his experiences with a library card had led to the product having a,

“greater sense of worth (since product has to be cared for and handled with care)...”

Negative experiences related to the system failing and time factors relating to availability/ work time.

6.6 Dispensed concentrate



25% of the respondents, had experience with this type of refill. Their experiences related specifically to the delivery of hot drinks such as coffee, hot chocolate and tea, and the delivery of fizzy drinks via the soda stream. The variety of extreme experiences outlined by customers was very interesting. Satisfied customers were very pleased with high product quality, the cost per unit, the ease of use and the flexibility it offered them. Unsatisfied customers were disappointed by the waste generated, the cost of the refills, the *“hassle of cleaning and maintenance”* (C), the quality of the product and the fact that (in the case of soda stream) the refills were no longer available. One respondent had the following strong opinion to add,

“I don’t buy those kinds of products because its not eco friendly”.

6.7 Dispensed product



Only 17% of the respondents had any experience of using this type of refill. The Pez sweet dispenser was the only relevant product to be identified and reflected upon. This was rated as good because of collectability and because it is fun. No other insights into consumer perceptions of the type of product were provided by the respondents.

6.8 Concentrate mixed in original packaging



26% of respondents had used this type of product and the majority of their experiences related to fabric softener, though fruit juice was cited as an example by 2 respondents.

Most of the respondents found their experiences to be good or very good, citing reasons such as price, the fact that it takes up less space and is easy to use as the motivators. The respondent who had a neutral experience identified that

“you have to remember not to throw the bottle away otherwise product is useless”

This reiterates the importance of communicating intentions effectively to the customer and ties in with the experiences outlined in section 6.1 regarding the respondent’s experiences of trying to refill the Thierry Mugler aftershave.

7 Customer perceptions of the cost effectiveness of refills

In terms of costs, customers seemed to have one of two perceptions when it comes to refills, that they are cheaper or that they *should* be cheaper than the ‘original’ product.

Many of the respondents reported actively choosing refills because they are cheaper. However a number of the respondents recognised that refills do not always work out to be cheaper, especially when there are ‘special offers available’. One respondent noted:

“Sometimes it’s cheaper to buy a refill than the whole product, although most of the time it isn’t! but I still wouldn’t want to buy the ‘whole’ product all over again as then you are stuck with an old one that has no use.” (A)

There is a general perception that refills should be cheaper for the customer as it is generally perceived that they cost manufacturers less to make and transport around. There were also a number of comments which reflected that refills are,

“normally cheaper, but not as cheap as they should be for incentive” (B2)

Refills such as razor blades and electric toothbrush heads, categorised under the ‘Lightweight self contained refill’ group were specifically perceived as being expensive, as were the coffee capsules referred to by one respondent in the ‘Dispensed concentrate’ group. No other refills were specifically highlighted as being expensive, however despite this, one of the general negative perceptions of refills is that they can be expensive. In light of this it might be valuable to consider how cost effectiveness can be explicitly communicated to customers, to minimise the impact of this perception.

8 Customer perceptions of the convenience of refills

Of the 21 participants who commented specifically on the convenience of refills 48% felt they were convenient or very convenient. Refillable packaging systems were considered to be convenient if:

- They were cost effective
- They were quick and easy to use

- They were lighter and more easily transported (especially for those without a car or shopping during a lunch break)¹.
- They created less waste.
- They were less bulky.
- The delivery was convenient– e.g. the approach (milk), the packaging (sellotape), clean/ not messy,
- The refillable nature of the product was specifically suited to its purpose (single use camera),

For a number of respondents packaging which had the above attributes was still only deemed convenient on the proviso that it was also cost effective and that the original container was durable enough to stay in good condition.

There was approximately a 50/50 split in opinion with regards convenience. Several respondents noted that it was,

“...probably not more convenient but much better environmentally”(B22)

Among the factors which were deemed to make refillable packaging systems inconvenient, were that:

- they require a level of organisation.
- they are more expensive.
- they are time consuming.
- refill packaging can be poor quality.

9 Customer perceptions of the sustainability of refills

In recognition of the fact that a previous study with Boots customers indicated that they did not understand what was meant by sustainability, within the questionnaire respondents were asked

- a. whether they considered refills to be environmentally friendly and
- b. whether they considered refills to be socially responsible.

9.1 Customer perceptions as to whether refills are environmentally friendly

91% of the respondents stated that they felt that refillable packaging was better for the environment and 24% of the respondents stated that they actively chose specific refills because they were better for the environment. The perceived benefits cited ranged from reduced waste and reduced volume of purchasing, to reduced quantity of materials consumed.

A number of the respondents referred to the fact that they are engaged with recycling, an activity which is widely recognised as being on the increase in the UK due to increased opportunities for

¹ Interestingly the fact that refills are lighter and easier to transport was identified as a positive attribute by four different respondents, when they were talking about refills generally, but this attribute was not specifically related to any particular type of refill.

kerbside recovery. In recognition of this packaging which is intended to be refilled will have to communicate this intent clearly to dissuade consumers from recycling packaging after its initial use.

Respondents identified the following key reasons why refills are better for the environment:

- they use less material,
- they generate less waste to go to landfill,
- there is less impact through manufacturing,
- they reduce the amount of different containers going into shops.

9.2 Customer perceptions as to whether refills are socially responsible

22% of the respondents stated that they did not know if refillable packaging was more socially responsible. All of the others felt that it was more socially responsible and cited environmental reasons as to why this was so. Although it would be difficult to argue that reducing landfill is not socially responsible, this way of thinking about social responsibility does vary from the way that social responsibility is normally considered by academics when talking about sustainability. Typically social responsibility might include issues such as inclusivity, safety and reducing consumption levels.

10 Customer perceptions of appropriate products for refill delivery

All the participants were asked to consider what products they would and what products they would not like to see delivered as a refill, and to explain their reasoning. Table 3 summarises the types of products that the respondents identified would be appropriate for delivery as a refill.

Product type	No.
Shower gel/bubble bath	20
Shampoo & conditioner	19
Soap	5
Moisturiser	4
Washing powder & fabric conditioner	3
Hair products	3
Sun cream	2
Wipes	2

Table 3 Products identified by customers as being appropriate for refills against the number of respondents.

Topping the list were shower gel, bubble bath, shampoo and conditioner. A couple of respondents felt that these sorts of products would be easiest to refill but generally the motivation related to cost savings on everyday products, and that it would have a positive environmental impact. However, it is important to note that the respondents had just been thinking about environmental issues, so it would be wise not to give too much weight to this as a driver. A number of studies in the past have shown that though customers may recognise environmental concerns, they do not act accordingly when shopping. A number of respondents noted that refills would be especially appropriate for products which are used frequently.

Table 4 provides a full overview of the products that were considered inappropriate for refills along with the number of respondents who identified this.

Product type	No.
Toothpaste – hygiene	6
Hair products – fiddly, chemicals	3
Deodorant	3
Feminine care	2
Shower gel – like a change of product	1
Moisturiser	1
Make up	1
Talc	1

Table 4 Products identified by customers as being inappropriate for refills against the number of respondents.

Toothpaste was the product which most respondents said they would not like delivered as a refill, due to concerns about hygiene and practicality. One respondent felt that refills would be inappropriate for shower gel and shampoo because they “like a change of product” (B1), which assumes this would not be possible with refills. Interestingly the variety offered by the Krupps coffee machine is exactly what has made it so popular.

11 Conclusions

The questionnaire which was developed, delivered and analysed in accordance with the requirements of Objective 1 of this DEFRA sponsored project, has helped to create a clearer picture of the variety of perceptions that people have when it comes to refills.

11.1 Positive and negative attributes of refills

In February 2006 the project team attended a seminar which reported on the findings of a WRAP sponsored study into refillable packaging. The WRAP study identified six specific problems that consumers associated with refills:

- time constraints,
- no room for bulk,
- fear of technology,
- dexterity in filling packs,
- availability,
- social behaviour.

Within the WRAP study time constraints, dexterity in filling packs and availability were recognised as issues of concern, but only for specific types of refills:

- time constraints – for mobile phone top up cards and Body shop refillable packaging
- dexterity in filling packs – for herbs and spices

- availability – for soda stream

This report offers detailed insights into the attributes that have led to a positive or negative experience. These are summarised in Table 5.

Attributes which have led to a positive experience	Attributes which have led to a negative experience
Good product quality	Inconvenience
Convenient delivery	Hassle of maintenance
Good value	Increased waste
Less waste	Poor product quality
Easy to Use	Bad delivery
Clean and hygienic	Bad quality packaging
Takes up less space	'Fiddly' to refill
Light to transport	Concerns over how long refill will be available for
No mess	Incompatibility between systems
Cheap	
Quick to use/refill	

Table 5 Summary of attributes which have led to a positive and negative experience of refills

In order to successfully market a refill system it will be important to recognise the issues that some people have and communicate accordingly.

11.2 Communication

The importance of communication has been highlighted on a number of different fronts during the analysis of the questionnaires. Effective communication is important to ensure that:

- positive attributes of the product are promoted e.g. that this approach will actively save them money,
- negative attributes are mitigated against e.g. that customers know it is easy to refill, not messy, not expensive etc.
- customers know that they can/should refill and how to do it.

11.3 Reasons for active purchase of refills

The WRAP study also identified three different motivations for buying refills:

- altruism – ecozone / motivated consumers
- cost – value
- innovation/technology/ convenience – creative, looks and feels stylish

Although the findings from this a study also identified altruism, cost and convenience as drivers for refills, altruism or the desire to be environmentally responsible was qualified a little more to recognise that this had to be in association with product quality, and/or cost. The results of this study also identified a number of additional reasons as to why people actively buy refills:

- People without cars report that they specifically select refills because they are smaller, lighter and easier to carry home.
- To reduce waste and/or actively reduce the amount of stuff they buy.
- Ease of use/delivery.
- Product quality.
- They have had a good past experience.
- Brand association.
- They take up less room.
- They are fun.
- They are considered the 'norm'.

Although people talk about the price of refills a lot they also indicate, although don't specifically articulate, that the price is only important if the quality is there.

In the majority of cases a positive experience leads to the customer actively purchasing a refill. However the findings also suggest that as long as the refill is delivered well, people do not mind whether or not they are given a choice to participate.

A number of respondents did however note that,

"[Refills] are only good if you like the brands sold as refills." (G)

A number of respondents commented that refills should be more widely available for a wider range of brands.

11.4 Additional interesting findings

Some of the comments about emotional attachment and care, made by one respondent about their experiences with a library card, raise some interesting ideas which might be worth exploring in the future. This links with a range of comments made about the importance of attributing qualities of desirability and durability to refillable packaging.

Another interesting finding indicated that refills are viewed as 'good' if there is a clear *reason* as to why a refill approach is better, rather than having a refill for refills sake.

Finally a number of interesting issues have been raised during this activity which might be useful to consider when organising future activities with consumers.

- Consumers were not very good at identifying which category a specific refill should fit into. This suggests that the categories which have been developed are not 'fool proof'. However they have been a valuable 'quick and dirty' mechanism for encouraging discussion about refills.
- When asked to imagine a particular product delivered as a refill, many of the respondents answered in such a way that suggested that they thought the product would naturally be delivered in a specific way. As such it will be important to recognise this tendency in the design of any future consumer workshops.
- Consumers are likely to be evaluating the quality of the product as much as they are the delivery, approach etc.

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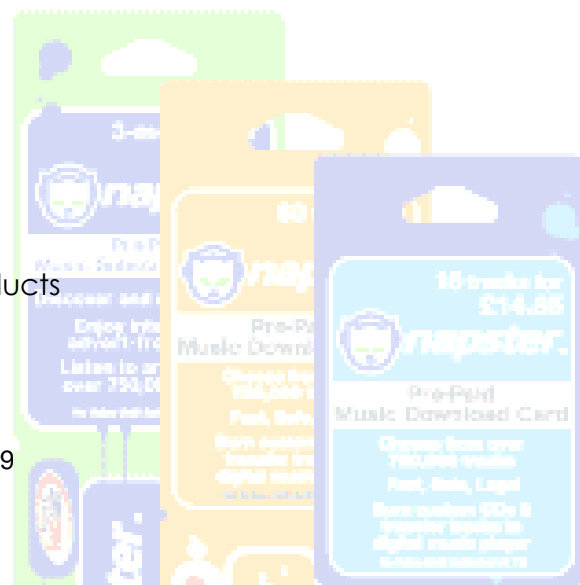
Refillable Packaging Systems

Boots are committed to ensuring that the products we sell are produced to the highest environmental and ethical standards. We are also investigating ways to develop new products and services which have minimal impact on the environment and are socially and ethically beneficial. This project in partnership with Loughborough University has been funded by DEFRA to investigate new refillable product and packaging concepts with the aim of reducing waste and use of resources.

Please take a few minutes to help with our research by completing this questionnaire. This will assist us to develop more sustainable products for the future. Please be advised that the results of the questionnaire will be reported on as part of the on-going research project and may be published; all respondents will of course remain anonymous.

Thank you
Andrew Jenkins

Sustainable Development Manager - Products



Refills and refillable packaging
QUESTIONNAIRE

Gender: Female / Male

Age: (tick the appropriate range)

0-9 10-20 21-30 31-40

41-50 51-60 61-70 71+

What products do you regularly purchase from Boots?

List your favourite brand(s) purchased from Boots:

1. List any refills that you buy at the moment?

There are many different types of refills. We want to ask you about your experiences with 8 different types of refill.

TYPE A: Where you buy a self contained (lightweight) refill which you take home and put into a durable dispenser. (See examples below)



2. List any product(s) that you can think of that you have bought that fit into this category?

3. On the whole how good or bad was the experience?

1

2

3

4

5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

4. Explain why?

5. Did you actively choose to buy the product in this format?

YES

NO

TYPE B: Either in a shop or elsewhere the product is dispensed from a large container into a reusable container which you take back to the store for refilling with the same product. (See examples below)



6. List any product(s) that you can think of that you have bought that fit into this category?

7. On the whole how good or bad was the experience?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

8. Explain why?

9. Did you actively choose to buy the product in this format? YES NO

TYPE C: Where you return the empty original packaging to the vendor who swaps it for a new product. The old packaging is refilled for future use by someone else. (See examples below)



10. List any product(s) that you can think of that you have bought that fit into this category?

11. On the whole how good or bad was the experience?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

12. Explain why?

13. Did you actively choose to buy the product in this format? YES NO

TYPE D: Where you return your empty packaging for a financial or other incentive (See examples below)



14. List any product(s) that you can think of that you have bought that fit into this category?

15. On the whole how good or bad was the experience?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

16. Explain why?

17. Did you actively choose to buy the product in this format? YES NO

TYPE E: You buy a service which is delivered on the production of a payment card or 'top-up card' (See examples below)



18. List any product(s) that you can think of that you have bought that fit into this category?

19. On the whole how good or bad was the experience?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

20. Explain why?

21. Did you actively choose to buy the product in this format? YES NO

TYPE F: Where you buy a dispensing unit and separate refills containing a concentrated product. The refills are mixed with water and delivered through the dispenser. (See examples below)



22. List any product(s) that you can think of that you have bought that fit into this category?

23. On the whole how good or bad was the experience?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

24. Explain why?

25. Did you actively choose to buy the product in this format? YES NO

TYPE G: Where you buy a dispensing unit and refills which are delivered through the dispenser (See examples below)



26. List any product(s) that you can think of that you have bought that fit into this category ?

27. On the whole how good or bad was the experience?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

28. Explain why?

29. Did you actively choose to buy the product in this format? YES NO

TYPE H: Where you buy a concentrated refill which you dilute (with water) and mix in the old packaging (See examples below)



30. List any product(s) that you can think of that you have bought that fit into this category?

31. On the whole how good or bad was the experience?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

32. Explain why?

33. Did you actively choose to buy the product in this format? YES NO

34. Do you think that refills are more convenient for the customer?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

35. Explain why?

36. Do you think that refills are more cost effective for the customer?

1 2 3 4 5

(Circle the number which represents how you feel; where 1 = very poor, 2 = poor, 3 = neutral, 4 = good, 5 = very good)

37. Explain why?

38. Do you think refills are more environmentally friendly YES NO

39. Why?

40. Do you think refills are more socially friendly YES NO

41. Why?

42. What types of personal care products (washing, grooming, bathing) would you be happy to buy as a refill?

43. Why?

44. What types of personal care products (washing, grooming, bathing) would you not buy as a refill?

45. Why?

46. Please use this space to share any additional comments that you have about refills or refillable packaging

(continue on a separate sheet if necessary)

THANK YOU.

PLEASE RETURN THIS QUESTIONNAIRE IN THE ENVELOPE PROVIDED.

Boots & Loughborough University may wish to follow up the questionnaire using a customer focus group with selected respondents to explore some of the issues discussed.

Please tick the appropriate box below to indicate if you would be willing to give a short telephone interview.

I DO NOT wish to take part in any further research.

Subject to my availability I WOULD BE HAPPY to participate further and can be contacted:

Name:

Address:

Tel No:

Email:

Annex B Complete coding system used to analyse the results of the ‘Consumer perceptions of refills questionnaire’

Price	Factors relating to cost	Ch	Why people actively choose to buy refills
Price–cheap–should	Should be cheaper	Ch-active	Active choice
Price-cheap–que	Should be cheaper but aren’t necessarily	Ch-port	Easier to transport
Price-exp	Seem expensive	Ch-light	Lighter
Price-not	Not cheaper	Ch-was	To reduce waste
Neg-exp	Expensive	Ch-price	Cheaper
Pos-price	Positive pricing implications	Ch-less	To actively buy less stuff
Price-cheap	Cheaper	Nc-pos	No choice, but positive
Price-cheap–que	Usually cheaper	Ch-past	Good past experience
		Ch-smaller	Take up less room
		Ch-fun	Fun
		Nc	Not chosen
Pos	Positive experiences of refills	Neg	Negative experience of refills
Pos – con-del	Delivery is convenient	Neg – Con	Not convenient
Pos – Con	Convenient	Neg maintenance	Maintenance is a hassle
Pos – perf	Good performance	Neg-wast – pack	Wasteful pack
Pos-val	Associations with value	Neg-prod	Poor product
Pos – was	Less waste	Neg-pack	Bad packaging
Pos-prod	Good product	Neg-del	Bad delivery
Pos-prod-fresh	Fresh product	Neg-comp	Not compatible with other systems
Pos-flex	Flexible	Neg-price	Expensive
Pos-easy	Easy	Neg-time	Too time consuming
Pos-clean	Clean/ not messy	Neg-hyp	Not hygienic
Pos-hyg	Hygienic	Neg-time	Hard to get hold of refills
Pos-less	Uses less materials	Neg-tatty	Not nice if tatty
Pos-quick	Quick	Neg-big	Too bulky
Pos-ch	More choice	Neg-clean	messy
Pos-less-pack	Less packaging		
		Opp	Opportunity
		Opp-red	Identified opportunity to reduce waste
Env	Environmental	Conf	Confusion
Env - incon	Green but inconvenient	Des	desired
Env-neg	Not more environmental	Indiff	Indifferent
		Class	Classified as wrong type
soc	Socially responsible	Resp	Issues to do with customer responsibility
Soc-env	Environmental response	Comm.	Issues to do with communication
Soc-que	Not sure		
Imp	Overriding important qualities		
Imp - Bra	Branding		
Imp - Quality	Product quality		