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What distinguishes passive recipients from active decliners of sales flyers?



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ABSTRACT

While sales flyer ad spending in Denmark has increased over the last decade, the proportion of consumers declining to receive such flyers has been ever-increasing. To address this paradox, attitudinal and behavioural factors distinguishing passive recipients from active decliners of sales flyers are examined. The results reveal that decliners compared to receivers are less price conscious and that they perceive flyers as more inconvenient and less useful. Although decliners generally use other media less for deal searching than receivers, they are more inclined to search for grocery deals on the Internet. To reach the decliners, retailers could focus on the possibilities of the Internet, but to stop the trend of escalating numbers of decliners, retailers will have to address the perceived inconvenience and uselessness of sales flyers.

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1. Introduction

In 2010 marketers spent EUR 373m on sales flyer advertising in Denmark. This approximates EUR 301m spent on television advertising the same year (Dansk Oplagskontrol, 2010). From 2004 to 2010 spending on sales flyer advertising increased by 16 per cent, whereas spending on television advertising increased by only 6 per cent. In addition, spending on advertising in daily newspapers and direct mails decreased by 32 and 25 per cent, respectively, in the same period (Dansk Oplagskontrol, 2010). Thus, in spite of the growth in new media and the opposition from environmental activists, but also independent of the financial crisis, which has adversely affected many other advertising media, sales flyers prevail as an important medium. Other studies have reported retailers spending between one third and one half of their marketing budgets on sales flyer promotions (Volle, 1997; Arnold et al., 2001).

One of the explanations for the growth in advertising spending on sales flyers is the parallel growth in the relative power of retailers as compared to FMCG manufacturers. Retailers generally charge manufacturers fees for featuring their promotions in the retailer's sales flyer. In some countries it is more or less institutionalized that

retailers demand that FMCG manufacturers use fixed amounts for advertising in retailer sales flyers and such fees constitute an important source of income for retailers (Miranda and Kónya, 2007). Hence, many FMCG manufacturers perceive this requirement as a hidden 'listing fee' and question whether advertising in sales flyers is worth it. Sales flyer advertising thus represents a latent conflict between retailers and suppliers.

Furthermore, the growing number of households who have registered as non-receivers of sales flyers with the postal authorities poses a threat to the status of sales flyer advertising. Thus, 23.9 per cent of Danish households (Post Danmark, 2012) have the officially approved "no flyers, please" sticker on their letterbox. In comparison, the equivalent proportion reported by Schmidt and Bjerre (2003) was around 10 per cent, hence the proportion of Danish households declining receipt of sales flyers is growing rapidly, with no perceptible trend change in the horizon.

This raises some interesting questions: who are these active decliners of sales flyers? Do they acquire information about price deals and new products in alternative ways? If so, how? For instance, in recent years the Internet has provided consumers with an alternative access to sales flyers, which could reduce the threat of the growing numbers of decliners, depending on who utilises this option. The increasing environmental burden of sales flyers has raised a public debate in Denmark concerning the effort involved in declining sales flyers. Thus it has been suggested that the load ought to be reversed. Hence, receipt of sales flyers should require an active opt-in by those consumers who wish to receive them instead of an opt-out for those who do not wish to receive

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them. With an opt-in solution the number of decliners most likely will increase as some of the present passive recipients of sales flyers probably will not go through such extra efforts. This too raises some interesting questions: what characterises the passive receivers of sales flyers? How do they use sales flyers? How do they differ from decliners?

Answers to these questions can provide retail managers with insights into how they can deal with the threat of the downward tendency and optimise their use of sales flyers and other media in the future. For instance, knowledge of how decliners use other media to keep informed about promotions, new products and store openings might provide retailers and manufacturers with an alternative route to communicate with the declining segment. Distinguishing receivers and decliners of sales flyers is also important as this may provide input to new strategies as regards retailers' use of this media. Is it, for example, possible to reverse the drop in receivers by adapting the sales flyer concept? Can retailers and manufacturers approach the decliners in other ways?

To summarise, the main objective of the study presented below is to examine what distinguishes passive recipients from active decliners of sales flyers, and thus also to characterise the two different segments. Furthermore, we examine receivers' use of sales flyers.

Research on consumer perceptions of, attitudes towards, and use of sales flyers is relatively limited. In addition, most of what is known is not research-based but could be characterised as industry studies carried out by marketing agencies (e.g., Gallup and GfK) on behalf of retailers or manufacturers (Schmidt and Bjerre, 2003). In relation to this, Burton et al. (1999) argue that there is a lack of research examining characteristics of consumers who consciously choose to be exposed to sales flyers. Since the study by Burton and colleagues, only two studies (Miranda and Kónya, 2007; Schmidt and Bjerre, 2003) have addressed consumer attitudes and behaviour towards sales flyers.

Schmidt and Bjerre (2003) identified three clusters of consumers with different attitudes towards sales flyers; however none of them were solely composed of active decliners of sales flyers. When characterising shoppers' tendency to purchase items as a result of their appearance in the sales flyer, Miranda and Kónya (2007) excluded almost one-third of the respondents from their original sample due to these respondents reporting to trash the sales flyers on receipt. Hence, Miranda and Kónya were forced to ignore this large and interesting flyer-trashing segment. Based on this they state: "Even so it would have been instructive to find out whether this cohort had some common features as those who read flyers..." At least part of the flyer-trashing segment would be likely active decliners of sales flyers if they had such an option.

No research therefore exists that deals with the differences between recipients and decliners of sales flyers. To fill this research gap we applied a matched sample survey with 1032 respondents (50/50 recipients and decliners of weekly sales flyers) in order to examine consumer attitudes and behaviours toward sales flyers. A discriminant analysis was carried out to examine the discriminative effect of price consciousness, environmental concerns, dispersion of store patronage, deal information processing from other media, deal-related behaviour, shopping behaviour, attitudes towards sales flyers, and demographics.

2. Background

Various terms have been used when referring to 'flyers': store flyers, circulars, leaflets, feature, weekly grocery advertisement, and sales flyer. We use the latter term, sales flyer. Danish retail advertisements mainly cover weekly sales flyers with price specials, new products, recipes, and other information. Today, all major Danish FMCG retail chains (even discounters) distribute

sales flyers every week to private households. In addition, it is now possible to read sales flyers online either as a supplement to the distributed version (e.g., if distribution failed or was delayed) or as an alternative to the distributed version.

2.1. Receiving and declining sales flyers

It has been estimated that each Danish household receives 60 kilos of sales flyers annually. This has resulted in a growing number of consumers declining to receive sales flyers. These households order a standard sticker saying "no flyers, please" and place it on their letterbox to inform distributors to ignore their letterbox, which is consumers' legally instituted right in Denmark. Thus, to decline receipt of sales flyers consumers must make an active effort. On the other hand, if consumers do nothing they will receive these sales flyers, even if they do not read them, i.e. they will stay passive receivers.

Danish consumers are not unique when it comes to declining to receive sales flyers. Similar initiatives exist in other countries such as the US and the UK, where direct marketing associations have created mail preference lists through which consumers can decline to receive certain categories of flyers or decline to receive any type of marketing material (Mailing Preference Service, 2012; DMAchoice.org, 2012). Much like the Danish system, the mail preference lists only protect consumers against marketing material from companies who are members of the association, which means that consumers may still receive some forms of uninvited promotions from small local businesses. On the other hand, US consumers are better protected from unwanted promotion as it is unlawful to place any item, including sales flyers, in a US mailbox without postage being paid,³ and US consumers can furthermore protect themselves using 'no soliciting' signs. Thus, in many ways the Danish situation is comparable to that of other countries, the main difference being the sheer amount of sales flyers distributed to Danish consumers each week, which results in a rather large proportion of decliners of this advertising media.

2.2. Previous research related to sales flyers

Studying sales flyers is part of the pre-store search activities that may take place for a number of reasons: comparison of prices between retail chains, bargain hunting, aid in writing a shopping list, and ultimately deciding which store to shop at (e.g., Avery, 1996; Urbany et al., 1996). In relation to this, Inman and Winer (1998) found that 'feature prone' consumers are more likely to plan their purchase before the store visit. From a cost-benefit point of view (Stigler, 1961), pre-store search activities should be negatively related to in-store search activities. However, rather than information substitution, research has demonstrated information complementarity in that consumers, reporting to have used the sales flyer to choose a particular item, also report actively searching for prices in-store (Avery, 1996; Dickson and Sawyer, 1990; Jensen, 2001).

Previous studies of consumers' perceptions of and behaviour in relation to sales flyers have focused on diverse aspects. In one of the most recent studies, Miranda and Kónya (2007) examined what influences whether or not consumers purchase grocery products in response to the products being featured in sales flyers. They found a positive effect of shopping frequency and the perceived importance of staying informed of price specials, the latter approximating deal proneness. In addition, Miranda and Kónya's results indicate that shoppers who look forward to receiving sales flyers, i.e. flyer-seeking shoppers, are more likely to purchase items featured in the sales flyer

³ 18 U.S.C. Section 1725: US Code – Section 1725: Postage unpaid on deposited mail matter.

than those who do not. Miranda and Kónya reported that less than half of the respondents looked forward to receiving the sales flyers, but in reality this proportion was lower. Thus, 31.5 per cent of the respondents from the original sample conceded not reading the sales flyers and trashed them on receipt. The authors excluded this segment from the data analysis, although they would have been part of the segment not looking forward to receiving sales flyers. As a result, Miranda and Kónya were not able to characterise a large and interesting segment of consumers and at least part of this flyer-trashing segment would be likely active decliners of sales flyers.

In a study of Danish grocery shoppers, Schmidt and Bjerre (2003) examined whether sales flyer recipients could be segmented and they identified three clusters: a flyer-prone, a moderately flyer-prone, and a flyer-sceptic cluster. Thus, they show that consumers' attitudes towards sales flyers vary considerably, e.g. with regard to whether sales flyers ought to be banned and whether they help consumers get ideas on what to buy. However, at least 40 per cent of the members of each cluster, including the flyer-sceptic ones, reported reading all sales flyers received. Consequently, they were not able to identify and characterise a segment of decliners of sales flyers.

Burton et al. (1999) examined whether exposure to sales flyers correlates with consumers' subsequent purchase behaviour and found that consumers exposed to sales flyers, on average, purchase twice as many featured items and spend twice as much on these items as those not exposed to sales flyers. In their study, exposure was operationalized based on the consumer's self-report of having read the sales flyer or not; around one-third of shoppers reported being non-readers. Burton and colleagues also examined demographic and attitudinal characteristics of readers and non-readers of sales flyers, and they found price consciousness to be the strongest predictor of whether or not consumers choose to read the sales flyer. In addition, the authors found a significant positive effect of deal proneness. Finally, older consumers were more likely readers, while consumers with less education were less likely readers of sales flyers.

2.3. Studies on sales effects of feature advertising

Using sales flyers to increase store traffic and sales is undoubtedly a popular and pervasive tactic among retailers. However, past research has demonstrated mixed effects of sales flyers on store traffic and sales with some studies finding limited or no effect of sales flyers (Walters and MacKenzie, 1988; Burton et al., 1999; Volle, 1997) while others have demonstrated positive effects (e.g., Gijbrecchts et al., 2003; Dhar et al., 2001; Allenby and Ginter, 1995; Zhang, 2006). One possible explanation of the mixed findings could be that sales flyers on average only have a limited effect on store traffic and sales. Once the main effect of sales flyers is broken down into interaction effects, it becomes clear how flyers affect store traffic and sales.

Such interaction effects were demonstrated in the study by Gijbrecchts et al. (2003); they identified several flyer characteristics that jointly determine whether the flyer affects store traffic and sales. The authors showed that large store flyers tend to increase store traffic and sales but only in a small segment of stores. Furthermore they found that flyers offering deeper deals, have a larger allocation to food categories, and more private label promotions are also more successful in attracting store traffic and increasing sales. Other interaction effects were demonstrated by Dhar et al. (2001) who showed that feature ads increase store and category traffic but only for categories with high penetration and purchase frequency.

The importance of sales flyer characteristics has also been demonstrated by Pieters et al. (2007) who showed that bigger is better when it comes to capturing and maintaining consumer

attention. More specifically, a one per cent increase in the surface size of a feature ad leads to a .57 per cent increase in the odds ratio of consumers fixating the ad. In a later study by Zhang (2006) attention to feature ads was furthermore shown to directly affect store sales meaning that feature ads that are more successful in attracting and maintaining consumer attention are also more likely to affect store sales.

Overall, there is strong evidence that sales flyers are a useful tool for marketers when it comes to increasing store traffic and sales although the success of sales flyers depends entirely on factors such as the products and categories advertised, the size of the price promotion, the price promotion strategy, the size of the feature ad, and the amount of private label promotions.

3. Methodology

3.1. Participants and design

The study used a sample of 1032 Danish consumers who were household responsible for receiving or actively declining to receive sales flyers. The participants were recruited from an existing ongoing market research panel of 35,000 Danish consumers available through a large Danish commercial vendor (Wilke A/S). The distribution of this panel closely follows the population distribution on several important demographic variables such as gender, age, educational level, and geographical region.

The study was carried out online and the recipients ($N=516$) and decliners ($N=516$) of sales flyers were matched with regard to age and education thus diminishing the likelihood that any observed attitudinal or behavioural differences between recipients and decliners could be accounted for by unbalanced demographic variables.

3.2. Measures

The dependent measure, declining to receive sales flyers (yes/no), was based on respondents' self-reported status for their household. Unlike for other types of self-reported data the risk of biases should be minimal. First of all, it is unlikely that respondents will misremember their status and second, it seems unlikely that the responses should be influenced by demand effects such as social desirability. In order to discriminate between recipients and active decliners of sales flyers, the survey included a scale measuring price consciousness (Lichtenstein et al., 1993), a scale measuring environmental concern (adapted from Wesley Schultz, 2001), questions about the dispersion of store patronage, a battery of questions measuring consumer attitudes towards sales flyers, questions measuring tendency to purchase deals after processing deal information from other media, questions related to deal behaviour, Internet grocery shopping behaviour, shopping frequency, and consumer demographics.

3.2.1. Price consciousness

Consumers' motivation to search for and process price information may reflect their price involvement (Celsi and Olson, 1988), which entails several components (Lichtenstein et al. 1993) including price consciousness. The term price consciousness refers to various price-related cognitions in previous research (Zeithaml, 1984). We apply Lichtenstein et al.'s definition (1993) such that for our study, price consciousness refers to the degree to which the consumer focuses on paying lower prices. Consequently, the measure of *price consciousness* was developed on the basis of Lichtenstein et al. (1993) and included five items measured on a five-point Likert scale (1=completely disagree, 5=completely agree). The scale has previously been validated (Lichtenstein

et al., 1993) and principal component analysis revealed the expected pattern with high reliability (Cronbach's alpha = .89).

3.2.2. Environmental concerns

Desk research indicated a possible link between environmental concerns and reluctance to receive sales flyers. In addition, the public discussion on an opt-in versus an opt-out system also centres on environmental issues. In order to encompass environmental attitudes, a measure of environmental concerns was adapted from Wesley Schultz (2001) containing twelve five-point Likert items (1=completely disagree, 5=completely agree). The principal component analysis revealed two components with high reliability: *nature-related environmental concerns* (Cronbach's alpha = .95) and *people-related environmental concerns* (Cronbach's alpha = .93).

3.2.3. Dispersion of store patronage

In order to capture potential effects of behavioural loyalty towards retail outlets, a measure of store patronage dispersion was included in the survey. Consumers were presented with a list of Danish retailers and asked to select all the stores from which they had bought their groceries within the last three months. Next, an individualised list of stores was presented and consumers were asked to divide 100 points between the stores according to how much money they had spent in each store. Based on the distribution of store points a Herfindahl index was calculated for each consumer ($M = .41$, $SD = .21$). A high Herfindahl index indicates a small dispersion of store patronage and thus a higher behavioural loyalty towards one retail outlet.

3.2.4. Deal information processing – other media

Consumers sometimes use other media actively or passively to gain insight into weekly specials including TV commercials, newspapers (daily), and local newspapers (weekly). However, such media differ from sales flyers as they are generally read for other purposes, thus the retailers' weekly specials are often just processed passively (i.e., by chance or unconsciously). We included three five-point Likert items (1=completely disagree, 5=completely agree) measuring tendency to purchase deals after processing deal information from other media (TV, daily and weekly newspapers). Principal component analysis revealed one component with high reliability (*Other media*: Cronbach's alpha = .84).

3.2.5. Deal-related behaviour

Contrary to deal information processing from other media, processing of deal information on the Internet almost always involves active deal search behaviour. The variable *Internet deal search* was included to examine whether consumers substitute or complement sales flyers by actively searching for grocery deals on the Internet. Sales flyers may also be read in-store and therefore we included a question as to *in-store flyer reading*. In addition, we measured consumers' interest in deals when shopping for groceries with the item *deal-uninterested*, which approximates (reversed) deal proneness in a single item. Each of these deal-

related behaviour items were measured on a five-point Likert scale (1=completely disagree, 5=completely agree).

3.2.6. Shopping behaviour

We also included one five-point Likert item (1=completely disagree, 5=completely agree) measuring the consumer's tendency to purchase groceries online as this represents a new convenient opportunity for grocery shopping, which could reduce the need to read sales flyers. In addition, grocery-shopping frequency was measured.

3.2.7. Consumer attitudes towards sales flyers

The final battery of questions measuring consumer attitudes towards sales flyers consisted of 14 items measured on a five-point Likert scale (1=completely disagree, 5=completely agree). The items were selected based on prior desk research of existing industry research and through interviews with key industry contacts. Based on this, we identified a pool of items, which were included in the study after pretesting. In preparation for the discriminant analysis we ran a principal component analysis on the items measuring sales flyer attitudes to reduce data complexity and avoid multi-collinearity problems (see the Appendix). Thus after assessing reliability and validity of the originally included items, resulting in removal of a few items, we ended up with the 14 items presented in the Appendix. The analysis produced four components: perceived usefulness of sales flyers (*Flyer usefulness*: Cronbach's alpha = .86), perceived inconvenience associated with sales flyers (*Flyer inconvenience*: Cronbach's alpha = .77), sales flyers regarded as entertainment (*Flyer entertainment*: Cronbach's alpha = .80), and perceptions that sales flyer reading lead to excessive consumption (*Flyer excessive consumption*: Cronbach's alpha = .80). We therefore used the factor scores of these four components in the discriminant analysis.

3.2.8. Demographics

Finally, we used three demographical variables as control variables, including *gender*, *household size*, and *income*. Age and educational level used as matching variables for the data collection excluded them from the discriminant analysis.

4. Results

4.1. Use of sales flyers

Besides the measures mentioned above, sales flyer recipients also answered a number of questions related to the use of sales flyers. Although these consumers are passive receivers, the vast majority read sales flyers at least once a week according to Table 1. Most recipients of sales flyers stated that they use flyers on a regular basis (at least several times a month) to search for products (deals) and to plan their shopping trip. However, some uncertainty exists about these numbers as some consumers could be unaware that they buy products after noticing them in a sales flyer or perhaps even use them unconsciously to choose their

Table 1
Use of sales flyers.

	Never (%)	About once a month (%)	Several times each month (%)	About once a week (%)	Several times each week (%)
How often do you read sales flyers?	1.4	9.2	10.4	58.3	20.7
How often do you search for particular products in sales flyers?	12.8	27.2	17.5	34.7	7.8
How often do you use sales flyers as entertainment?	40.9	15.7	9.6	27.9	5.9
How often do you buy products after seeing them in sales flyers?	2.4	26.3	26.2	31.9	13.2
How often do use sales flyers to plan where to shop?	11.1	26.6	18.3	33.0	11.0

Table 2
Classification results.^a

		Do you receive weekly store flyers?	Predicted group membership		Total
			Yes	Decline	
Original	Count	Yes	415	101	516
		Decline	95	421	516
%		Yes	80.4	19.6	100.0
		Decline	18.4	81.6	100.0

^a 81.0% of original grouped cases correctly classified.

Table 3
Standardized canonical discriminant function coefficients.

	Function
Household size	-.143
Shopping dispersion	.105
Flyer usefulness	-.339
Flyer inconvenience	.652
Flyer entertainment	-.239
Flyer excessive consumption	.336
Price consciousness	-.119
Other media	-.468
People environmental concerns	.139
Internet deal search	.353
In-store flyer reading	.211

shopping destinations. On the other hand, demand characteristics may also lead respondents to report higher use of sales flyers than what is actually the case. Interestingly, a large segment (33.8%) also report using sales flyers for entertainment purposes.

4.2. Discriminant analysis of recipients versus decliners of sales flyers

To determine what distinguishes passive receivers from active decliners of sales flyers, a stepwise discriminant analysis was applied. Hence, we establish a relationship between the independent variables (described in Section 3.2) in terms of their relative importance, and the dependent variable (receiving (0) or declining (1) sales flyers). Wilk's lambda tested the discriminant function for statistical significance and according to this test an overall significant function exists ($\chi^2 = 554.8, p < .0001$), which indicates that there is a significant difference between the two groups across all the independent variables.

According to Table 2, the overall predictive accuracy of the discriminant function is 81.0 per cent, which is a significant improvement in comparison with the odds of correct prediction by chance (50%). In addition, the canonical correlation of the discriminant function is .647, which is high enough to consider the predictive power as acceptable.

Table 3 lists the standardized discriminant function coefficients.⁴ Accordingly, no discriminating effects of *income* or *gender*, or of *shopping frequency*, *nature-related environmental concerns* or *online grocery shopping* were found. In addition, the single-item (reverse scored) deal proneness variable, *deal uninterested*, was unable to discriminate between passive receivers and active decliners of sales flyers.

⁴ The lowest tolerance level reported in the SPSS output is .666 (Other media), thus indicating low risk of the results being affected by multicollinearity (the highest correlation between the explanatory variables is $-.48$).

Table 4
Structure matrix.

	Function
Flyer inconvenience	.616
Other media	-.548
Price consciousness	-.380
Flyer usefulness	-.311
Flyer excessive consumption	.236
Deal uninterested ^a	.235
Flyer entertainment	-.183
Household size	-.163
Shopping dispersion	.135
Internet deal search	.108
In-store flyer reading	-.093
People environmental concerns	.087
Shopping frequency ^a	-.042
Nature environmental concerns ^a	.032
Income ^a	-.027
Gender ^a	.021
Online grocery shopping ^a	.013

Notes: Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions; Variables ordered by absolute size of correlation within function; Substantial effects (Hair et al., 2010) are marked in bold.

^a Variable is not used in the analysis.

The structure matrix in Table 4 indicates the ranking of discriminating power between the explanatory variables included in the discriminant analysis. As loadings with a value of at least .30 can be considered substantial effects (Hair et al., 2010), Table 4 illustrates that the variables that most strongly discriminate recipients from decliners of sales flyers are *Flyer inconvenience* (the higher the perceived inconvenience of sales flyers, the more likely the refusal), *Other media* (the higher the tendency to purchase deals after processing information from other media, the less likely the decline of sales flyers), *Price consciousness* (the more price conscious, the less likely the decline), and *Flyer usefulness* (the higher the perceived usefulness of sales flyers, the less likely the decline).

In addition to these substantial effects, the results also indicate that consumers who believe flyer reading leads to excessive consumption (*Flyer excessive consumption*), who do not regard flyer reading as entertainment (*Flyer entertainment*), who come from small households (*Household size*), who shop in fewer stores (*Shopping dispersion*), who search for grocery deals on the Internet (*Internet deal search*), who do not read flyers in-store (*In-store flyer reading*), and who are concerned about environmental problems due to their potential consequences to people (*People environmental concerns*) are more likely decliners of sales flyers.

5. Discussion, implications for retailers, and further research

We have explored what distinguishes passive recipients from active decliners of sales flyers and also examined how recipients use flyers. We found relatively frequent reading and extensive use of sales flyers given that the recipients do not actively acquire them. In addition, the results suggest that flyer reading can be perceived as entertaining seeing that a rather large segment of sales flyer receivers reported using them for entertainment. In support of this, *Flyer entertainment* also emerged as a significant predictor in the discriminant analysis, which is contrary to Miranda and Kónya's (2007) results, as these indicated most shoppers only read sales flyers for information on price specials. Nevertheless, the most prominent discriminators were more rational, including the usefulness of sales flyers (e.g., for inspiration, planning, and saving money), price consciousness, and the

inconvenience associated with them (e.g., getting rid of them and the mess they make). Negative sales flyer attitudes related to the inconvenience in terms of storage and disposal have the highest predictive power, while environmental concerns are of less importance; nature-related environmental concerns do not even enter the discriminant function.

One of the more surprising results was the inability of *Deal uninterested* to discriminate between recipients and decliners of sales flyers. Previous sales-flyer related research has found a positive effect of deal proneness on consumer use of sales flyers (see e.g., Burton et al., 1999; Miranda and Kónya, 2007) and based on this, we would also have expected a significant positive effect: the less deal interested (i.e., deal uninterested), the more likely consumers actively decline sales flyers. Some of this effect, though, may have been captured by *price consciousness* which had a significant negative effect (the more price conscious, the more likely a consumer will decline sales flyers). Hence, the correlation between *deal uninterested* and *price consciousness* is $-.48$; with the latter of the two having the highest univariate discriminant power as well. This is in line with Burton et al. (1999) who found price consciousness (measured by approximately the same scale) to be the strongest predictor of whether consumers choose to be exposed to sales flyers or not. The lack of discriminative power of *deal uninterested* could also be explained by the fact that a segment of the decliners in fact exhibit some deal interest (see discussion on Internet deal search below).

The substantial negative effect of *Other media* indicate that decliners do not substitute sales flyers with TV commercials and local or national newspapers to gain insight into weekly specials. In addition, this result suggests a certain level of information complementarity: if you receive sales flyers, you may also be more inclined to seek deal information from other media. The same pattern emerges for *In-store flyer reading*, thus also indicating information complementarity; recipients of sales flyers appear to be more likely to grab a sales flyer while shopping, e.g. to use it as a reminder when picking up the offer, than decliners of sales flyers. This effect may, however, also be ascribed to some of the recipients forgetting to or deliberately not reading sales flyers before entering a store. We did not measure involvement and one could argue that recipients of sales flyers will not decline receiving them because they are generally more prone to seek deal information in sales flyers and other media due to a higher degree of purchase involvement. However, if this was the case one would also expect such behaviour to continue online, which is not the case.

Thus, interestingly, we find a positive effect of *Internet deal search*. Hence, decliners of sales flyers are more inclined to search for grocery deals on the Internet, which suggests a degree of information substitution among decliners. Actually, 36.1 per cent of decliners completely agree or agree that they often search for grocery deals on the Internet, i.e. they read the online versions of the sales flyers. Perceived inconvenience of receiving sales flyers might have made this segment decline such flyers in the first place, though at least some of them may still be interested in specials. This is also evident from addressing decliners' deal interest, thus almost half of them (49.7%) completely disagree or disagree with the statement: "I am not interested in specials when shopping for groceries": the mean being 3.22 (SD 1.17).

In fact, future analysis of decliners and receivers of sales flyers may benefit from further dividing them into subgroups. First, the discussion above suggests at least two subgroups of decliners: those who decline due to perceived inconvenience and/or environmental concerns and those who decline because they are indifferent to specials and what else sales flyers have to offer (i.e. usefulness). Second, receiving sales flyers requires no active effort, and thus the group of passive receivers may include (a) people who use the sales flyers actively for planning their shopping, some even use them for entertainment, but also

(b) people who are indifferent to sales flyers, however reluctant to engage in any effort to avoid receiving them. The results reported in Table 1 seem to support such a division as use of weekly sales flyers vary from extensive to quite restricted.

5.1. Implications for retailers

The increased sales flyer spending and the growing number of households declining physical sales flyers clearly pose a threat to the status of sales flyers and hence to brick and mortar as compared to online retailers. Brick and mortar retailers employ sales flyers to communicate with customers, to create store traffic, and as an additional source of income (i.e., from the fee charged to FMCG manufacturers). Both manufacturers and retailers have started to question the benefits from spending a substantial proportion of their advertising budget on sales flyers, which are distributed to a decreasing number of households. The results from this study uncover opportunities for retailers and manufacturers as to how to approach this problem.

Among passive receivers of sales flyers we found relatively frequent reading and extensive use of this medium, thus indicating they are not a complete waste of manufacturers' money. Passive receivers may be convinced not to decline receipt and to increase reading of sales flyers by adapting the individual sales flyers, for instance, by making them more entertaining and increasing their usefulness, including new inspiration and alert of one-day bargains. Our results also suggest that in order to curb the trend retailers are well advised to address the perceived inconvenience of sales flyers, for instance, by reducing the amount of print material, though individual retailers' decisions to do so probably will not make a huge difference. If retailers however collaborate in some way to reduce the inconvenience associated with sales flyers they may stand a chance of reversing the trend. Such collaboration might include a service to collect the resulting waste, a mutual decision to restrict print material, or a system where consumers could choose who they want to receive sales flyers from. As the latter option would both reduce the waste and inconvenience and maximise the usefulness of the sales flyers, this may represent the most promising opportunity. Regardless of whether retailers choose this or one of the other options it will involve considerable costs. The cost of doing nothing, however, could be losing a channel to communicate with consumers as well as considerable incomes from manufacturer fees.

It is implausible that a system of selective declination represents a panacea to the problems of the sales flyer media, but such a system may be able to (at least temporarily) stop the negative trend. Thus in line with our recommendations, industry research conducted by IUM Research in Denmark (Dansk Handelsblad, 2011), revealed that consumers want to have the opportunity to decline only certain types of sales flyers (e.g., only receive from supermarkets, excluding DIY retailers etc.). According to the same study, one-third of decliners of sales flyers would actually reverse their decision to generally decline, if they were given such an opportunity.

The question of how to approach the segment already having declined sales flyers remains. The results suggest that increasing flyer ad spending (volume, not quality) will only lead to more decliners and that decliners might be hard to reach using other non-web vehicles – besides not receiving sales flyers, they are less likely to read them in-store as well as search for deals in most other media. The notable exception is the Internet, which provides marketers with an alternative route to reach decliners, as they are more prone to search online for grocery deals. Online sales flyer reading relieves these consumers from inconveniences associated with waste and mess while storing flyers indoors. In addition, they get the freedom of choosing exactly which sales flyers they want to read (on the mobile, Ipad, or laptop). However, in order to reach decliners, retailers have to realise that online sales flyers is a pull

medium which creates other demands on the design and options available compared to physical sales flyers in order to attract decliners. Still, a segment of decliners is out of reach, as they are indifferent to deals and other issues related to sales flyer usefulness.

5.2. Limitations and further research

We chose to match the sample with regard to age and educational level to diminish the likelihood that any observed attitudinal or behavioural differences between recipients and decliners could be accounted for by unbalanced demographical variables. Results on age in the sales flyer literature have been mixed; Burton et al. (1999) find a positive effect, Miranda and Kónya (2007) find no effect, while Schmidt and Bjerre (2003) find a negative effect of age on sales flyer attitude. However, with regard to education previous research generally indicates a negative effect. In the study by Burton et al. amount of education was negatively related to advertising flyer exposure, while members of the flyer sceptic cluster in Schmidt and Bjerre's study, on average, were less educated, thus suggesting we might have found a negative effect of educational level if it had been included as a variable in the present study. The negative effect could be linked to consumers' persuasion knowledge improving with educational level thus making consumers better capable of interpreting and coping skilfully with persuasion agents' (i.e., retailers and manufacturers) attempts to influence their choices through advertising, including sales flyers (Friestad and Wright, 1994). On the other hand, educational level also correlates with income level and we find no effect of income in our study, nor did Miranda and Kónya find an effect of the related variable employment in their study. This is in line with what we find in the price knowledge literature (e.g., Vanhuele and Drèze, 2002; Wakefield and Inman, 1993); when including several variables more closely linked to the subject of interest, demographics often show no or only weak effects. Hence, although the exclusion of educational level and age could be perceived as a limitation in this study, we believe it to be of less importance compared to gaining insights on attitudinal and behavioural differences between passive recipients and active decliners of sales flyers.

Another limitation of this study related to the sample is that it consists of Danish consumers only. Although the Danish situation

is similar to that of other countries with regards to the possibilities for declining to receive sales flyers Danish consumers receive more sales flyer materials than consumers in most other countries. Also, contrary to that of US and UK the opt-out system for declining sales flyers is publicly administered. These differences as well as cultural factors could affect attitudes and behaviours towards sales flyers and future studies should therefore try to replicate the study using inter-cultural samples.

Another interesting possibility for future studies is to examine how receiving or declining to receive sales flyers affect attitudes and behaviours. Due to the nature of the data this study cannot establish causal effects of receiving or declining to receive sales flyers on, for instance, store loyalty or price consciousness. It is clear from the data that strong associations exist between recipients and decliners of flyers and certain attitudes and behaviours and a logical next step would be to show whether consumers receive sales flyers because they are price conscious or become price conscious because they receive flyers.

Furthermore, future studies should try to segment recipients into passive and active recipients based on whether they read or trash the flyers. Miranda and Kónya (2007) have previously called for research that could address what messages to include in flyers to consumers who trashes them on receipt and those who do not look forward to receiving sales flyers. An opportunity still exists for future research to target messages and offers that are particularly attractive for either segment. In relation to our suggestion of dividing decliners into two, we also call for research on the role of other media, particularly the Internet, in consumer decision making for the segment that appears to decline due to perceived inconvenience and/or environmental concerns, for instance through a qualitative study of the segments' underlying motivations and online behaviour.

Finally, future studies should try to obtain data on revealed preferences such as actual sales data and if possible link this to pre- and post periods in which consumers have chosen to receive or decline flyers. Such a field experiment would have a high external validity, could provide strong input for retailers' future flyer strategies and furthermore help establish causal effects of receiving sales flyers on consumer attitudes and behaviours.

Appendix. Principal component analysis of attitudes towards sales flyers: rotated factor pattern after varimax rotation.

Items	Flyer usefulness	Flyer inconvenience	Flyer entertainment	Flyer excess consumption
<i>If you receive sales flyers...</i>				
...you are informed about new products	.79	-.02	.16	.01
...you save a lot of money	.72	-.24	.05	-.16
...you get inspiration for new recipes	.72	-.01	.18	-.02
...you become better at planning your grocery shopping	.70	-.29	.14	.02
...you get inspired to eating new things	.65	-.17	.21	.26
...you are able to recall the deals when shopping	.65	-.29	.22	-.02
...it is easier to discuss what to buy next week	.58	-.20	.39	-.01
...it creates trouble when you have to throw them away	-.16	.82	-.09	.12
...they make a mess of your home	-.14	.79	-.02	.17
...most often you throw them away without reading them	-.31	.71	-.26	.08
...it is a pleasant diversion	.25	-.08	.88	.06
...you are well entertained	.32	-.16	.81	-.01
...you tend to buy more unhealthy products	.01	.13	-.03	.90
...you buy more products you don't really need	.01	.18	.08	.88
Cronbach's alpha	.86	-.77	-.80	-.80

Notes: Loadings in boldface indicate the items that load the highest on each component.

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