

# Does branded litter damage the brand?

Danielle Stevens<sup>1</sup>, Hutt Valley High School, Upper Hutt,  
New Zealand \*

This study, which started as a school science project, looked at branded litter in a community. The project was done in two parts. The first part was the collection of all the litter around the community for a week, sorting it into categories, weighing it and then tallying the results.

The second half started when I thought back to my first question "Does branded litter damage the brand?" I then did a follow-up survey on what the people in my community thought about the litter, and whether their views on the litter was seen as negative advertising for the brand.

**Keywords** Branded Litter, McDonald's, Perceptions

## Introduction

Litter is a problem in many communities, including my community of Silverstream in Upper Hutt, New Zealand. I had noticed that a lot of the litter around Silverstream seemed to come from the local McDonald's takeaway outlet. For my school's science project competition, I decided to work out what percentage of litter around Silverstream was sourced from McDonald's. My hypothesis was "*McDonalds being introduced to the Silverstream community has added a significant amount of litter*" and my research question was "*Does McDonalds create a significant amount of litter in the Silverstream community and is it possible to change its impact?*"

In doing research on branded litter, I found a number of interesting papers on the subject. Many were just news items focusing on controversy around the opening of new McDonald's outlets (Donald 2005) or surveys of litter for National Litter Indexes (Lyll 2006). The most interesting paper I found was from the *Journal of Marketing Management* by Stuart Roper and Cathy Parker (2006). They had done a survey of litter in the community just like I did and found that some brands were very commonly found in

<sup>1</sup> Aged 12 years. This research, completed for a school science project, was accomplished with assistance (encouragement, help with the analysis, and manuscript) from her father. The statistical tests were completed at the suggestion of the reviewers, whose helpful comments are acknowledged.

\*Correspondence details and a biography for the author are located at the end of the article.

litter (e.g. Walker's crisp packets). Roper and Parker also reviewed a lot of other papers on the role of packaging in creating a brand pre-consumption, and then posed the question about whether the brand could be damaged post-consumption if the packaging turned into litter. I was surprised to read that this question had not been answered by anybody, so I decided to follow Roper and Parker's suggestion and see whether I could find out what people's perceptions of litter were and whether those perceptions impacted on the brand.

## **Methodology**

### ***Litter survey***

I collected every piece of litter around the Silverstream area every morning at around 5:30am for a week. The area I cleaned was approximately 0.5km radius from the Silverstream railway station, which included all of the shopping area and takeaway outlets. Each day, the litter collected was sorted into categories, counted and weighed. I interviewed the manager from McDonalds to ask them about their cleaning technique.

### ***Perceptions survey***

I developed a short (11 question - see appendix) survey using the online survey tool SurveyMonkey ([www.surveymonkey.com](http://www.surveymonkey.com)) asking people about the extent to which they notice litter in the community and how bad a problem they think litter is. I also asked questions about the responsibility for cleaning the litter, using data collected from my litter survey, and my research. Outside the local supermarket I asked people to fill out the survey; 39 people agreed to complete the survey. SurveyMonkey did the analysis of the data for me.

## **Results**

### ***Litter survey***

I collected a lot of litter over the test week. On the first day this included a lot of litter that had not been cleaned up by the Council in the past. As Figure 1 shows, on three of the five days, McDonalds was the largest source of litter. McDonalds accounted for 35% of total rubbish items (Figure 2). Straws, drink lids and cartons were the most common type of the McDonald's litter (Figure 3).

On the other two days, miscellaneous paper from no specific source was the most common type of litter. The other most common types of litter were miscellaneous plastic and plastic bottles. There was very little litter from the other takeaways in the area.

The interview of the Manager of McDonald's showed that they clean up their lawn and car park and the drive through from the adjacent petrol station every morning. They confirmed that they did not clean up any further away from their outlet than this.

Figure 1 Rubbish summary by day

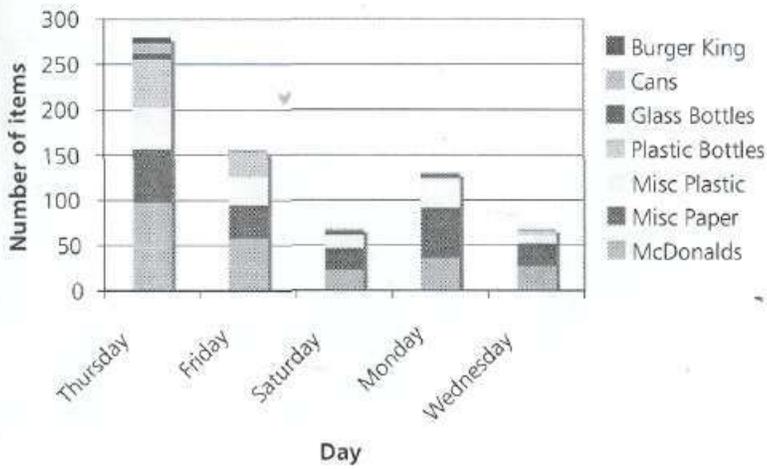


Figure 2 Rubbish summary by category (n=710)

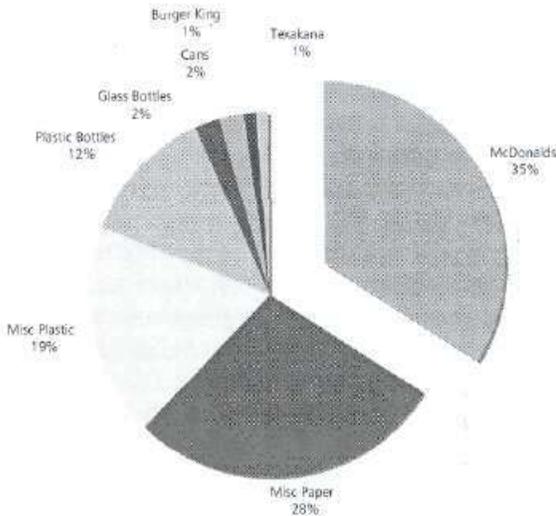
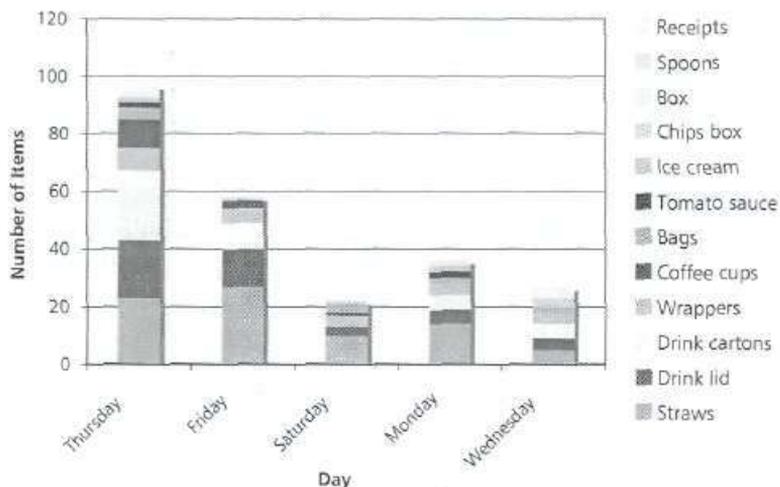


Figure 3 McDonald's rubbish categories



### Perceptions survey

89.5% of people had seen litter in the community, but most (66.7%) thought it to be only a minor problem. The most prevalent types of litter noticed in the community were takeaway wrappers (noticed by 83.3% of people), followed by glass bottles and plastic bottles (66.7%). When asked to think about takeaway litter and whether they had seen a brand on the litter, 94.6% of people said that they had seen McDonald's litter. The only other category really seen was Chinese takeaway containers (29.7%).

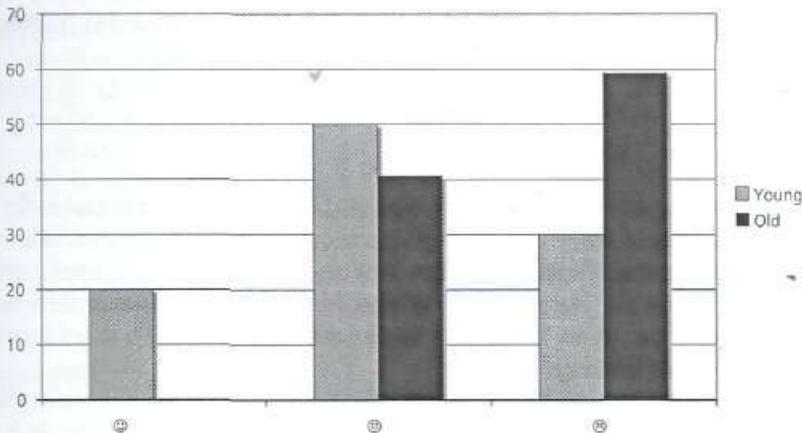
When asked "To what extent do you think McDonald's should take responsibility for the rubbish in the community dropped by their customers?", a very high 76.9% of people believed that McDonald's AND their customers have a shared responsibility for the litter. Only 15.4% of people believed that the responsibility was solely the customers. Only one person (2.6%) believed that McDonald's had sole responsibility.

A follow-up question asking "If you think McDonald's has some responsibility, how do you think they should help?" showed that people thought that a range of things could be done by McDonald's to help, including the provision of more litter bins (77.1%), education of customers (48.6%), assisting with the clean up of litter from the wider community (40%), paying money to the council to offset the costs of collecting up McDonald's litter (37.1%) and reducing packaging to minimise litter (51.4%).

The most interesting question is presented in Figure 4, demonstrating that the majority (51.4%) of people believe that branded litter reflects badly on the brand. Only 2 people (5.4%) thought that seeing branded litter made them feel good towards the brand.

The question "Some research from overseas I found doing my project claimed that major takeaway chains view their packaging rubbish, as long as it was not on their front lawn, as advertising. This was why they don't clean up all around their outlets. To what extent does this surprise you?", showed

**Figure 4 How does branded litter make you feel towards the brand?**



that the majority of people (61.1%) were not surprised by that statement and indicated it made sense. Only 25% of people indicated that it surprised them and that it was 'a silly idea' to suggest that branded litter was actually viewed as advertising.

#### ***Differences between young and old***

The sample of people who answered my survey were mainly older, with 53% older than 41 years old. Only 25% of people were under 20 years old. The vast majority (64.1%) were from Silverstream, and their most popular takeaway was fish and chips (31%). Only 10% of people indicated that they preferred McDonald's as their takeaway choice.

The major differences between the views of younger (<20 years old) and older people were in the questions on if, and how, McDonald's should clean up their rubbish and how they felt about seeing branded rubbish. We did a Chi-Square test and found that there was almost a significant difference between young and old people's answers ( $\chi^2=6.83$ ,  $DF=3$ ,  $P<0.10$ ) on whether McDonald's had any role in cleaning up. Younger people were less likely to believe that McDonald's either had a responsibility or should take a role in the clean up of litter spread by their customers. With the question about what things McDonald's should do, there was not a significant difference between old and young people's answers ( $\chi^2=6.64$ ,  $DF=4$ ,  $P>0.10$ ). However, the biggest differences were in whether McDonald's educate their customers (61.5% for older people vs. 11% of younger people) or should help clean up litter in the Silverstream area around their store (50% of older people vs. 11% of younger people).

The most interesting differences were in how people viewed the brand when it was turned into litter. No older people felt good towards the brand, whereas older people were more likely to feel poorly towards the brand (59.3% vs. 30%). We did a Chi-Square Test and found that there was less

than a 5% chance that this result was caused by chance ( $\chi^2=6.78$ ,  $DF=2$ ,  $P<0.05$ ). Another interesting result was whether old and young people thought differently about whether takeaway chains used branded litter as a method of advertising. As said above, both old and young thought that this made sense. However, we did a Chi-Square Test and found that there was not a significant difference between old and young people on this question ( $\chi^2=4.25$ ,  $DF=2$ ,  $P>0.10$ ).

## Discussion

Silverstream, where I live, is a nice area with lots of trees and parks. So it makes me annoyed when I see litter lying around. I started this project seeking to find out whether I was right from looking while walking to school that McDonald's was the major source of litter in Silverstream. This observation proved to be right. In my study area there were 14 litter bins so there should be no excuse for littering.

When doing my research I was not pleased to find that some claim that *"it is a standing joke amongst the fast food operators that, as long as it is dropped out of site of the outlet, they regard their litter as free advertising"* (Donald 2005). When my research was featured in the local paper, the local McDonald's manager was very upset with what was said and said that they do clean up a lot and put lots of effort into trying to stop litter. This was not what I had been told when I talked to the duty manager as I found out that they only clean up on their grass and car park. This despite the founder of McDonald's, Ray Kroc's policy of *"picking up litter in the general vicinity of its restaurants"* (Beavers 1994). Perhaps Donald is right - perhaps litter is seen as advertising and it was interesting to find young people were most neutral or even positive towards the brand when they see branded litter.

Professor Fisher from Australia has suggested that those who make *"an economic gain from litter should pay something towards the costs and a solution"* after estimating from a study that the advertising on the litter in a small park in Melbourne was worth about \$32,000 to the manufacturers of the products (Morgan 2007). I was also interested to read that in some countries fast food chains are made to take responsibility for their litter under the principle of Extended Producer Responsibility (EPR). I think this is a good idea.

I think my study showed that McDonald's should take responsibility for their customer's littering. They might think that it helps their brand, but my research does not support this idea.

Roper and Parker (2006) wondered whether the litter they recorded had an impact on people's perceptions of the brand. I have done the research to answer that question. I found that the majority of people in Silverstream:

- Were upset about litter,
- Clearly (and correctly) identified McDonald's as the major source,
- Wanted McDonald's to take some responsibility for the litter dropped by their customers, and
- Showed that they think worse of the brand because of the litter.

Finally, I think that a larger sample study would be really good and might show the fast food chains that it is in their interest to clean up the environment.

## References

- Beavers, R. (1994), "Witness statement" [online]. Available at: <http://www.greens.org.nz/searchdocs/PR9347.html>. [Accessed 25 June 2007].
- Donald, R. (2005), "Laws right to lay down the law on fast food litter" [online]. Available at: <http://www.greens.org.nz/searchdocs/PR9347.html>. [Accessed 25<sup>th</sup> June 2007].
- Horgan, G. (2007), "Pay for junk advertising, says trash man professor" [online]. Available at: <http://203.171.84.225:8080/traction/permalink/Blog444>. [Accessed 25<sup>th</sup> June 2007].
- Roper, S. and Parker, C. (2006), "How (and Where) the Mighty have Fallen: Branded Litter", *Journal of Marketing Management*, Vol. 22, No. 5-6, pp. 473-487.

## Appendix

### Survey questions

I recently did a project on rubbish in the Silverstream community for a science project.

Would you like to take part in a short survey on rubbish? It will not take any longer than 5 minutes?

1 Have you see rubbish around the Silverstream community?

- Yes
- A/o

2 How much do you think that rubbish is a problem in our community?

- A major problem*
- A minor problem*
- I have no opinion*
- Not much of a problem*
- Not a problem at all*

3 If yes, what type of rubbish have you noticed?

- Glass Bottles*
- Plastic Bottles*
- Newspapers*
- Pamphlets*
- Takeaway wrappers*
- Plastic bags*
- Other (please specify)*

- 4 Thinking about rubbish from takeaways, have you seen any with a brand on it? If so, which?

*McDonalds*

*Burger King*

*Pizza Hutt*

*Hells Pizza*

*KFC*

*Chinese takeaway plastic trays*

*Fish & chips paper*

*Texakarna burger*

*Other (please specify)*

- 5 Thinking about takeaway rubbish, obviously the rubbish is dropped by the takeaway shop's customers. A recent project I did on rubbish in the Silverstream community showed that the largest source of rubbish was McDonalds (35% of 700 items). To what extent do you think McDonald's should take responsibility for the rubbish in the community dropped by their customers?

*Absolutely none at all - its the customer who is responsible*

*Shared responsibility- McDonalds should work with its customers to minimise Utter*

*Full responsibility - McDonalds has responsibility*

*I don't really have an opinion*

- 6 If you think McDonald's has some responsibility, how do you think they should help?

*Provision of more rubbish bins where rubbish is being dropped*

*Education of its customers*

*Assisting with the dean up of rubbish from the Silverstream area around their store*

*Paying money to the council to help in rubbish pick up costs*

*Reducing the amount of packaging materials in their products*

- 7 When you see branded rubbish on the street how does it make you feel towards the brand?

- 8 Some research from overseas I found doing my project claimed that major takeaway chains view their packaging rubbish, as long as it was not on their front lawn, as advertising. This was why they don't clean up all around their outlets. To what extent does this surprise you?

*Doesn't surprise me at all - it makes sense*

*Don't really have an opinion*

*What a silly idea*

9 What age group do you fall into?

*10 years and under*

*11-20 years*

*21-30 years*

*31-40 years*

*41-50*

*51 years and over*

10 Which area do you live closest to?

*Silverstream*

*Pinehaven*

*Stokes Valley*

*Whiteman's Valley*

*North Upper Hutt*

*Other*

11 Which takeaway do you eat the most?

*Don't eat takeaways*

*McDonalds*

*Fish & Chips*

*BurgerKing*

*Chinese*

*Texakarna*

*Pizza Hut*

*Hell's Pizza*

*Other (please name)*

### About the author and correspondence

Danielle Stevens: I live in Silverstream, Wellington, New Zealand. I am now 12 years old and am in Year 9 at Hutt Valley High School. When I did this study I was going to Fergusson Intermediate School. At school we had to do a science project to enter into the school science competition. I am an environmentalist and that's how I chose this project. I decided to do an experiment on the litter around my community. After my dad read some of the papers that I had found on the Internet on the topic, he encouraged me to write up my findings and send them off to Westburn Publishers.

**Correspondence:** Dr Peter Stevens, GS1 New Zealand, PO Box 11-110,  
Wellington, New Zealand.

E Peter.Stevens@gs1 nz.org

A utilização deste artigo é exclusivo para fins educacionais.