The Choice between Front-Loaded and Rear-Loaded Coupons for New Brands

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Abstract

The paper compares the effectiveness of front-loaded coupons and rear-loaded coupons for new product market entry, by considering the existing brand’s promotion choice at the same time. Two experimental studies consistently show that for the new brand front-loaded coupons can lead to higher purchase intention and promotion appraisal than rear-loaded coupons. Moreover, the effect is more prominent when the existing brand carries no promotions or use rear-loaded coupons. These studies provide important implications on promotional type and timing decisions for new product market entry.

Keywords: front-loaded coupons, rear-loaded coupons, new brand, market entry

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New products and brands emerge rapidly, especially in the daily necessity market. For example, a record 20,031 food and beverage products were introduced in 2006, according to Datamonitor, a leading international supplier of information on new packaged products (Martinez 2007). For the new players, it is crucial to build up brand recognition in consumers’ minds quickly. The existing brands have already occupied some market positions, and accordingly taken certain share of mind among existing consumers. Therefore, a new brand often uses sales promotions, which are relatively easy to implement and tend to have immediate effects (Hanssens, Parsons, and Schultz 2001; Pauwels et al. 2004), to proceed in a competitive market and gain consumer awareness and boost demand (Blattberg and Neslin 1990).

How to choose among various promotional vehicles, such as sweepstakes, coupons, time-limited price discounts, free gifts or samples, special events, displays, membership rewards, consumer-directed promotions, is an important concern for marketing managers (Gelb, Andrews, and Lam 2007). Previous studies have suggested some factors of the offer, attitudinal variables, and personal characteristics for a better understanding the effectiveness of a promotion (e.g., Chandon, Wansink, and Laurent 2000; d’Astous and Landreville 2003; Krishna, Currim, and Shoemaker 1991). An important aspect of this choice is to decide whether to use immediate or delayed value promotions (Quelch 1989). Immediate promotions or front-loaded incentives, such as direct mail coupons, price packs, FSI coupons, peel-off coupons, can provide consumers with an immediate benefit upon purchase. However, delayed value promotions or rear-loaded incentives require repeated purchase and consumer can only be rewarded on next purchase with former on-pack coupons or in-pack coupons etc. (Zhang, Krishna, and Dhar 2000).

The extant literature on the choice between front-loaded promotions and rear-loaded promotions is rare. Previous econometric or game theoretic-studies have examined how the choice between front-loaded or rear-loaded promotions can influence long-term brand sale and profitability, and whether the effect is dependent on the baseline market share, or dependent on whether the category is variety-seeking or inertia-proneness (Dhar, Morrison, and Raju 1996; Zhang, Krishna, and Dhar 2000). d’Astous and Jacob (2002) explanatorily compare the favorability of direct premiums and delayed premiums in a survey study. Given that promotions are extensively used to attract consumers for new product market entry, a practical while ignored topic is which are more effective, front-loaded incentives or rear-loaded incentives. In a dynamic and competitive market environment, when facing a new brand’s “attack”, it is less likely to remain inaction for an ordinary existing brand.

Consequently, another imminent question is whether the new brand market entry promotional choice is contingent on existing brands’ promotion choice. Answering these questions can provide great insights for the choice and design of new product promotions. We aim to look into these problems in coupon usage, given the popularity of coupons as an important promotion vehicle for both manufacturers and retailers (NCH Marketing 2004). The paper takes a behavioral perspective and tests the hypotheses by two controlled experiments.

**Hypothesis Development**

Front-Loaded and Rear-Loaded Promotions
Raju, Dhar, and Morrison (1994) examine the relative effects of the three package coupon types, peel-off coupons, on-pack coupons, and in-pack coupons, on market share by Markov stochastic choice model. Peel-off coupons, a kind of front-loaded incentives, must be redeemed on the same purchase occasion on which they are obtained. The latter two can be classified as rear-loaded incentives. On-pack coupons are obtained at one purchase occasion and can only be redeemed for a discount on the couponed brand at a future purchase occasion. In-pack coupons are similar to on-pack coupons except that the consumer is unaware of the presence of these coupons when the product is purchased (printed or placed inside the package). The analytical and empirical results suggest somewhat counterintuitive results that on-pack coupons can lead to a higher market share than peel-offs.

Dhar, Morrison, and Raju (1996) extend the analytical framework to study the relative impact of package coupons on profits. The analytical and empirical results suggest that when on-pack coupons lead to larger market share than peel-offs, they can lead to higher profits. For stronger brands, even when on-packs lead to a lower market share than peel-offs, they can still lead to higher profits. Furthermore, peel-offs lead to a higher market share than in-packs, because in-packs stimulate repurchase among previous buyers, they lead to higher profits than peel-offs; though only for stronger brands.

Based on these works, Zhang, Krishna, and Dhar (2000) study in both variety-seeking and inertial markets, how front-loaded incentives and rear-loaded incentives influence consumers’ brand choice process. The equilibrium market share, purchases made on discount and profits for the promoted brand are derived from the long-run choice probabilities Markov model. Results show that while in both variety-seeking and inertial markets the overall sales impact and the sales on discount are higher for front-loaded promotions than for rear-loaded promotions, the relative advantage of front-loaded promotions depends on the degree of variety-seeking and inertia. From the profitability perspective, however, rear-loaded promotions are better than front-loaded promotions in variety-seeking markets, and front-loaded promotions are more profitable in markets with high inertia.

**Choice of Promotions for New Brand Market Entry**

While a new brand enters into a market, consumers have little knowledge about it. Thus the company needs to attract new consumers and prompt them to have initial purchase intention. However, since the consumers lack prior brand usage experience, they would feel uncertain or unclear on the brand’s utility. Accordingly, consumers tend to hold higher perceived risks on new brands (Farquhar 1994) and thus promotions might be taken as a kind of compensation. In addition, promotions offer consumers with an array of utilitarian and hedonic benefits beyond monetary savings (Chandon, Wansink, and Laurent 2000), such as quality experience (relax budget constraints and enable upgrading) (Blattberg and Wisnienski 1989), convenience (reduction in search and decision costs) (Wansink, Kent, and Hoch 1998), and value expression (such as be proud of feeling as a smart buyer (Babakus, Tat and Cunningham 1998). Particularly, because promotions attract consumers’ attention, they can fulfill intrinsic needs for exploration, variety, and information (Baumgartner and Steenkamp 1996; Kahn and Louie 1990; Kahn and Raju 1991). Seemingly, these effects are especially
prominent and necessary for new brands.

For front-loaded promotions, consumers can be favored by purchasing the promoted brand, no matter which brand they choose before. While rear-loaded incentives may indirectly influence consumers’ purchase intention through rewarding consumers’ next purchase behavior. In other words, front-loaded coupons could benefit all consumers that would switch from competing brands, while rear-loaded coupons could only benefit those who previously have purchased the promoted brand. For a new brand, due to higher perceived risks associated, most consumers would just like to “have a try” and tend to rely on promotions as the initial purchase engine. In contrast, the realization of rear-loaded coupons requires next purchase, which increases the perceived risks for consumers lacking the usage experience with this new brand. Therefore, we argue that the stimulating effect of rear-loaded coupons on initial purchase is weaker compared with front-loaded coupons. Researchers have shown that sales promotions involving direct premiums are better appreciated by consumers than sales promotions based on delayed premiums (d’Astous and Jacob 2002; d’Astous and Landreville 2003). Thus, we propose:

H1: For a new brand, front-loaded coupons can lead to higher purchase intention than rear-loaded coupons.

Promotions of Existing Brand on the Choice of New Brand Promotions

As we have introduced previously, front-loaded promotions could bring larger sales and market share. While, rear-loaded promotions could bring higher profits when the promoted brand is strong and occupies a relative large baseline market. Dodson, Tybout, and Sternthal (1978) posit, in accord with self-perception theory (Bem 1972), the greater the effort a consumer expends to engage in a purchase behavior, the more likely he is to conclude that he likes the purchase and the more likely he is to persist at it. Thus by, since consumers need to take more efforts (purchase one time and redeem next time) by using rear-loaded coupons than by using front-loaded coupons, the former might be less harmful to brand equity and be more beneficial to brand loyalty.

For existing brands, they have different marketing objectives (e.g., market share, profit, brand loyalty) at different stage of product-life-cycle. The promotion tactics aiming to foster the largest market share may not bring the highest profit. Thus, a company would adopt different promotional objectives. A rough observation from the reality supports that both front-loaded and rear-loaded promotions are adopted by existing brands.

According to behavioral decision theory on time management, time has discount cost, i.e., consumers would discount on utility to be realized in the future, and they prefer immediately realized utility (e.g., Rachlin, Raineri, and Cross, 1991). König and Kleinmann (2007) find by experiments that consumers prefer smaller but sooner outcomes to larger but later outcomes. Therefore, when two promotional incentives are same in quantity nominally, front-loaded promotions which can be realized immediately should be more attractive to consumers than rear-loaded promotions with delayed utility.

According to the argument supporting Hypothesis 1, a new brand may prefer adopting front-loaded coupons for market entry. If the existing brand uses front-loaded coupons to
increase market share at that time, for example, it would harm the promotion effectiveness of the new brand, since the existing brand has early-mover advantage and already gain some recognition among consumers. If the existing brand adopts rear-loaded coupons to increase profit for example, consumers might not feel a direct confrontation between the old and the new. Under this circumstance, front-loaded coupons adopted by the new brand might stimulate consumers’ variety-seeking propensity, therefore consumer may be more likely to try the new one. Thus, we propose:

H2: If a new brand enters into market with front-loaded coupons, consumers have higher purchase intention when the existing brand adopts rear-loaded coupons than when it adopts front-loaded coupons.

Two scenario-based experiments are implemented to test the hypotheses.

Study 1

Stimuli

Here, we compared coupons redeemed on the same purchase occasion (front-loaded coupons) with those redeemed for a discount at a future purchase occasion (rear-loaded coupons). As for the discount level, we chose the middle level 20% as suggested by previous researchers (Hardesty and Bearden 2003; Kalwani and Yim 1992). To be more comparable, the coupon information was disclosed on the present purchase occasion for both types. To increase external validity, we selected two fast-moving consuming goods – drinks and facial tissues – as the promoted products. Drinks have been previously used in the coupon incentive studies (Dhar, Morrison, and Raju 1996; Raju, Dhar, and Morrison 1994). Furthermore, based on Givon (1984)’s work, we use drinks and facial tissue to present variety-seeking and inertia-proneness market respectively.

Design, Procedure and Measures

The main study was a 3 (promotion of the existing brand: no promotion, front-loaded coupon, and rear-loaded coupon) × 2 (promotion of the new brand: front-loaded coupon, rear-loaded coupon) × 2 (product category: drink, facial tissue) design. The totally twelve scenarios were randomly edited as four versions of questionnaires, and each version incorporated three scenarios. The scenarios depicted about two products, one for the new and one for the old.

One hundred undergraduate students in a University participated in this study and randomly selected one version. Each subject first examined the scenario about the promotion setting for both the existing and the new brand. In the scenario description, we emphasized that two brands were promoting simultaneously and promotion was a public activity which assured the customers’ awareness. We asked customers to buy only one bottle of drink (or a bale of facial tissue) to exclude purchase acceleration effects (Neslin, Henderson, and Quelch, 1985) and storage effect (Blattberg, Eppen and Lieberman, 1981; Eppen and Lieberman,
After reading each scenario, subjects completed three-item purchase intention scale (Sweeney, Soutar, and Johnson 1999), three-item promotion appraisal scale (Chandon, Wansink, and Laurent 2000), four-item perceived value scale (Teas and Agarwal 2000), perceived monetary risk measure and perceived functional risk measure (Chaudhuri and Holbrook 2002) for the new brand. Theory of exploratory behavior suggests the co-existing hybrid behavior of inertia and variety-seeking, affected by purchasing experiences. Moreover, as we previously introduce, Zhang, Krishna, and Dhar (2000) find that the effectiveness of using front-loaded or rear-loaded incentives is somewhat different in the variety-seeking and inertial market. Thus we used exploratory acquisition of products scale proposed by Trijp, Hoyer, and Inman (1996) to measure and control it.

Questions measuring the same variable were crosswise arranged to enhance the reliability. All ratings were made on a seven-point Likert-type scale anchored with "least likely" to "most likely". All composite measures reached satisfactory reliability, with Cronbach $\alpha$ from 0.83 to 0.914. Although in Zhang, Krishna, and Dhar (2002)'s study, drinks and facial tissue were chosen to represent variety-seeking and inertia market respectively, we did not find any difference in this study. Thus, in the analysis we combined data from the two products.

**Analysis and Results**

We tested the main effect of the new brand promotion on the dependent measures with separate one-way ANOVAs. As Table 1 shows, front-loaded coupon leads to higher purchase intention, promotion appraisal, and perceived value. Thus, hypothesis 1 is supported. When the new brand adopts rear-loaded coupon, subjects perceive higher monetary risk and functional risk in direction, and the difference in perceived monetary risk is significant, which gives some support to our explanation.

<table>
<thead>
<tr>
<th></th>
<th>Purchase intention</th>
<th>Purchase appraisal</th>
<th>Perceived value</th>
<th>Perceived risk (money)</th>
<th>Perceived risk (function)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front-loaded</td>
<td>M=4.18</td>
<td>M=4.398</td>
<td>M=4.35</td>
<td>M=3.72</td>
<td>M=3.93</td>
</tr>
<tr>
<td>Rear-loaded</td>
<td>M=3.08</td>
<td>M=3.189</td>
<td>M=3.42</td>
<td>M=4.08</td>
<td>M=4.15</td>
</tr>
<tr>
<td>Difference</td>
<td>$\Delta=1.10^{***}$</td>
<td>$\Delta=1.21^{***}$</td>
<td>$\Delta=0.93^{***}$</td>
<td>$\Delta=-0.36^*$</td>
<td>$\Delta=-0.22$</td>
</tr>
</tbody>
</table>

Note: *** Significant at the 0.001 level, * significant at the 0.05 level.

We further analyzed the effects of the existing brand promotion and new brand promotion on purchase intention of the new brand with two-way ANOVA, with the inertia/variety-seeking scale as a covariate. The results are shown in Table 2. The main effect of the new brand promotion gives further support to H1. In addition, the interaction between the new brand promotion and existing brand promotion is also significant, as exactly shown in Figure 1. We can clearly see that, no matter what promotion is adopted by the existing brand, front-loaded coupon can lead to higher purchase intention than rear-loaded coupon for the new brand.
the new brand. Furthermore, when the new brand adopts front-loaded coupon, its purchase intention is much higher when the existing brand adopts rear-loaded coupon than when it adopts front-loaded coupon (4.707 vs. 3.329, Δ=1.38, p<0.001). The results are consistent with H2. Comparatively, when the new brand adopts rear-loaded coupon, its purchase intention is not influenced by the existing brand’s promotion as high (3.017 vs. 2.563, Δ=0.454, p<0.05).

TABLE 2
Interaction test in study 1

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tr>
<td>Corrected Model</td>
<td>231.516(a)</td>
<td>6</td>
<td>38.586</td>
<td>16.900</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>848.857</td>
<td>1</td>
<td>848.857</td>
<td>371.775</td>
<td>.000</td>
</tr>
<tr>
<td>Variety</td>
<td>57.393</td>
<td>1</td>
<td>57.393</td>
<td>25.137</td>
<td>.000</td>
</tr>
<tr>
<td>New brand promotion</td>
<td>96.428</td>
<td>1</td>
<td>96.428</td>
<td>42.233</td>
<td>.000</td>
</tr>
<tr>
<td>Old brand promotion</td>
<td>72.798</td>
<td>2</td>
<td>36.399</td>
<td>15.942</td>
<td>.000</td>
</tr>
<tr>
<td>New brand promotion × old brand promotion</td>
<td>11.997</td>
<td>2</td>
<td>5.999</td>
<td>2.627</td>
<td>.074</td>
</tr>
<tr>
<td>Error</td>
<td>668.993</td>
<td>293</td>
<td>2.283</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4856.000</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>900.510</td>
<td>299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FIGURE 1
Purchase intention by conditions in study 1

Study 2

The findings of study 1 suggest that the better timing for new brand market entry is when the existing brand does not use promotions or adopts rear-loaded promotions. Since the market is competitive, purchase intention should be relatively evaluated and thus it is not enough to only measure for the new brand. Study 2 aims to further test the hypotheses by...
Design, Procedure and Measures

To simplify the study, we only selected soft drink to test. The study was a 3 (promotion of the existing brand: no promotion, front-loaded coupon, and rear-loaded coupon) × 2 (promotion of the new brand: front-loaded coupon, rear-loaded coupon) between subjects full factorial design. Students were 180 undergraduate and graduate students in a University. The scenario descriptions and procedure were identical to Study 1. We only measured purchase intention and promotion appraisal, while for both brands using the same scale as in Study 1. Cronbach α coefficients were satisfactory ranging from 0.831 to 0.917.

Analysis and Results

We used the deduction between the new brand purchase intention and that of the existing brand as the relative purchase intention measure, with higher value signifies a higher relative purchase intention for the new brand. Similar measure was created for the relative promotion appraisal measure. We tested the main effect of the new brand promotion on the relative purchase intention and promotion appraisal respectively with separate one-way ANOVAs. Results show that front-loaded coupon leads to higher relative purchase intention (-0.46 vs. -0.28, p<0.001) and higher relative promotion appraisal (0.53 vs. -1.97, p<0.001). Thus, H1 is again supported.

As further revealed in Figure 2, no matter what promotion is adopted by the existing brand, front-loaded coupon can lead to higher relative purchase intention than rear-loaded coupon for the new brand. Furthermore, when the new brand adopts front-loaded coupon, its purchase intention is higher when the existing brand adopts rear-loaded coupon than when it adopts front-loaded coupon (0.733 vs. -1.956, Δ=2.69, p<0.001). H2 is also further supported.

FIGURE 2
relative Purchase intention by conditions in study 2

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Conclusions

Theoretical Contributions

Promotion as the most direct communication method, its importance in reaching the end consumers effectively has been well acknowledged. The research issues in this area are wide-ranging. Some researchers have studied new brand promotion issues (Pauwels et al. 2004), while most are targeted at product line extension for existing brands (e.g., McCarthy, Timothy, and Milberg 2001; Park, Milberg, and Lawson 2001). The paper combines the choice of promotion incentives with new brand market entry. Specifically, it enriches the literature on choice of front-loaded and rear-loaded promotions in new product marketing issues.

In addition, previous literature on coupon effectiveness lies mostly on factors like face value, expiration date, distributing frequency (Kahn and Raju 1991; Krishna and Zhang 1999; Leone and Srinivasan 1996), with little concern on the redeem time. The paper investigates jointly the promotion time, consumer purchase intention, brand switch, empirically tests the appropriate promotion incentives for new product market entry. It also takes a dynamic perspective revealing the influence of promotion choice from the existing brand. Methodologically speaking, former researchers use mathematical models to build equilibrium to study the choice between front-loaded and rear-loaded coupons. The paper takes a behavioral perspective and uses experiments to test the hypotheses instead.

Managerial Implications

This study has offered important managerial implications for marketing managers to check for the appropriate time and tactics for new product market entry promotions. The paper illustrates that for new brands, consumers prefer to get the promotional benefits at their initial purchases. One explanation is that promotions offering immediate reward could better reduce consumers’ uncertainty and less confidence on new products. Thus managers could use front-loaded promotions to stimulate consumers’ purchase intention and prompt switching from existing brands in lack of other communications to build up brand faith. After the brand has trooped into the market and grown stronger by occupying a relatively large market share, managers may implement rear-loaded promotions, considering the features of target consumers and other environmental factors jointly, to prevent brand switching and secure profit. For the suitable time, it is better for the new brand to initiate its marketing programs when most existing brands do not offer promotions or when they offer rear-loaded promotions.

Of course, a company may set different marketing objectives at different stage of product life cycle. The promotion method that could generate the maximum market share may not necessarily bring the largest profit. A company, therefore, should implement different promotion incentives accordingly to target market and marketing objectives.
Limitations and Future Directions

Previous studies find that for mature product categories, promotion does not bring the expansion of initial purchases and coupons do not have effect on category extension. Therefore, the effect of front-loaded and rear-loaded coupons is embodied as brand switching rather as increase in purchase amount (Dhar, Morrison, and Raju 1996; Gupta 1988; Scott, Henderson, and Quelch 1985). Thus, the application of the findings might be restricted and may not be applied to promotions like cash reward and temporary price discount, which may bring doubled increase in purchase amount. In addition, in this paper we only consider the effect of promotion time, irrelevant of other issues like discount amount, promotion frequency, and promotion expiration.

Rear-loaded promotions are related to the coming purchase, and present purchase would influence the next purchase. In the future study, we could mock the real retailing environment and put the consumers into the condition where they need to spend money to buy real products, and make successive purchase decisions. Time series quasi-experiments data can not only manifest the impact on market share, but also provide the real redemption rate, although the acquirement requests highly on experimental condition and time control. A compromised way is to gain store-level or individual-level scanner panel date from end retail stores.

Furthermore, previous studies show that the impact from the type of promotion incentives used – immediate versus delayed value – varies with variety-seeking proneness across product categories (Zhang, Krishna, and Dhar 2000). Front-loaded promotions could push consumers to switch brand, while rear-loaded promotions can keep the existing consumers through rewarding consumers’ next purchases. We initially want to investigate this impact and choose soft-drinks to represent variety-seeking market, and facial tissue to represent inertia market. However the empirical results do not support the effect. The possible difference might apply to a larger sample. It is worthy to be further investigated. In addition, future studies may consider possible moderating effects from other product characteristics (e.g., luxuries and necessities) and consumer features (innovators versus followers, satisfied consumers, dissatisfied consumers versus loyal consumers).

For future studies, we could also expand the present study by extending the comparison between front-loaded and rear-loaded promotions in forms beyond coupons. We could also consider multiple brands, rather than two.
References


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