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The Effects of Featured Advertising and Package Labeling on Sustainability of Cause-Related Marketing (CRM) Products

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Abstract: This paper seeks to examine the relative efficacy of cause-related marketing (CRM) product package labeling versus featured advertising efficacy on market performance. One natural setting using scanner data from a grocery store chain and an open-ended survey were conducted to evaluate the financial performance of featured advertising and product labeling in terms of sustainability of cause-related marketing products. Our findings suggest that cause-related marketing product package labeling without featured advertising appears to provide a competitive advantage resulting in superior financial performance. Also, featured advertising without product package labeling boosts products sales. However, when featured advertising is applied to cause-related marketing product package labeling, the effect of such labeling is diminished. Based on our findings, we suggest that final and intermediate sellers of cause-related marketing products should deliver a persuasive message about the sustainability of cause-related marketing products in the context of a conspicuous environment (e.g., Facebook and Twitter). Although featured advertisements and product package labels are two of the most widely-used tools to promote cause-related marketing products, the cause-related marketing literature has largely neglected a meaningful comparison between the two. This paper seeks to fill the gap in the literature.

Keywords: cause-related marketing; retailing; package labels; featured advertisements; theory of reasoned action; social identity theory

1. Introduction

Cause-Related Marketing (CRM) is an effective and increasingly popular marketing tool [1] which, at the product level, "links product sales to support of a charity or cause" [2] (p. 126). Prominent examples of CRM include the Project (RED) campaign to stop mother-to-child transmission of HIV, and TOMS Shoes' One for One donation policy. Although some consumers are concerned that CRM activities are nothing more than "cause exploitation" and "greenwashing" [3], the use of CRM as a marketing tool has increased by double digits during the period from 2011 to 2016 [4]. Furthermore, approximately 91% of global consumers are willing to switch brands to one associated with a good cause, given comparative prices and quality levels [5]. Academic studies draw similar conclusions regarding the sustainability of CRM products in various markets [6–8].

Firms use CRM tactics to signal their commitment to corporate social responsibility (CSR) [9]. Consumers have difficulty identifying which firms are genuinely committed to CSR [9], as so many firms turn to CRM to more effectively communicate their environmental and humanitarian policies to

consumers [10]. CRM expenditures are at an all-time high [5], but empirical research on CRM success factors is relatively scarce.

Package labeling (both verbal claims and visual images) [11,12] and advertising [1] are two of the most successful means of promotion that many firms use to publicize their effects with a cause. Given the fact that labeling and advertising require a significant commitment of financial resources from manufacturers and retailers, and that approximately 65% of consumers are confused by manufacturers' and retailers' CSR signals according to 2015 poll conducted by *Global CSR study* [5], it is surprising that no study has examined the effectiveness of these two crucial components of the marketing mix in the sustainability of a CRM context. We attempt to fill this gap in the CRM literature. In this study, we use social identity theory [13,14] and the theory of reasoned action [15] to guide quantitative analysis of the effects of CRM package labels and CRM featured advertisements on product sales.

2. Theoretical Background

2.1. Social Identiy Theory

Why do consumers purchase CRM products in the first place? Is it a private action, or is it a social behavior? The core attribute of CRM is ones altruistic gesture toward a collective groups' interests rather than individual, utilitarian-seeking behavior [1]. That is, CRM does not change the core product quality (e.g., durability, reliability, flavor, and etc.), but rather, it contributes to society via mundane shopping habits. Focusing on this tie between oneself and collectivistic interests, the current research draws on theories of social identity [16,17]. A consumer strives to obtain cognitive and emotional group membership since "the human species is highly adapted to group living and not well equipped to survive outside a group context" [16] (p. 475). One's own perceived-identity is not static, but constantly formed and set by the individual [17]. This ongoing interaction with the external environment to build one's identity is "something that one *does*" [17] (p. 5).

In sum, the essence of social identity theory is the tie between the members and the subset of the society and the continuous and various actions taken by the individual members. The previous literature has documented this interaction among consumers. For instance, Bhattacharya and Sen [18] describe how consumers "seek out organizations for identification purposes" (p. 77). They predict that consumers will positively react to a firm's CSR efforts when these efforts satisfy one's self-definitional needs: the need for self-continuity, self-distinctiveness, or self-enhancement [18]. In accordance with social identity theory, Trepte and Loy [14] posit that the purchase of CRM products leads to positive self-definition when a consumer's consumption patterns are appraised and approved of by others. In another relevant study, White and Peloza [19] find that a primary factor in the decision to donate to charity is the need to satisfy the normative expectations of others. They maintain that a firm's altruistic appeals are more effective when consumers are publicly responsible for their decisions [19]. Thus, we believe that one mechanism underlying the purchase of CRM products is the consumer's attempt to converge normative approval with impression management.

2.2. Subjective Norms and Theory of Reasoned Action

Consumers do not necessarily make consistent choices across different social settings; they sometimes change their purchasing behaviors when others are watching them. For example, Luchs et al. report that consumers are more likely to choose an "Eco Friendly" hand sanitizer over a "less green" alternative when someone is observing their choices [20]. A compelling reason for this inconsistent purchasing behavior from one social setting to the next involves subjective norms and the theory of reasoned action [15]. The term "subjective norm" refers to a person's perception of social pressure to engage in (or not engage in) a particular behavior. Subjective norms, along with a person's attitude toward an object, are the two main predictors of behavioral intentions under the theory of reasoned action [15]. A mathematical representation follows:

$$BI \sim w_1 A_B + w_2 SN \quad (1)$$

where BI = intention to purchase a CRM product, A_B = attitude toward purchasing the product, SN = subjective norms, and w_1 and w_2 = relative weights of attitudes and subjective norms [15]. Originally designed to explain the elaborative processes involved in decision making, sustainability researchers have relied on the theory of reasoned action to predict and explain consumers' ethical consumption patterns, such as green purchase behaviors, recycling behaviors, organic consumption [21], and attitudes toward renewable energy [22].

Along with other types of corporate social responsibility, CRM purchase behavior can be explained by the notion of subjective norms and one's intention to purchase a product. As the value of the subjective norm approaches zero, a consumer's intention to purchase a CRM product (BI) decreases. Such a condition occurs when a consumer processes an incoming CRM stimulus in a private setting, where the consumer has no incentive to seek normative approval from others. In contrast, CRM signals that reach consumers in public settings should be more likely to elicit norm-seeking and impression management behaviors which, in turn, should increase purchase intentions of the CRM product. The central tenet of the theory of reasoned action is in the same vein of social identity theory: one's consumer decision making process is not solely conducted in an isolated setting, but rather, it is highly affected by other's appraisals.

3. Conceptual Framework

3.1. CRM Package Labels and Product Sales

Package labels often play a key role in the consumer decision-making process. Marketing managers have long known that consumers examine packages for information about product attributes [23], but recent research has shown that consumers also examine labels for CSR information [11,12]. Tang et al. found that labeling is an effective communication tool and a credible signaling instrument to the market [24]. Therefore, it is not surprising that many manufacturers rely on package labels to inform consumers about their philanthropic activities. For instance, the Caribou Coffee Company put the following package labels on the box of Caribou Coffee Mahogany 24 pack for Keurig Brewers product which is shown in Figure 1, in order to reveal their participation in a CRM (https://www.amazon.com/dp/B00474VPY0?aaxitk=n3xRyyJWe6-SdG7ZEpRALg): "Sustainable coffee is a big part of who we are. That's why we teamed up with the Rainforest Alliance, the most comprehensive certification program around. They make sure farmers are fairly compensated, their communities are supported, and the environment is looked after."

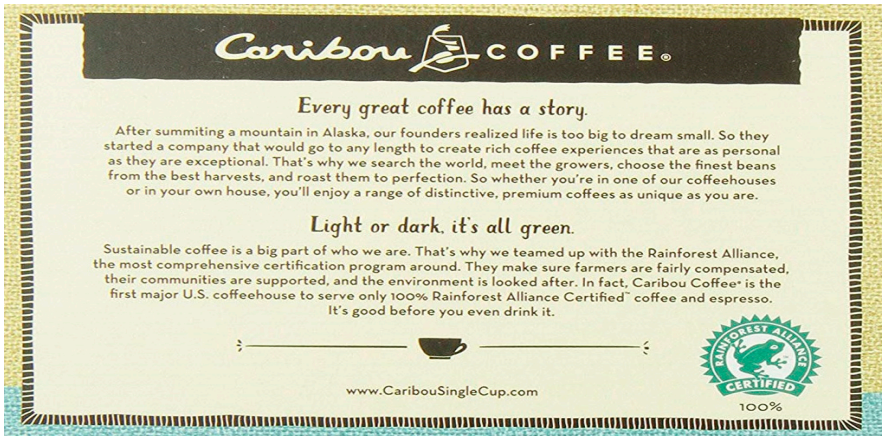

Figure 1. The Package Label of Caribou Coffee Mahogany 24 Pack Product.

If consumers genuinely prefer CRM products to non-CRM products, as previously discussed, then socially responsible firms have an incentive to signal their affiliation with charities, and concern for social causes, via visual and textual information on product labels. Thus, we believe that products

with labels explicitly linking the product to a cause will outperform substitute products that do not have explicit ties to a cause. This inference leads to our first hypothesis:

Hypothesis 1 (H1). *CRM labels have a positive impact on product sales.*

3.2. Featured Advertisements and Product Sales

Another way manufacturers promote their products is by teaming up with retailers to create "featured advertisement" profiles for store flyers [25]. These flyers are mailed to consumers on a weekly basis. Because the costs of featured promotions are shared between manufacturers and retailers, featured ads are designed to meet both parties' promotional objectives. Previous research on featured promotions demonstrates that they significantly increase product sales, at least in the short-term [13,26]. Thus, we predict that the featured ad will have a positive total effect on product sales:

Hypothesis 2 (H2). *Featured ads have a positive impact on product sales.*

According to the top-down approach of consumer cognition and external environment, how consumers interpret a novel stimulus is highly influenced by previous mindset [27]. Either relatively longer [28] or briefly [29], external environment (e.g., product and promotion) can change one's perception or emotion through relevant memory activation. For instance, background music played in a wine shop influenced the sales volume of wines with different countries of origin [30]. That is, German wine outsold French wine when the background music was German, and vice versa, despite the differences in the famous wine types (German white wine and French red wine) and a more favorable perception of product quality toward the French wine [30]. One's actual behavior is also influenced by social pressure. One relevant example is Luchs et al.'s experiment where individuals modified their choice of a hand sanitizer, between either an eco-friendly or a regular one, depending on whether others were watching [20]. Similarly, featured ad and labeling entails a different degree of public vs. private information processing. Labeling entails public information processing, because such stimuli are accessed and processed during shopping, and shopping is "a social behavior frequently performed in the accompaniment of friends or relatives" [31] (p. 208).

Although pre-exposure to product labels is not entirely impossible, grocery shopping usually entails low involvement with limited information search prior to the actual shopping in a public setting [32]. Featured advertisements, on the other hand, are delivered to consumers through the mail, where consumers access and process the ads in the privacy of their homes. More specifically, the featured ad is processed privately via regular mail or e-mail, and thus, a lower level of subjective norms is involved. Furthermore, the feature ad focuses on special price discounts during a certain week (i.e., the so called weekly special). Due to the rather inconsistent focal nature of featured ads and CRM initiatives, one might experience a social dilemma between one's individual interests (price discount) and pro-social activity (purchasing CRM products) [33]. Given the importance of subjective norms in ethical decision-making, we believe the feature ad will weaken consumers' intentions to support CRM initiatives. This is because purchasing CRM products (or any ethical decision) is highly associated with the hedonic and collectivistic mindset of consumers, while skepticism toward CRM initiatives are strongly related to utilitarian and individualistic mentality [34]. Thus, we expect to find a relatively smaller effect of the CRM on sales performance when featured ads are used. This logic is summarized in the following hypothesis:

Hypothesis 3 (H3). *The impact of CRM package labeling on sales is smaller when featured ads are employed in CRM products.*

4. Method

4.1. Research Design

The study is a quantitative analysis of scanner data from a large supermarket chain in the Southwest. This particular chain owns 50+ stores and targets different geodemographic segments within their several branches, selling various consumer products from fresh produce to small kitchen appliances. We collected data from a specific branch (totaling 10 stores in multiple cities throughout the Southwest United States) due to its larger assortment of CRM products. More detailed information is not revealed in this manuscript due to a non-disclosure agreement. One important benefit of this study is that it avoids the social desirability response bias that is pervasive in ethics research [35]. Because CRM research is so closely related to research on ethical decision making, we believe the natural setting of our research design avoids the response bias that is common in CRM surveys and CRM experiments. In the follow-up study, we conducted a robustness check of these findings.

4.2. Data Description

The data consists of real-time transaction information from 10 stores for a 106-weeks period in 2009–2010. The Universal Product Code (UPC) is our unit of analysis because we are interested in sales of CRM label products, and we track these products by their UPCs. Although the original scanner data reports transactions on a daily basis, we transformed this data into weekly increments for the reasons outlined in Bucklin and Gupta [36]. Waller et al. [37] have shown that this weekly division allows optimal period-to-period comparison of sales for retail managers. Incomplete data, data containing obvious entry errors, and UPCs with no product category information, are eliminated from the analysis. Product categories that do not contain a UPC with a CRM appeal are likewise omitted from the data. The resulting dataset contains a total of 4,858,216 unique identifiers.

4.3. Dependent Variable

The dependent variable in the study is total sales, in dollars, of products within the specified time frame. This amount is simply the product of the mean unit price of the UPC and the quantity at each store for each week, accounting for both sales and returns. The average of log sales is 2.56 (13 dollars) and the deviation is 1.01.

4.4. Independent Variables

CRM label. Here, we create a dummy variable to indicate whether the label links sales of the product to a cause (1 = CRM label, 0 = otherwise). One of the authors manually identified the CRM labels using wireless UPC barcode scanner. If the label includes a textual and/or visual signal of a CRM initiative, it is identified as a CRM label. The operationalization of CRM is conducted referring to the guideline from Varadarajan and Menon's work [1]. Here, the main criteria were largely twofold: (1) contingency between revenue; and (2) donation and collaboration between the for-profit and non-profit firms. The average of CRM label products is 1.5%, and the deviation is 0.12.

Featured advertisement. This variable refers to UPCs that are featured in a store-generated flyer during the particular week (1 = UPC is featured in a weekly flyer, 0 = otherwise). Here, the parameter of the featured ad reflects the effect of weekly flyers on sales of both CRM and non-CRM label products. The average of featured advertisement products is 3.2%, and the deviation is 0.17.

The interaction effect of CRM label and featured advertisement. The featured ad is a common promotional method for many types of products. The featured advertisement parameter refers to the impact of weekly flyers on all product sales (both CRM and non-CRM), which is not the primary focus of our research. Our more interesting hypothesis involves the differential effects of CRM labeling and feature advertising on product sales. Therefore, we need an interaction effect to test H3.

4.5. Control Variables

We control for several remaining variables in the dataset that might influence the sales of products. These control variables account for product category [38], brand [13], store [39,40], unit price [41], time [42], promotion [43], and holiday [44] effects.

4.6. Model Specification

Since the data in this manuscript involves a large-sized scanner sample, a statistical model should be able to handle (1) the within-subjects correlation over time, and (2) the heterogeneous nature of demand and products [42]. Therefore, we apply a generalized linear autoregression model that allows for non-zero covariance among products and dependent variance across weeks. Our decision is supported by the White and Breusch-Pagan test of heteroscedasticity ($p < 0.0001$) and the Durbin-Watson test of autocorrelation (AR(1), $p < 0.0001$). Equation (2) represents the model specification for the effects of the CRM label and featured ad on product sales:

$$Y_{ijt} = \beta_0 + \beta_a LA_{ijt} + \beta_b FA_{ijt} + \beta_c (LA \times FA)_{ijt} + \sum \text{Control Variables} + Y_{ijt-1} + \varepsilon_{ijt} \quad (2)$$

where Y = sales, LA = CRM labeling, FA = featured advertising, i = the unique UPC, j = store, and t = week. Parameter β_a estimates the effect of CRM labeling (1 = CRM, 0 = non-CRM) on product sales in the absence of specific featured advertisement for the baseline sales [37], and parameter β_b estimates the effect of feature advertising on product sales without the existence of CRM label for unique effect of featured advertising. Parameter β_c estimates the CRM label's effect on product sales with the existence of featured advertising when UPC carries CRM label, and is featured in a weekly flyer at the same time. Precisely, The β_c coefficient of (LA × FA) represents the moderating effect of featured advertising with the effect of package labeling on sales. In other words, the coefficient stands for the difference of the difference. It measures the difference of (a) and (b): (a) the effect of package labeling on sales without featured advertising, and (b) the effect of package labeling on sales with featured advertising. If the coefficient is negative and significant, it indicates that the effect of (b) is smaller than the effect of (a), which will support Hypothesis 3. Therefore, the effects of package labeling and featured advertising can be examined using the four groups in Table 1 below.

Table 1. Four Groups of Products.

		Featured Advertising	
		Without	**With**
Package Labeling	Without	Reference group	β_b
	With	β_a	β_c

We apply a logarithmic transformation to the sales and unit price variables due to high levels of skewness (31.434 and 5.741) and kurtosis (2113.870 and 104.551). As anticipated, the log-transformed variables exhibit normal data structures.

4.7. Results

In this section, we present the results of the study as they relate to H1-H3 and the control variables. The generalized linear autoregression model is estimated with a restricted maximum likelihood method, which can produce unbiased estimates of variance and covariance parameters. The R^2 of the model is 0.27, and *F*-value is 110,640, which is statistically significant at the 0.001 level. Parameter estimates for the effect of CRM labels on product sales (H1), the effect of the featured ad on product sales (H2), and the effects of the interaction of CRM label and feature advertising on product sales (H3) are displayed in Table 2.

Table 2. Estimates of Fixed Effects.

Variables	Estimate	Std. Err.	*t*-Value	Pr>|*t*|
Intercept	1.817	0.019	94.00	<0.0001
CRM Labeling	0.237	0.003	64.34	<0.0001
Feature Advertising	0.591	0.002	294.99	<0.0001
CRM Labeling × Feature Advertising	−0.079	0.014	−5.36	<0.0001
Control Variables				
Unit Price	0.113	0.0001	646.44	<0.0001
Week	0.000	0.000	4.90	<0.0001
Short-term TPR [(1)]	−0.237	0.005	−47.02	<0.0001
Long-term TPR [(1)]	0.182	0.0009	193.08	<0.0001
Lagged sales (week-1)	0.003	0.000	757.56	<0.0001
Thanksgiving [(2)]	0.004	0.002	1.93	0.053
Christmas	0.003	0.002	1.26	0.207
Super Bowl	0.084	0.002	4.58	<0.0001
Independence Day	0.005	0.002	2.24	0.025
Post-Thanksgiving	−0.065	0.002	−26.69	<0.0001
Labor Day	0.022	0.002	9.02	<0.0001
Columbus Day	−0.017	0.002	−7.00	<0.0001
Martin Luther King Day	−0.020	0.002	8.35	<0.0001

Note: The dependent variable is log sales of a product. [(1)] Temporary Price Reduction (TPR) is a marketing tool to drive sales for the short-term or long-term periods. [(2)] Holiday effects are controlled with dummy variables for Thanksgiving, Christmas, Super bowl, Independence Day, Post-Thanksgiving Day, Labor Day, Columbus Day, and Martin Luther King Day.

The CRM label has a statistically significant, positive effect on UPC-level sales (β_a = 0.237, $p < 0.0001$). This parameter estimate indicates that the presence of CRM labels increase sales of the product by 23.7%, which supports H1. As anticipated, the featured ad also has a statistically significant, positive effect on sales of product sales (β_b = 0.591, $p < 0.0001$). Clearly, featured advertising produces a 59% increases in sales, and the effect size of featured advertising is greater than CRM labeling. Accordingly, the significant and positive coefficient of the featured advertising variable supports H2.

The interaction effect of the CRM label and the feature ad on product sales is statistically significant and negative ($\beta_c = -0.079$, $p < 0.0001$), and thus, the result supports H3. The negative and significant interaction estimate indicates that the difference of sales between CRM label and non-CRM label decreases as CRM label products are promoted with featured advertising, which is presented in Figure 2. Four values in Figure 2 are drawn with the estimates of Table 2 by setting the unit price at 3.283 (mean of unit price of products) and other variables at zero. For instance, when featured advertising is zero, non-CRM label sales are 5.1 (1.187 + 3.283) and CRM label sales are 5.337 (1.817 + 3.283 + 0.237). Thus, the estimate of CRM label, 0.237, represents the difference of sales between non-CRM label product and CRM label product when feature advertising is not conducted. On the other hand, when feature advertisement is 1, non-CRM label sales are 5.691 (1.817 + 3.283 + 0.591) and CRM label sales are 5.849 (1.817 + 3.283 + 0.591 + 0.237 − 0.079). For featured advertising, we deduct 0.079 to the difference, giving a reduced difference of 0.158 (5.849 − 5.691) from 0.237.

One possible reason for the negative interaction effect is that consumers are more apt to think of CRM promotional material as cause exploitation when they process such information in a private setting. Consumers do not feel the pressure of social norms in a private setting, and more importantly, they have additional time to scrutinize the flyer for evidence of greenwashing. Thus, the observed drop in sales might reflect consumers' perceptions of CRM ads as cause-exploitative, rather than informative or persuasive.

The generalized linear autoregression model also gives us the ability to see how labeling and advertising effects vary from one product category to the next; Table 2 reports the results.

The CRM label has a statistically significant, positive effect on UPC-level sales in 11 product categories. It also has a statistically significant, negative effect on CRM product sales in 3 product

categories (Kitchen gadgets, Soups, and Yogurts), and no observable effect in 2 categories. As the previous analysis demonstrates, the featured ad has a negative moderate effect on the sales of CRM label to product sales in Table 2 ($\beta_c = -0.079$, $p < 0.0001$), at least on average. A follow-up analysis by product category in Table 3 indicates that the featured ad has a positive effective in only 3 product categories (Frozen vegetables, Tea, and Yogurts) out of 16. The result suggests that the feature ads are effective in few products.

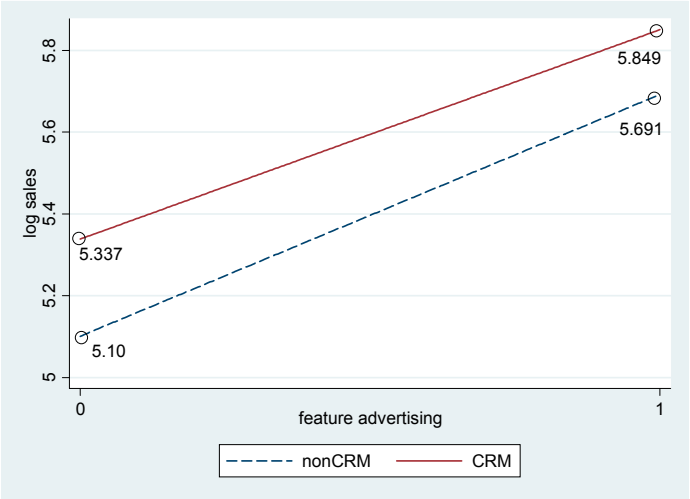

Figure 2. The Interaction Effect of CRM Label and Feature Advertising.

Table 3. Estimates of Fixed Effects by Product Category.

Product Category	CRM Labeling	Feature Advertising of CRM Product
Breakfast Convenience	17.77 ***	−3.42 **
Cereals	13.41 ***	−1.94 *
Coffee/Non-Dairy Creamers	9.00 ***	−2.31 **
Dessert Mixes	26.81 ***	−6.26 ***
Dinner Mixes	14.80 ***	0.22
Disposable Plates/Cups/Bowls	4.63 ***	−1.13
Eggs	15.39 ***	0.87
Frozen Vegetables	2.13 **	5.32 ***
Kitchen Gadgets	−3.31 **	−1.94 *
Candy	2.80 *	−2.43 *
Tray Packs	0.81	−1.28
Snacks	4.87 ***	−5.93 ***
Soups	−2.69 *	−2.24 *
Tea	47.83 ***	8.49 ***
Water/Carbonated Water	1.05	−0.16
Yogurts	−8.01 ***	3.25 **

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

4.8. Robustness Tests

We find evidence that CRM labeling boosts sales, but featured ads, experienced at home and in private, diminish the effect. However, for this finding to hold up, seeing featured ads need to turn some consumers against the CRM product being advertised. In this case, consumers have two options: buying a non-CRM alternative or buying another CRM product within the category. A negative moderating effect on sales can be attributed to the rare ads that people find offensive or confusing. To further investigate the negative effect, we identify two product categories, i.e., (a) a product category that contains only a few CRM products, and (b) another product category that consists of many CRM

products. If the negative effect is stronger in categories with multiple CRM products, it suggests that consumers still seek out CRM products, but prefer products that are not promoted in featured ads.

In order to test the alternative explanation, we identified 18 brand categories that have featured advertising, as well as CRM product labeling at least one time. We then sorted, in ascending order, the 18 brand categories according to the number of UPCs in each category, and divided three groups that each have six brand categories. We then selected low frequency brand category (a product group that contains few CRM products) and high frequency brand category (a product group that contains many CRM products) by excluding middle frequency brand category. Finally, we compared the interaction effect between two groups. Table 4 presents the results of this analysis.

Table 4. The Interaction Effect Between a Product Group that Feature only Few CRM Products (Group A) and a Product Group that Feature Many CRM products (Group B).

Variables	Group A	Group B
Intercept	1.884 *** (11.57)	2.060 *** (5.18)
CRM Labeling	0.264 *** (45.26)	0.288 *** (15.12)
Feature Advertising	0.587 *** (123.61)	1.078 *** (28.17)
CRM Labeling × Feature Advertising	−0.141 *** (−7.68)	−0.383 *** (−4.43)
Control Variables		
Unit Price	0.211 *** (187.12)	0.141 *** (13.34)
Week	0.0003 *** (7.96)	0.003 *** (15.68)
Short-term TPR [(1)]	−0.333 *** (−9.92)	−0.110 (−1.64)
Long-term TPR [(1)]	0.190 *** (69.64)	0.363 *** (26.12)
Lagged sales (week-1)	0.008 *** (441.32)	0.002 *** (67.36)
Thanksgiving [(2)]	0.049 *** (5.57)	0.035 (1.00)
Christmas	0.090 *** (10.04)	0.041 (1.17)
Super Bowl	0.116 *** (13.31)	0.098 *** (2.77)
Independence Day	0.048 *** (5.42)	0.222 (5.80)
Post-Thanksgiving	−0.077 *** (−8.68)	−0.167 *** (−4.64)
Labor Day	0.052 *** (5.84)	0.059 (1.60)
Columbus Day	−0.006 (−0.73)	−0.130 *** (−3.52)
Martin Luther King Day	0.006 (0.78)	−0.032 (−0.91)

Note: *** $p < 0.001$. The dependent variable is the log sales of a product. [(1)] Temporary Price Reduction (TPR) is a marketing tool to drive sales for the short-term or long-term periods. [(2)] Holiday effects are controlled with dummy variables for Thanksgiving, Christmas, Super bowl, Independence Day, Post-Thanksgiving Day, Labor Day, Columbus Day, and Martin Luther King Day.

The average of Group A is 17.5 (14.6 standard deviation), and the average of Group B is 313.5 (117.5 standard deviation). This descriptive statistic indicates that Group A has few CRM products with featured advertising, while Group B has many. When comparing the two interaction coefficients, we find that the coefficient of Group B (−0.383) is larger than that of Group A (−0.141). The negative effect is stronger in the brand category with multiple CRM products. This finding implies that consumers still seek out CRM products, but prefer those that are not in featured ads.

We also test the relationship between price levels and market share within product categories because the relationship can be nonlinear. By adding the squared term of the average unit price in Equation (2), we find that the coefficient of the squared term is statistically significant and negative, −0.178 (*t*-value −67.34), and the coefficient of the unit price term is significant and positive, 0.300 (*t*-value 148.10). This result provides evidence of a nonlinear relationship between price levels and sales. However, the inclusion of the squared term does not alter the sign of the CRM Labeling, Featured Advertising, and CRM Labeling × Feature Advertising variables and their significance. Thus, the result of the nonlinear relationship is qualitatively similar to the result of a linear relationship.

5. Conclusions

We maintain that the asymmetric effects of CRM labels and featured ads on CRM product sales are due to the role of subjective norms in the ethical decision making process. Because consumers typically process information from featured ads in a private setting, they are not exposed to much social pressure, so they do not attach much weight to subjective norms. In contrast, consumers typically process information from CRM labels in a setting where they are surrounded by other shoppers and store employees. In this highly conspicuous environment, consumers feel social pressure to choose CRM products over non-CRM alternatives. These findings extend social identity theory and the theory of reasoned action to a CRM context, and also lend support to Luchs et al.'s research on sustainability liability [15].

A negative relationship between the featured ad and sales of CRM products is counterintuitive. One plausible explanation could be the impact of manufacturer brands and their financial power in retail industry. That is, large national brands often allocate large sums of money in trade promotion to grocery stores, and hence, greater frequency and price discount depth in the featured ad. However, consumers might have a hard time associating large-scale conglomerates with sustainability.

This study also has several implications for managers of manufacturing and retailing firms. First, our results indicate that manufacturers of CRM products should pay special attention to package labels, because labels provide consumers with salient information about firms' CSR activities. Second, CRM labels appear to be much more effective communication devices, in terms of product sales, than CRM information in feature advertisements. Therefore, we suggest that firms deliver CRM messages in highly conspicuous environments. For example, manufacturing firms and retailers should transition CRM communications away from featured ads and toward in-store promotional devices, such as end-caps, where a consumer's choice of a CRM product is highly visible to other shoppers. Grouping CRM products together in special display sections may also be effective. A final suggestion is to locate CRM products alongside other products with similar CSR appeals. Doing so would increase the visibility of CRM products and could lead to positive spillover effects across eco-friendly, sustainable, and green product categories.

Although this study makes several contributions to theory and practice, it has limitations. First, our data comes from one grocery chain in the Southwest. Future research could generalize to different retailers in different regions of the country, or even to different countries. Second, the products in the analysis are all fast-moving-consumer-goods. Research on different product categories would likely yield different results. Third, we considered only two types of CRM communication vehicles in this study. Future research should investigate the effectiveness of other CRM communication techniques, like message-focused campaigns (e.g., Exxon's "Let's Solve This") and social media campaigns.

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