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International Food and Agribusiness Management Review 4 (2001) 119-131

International Food Agribusiness Management Review

Supermarket product selection uncovered: manufacturer promotions and the channel intermediary

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Abstract

In 1998, food and packaged goods manufacturers presented 17,977 new items for evaluation by channel intermediaries (grocery buyers, merchandisers, and category managers). This product selection process is recognized as a time and labor intensive effort on the part of manufacturers and their retail counterparts. Ultimately, only one-third of these new product introductions may be accepted for distribution. Thus, manufacturers may benefit from increased insight to the channel intermediary's criteria for deciding which products to stock in their retail stores. It is suggested that this decision may be influenced by the presence of certain promotional and cash offerings, and this issue is examined in a logistic regression. © 2001 Elsevier Science Inc. All rights reserved.

1. Introduction

The modern world of consumer packaged goods is one of choice and novelty. A shopping trip to a typical supermarket may involve exposure to some 30,000 items (FMI, 1998) with little thought given to how that particular set of products was selected for display. Further, this choice set is constantly changing—items are removed and replaced by new ones as the retailer seeks a successful mix of products that will stimulate the consumer's interest. As part of this process, manufacturer sales representatives introduce thousands of new products each year to channel intermediaries (e.g., grocery buyers, merchandisers, and category managers). Although new product introductions reached record-breaking levels in 1988 with 10,558 new items, that number more than doubled in the following decade to a peak of 22,572 items in 1995, sliding to 17,977 items introduced in 1998 (Table 1) (New Product News, various issues). Obviously, only a fraction of these items actually make it to the supermarket shelf

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PII: S1096-7508(01)00076-3

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| Table 1 | | | |
|----------------------------|------|----|------|
| New product introductions, | 1988 | to | 1998 |

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-----------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Food Nonfood | 8183 2375 | 9192 2863 | 10301 2942 | 12398 3745 | 12312 4478 | 12893 4673 | 15006 5070 | 16863 5709 | 13266 6306 | 12398 6926 | 11037 6940 |
| Total | 10558 | 12055 | 13244 | 16143 | 16790 | 17566 | 20076 | 22572 | 19572 | 19324 | 17977 |

Source: New Product News.

each year. Of all the new products introduced in recent years, channel intermediaries select roughly one-third (German & Leed, 1992; McLaughlin & Rao, 1990).

While it is true that the assimilation of selected items represents problems with stocking, inventory, and other logistical considerations, the selection process itself represents a significant effort on the part of both manufacturer representatives and their retail counterparts. Although both parties are concerned about final consumer acceptance of these new products, without the retail representative's approval consumers may never have the opportunity to experience the new product. Thus, a more intimate knowledge of how channel intermediaries select new products will aid manufacturers seeking to improve the likelihood of having their products selected for distribution. Further, the criteria that channel intermediaries establish for evaluating new product introductions not only impact a manufacturer's product development and marketing strategies, but also the retailer's evaluation system and costs, systemwide performance, and ultimately consumer choice (McLaughlin & Rao, 1991).

Improving such inefficiencies is an explicit requirement of the grocery industry's efficient consumer response. In addition, Rao (1997) has identified the need for additional research on the channel intermediary's role in new product acceptance. He argues that "This topic becomes even more significant in light of emerging distribution systems." More recently, Sullivan (1997), in an insightful treatise on the market for new products, also calls for "detailed information on how slotting allowances and other factors influence the retail buyer's decision to accept or reject new products."

It is the goal of this analysis to advance the limited knowledge concerning the factors affecting new product introduction and acceptance, with particular focus given to promotional offerings. Specifically, this is accomplished two-fold: (1) channel intermediaries are surveyed for their perceptions regarding the new product introduction process; and (2) actual examples of new product offers are examined in a logit analysis. The paper proceeds with a discussion on our current knowledge of promotion as it relates to new product introduction.

2. Previous research

During the process of a new product introduction, the channel intermediary is exposed to various pieces of information critical to the acceptance decision. Through a written application and sales presentation, information is obtained about product characteristics,

suggested shelf locations, suggested retail price and profit projections, special cash allowances, product handling methods, and the planned advertising program (German & Leed, 1992). Additionally, samples of the new item are generally left with the retail representative. German and Leed report that information on the advertising program is "very significant in the buyer's evaluation." Indeed, Park and German (2000) investigated the retail use and preference of various promotions and found that certain promotional types were valued above others for their ability to increase sales and profitability. Those promotional types that retailers consistently valued above others included targeted direct mail, shipper displays, coupons, and in-store demonstrations and sampling. Such clear preference for various promotions leads one to question whether channel intermediaries are influenced by promotional offerings in their new product selection decisions.

However, the majority of current research on new product introduction seems to focus on competitive issues. In fact, the most notable topic in the recent new product introduction literature centers on the use of one particular form of promotion—the slotting allowance or slotting fee. This is a one-time advance payment made by manufacturers to retailers in return for accepting their product. Presumably this fee is charged to offset the costs associated with entering new product information into the computer system, stocking a new item in the warehouse, and placing it on the store shelves. However, debate currently rages in the industry regarding the use of slotting fees as an anticompetitive trade practice, inciting a Senate inquiry (see Teinowitz (1999) or Waterfield (1999) for a report of the Senate Small Business Committee hearing, and Jenkins (1999), for a contrasting editorial). Unfortunately, much of what is reported in the press has not separated slotting fees from other unethical practices incidental to the new product introduction practice. Slotting fees, therefore, have recently taken on a poor connotation in the public view due to biased reporting that lacks objective, academic detachment. It is not within the scope of this analysis to evaluate the competitive nature of slotting fees, but rather to investigate their role in the product acceptance decision. In the context of this analysis, the slotting fee is recognized as a standard business practice and represents an obvious economic incentive to the acceptance of a new product by a channel intermediary.

The new product introduction problem (and consequently the slotting fee debate) is generally explained in one of two ways: in terms of market structure, or in terms of strategic management. Zellner (1989) studied trends in new product introduction as a method to deter market entry, and found the rate at which new products are introduced to the market to be a substitute for intense advertising efforts. Shankar (1999), who studied the incumbent response to new product introductions, provided corroborating evidence for the substitution between advertising and new product introduction. Shaffer (1991) suggests that the incidence of slotting allowances results from the exertion of retail market power, though Sullivan (1997) points out that there is a lack of historical evidence to suggest that food retailers exert market power. Kasulis, Morgan, Griffith, & Kenderdine. (1999) and Tyagi (1999) recognize that market structure can affect new product introductions and that consideration should be given to the competitive situation when determining a promotional strategy. However, these structural analyses provide little in the way of explaining the new product acceptance decision or the managerial implications.

On the strategic management front, Sullivan (1997) investigated the cause and purpose of slotting allowances and concluded they are consistent with competitive behavior. Further,

she suggests slotting allowances should be viewed as a type of risk-sharing mechanism used by retailers. Thus, the fees associated with new products allow for successful products to subsidize failed ones. Wujin (1992) demonstrated that manufacturers signal demand through advertising and price, while retailers screen demand through the use of slotting allowances. Finally, in a definitive, management-oriented study, McLaughlin and Rao (1990) studied the channel intermediary's decision to accept or reject new product introductions. The product acceptance decision was modeled as a function of the product characteristics, and the terms of trade outlined in the purchase agreement. Among their important findings was that the slotting allowance did not significantly influence the probability that a new product would be accepted by a channel intermediary. Again, they found that factors defining competition and category characteristics were important in the product acceptance decision, and that new product acceptance was more probable with more marketing support. However, the analysis, like the others mentioned before, lacked detailed information on the promotional support accompanying the new product introduction. My analysis examines the new product acceptance decision as influenced by promotional support and continues with an exploratory survey of channel intermediary perceptions of the new product introduction process.

3. New product introduction survey

A survey of grocery industry channel intermediaries regarding new product introductions was conducted during the first quarter of 1998. This survey employs a unique methodology that takes advantage of executive education efforts at Cornell University, Ithaca, NY. Sales representatives of a national food manufacturer distribute the survey as part of the registration information for Cornell's Annual Food Executive Program. In this way, the survey is distributed to executives in every major grocery company in the nation. Manufacturer representatives typically present the survey to senior level managers involved in the product selection decision. As an added benefit, researchers are able to report back to respondents during the subsequent educational conference about the survey results.

Surveys were collected from all of the manufacturer's marketing areas covering the United States, resulting in 61 usable surveys. Respondents to the survey represent supermarket chains or divisions controlling 30 stores or more. Respondents were asked to evaluate factors that may influence the product selection process, evaluate selected promotional types for new vs. existing products, and finally to provide actual examples of accepted and rejected new product offers focusing on the promotional details. In order to improve comparability of responses, respondents were asked to choose from the frozen food category for these examples.

Respondents were first asked to evaluate a list of characteristics that may influence their decision when a manufacturer representative introduces a new product. The item characteristics were evaluated on a 5-point Likert scale indicating the degree to which they are considered in the selection process (1 = "not considered at all", and 5 = "considered to a great extent"). Mean responses are presented in Table 2. According to the results, sales and profitability are top considerations in the selection process. An item's potential to increase

Table 2 Consideration of item characteristics in the evaluation of new product introductions

| Item characteristic | Mean response ^a |
|---|----------------------------|
| Potential to increase overall store sales | 4.80 (0.48) ^b |
| Potential to increase overall store profit | 4.75 (0.54) |
| Potential to increase product movement | 4.62 (0.52) |
| Creates price image for the store | 4.38 (0.80) |
| Potential to promote customer loyalty | 4.10 (0.90) |
| The product category being promoted | 4.00 (0.88) |
| The dollar amount of the allowance | 3.95 (0.89) |
| Seasonality | 3.95 (0.69) |
| Manufacturer representation | 3.67 (0.96) |
| Potential to promote goodwill to customers | 3.57 (0.88) |
| Creates brand image for the store | 3.49 (0.77) |
| Quality of the vendor's presentation | 3.12 (0.80) |
| Market tests have been conducted | 3.10 (0.86) |
| Potential to improve store appearance | 3.08 (1.02) |
| Potential to detract from store appearance | 3.07 (1.15) |
| Potential to impede store traffic | 3.05 (1.13) |
| Potential to disrupt store personnel | 2.93 (1.22) |
| Potential to promote brand switching | 2.87 (0.78) |
| Vendor's ability to set-up and maintain display | 2.87 (1.01) |
| Acceptance of the product among other chains | 2.74 (0.93) |
| Paperwork and administrative tasks | 2.65 (1.01) |

 $^{^{}a}$ Responses were given on a 5-point scale, where 1 = not considered at all, and 5 = considered to a great extent.

overall store sales, improve store profitability, and increase individual product movement were rated above all other factors, with mean scores of 4.8, 4.75, and 4.62, respectively. These were followed by factors that further define the distributor's merchandising strategy, namely the item's ability to create a price image for the store, potential to promote customer loyalty, and the product category being promoted. Thus, when evaluating new products, channel intermediaries pay the most attention to factors that drive initial and repeated customer purchase. Park and German (2000) found similar results. Of note, "slotting allowances" scored relatively high with a mean response of 3.95.

Next respondents were asked to indicate their preferences for various promotional offerings associated with existing and newly offered products (see Appendix A for a glossary of promotional terms used throughout the survey). Preferences were indicated using a 5-point Likert scale, where 1 = "would like to avoid" and 5 = "would like to see." Mean responses are presented in Table 3. Results are roughly similar for existing and new products. The highest rated promotional types offered for new products are in-store demonstrations and sampling, slotting allowances, co-op television advertising, and co-op radio advertising, with mean scores of 4.83, 4.59, 4.42, and 4.40, respectively. Likewise, for existing product lines, the highest rated promotions were in-store demonstrations and sampling, co-op television advertising, loyalty program participation, and co-op radio

^b Standard deviations are given in parentheses.

| Table 3 | | | | |
|----------------------------|--------------|------------|---------|----------|
| Preference for promotional | programs for | r existing | and new | products |

| Promotion | Mean responses ^a | | | |
|--------------------------------------|-----------------------------|--------------|--|--|
| | Existing products | New products | | |
| In-store demos and sampling | 4.65 (0.55) ^b | 4.83 (0.42) | | |
| Slotting allowances | N/A | 4.59 (0.67) | | |
| Co-op television | 4.22 (0.87) | 4.42 (0.75) | | |
| Co-op radio | 4.18 (0.79) | 4.40 (0.70) | | |
| Paperless couponing | 3.89 (1.17) | 3.78 (1.15) | | |
| In-store coupons | 3.25 (1.08) | 3.59 (1.08) | | |
| In-ad coupons | 3.32 (1.41) | 3.48 (1.40) | | |
| Near pack offers | 3.14 (0.84) | 3.21 (0.79) | | |
| Premium giveaways | 3.00 (1.00) | 3.03 (0.95) | | |
| Chain-wide sweepstakes | 3.30 (1.09) | 3.02 (1.03) | | |
| National sweepstakes | 2.56 (0.94) | 2.54 (1.01) | | |
| Loyalty/frequent buyer participation | 4.20 (1.06) | N/A | | |

^a Responses were given on a 5-point scale, where 1 = would like to avoid, 3 = neutral, and 5 = would like to see.

advertising, with mean scores of 4.65, 4.22, 4.20, and 4.18, respectively. Most striking of these results is the overt interest in slotting allowances associated with new product introductions.

Finally, respondents were asked to provide examples of recent new product introductions, indicating which promotions were offered and the size of the slotting allowance. Each respondent included details of one accepted new product introduction and one rejected new product introduction. Descriptive statistics for the responses are presented in Table 4. The responses to this last question are the basis for a logit analysis explaining the product selection decision in regards to manufacturer promotional offerings.

Table 4
Descriptive statistics for variables used in logit analysis

| | Percent of | Mean | SD | Minimum | Maximum |
|--------------------------------------|-------------|---------|---------|---------|---------|
| | occurrences | | | | |
| Binary variables | | | | | |
| Accepted product | 50 | | | 0 | 1 |
| Freestanding insert | 55 | | | 0 | 1 |
| Coupons | 27 | | | 0 | 1 |
| Free product offer | 12 | | | 0 | 1 |
| Television advertising | 47 | | | 0 | 1 |
| Radio advertising | 16 | | | 0 | 1 |
| In-store demonstration/sampling | 49 | | | 0 | 1 |
| Other less-frequent promotions | 12 | | | 0 | 1 |
| Miscellaneous promotional allowances | 20 | | | 0 | 1 |
| Continuous variables | | | | | |
| Slotting allowance (\$) | | 5979.90 | 8011.90 | 0 | 42500 |

^b Standard deviations are given in parentheses.

4. Logit analysis of new product acceptance

The new product acceptance decision can be modeled as a discrete choice where the dependent variable, Y, is such that 1 indicates acceptance by the channel intermediary and 0 indicates rejection (Greene, 1993). A set of factors thought to explain this decision may be gathered in a vector, x, so that

$$Pr(Y_i = 1) = F(\mathbf{x}, \boldsymbol{\beta})$$

$$Pr(Y_i = 0) = 1 - F(\mathbf{x}, \boldsymbol{\beta})$$
(1)

The probabilities of these outcomes may be modeled in the regression

$$E[y] = 0[1 - F(\beta'x)] + 1[F(\beta'x)] = F(\beta'x)$$
(2)

A choice for the function $F(\cdot)$ may take the form of a simple linear regression, leading to the linear probability model. However, this model is unacceptable due to the heteroskedastic variance of the disturbance term, as well as the fact that predicted probabilities may extend beyond the interval between 0 and 1. A solution is to posit

$$Pr(Y_i = 1) = F(\boldsymbol{\beta}'\boldsymbol{x}) = F(Z_i)$$
(3)

where Z_i is a cumulative distribution function, whose value, by definition, is bounded between the interval of 0 and 1. For this analysis, we choose the logistic distribution for Z_i . Thus,

$$\Pr(Y_i = 1) = \frac{e^{\beta' x}}{1 + e^{\beta' x}} = \Lambda(\beta' x)$$
(4)

where e is the base of the natural logarithm, and $\Lambda(\cdot)$ shall represent the logistic cumulative distribution function. One should note that the parameters to be estimated in (2) are not the marginal effects we are accustomed to analyzing. In general, the marginal effects from a logit procedure are calculated as

$$\frac{\partial E(y)}{\partial x} = \left\{ \frac{\mathrm{d}F(\beta'x)}{\mathrm{d}(\beta'x)} \right\} \beta = f(\beta'x)\beta \tag{5}$$

where $f(\cdot)$ represents the probability density function. For the logistic distribution this density function is conveniently written in terms of $\Lambda(\cdot)$:

$$\frac{\mathrm{d}\Lambda(\boldsymbol{\beta}'\boldsymbol{x})}{\mathrm{d}(\boldsymbol{\beta}'\boldsymbol{x})} = \frac{\mathrm{e}^{\boldsymbol{\beta}'\boldsymbol{x}}}{(1 + \mathrm{e}^{\boldsymbol{\beta}'\boldsymbol{x}})^2} = \Lambda(\boldsymbol{\beta}'\boldsymbol{x})(1 - \Lambda(\boldsymbol{\beta}'\boldsymbol{x})) \tag{6}$$

Thus, by substitution into (5), we have

$$\frac{\partial E[y]}{\partial \mathbf{r}} = \Lambda(\boldsymbol{\beta}' \mathbf{x}) (1 - \Lambda(\boldsymbol{\beta}' \mathbf{x})) \boldsymbol{\beta} \tag{7}$$

As a final note, all marginal effects are observation dependent, and for this analysis are calculated at the means of the regressors.

The logit model in this analysis is based on the hypothesis that certain promotional offerings may influence the retail acceptance of a new product introduction. The operational

model, employing maximum likelihood estimation, is specified as follows:

$$\begin{aligned} \text{ACCEPT}_{\text{i}} &= b_0 + b_1 \text{FSI}_{\text{i}} + b_2 \text{CPN}_{\text{i}} + b_3 \text{FPO}_{\text{i}} + b_4 \text{TAD}_{\text{i}} + b_5 \text{RAD}_{\text{i}} + b_6 \text{ISD}_{\text{i}} \\ &+ b_7 \text{OTHER}_{\text{i}} + b_8 \text{ALL}_{\text{i}} + b_9 \text{SLOT}_{\text{i}} + b_{10} \text{SLOT}_{\text{i}}^2 \end{aligned}$$

where ACCEPT_i is the binary choice variable, which is equal to 1 if new product introduction i was accepted, and 0 if new product introduction i was rejected. Further, the independent variables describing new product introduction i are defined as follows:

FSI 1 if the promotional offers included a freestanding insert, 0 otherwise; **CPN** 1 if the promotional offers included coupons of some sort, 0 otherwise; 1 if the promotional offers included a free product offer, 0 otherwise; **FPO TAD** 1 if the promotional offers included co-op television advertising, 0 otherwise; 1 if the promotional offers included co-op radio advertising, 0 otherwise; **RAD** 1 if the promotional offers included in-store demonstrations, 0 otherwise; ISD **OTHER** 1 if the promotional offer included other, less frequent forms of promotion (sweepstakes, premium giveaways, and near product offers), 0 otherwise; 1 if the promotional offers included promotional allowances, 0 otherwise; ALL the dollar value of the slotting fee. **SLOT**

Further definitions of these promotional tactics can be found in Appendix A. Both the dollar value of the slotting fee and the square of this value are included as explanatory variables in order to allow for a possible nonlinear relationship with product acceptance. Preliminary research investigated potential differences that may exist due to the operating region of the respondents. In both individual and joint tests of hypotheses, regional dummies were not found to be significantly different from zero, and in general had little impact on the estimation results. Chi-square tests failed to reject the hypothesis of a homoskedastic relationship. Also, there was no evidence of highly correlated regressors.

5. Empirical results

The estimation results of the logit model presented in (8) are shown in Table 5. The maximized value of the log likelihood function is -25.343, with a goodness of fit of 0.611 as measured by McFadden's R^2 . Goodness of fit may also be evidenced by the model's prediction success. Overall, the model correctly predicts 87% of the observations (Table 6). A joint hypothesis that the slopes of all explanatory variables are zero was tested via Likelihood Ratio Test, and was subsequently rejected. The model suggests that the inclusion of certain promotional types in a new product offer may influence the probability of acceptance. Significant variables include the inclusion of freestanding inserts, coupons, free product offers, co-op television advertising, and in-store demonstrations and sampling. Slotting allowances, as defined by the coefficients on SLOT and SLOT² were not found to significantly impact the probability of product acceptance, as evidenced by individual t-ratios and a joint test of significance measured by a Wald Chi-square statistic.

On examination of the marginal effects, we see that the inclusion of television advertising and freestanding inserts have the greatest impact on the probability of accepting the new product

| Table 5 | | | | | |
|---------|------------|-----------|--------|-------|-------|
| Maximum | likelihood | estimates | of the | logit | model |

| Variable | Estimated coefficient | SE | Marginal effect ^a |
|--------------------------------------|-----------------------|------------|------------------------------|
| Freestanding insert | 2.867 ^b | 0.897 | 0.717 |
| Coupons | 2.037 ^b | 0.959 | 0.509 |
| Free product offer | 2.583 ^b | 1.208 | 0.645 |
| Television advertising | 2.897 ^b | 0.858 | 0.724 |
| Radio advertising | 2.340 | 1.615 | 0.585 |
| In-store demonstration/sampling | 2.122 ^b | 0.899 | 0.530 |
| Other less-frequent promotions | -0.276 | 1.156 | -0.069 |
| Miscellaneous promotional allowances | 0.211 | 0.844 | 0.053 |
| Slotting allowance | 0.279E-4 | 0.122E - 3 | 0.697E - 5 |
| (Slotting allowance) ² | -0.181E-8 | 0.441E - 8 | -0.451E-9 |
| Constant | -5.236^{b} | 1.353 | _ |
| Goodness of fit ^c | | | |
| $\ln L_0$ | -65.156 | | |
| $\ln L$ | -25.343 | | |
| McFadden R^2 | 0.611 | | |

^a Calculated as the product of the coefficient and the logistic density function. At the sample means, the value of this function is 0.2499.

introduction by 0.724 and 0.717, respectively. The use of free product offers, in-store demonstrations, and coupons were all found to significantly increase the probability of product acceptance by 0.645, 0.530, and 0.509, respectively. Of note, the coefficient estimate for the use of less frequently offered promotions (sweepstakes, premium giveaways, and near-pack offers) was found to be statistically insignificant. The sign on this coefficient was negative.

5.1. Simulation results

An alternative interpretation of results involves a simulation of probabilities under specified conditions. In this way, we may examine the relative impact of these results on the probability of product acceptance under specific conditions. An example of this type may be found in Verbeke, Ward, and Viaene (2001). To begin, we establish a base level of probability that a new product will be accepted. Fig. 1 shows the probabilities of product acceptance across

Table 6
Prediction success of the logit model

| Predicted | Actual | | Overall |
|-----------------|--------|----|---------|
| | 0 | 1 | |
| 0 | 43 | 8 | |
| 1 | 4 | 39 | |
| Percent correct | 91 | 83 | 87 |

^b Indicates significance at the 0.05 level.

^c $\ln L_0$ is the value of the log-likelihood function with a constant term only, $\ln L$ is the value of the estimated log-likelihood function, and the McFadden R^2 , or Likelihood Ratio Index, is calculated as $1 - (\ln L/\ln L_0)$.

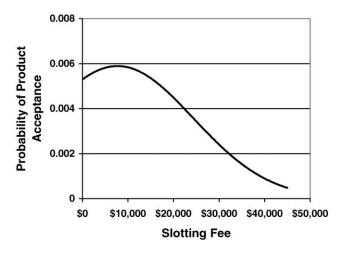


Fig. 1. Probability of new product acceptance across slotting fees.

values of the slotting fee under the assumption of no other promotional offers (FSI_i = 0, CPN_i = 0, FPO_i = 0, TAD_i = 0, RAD_i = 0, ISD_i = 0, OTHER_i = 0, ALLOW_i = 0). These base values are then considered to represent the lowest level of predicted probabilities. As can be seen in Fig. 1, the impact of the value of the slotting allowance is such that the probability of acceptance begins to decline after an offer of about \$10,000. The peak of this curve shows us that the slotting allowance has a very small impact (<1%) on the probability that a channel intermediary will accept a specific new product introduction.

However, it may be more informative to examine the relative impacts of including individual promotions in a new product offer. Setting a base level of probability at the mean of the value of the slotting allowance, we can then allow for the presence of individual promotions, indicating the change in probability from this base level. Fig. 2 shows the impact of these various promotions in relation to the base slotting allowance level (with a value of 0.006). Other cash allowances (ALLOW) and the other less frequent forms of promotion (OTHER) have a comparatively small impact when compared to the use of a slotting fee. However, the other

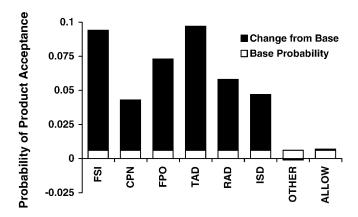


Fig. 2. Impact of various promotions on the probability of new product acceptance.

promotional tactics appear far more likely to elicit an acceptance of a new product introduction. For example, the use of television advertising support and freestanding inserts increase the probability of product acceptance by approximately 15 times.

6. Summary and conclusions

This analysis has successfully demonstrated that the product selection decision of supermarket channel intermediaries is significantly affected by a manufacturer's promotional offering, as evidenced by the results of the Likelihood Ratio Test. Specifically, co-op television advertising, freestanding coupon inserts, free product offers, in-store demonstrations, and coupons in particular were found to significantly increase the probability of product selection by 51% to 72%. However, the reader is reminded that this analysis of product selection is limited to the frozen food category. In addition, further research is warranted to investigate the stability of these results when accounting for different classes of retail operations.

Even so, manufacturers seeking to improve chances of product selection would do well to consider the use of the above promotions in their marketing campaign. The importance of coupons, advertising, and demonstrations to food retailers have also been reported by McLaughlin and Rao, as well as by Park and German in their study of promotional practices in the grocery industry.

A particularly interesting result is the lack of significance of slotting allowances in explaining product selection. This result is in agreement with the findings of McLaughlin and Rao, and Sullivan. Thus, while this analysis is unable to make assertions regarding slotting allowances as an expression of market power, the results do not support the type of behavior implied by those in support of the market power explanation of slotting allowances. However, respondents to the survey expressed interest in obtaining slotting allowances offered by manufacturers. In Table 2, we see that moderate attention is given to the amount of the slotting allowance when evaluating a new product offer, and the results from Table 3 indicate that retailers like to see a slotting allowance as part of the promotional offer.

This is not contrary to the results of the logit analysis, but may indicate the desire for greater options in managing product selection. Thus, the message from channel intermediaries seems to be that more promotional support is always preferred to less, and cash is always preferred to less direct, and logistically inefficient methods of support. Even so, results from this analysis show that a short run cash benefit from a slotting allowance is not a suitable exchange for long term profitability from proper product selection. In this light, the explanation of slotting allowances from this analysis is in agreement of Sullivan's view that they represent a risk-sharing mechanism.

Acknowledgments

The author is grateful for the suggestions of Edward W. McLaughlin and Vithala R. Rao of Cornell University, and Oral Capps Jr. of Texas A&M University. Errors and omissions remain the responsibility of the author.

Appendix A

Chain-wide sweepstakes A sweepstakes promotion offered in all stores through a

retail chain.

Co-op media Promotional advertising for a manufacturer's product that

appears on a retailers' television or radio ad and is funded

by the manufacturer.

Freestanding insert Print advertising that incorporates coupons collected into an

insert, commonly distributed with newspapers.

Frequent shopper programs The support by manufacturers of promotions offered by the

retailer through its loyalty card program (i.e., discounts—

paperless coupons, etc.)

In-ad coupons Coupons for manufacturers' products that appear in the

print ad of one retail company and are redeemable only

through that one company.

In-store coupons Coupons that are distributed in the retail store.

In-store demos/sampling The sampling of products in the retail store.

National sweepstakes A sweepstakes promotion advertised and promoted by a

national organization and available through various types of

retail stores throughout the country.

Near pack offers Premiums that are offered by manufacturers as an incentive

for purchasing a product and are available in the store.

Paperless coupons Coupons that are made available to consumers through a

frequent shopper program or some type of card marketing

program.

Premium giveaways Any promotion that offers a premium to consumers as an

incentive for purchase a product, often a mail-in offer. This promotion can also be one that offers a premium to a store

or department manager.

Promotional allowances Special deals offered to grocery retailers by manufacturers

that may include quantity or cash discounts.

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