

The Effects of Floor Advertising Directed to Children in a Food Retail Environment

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1 Introduction

Floor advertisements, are a form of point-of-purchase advertising, and consist on self-adhesive billboards placed on the retailers' floors, usually in front of the product display (Prentice, 2001; Shimp, 2010). Its use has been growing over the last years and, according to Moore (2008), in the United States point-of-purchase advertising was expected to reach 8% of the marketing budgets by 2010. As more and more decisions are made in store (according to POPAI¹ in-store decision rate went from 70% in 1995 to 76% in 2012), this type of advertisement is receiving an increasing attention from marketers. However, there is a significant lack of research about this technique, particularly concerning its effects on children.

The objective of this study is to understand the effects of floor advertising on children's purchase influence attempts, brand preference, brand choice and in grabbing children's attention. However, it has also an ethical purpose: to know if they are able to understand that floor advertisements are a type of advertising and to recognize its persuasive intent.

2 Literature Review and Hypothesis

2.1 *Children's Cognitive Development and Consumer Socialization*

The most well known theory that explains the development of a child is Piaget's theory (Piaget and Inhelder, 2000) that proposes the existence of four cognitive development stages: sensorimotor (0 - 2 years), preoperational (2 - 7 years), concrete operational (7 - 11 years) and formal operational (11 - adulthood). During these different stages, children develop diverse intellectual abilities that help them to understand our world.

The indicated ages are average ages because each child is different and can exhibit different patterns but, on average, all children of all cultures follow the

¹ Point of Purchase Advertising International (POPAI) is the global association for research and promotion of the in-store marketing industry – www.popai.com

same stages. During these phases, children also develop skills and knowledge to become consumers, a process that is known by consumer socialization (Ward, 1974). According to McNeal (1992) this process occurs with the contribution of parents and marketers starting when children begin accompanying their parents to the stores (an activity known as co-shopping). Furthermore, children who co-shop more often are more conscious about brands and prices (Shim et al., 1995) and have more discussions with parents about advertising (Grossbart et al., 1991).

2.2 *Point-of-Purchase Advertising and Floor Advertising*

Point-of-purchase advertising is mostly used when the objectives are behavioural, for instance to generate brand choice (Lavidge and Steiner, 1961; Rossiter and Belman, 2005). Although research about its effects on children is scarce, French et al. (2001) found that labels and signage on vending machines of secondary schools have a positive impact on sales. In other study, Rexha et al. (2010) tested the effect of an advertising poster in a school canteen and found out that it can affect children's choices.

There are not enough studies to prove the effects of floor advertising, although the existing literature reports a sales lift around 10,2% and 30% (Beresford, 1997; Rickard, 1994). Some researchers argue that this technique might be effective since consumers do not expect to find advertisements on the floor (Benady, 2005). On the other hand, others argue that shoppers tend to browse sideways, and not to look down (Furber, 2001). However, according to Coughlin and Wong (2002), children have a field of vision different from adults, which makes floor advertising effective in grabbing children's attention.

Taking into account these findings, the following hypothesis is proposed: H1: Floor advertising is more effective in grabbing children's attention than adults'.

2.3 *Brand Preference and Brand Choice*

Past research proved that children exposed to point-of-purchase advertising are more likely to choose the advertised products (French et al., 2001; Rexha et al., 2010). However, studies about the impact of this advertising technique on brand preference were not found. Brand preference is considered to be "a favourable attitude toward the brand and, relatively, preference for it over the other brands" (Rossiter and Bellman, 2005: 26).

Moreover, as older children have greater cognitive skills (Piaget and Inhelder, 2000), one of the objectives of this study was also to understand if younger children are more susceptible to the floor advertising effects. Bearing all these arguments in mind, we formulated the following hypothesis.

H2a: The exposure of children to floor advertising will increase their brand choice but not to affect their brand preference.

2.4 *Influence Strategies*

Children can use two types of influence (McNeal, 1992): direct (making a purchase influence attempt) and indirect (when parents consider children's preferences). A purchase influence attempt is defined as a "child's attempt to influence purchases by making an independent request for an item (by asking, pointing, putting it in the shopping cart, or grabbing), buying an item with his or her own money, or making a decision when given a choice by the parent." (Galst and White, 1976: 1091).

Children are more likely to make a purchase request when they are in the presence of stimuli related with products (McNeal, 1992). This is why the majority of the requests are made at home, where they watch advertisements, and at stores (Isler et al., 1987; McNeal, 1992), mainly in front of the product display (Isler et al., 1987).

As children get older their parents are more likely to yield to their influence attempts (Buijzen and Valkenburg, 2008; Rust, 1993), probably because older children accompany their parents less often to the stores (Isler et al., 1987; McNeal, 1992) and because the number of requests have a tendency to decrease with age after the age of 6 (Buijzen and Valkenburg, 2008; Ebster et al., 2009).

Taking the findings from previous research into account the following hypothesis is proposed:

H2b: Children's exposure to floor advertising increases the number of purchase influence attempts made by children for the advertised product.

2.5 *Children's Ability to Recognize an Advertisement and its Intent*

There are no studies about children's ability to recognize the presence of a floor advertisement or other kind of point-of-purchase advertisements, neither about the understanding of its persuasive intent (if children understand that advertisements are made to make them buy a product). Past research addressed mostly TV advertising, and showed that parents with higher educational

backgrounds teach their children more about advertising (Gunter and Furnham, 2001; Kapoor, 2003).

Taking all the previous arguments in consideration the following hypothesis is proposed:

H3: Children's understanding of advertising will increase with the age of the child but, in general, will be relatively low.

3 Methodology

To ensure the protection of children's best interests, all ethical recommendations provided by UNICEF (2002) were followed. Adults and children were informed about the nature of the research, the methods and the confidentiality and they gave authorization to use the data.

Participants were children from 6 to 11 years old and their accompanying adults that were passing by the chocolate breakfast cereals for children aisle in the retail store. Each time an adult was passing by, with a child that apparently was in the target age group, they were approached (after observing their behaviour) to confirm the age of the child and their willingness to participate in the study. Participants were divided in an experimental group, exposed to the advertisement, and a control group, not exposed to the advertisement and we tried to ensure that we had a minimum amount of 30 children from the control and experimental group, equally distributed by the two age groups.

3.1 Experiment

A floor advertisement (83 cm x 160 cm) was designed and installed in front of the product display in a *Continente* store (figure 1 and 2), the biggest hypermarket chain in Portugal. The advertisement had an hopscotch, with which children could interact, and the chosen brand was Chocapic², the leader of the chocolate breakfast cereals for children market. The development of a game for the advertisement follows the trend that can be seen in the strategies used by marketers, which use fun and play in order to get the engagement of children.

The retailer's selling space is not usually designed to be a fun place for children (Barrey et al., 2010), and, therefore, it was expected that the use of a game would make the advertisement attractive in this environment.

² The international name of these cereals is Koko Crunch.

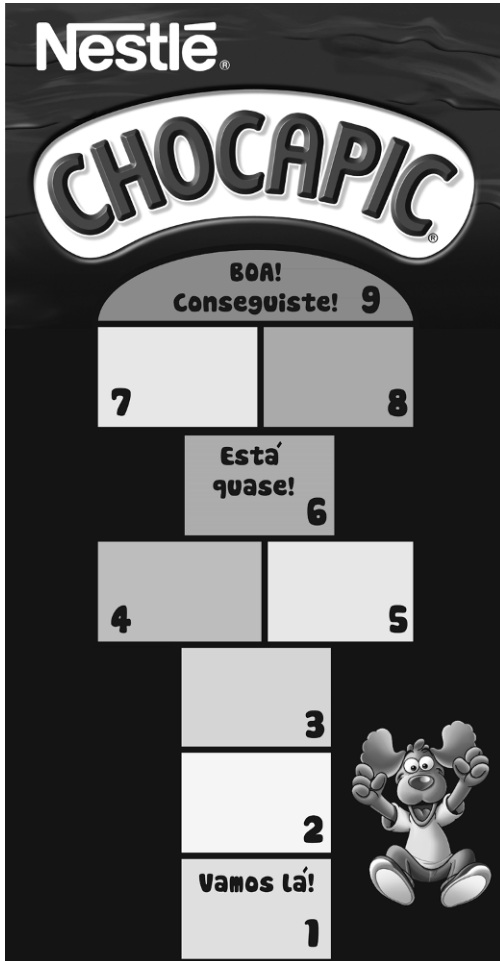


Figure 1: Floor advertising used in the experiment



Figure 2: Placement of the floor advertisement in the store

3.2 *Methods*

Two techniques were used to collect data: direct observation and questionnaires.

Direct observation was used because it is a good technique to understand how children behave in their normal environments since children are very reactive to strange people and situations (Greig et al., 2007). The sample units did not know that they were being observed and observations were made during 10 days (5 days for the experimental group and another 5 for the control group), from Thursday to Monday.

After the observation, questionnaires were applied: one for the adult and one for the child and, afterwards, the observation data were shown to the adult and child.

The questionnaires directed to children used pictures because verbal measures may not allow to getting a full picture of the child's abilities (Gunter and Furnham, 2001; Macklin, 1987).

3.3 Measures

In order to measure *Attention* we used an observation checklist to record if participants fixated their look on the advertisement at least once. This list was an adaptation from Chandon et al. (2009).

For *Brand Preference* children were asked in the questionnaire to select the products they preferred between pairs (Borzekowski and Robinson, 2001; Kaufman and Sandman, 1983), comparing Chocapic with Nesquik (second brand in the segment) and Chocapic with Contimente (the private label). A rank order scaling was also used, in order to know the overall preference (they had to rank the three brands between 1 and 3, being 1 the preferred brand). *Brand Choice* was measured by observation, considering that the product was chosen if placed in the shopping cart or in the child's hands (Ebster et al., 2009).

An observation checklist was used to record the *Purchase Influence Attempts* made by children for Chocapic and other substitute products.

In order to measure the *Understanding of Advertising* presence children were asked to classify the sticker as a game, an advertisement or a decoration. As for the *Understanding of Advertising Persuasive Intent* children were asked about what they thought the ones who put the sticker wanted them to do and they had to choose between several options (a method used by Donohue et al., 1980 and Macklin, 1987): "Play hopscotch", "Buy Chocapic", "Eat cereals" or "Become a friend of Pico" (the brand mascot). They were also asked about the advertising source (Oates et al., 2003), in which they had to choose between three options: "Contimente", "Chocapic" or "Pico" (the character from Chocapic).

We also collected other socio-demographic variables and other control variables like the child's age, parents' educational level, the co-shopping experience (applying the 5 point scale used by Grossbart et al., 1991), the television viewing hours, on weekdays and weekends, and the children's consumption of breakfast cereals (Chocapic, Nesquik and Contimente).

3.4 Sample

The sample was composed by 123 dyads that were divided in the two age groups: preoperational (6/7 years old) and concrete operational (8/11 years old). Although the sample had children with all the ages between 6 and 11 years old, the number of children in the second stage was higher (40 vs 83 – Table 1). All groups were equally balanced regarding parents level of education (on average 53,5% had a degree), co-shopping frequency (on average the sample has 47,5% of lighter co-shoppers and 52,5% of heavier co-shoppers), viewing hours of TV (on average the sample had 56,6% lighter TV viewers and 43,4% heavier viewers, with light <3 hours per day), and gender (56% boys and 44% girls).

Table 1: Composition of the sample

Group	Cognitive Development Stage		Total
	Preoperational	Concrete Operational	
Experimental group	20	43	63
Control Group	20	40	60
Total	40	83	123

4 Results and Discussion

Regarding Attention (H1), the majority of children and adults did not look to the advertisement. However, the percentage of children who did it was higher (46% of children against 7,9% of adults) being this difference significant ($\chi^2=23,202$; $p=0,000$). The results of this study suggest that floor advertising is more effective in grabbing children's attention than adults', supporting H1. Despite this finding, only 6,5% of children in the experimental group interacted with the advertisement. We investigated if this could be due to the hopscotch being considered a feminine game and this fact could influence the results, but girls and boys did not differ in their behavior towards the game.

Regarding the questions pertaining to Brand Preference, in which children were asked to choose between a pair of products, there were more children who preferred Chocapic in the experimental group. However, the chi-square tests revealed that the association between the variables was not significant ($\chi^2 = 0,074$; $p = 0,786$ and $\chi^2 = 1,682$; $p = 0,195$). In the rank order question, children exposed to the advertisement gave Chocapic a higher mean ranking (closer to 1) than the control group (1,36 against 1,47) and a lower mean ranking to Nesquik and Continte. However, the Mann-Whitney tests revealed that the differences were not significant ($U=1669, 500$; $p=0,317$; $U=1743,500$; $p=0,879$ and $U=1735$; $p=0,549$). Analyzing Brand Choice, by the number of participants who bought Chocapic, one can conclude that the dyads from the experimental group chose more often the product (23,8% against 10%). The chi-square test revealed that the two variables are dependent ($\chi^2 = 4,139$; $p = 0,042$). Therefore, the exposure to the floor display affected children's brand choice but not their brand preference and thus supporting H2a. Since the advertised brand is a market leader, we believe it would be very difficult to change brand preferences with just one exposure. In addition, we compared the brand choice from regular Chocapic customers (children who consume Chocapic at least once per week) with non-regular customers (children who never consume it or consume it once

in a month) and concluded that the differences between experimental and control groups in Brand Choice are motivated mainly by children who already consume the brand, and not so much by attracting new users (among the dyads in the experimental group that chose the product, 7,4% were non-regular Chocapic customers and 36,1% were regular customers).

The mean number of Purchase Influence Attempts for Chocapic was higher in the experimental group (0,25 against 0,08) and the mean number of purchase influence attempts for substitutes (other chocolate breakfast cereals for children) was higher in the control group (0,06 against 0,23). A Mann-Whitney test supported this hypothesis (H2b) since it revealed that the two groups are significantly different ($U=1650$; $p = 0,048$ and $U=1657,500$; $p = 0,038$). It was also interesting to observe that the number of influence attempts was not very high because, according to some parents, their children do not ask for chocolate breakfast cereals since they already know that their parents will not buy them (they consider it unhealthy).

Analysing Understanding of the Advertising Presence by the answers of the question "What do you think this is?" the majority of children did not classify the floor advertisement as an advertisement (only 14,3%) and most of them said it was a game (82,5%). Regarding the Understanding of the Advertising Persuasive Intent, only 27,4% of children recognized the selling intent of floor advertising by answering "Buy Chocapic", with some recognizing the consumption intent ("Eat cereals" 17,7%) but the majority thought it was to "Play hopscotch" (46,8%). Nevertheless, the majority of children (53,2%) understood that the advertisement was placed in the store by Chocapic. All in all results suggest that the understanding of the advertising presence and persuasive intent is low, thus supporting H3.

Although there were age differences in both the understanding of the advertising presence (older children 18,6% against 5% of younger children), and the understanding of the persuasive intent (considering only the buy option 45,5% against 15%), these differences were only significant in the second type of understanding ($\chi^2 = 4,546$; $p = 0,033$).

From an ethical point-of-view, the results of this research are very valuable since children in the age range considered do not understand that floor advertising is a type of advertising neither its persuasive intent. Therefore, these conclusions can be helpful for legislators, who should take into account that children are unconsciously exposed to this kind of messages, and companies that target this age group, when selecting their target and the communication-mix.

An explanation for these results can subsist in the fact that the retailing environment is full of colours, brand logos and signs, so perhaps it is difficult for the child to identify floor advertisements and distinguish them from the remaining stimuli. Moreover, according to Ward et al. (1977) the awareness of

the different advertising media increases with the child's age and, therefore, children in this age range may not associate the advertising concept with this kind of advertisements. The fact that the advertisement blended advertisement with a game could also have disguised children into its true intent.

During the observation it was also interesting to notice parents' reactions about the naïve answers of their children. Some of them just laughed while others talked with their children explaining that the advertisement was put there to make them buy the product.

A summary of the results of the hypothesis can be found in Table 2.

Table 2: Summary of Results

<i>Hypothesis</i>	<i>N</i>	<i>Expected impact</i>	<i>Observed impact</i>	<i>Results</i>	<i>Decision</i>
H1: Children's attention	126			p=0,000	Not reject
H2a: Advertisement impact on brand preference	123	0	0	p=0,786; p=0,195; p=0,317; p=0,879; p=0,549	Not reject
H2a: Advertisement impact on brand choice	123	+	+	p=0,042	Not reject
H2b: Advertisement impact on influence attempts	123	+	+	p=0,048 p=0,038	Not reject
H3: Understanding of advertising presence	63	Low	Low	14,3%	Not reject
H3: Age's impact on understanding of advertising presence	63	+	+	p=0,120	Reject
H3: Understanding of persuasive intent	63	Low	Low	27,4%	Not reject
H3: Age's impact on understanding of persuasive intent	63	+	+	p=0,033	Not reject

5 Limitations and Suggestions for Further Research

It is relevant to notice that Chocapic had a different type of replenishment system: instead of single units on shelves, the product was available in a big box over a small pallet (Figure 2). Moreover, Chocapic and other substitute products were, as usual, doing promotions, namely premiums and bonus packages (both control and experimental groups were exposed to the same conditions).

In addition, the advertisement was placed in the cereal aisle and, as some purchases are planned, several consumers only went there to buy a specific brand. Thus, it would be interesting to perform a similar analysis in a high-traffic area, for example a gondola end.

Moreover, the advertisement contained a game and this could have contributed to confuse children. Perhaps if an advertisement with no possible interaction was used, children would have given more correct answers to the question "What do you think this is?". Nevertheless, in this case the objective was to conduct a study with an advertisement that could be really used by a company and it is known that, nowadays, new types of advertisements are being used, particularly in the point-of-purchase, stimulating, for instance, physical contact. Therefore, the purpose was to study a commercial message that can explore the naivety of children and be easily confused with decorative elements or entertainment materials.

Additionally, it would also be interesting to have a sample with a bigger age range, which would include older children, so that we could understand at what age can children detect the advertising presence and persuasive intent. However, the hopscotch may be considered as a childish game and, not so attractive to older children, so the stimulus might have to be changed.

Finally, the advertisement's effect on brand choice was evident mainly on children who already consume the brand. So, it would be helpful to perform a similar analysis but with a brand with a lower market share to better understand the differences.

6 References

- Barrey, S., Baudrin, M., Cochoy, F. (2010). From fun food to fun stores, *Young Consumers*, 11(2), 138-147.
- Benady, D. (2005). Marketing to Look Down On, *Marketing Week*, July 14, 39-40.
- Beresford L. 1997. Floor Show. *Entrepreneur*. March, 36.
- Borzekowski, D. L. G., Robinson, T. N. (2001). The 30-second effect: An experiment revealing impact of television commercials on food preferences of preschoolers, *Journal of The American Dietetic Association*, 101(1), 42-46.
- Buijzen M, Valkenburg PM. 2008. Observing Purchase-Related Parent-Child Communication in Retail Environments: A Development and Socialization Perspective. *Humam Comunication Research* 34: 50-69.

- Chandon, P., Hutchinson, J. W., Bradlow, E. T., Young, S. H. (2009). Does In-Store Marketing Work? Effects of the Number and Position of Shelf Facings on Brand Attention and Evaluation at the Point-of-Purchase, *Journal of Marketing*, 73(6), 1-17.
- Coughlin, R., Wong, T. (2002). The Retail World from a Kid's Perspective, *International Journal of Advertising & Marketing to Children*, 4(1), 3-8.
- Donohue, T. R., Henke, L. L., Donohue, W. A. (1980). Do Kids Know What TV Commercials Intend?, *Journal of Advertising Research*, 20(5), 51-57.
- Ebster, C., Wagner, U., Neumueller, D. (2009). Children's Influences on In-Store Purchases, *Journal of Retailing and Consumer Services*, 16(2), 145-154.
- French, S. A., Jeffery, R. W., Story, M. S., Breitlow, K. K., Baxter, J. S., Hannan, P., Snyder, M. P. (2001). Pricing and Promotion Effects on Low-Fat Vending Snack Purchases: The CHIPS Study, *American Journal of Public Health*, 91(1), 112-117.
- Furber, R. (2001). Missed Floors, *Marketing Week*, April 12, 51.
- Galst, J., White, M. (1976). The Unhealthy Persuader: The Reinforcing Value of Television and Children's Purchase-Influencing Attempts at the Supermarket, *Child Development*, 47(4), 1089-1096.
- Greig, A., Taylor, J., MacKay, T. (2007). *Doing Research with Children*, 2nd ed. Sage Publications: Los Angeles.
- Grossbart, S., Carlson, L., Walsh, A. (1991). Consumer Socialization and Frequency of Shopping with Children, *Journal of the Academy of Marketing Science*, 19(3), 155-163.
- Gunter, B., Furnham, A. (2001). As crianças como consumidoras: uma análise psicológica do mercado juvenile, Instituto Piaget: Lisboa.
- Isler, L., Popper, E. T., Ward, S. (1987). Children's Purchase Requests and Parental Responses: Results from a Diary Study, *Journal of Advertising Research*, 27(5), 28-39.
- John, D. R. (1999). Consumer Socialization of Children: A Retrospective Look at Twenty-Five Years of Research, *Journal of Consumer Research*, 26(3), 183-213
- Kapoor N. 2003. *Television Advertising and Consumer Response: Children Buying Behaviour*. Mittal Publications: New Delhi.
- Kaufman, L., Sandman, P. M. (1983). Countering children's sugared food commercials: Do rebuttals help?, Paper at the 34th Annual Meeting of the International Communication Association, San Francisco, California.
- Lavidge, R. J., Steiner, G. A. (1961). A Model for Predictive Measurements of Advertising Effectiveness, *Journal of Marketing*, 25, 59-62.
- Macklin, M. C. (1987). Preschoolers' Understanding of the Informational Function of Television Advertising, *Journal of Consumer Research*, 14(2), 229-239.
- McNeal, J. (1992). *Kids as Customers*, Lexington Books: Plymouth.
- Moore, P. (2008). The Power of POP, *AdMedia*, March 1, 34-38.
- Oates, C., Blades, M., Gunter, B., Don, J. (2003). Children's Understanding of Television Advertising: a Qualitative Approach, *Journal of Marketing Communications*, 9(2), 59-71.
- Piaget, J., Inhelder, B. (2000). *The Psychology of the Child*. 2nd ed, Basic Books: New York.
- Prentice, K. (2001). How cool, floor ads in store aisles, *Media Life*, November. Available at http://www.medialifemagazine.com/news2001/nov01/nov19/1_mon/news5monday.html.
- Rexha, D., Mizerski, K., Mizerski, D. (2010). The Effect of Availability, Point of Purchase Advertising, and Sampling on Children's First Independent Food Purchases, *Journal of Promotion Management*, 16(1), 148-166.
- Rickard L. 1994. Floor Ads Open Door to Higher Sales. *Advertising Age*. June 27, 53.
- Rossiter, J. R., Bellman, S. (2005). *Marketing Communications: theory and applications*, Pearson/Prentice Hall: New South Wales.

- Rust L. 1993. Observations: Parents and Children Shopping Together: A New Approach to the Qualitative Analysis of Observational Data. *Journal of Advertising Research* 33 (4): 65-70.
- Shim S, Snyder L, Gehrt K. 1995. Parents' Perception Regarding Children's Use of Clothing Evaluative Criteria: An Exploratory Study from the Consumer Socialization Process Perspective. *Advances in Consumer Research* 22: 628-632.
- Shimp, T. A. (2010). *Integrated Marketing Communication in Advertising and Promotion*, 8th ed, international edition, London: South-Western/Cengage Learning.
- UNICEF Evaluation Office (2002). Children participating in research, monitoring and evaluation (M&E) – Ethics and your responsibilities as a manager, Evaluation Technical Notes N°.1, 1-11, UNICEF: New York.
- Ward, S., Wackman, D. B., Wartella, E. (1977). *How children learn to buy*, Sage Publications: Beverly Hills.
- Ward S. 1974. Consumer Socialization. *Journal of Consumer Research* 1 (2): 1-14.