



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



R.B. 2004-07
March 2004

FOOD INDUSTRY
MANAGEMENT

CORNELL
UNIVERSITY

The Coupon Report:

A Study of Coupon Discount Methods

Kristen Park
Miguel Gómez

Extension Support Specialist and Research Associate
Food Industry Management
Department of Applied Economics and Management
Cornell University

Teaching • Research • Executive Education

THE COUPON REPORT:

A Study of Coupon Discount Methods

Kristen Park and Miguel Gómez

Extension Support Specialist and Research Associate
Food Industry Management
Department of Applied Economics
and Management
Cornell University

March 2004

Supported in part by
Catalina Marketing

Abstract

Despite the savings they represent, coupon redemptions have been declining since the early 1990s (NCH Marketing, 2003). To stem this decline and to increase the effectiveness of their coupon offers, manufacturers frequently target coupon offers to specific consumer segments by using a variety of coupon delivery methods. Therefore, the objective of this study is to examine consumers' attitudes towards multiple coupon delivery methods to more efficiently and effectively target different consumer segments using the appropriate coupon vehicles.

A written survey was distributed to supermarket shoppers from three retailers in the Northeast in eight of their stores. Respondents reported using paper coupons much more frequently than any other coupon type. Almost 75% of respondents reported using paper coupons regularly ("every time" or "fairly often"). Conversely, only 7.3% of respondents said that they use online coupons regularly.

Regular users of checkout, in-store, and online coupons were, for the vast majority, subsets of paper coupon users. This pattern appears to support earlier studies which suggest that certain consumers may first need to have an underlying tendency to use coupons. Certain segments may then have a tendency to use specific coupon types over others.

An analysis using logit models suggest that respondent behaviors may be stronger predictors of regular coupon usership than demographics. Therefore attempting to target types of coupons using different demographic segments may not be cost effective.

Respondents' attitudes towards 3 coupon features may give clues as to why consumers respond or do not respond to offers via different coupon methods. More respondents agreed that paper coupons and shopper card discounts offer valuable savings rather than checkout, in-store, and online coupons. In addition, online coupons appear to take too much time to find and use. Overall, shopper cards were preferred by more respondents than any coupon method.

Table of Contents

- I. THE COUPON REPORT – Introduction..... 1**
- II. LITERATURE REVIEW..... 3**
 - Coupon Proneness in the Academic Literature 3
 - Industry Reports of Coupon Use..... 3
- III. METHODOLOGY 6**
 - The Survey..... 6
 - Validity 7
- IV. RESULTS..... 10**
 - Defining the Coupon Users..... 10
 - Attitudes Towards Coupon Methods and Features..... 15
 - Reasons for Using Coupons 19
- V. SUMMARY 22**
- REFERENCES 23**
- APPENDIX..... 25**

Tables and Figures

List of Tables

1. Respondent Profile	9
2. Percent of Regular Users Who Used the Coupon Method “Today”	11
3. Probabilities of Coupon Usership, by Coupon Type.....	14
4. Changes in the Frequency of Using Coupons in the Last Two Years	16
5. Measures of Attitudes Toward Different Coupon Types	16
6. Final Cluster Centers.....	18
7. Reasons Used “Frequently”, by Coupon Type	20
Appendix. Logit Models of Coupon Usership.....	25

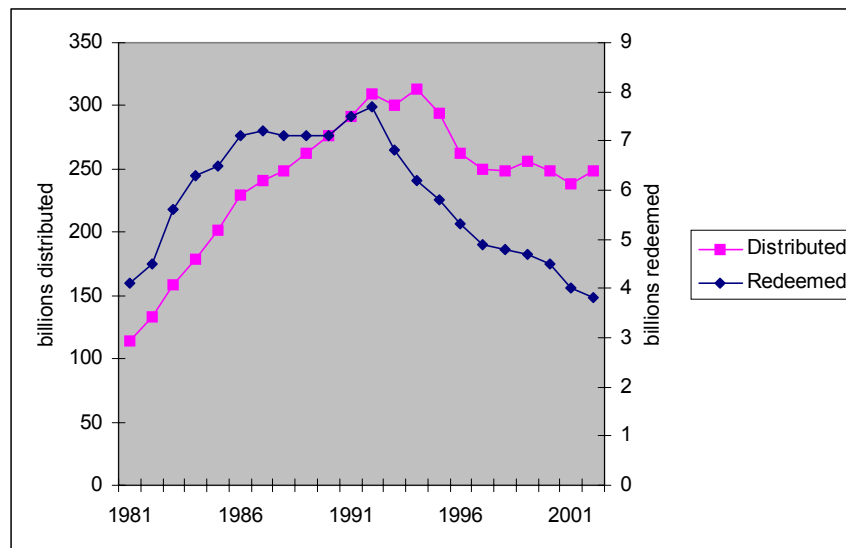
List of Figures

1. Number of Coupons Distributed and Number Redeemed, 1981-2002.....	1
2. Percent of Coupon Distribution by Coupon Type	2
3. Age of Respondents	7
4. Household Income of Respondents	7
5. Weekly Grocery Expenditures of Respondents.....	8
6. Frequency of Coupon Use by Coupon Type	10
7. Diagram of Coupon User Sets.....	12
8. Respondents Frequently Using Reason.....	21

THE COUPON REPORT - Introduction

Coupons represent important savings for consumers and an important promotion vehicle for both manufacturers and retailers. NCH Marketing (2003) reported that consumer packaged goods manufacturers (CPGs) distributed approximately 248 billion coupons in 2002 worth almost \$220 billion (Figure 1). Consumers redeemed 3.8 billion of these coupons and saved more than \$3 billion on their packaged goods purchases. Despite the savings they represent, coupon redemptions have been declining since the early 1990s (NCH Marketing, 2003). To stem this decline and to increase the effectiveness of their coupon offers, manufacturers frequently target coupon offers to specific consumer segments by using a variety of coupon delivery methods.

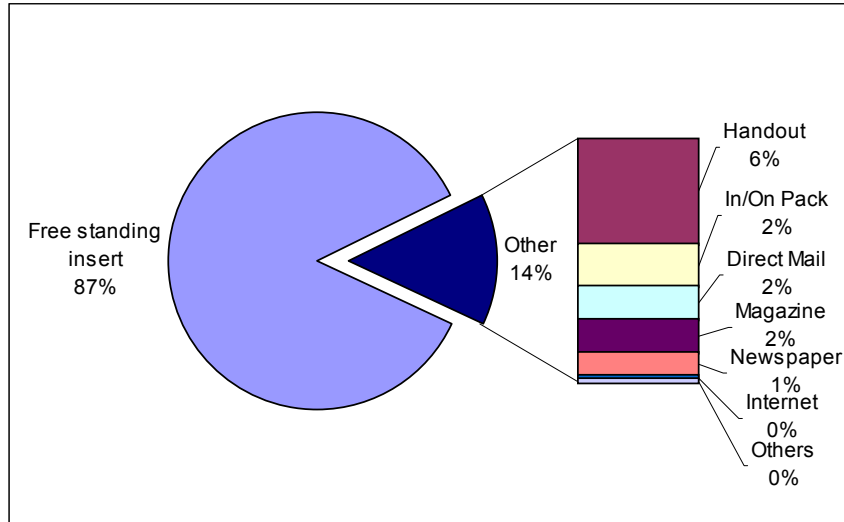
Figure 1. Number of Coupons Distributed and Number Redeemed, 1981-2002



Source: NCH Marketing, 2003

Principal among newer methods are shelf dispensers and shelf tear-off pads, online coupons, and handout coupons electronically dispensed at the checkout register. In addition to these newer delivery methods, traditional methods such as FSIs (free-standing inserts), newspapers, magazines, and store circular vehicles all remain in use. And in fact, FSIs remain by far the most prevalent method of delivering coupons to the U.S. consumer (Figure 2).

Figure 2. Percent of Coupon Distribution by Coupon Type



Source: NCH Marketing, 2003

The objective of this study is to examine consumers' attitudes towards multiple coupon delivery methods. Understanding consumers' tendency or proneness to use certain coupon methods will help marketers more efficiently and effectively target different consumer segments using the appropriate coupon vehicles.

I. LITERATURE REVIEW

Coupon Proneness in the Academic Literature

Most early studies employed demographic descriptors to characterize coupon users. (Narasimhan, 1984; Meloy, 1988; Bawa and Shoemaker, 1987). Marketing practitioners often use demographic data from the U.S. Census Bureau to target specific segments with direct coupon mailings and other promotional offers, yet studies assessing demographic characteristics often offer ambiguous explanations of consumers' use of coupons. For instance, Narasimhan (1984) and Meloy (1988) found that proneness to use coupons is high in middle-income households but lower in low- and high-income households. In contrast, Teel, et al. (1980) and Bawa and Shoemaker (1987) found a positive relationship between income and proneness. Karolefski, (2002b) reported that dual-income households are not willing to go through the effort of clipping and redeeming coupons in the traditional manner. On the other hand, the increase in the number of senior retirees may have a positive effect on coupon use (Verdon, 2001).

A number of academic studies argue that demographic variables do not fully describe coupon users and that other variables and models are needed (Mittal, 1994; Meloy, 1988). In particular, not only do consumers' demographic profiles directly influence coupon use, they also influence other consumer behaviors which in turn affect coupon use. In this spirit, Mittal (1994) suggested that demographics operate through a chain of attitudinal and behavioral mediators such as perception of financial wellness and comparison shopping and thus affect coupon use. Meloy (1988) reported that coupon users were more likely to exhibit certain shopping behaviors, such as shopping for more than ten years and shopping with children, among others.

There is a growing number of studies which measure the impact of alternatives to traditional paper coupons (c.f., Green, 1997; Heilman, Nakamoto and Rao, 2002). In addition, Ramaswamy and Srinivasan, (1998) and Colombo, et al. (2003) examine differences in coupon use by coupon redemption method among different consumer segments. Yet, little research has been conducted on the demographic and behavioral characteristics that could predict the use of alternative types of coupons. Examining whether there are differences (behavioral and demographic) across alternative coupon types is important to both retailers and manufacturers in order for them to target promotion practices more efficiently and effectively.

Industry Reports of Coupon Use

A major factor effecting coupon redemption rates, according to the industry, is the increase in dual income families. With more women, the traditional coupon clipper, working outside the home, busier families do not perceive coupon "clipping" as worth the effort. On the other hand, Lempert, the

Supermarket Guru, states, “I think senior citizens or certainly retirees have the time, first of all to really go through the newspaper or go through the magazines and find the coupons.” (Verdon, 2001).

Lempert predicts, however, that the time is coming for coupons to return to popularity. First, baby boomers who have seen declines in the stock market may become smarter shoppers. But more important, “computers and the Internet have made couponing cool.”

According to CoolSavings, an online direct marketing and media company, online coupon users come from larger households than regular coupon users. These online coupon users spend 30% more on weekly grocery expenditures than regular users. (*internet retailer*, 2002). Another study by Forrester Research reported that online coupon users may be less brand loyal than non-users. When asked how they typically choose products, E-coupon users stated that they get the lowest priced (brand), while non-users said they get their usual brand.” (Chain Store Age, 2003)

Some pros and cons of various coupon methods are briefly described below. Since the completion of this project, a major incidence of online coupon fraud occurred, causing many retailers to turn away online coupons. Internet coupon companies are scrambling to ensure that this does not happen again, instituting a number of checks and balances. Retailers, too, are educating their cashiers on how to detect internet coupon fraud.

Pros and Cons of Some Alternative Coupon Methods

Checkout Register Coupons—Coupons may be delivered to shoppers at the checkout register on the register tape itself or on separate coupon slips generated from a laser printer at the register. Checkout coupons are often linked to scan data and are usually part of offers targeted to shoppers’ according to their purchase patterns. This provides the ability to market one-on-one with the consumer, rewarding and compensating targeted shoppers. Redemption rates for these coupons are approximately 7% (NCH Marketing 2002).

In-Store Coupons—Coupons available at the point of decision making, at the store shelf, can swing a consumer’s vote for a product. “Three-quarters of purchase decisions are made in-store at the point of sale. Anything you can do to influence consumers at that critical decision-making point is of great value,” according to Sara Owens, president of Promo Pros (Karolefski, 2002a). In-store coupons may also appeal more to those consumers who do not want to spend the time searching for, clipping out, and bringing in coupons to the store. NCH Marketing reports on-shelf distribution redemption rate of almost 7% in 2001 (NCH Marketing 2002).

Online Coupons—Direct mailings to consumers are relatively expensive to execute. A low-cost option which is also highly flexible and has the ability to target certain consumers is the use of online coupons. Delivery of coupons through existing online coupon service firms or through company websites can be inexpensive and distribution to the market can happen within days of planning rather than weeks or months for methods using printed media.

While costs to deliver coupons online may be very low, the number of consumers accessing those coupons is much lower than traditional methods. A Forrester Research study reported that only about 38% of U.S. *online* households use Internet coupons (Chain Store Age, 2003). “When asked how coupons downloaded from the Internet compared with coupons garnered from off-line sources, 54% of respondents said it was harder to find coupons online.”

Once consumers find online coupons they may find them to be particularly attractive. CMS, a coupon management company, indicated that the average savings per coupon in 2002 was 97 cents for online coupons and only 81 cents for offline coupons (Tedeschi, 2003). In addition, the average time to expiration is longer for online coupons, 4.8 months versus 3 months for offline coupons. They are also less apt to require consumers to buy more than one unit.

Frequent Shopper Cards—Retailers offer discounts or “clipless offers” to shopper card holders which are advertised in circulars, flyers, and in the store. Offers to card holders may also be targeted according to their purchase patterns and communicated by direct mailings or by checkout register coupons or messages.

II. METHODOLOGY

The Survey

A written survey addressed the topics of grocery shopping behaviors, coupon use, and demographic characteristics. It was designed to help to differentiate or define the profiles of shoppers who regularly use various types of coupons.

Attention to media, readership of newspapers and promotions, may be associated with information gathering and shopping expertise (Higie, *et al.* 1987) as well as being a major source for obtaining coupons. Economizing activities other than coupon use are also associated with the concept of being a thrifty shopper and may or may not be associated with coupon usership. Therefore the behavior issues included a set of “readership” questions and a set of “economizing activities” questions. The questions were multiple choice and scaled.

The coupon methods used in this study and a brief description of each are listed below:

- **Paper coupons:** coupons usually from a flyer, magazine, newspaper, mail, or product package which has to be clipped or removed and brought to the store to be redeemed
- **Checkout register coupons:** coupons printed on a grocery receipt or on a separate strip of paper and handed out at the checkout register at the conclusion of the checkout transaction
- **In-Store coupons:** coupons found at various points throughout the store, such as dispensers or tear pads next to a product, in-store ads, or from store kiosks
- **Online coupons:** found online, usually at a retailer, manufacturer, or coupon provider website; may also be sent automatically by email; for instance, ValuPage coupons which are printed and brought to the store to receive ValuPage money-off savings

Interviewers distributed surveys to supermarket shoppers from three retailers in eight stores. The stores were located in the Northeast and Mid-Atlantic regions and in a mix of urban and rural areas. No attempt was made to guarantee that they were representative of all supermarket stores in the U.S. Rather, they were selected in order to provide a variety in customer demographics so that possible differences in coupon use could be examined when analyzing by shopper demographics and behaviors.

Shoppers were asked to complete the survey at home and return it in the envelope provided. A total of 1,750 surveys were distributed with 855 useable returns for a response rate of 48.9%.

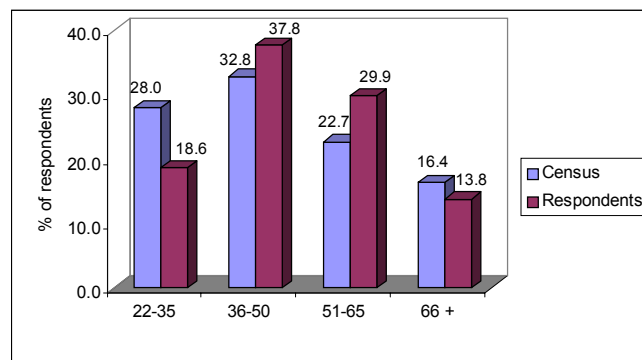
Validity

The demographic profile of respondents in this study (Table 1) were compared with government and industry statistics for Northeast U.S. consumers. Overall, the comparisons of various shopping behaviors between study respondents and Food Marketing Institute's (FMI) *Trends* respondents indicate that this study closely represents shopping behaviors of the general population in the Eastern U.S. although some minor differences exist.

Thorough comparisons indicate:

- a somewhat greater proportion of study respondents were aged 36-65 than the regional average (Figure 3)

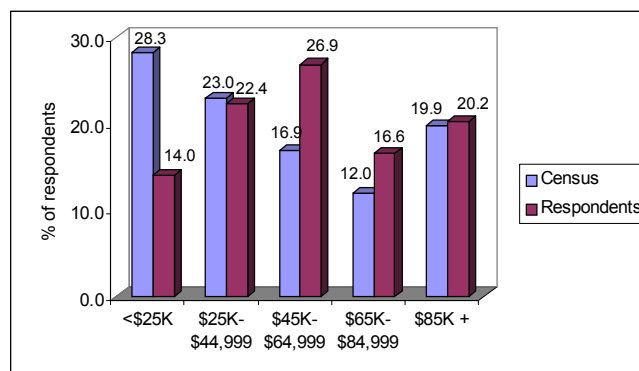
Figure 3. Age of Respondents



Sources: U.S. Census Bureau; Bureau of Labor Statistics, *Consumer Expenditure Survey*

- more respondents in the study had households earning \$45,000-\$64,999 as compared to the regional average (Figure 4)

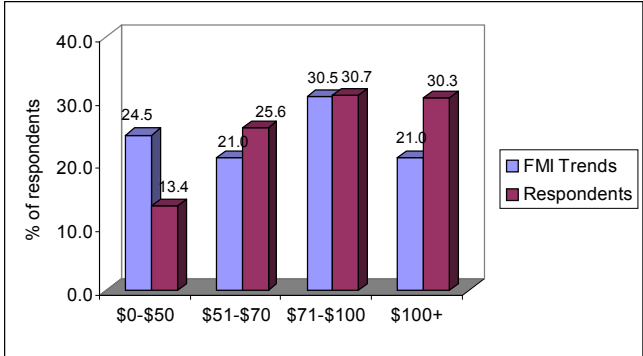
Figure 4. Household Income of Respondents



Sources: U.S. Census Bureau; Bureau of Labor Statistics, *Consumer Expenditure Survey*

- household size was slightly greater among study respondents
- a somewhat higher weekly grocery expenditures (the tendency of these study respondents to have larger households may contribute to this finding) (Figure 5)

Figure 5. Weekly Grocery Expenditures of Respondents



Source: Food Marketing Institute, *Trends in the United States, 2002*.

- same proportion of female/male shoppers
- nearly identical “economizing shopping behaviors” as described by the FMI *Trends*

Table 1. Respondent Profile

Variables	% of Respondents
Age	
22-35	16.6
36-50	36.4
51-65	30.8
66 or over	16.2
Household Income	
<\$25,000	14.0
\$25,000-\$44,999	22.4
\$45,000-\$64,999	26.9
\$65,000-84,999	16.6
\$85,000 or over	20.2
Mean Household Size	2.9
Mean Number Under 18 years	0.68
Mean Number of Earners	1.7
Gender of Shopper	
Female	77.9
Weekly Grocery Expenses	
\$0-50	13.4
\$51-70	25.6
\$71-100	30.7
\$100+	30.3
Readership	
Read the daily newspaper	67.3
Read the Sunday newspaper	77.9
Read promotion/ad flyers sent in mail	78.3
Read promotion/ad flyers in newspapers	75.7
Receive an online newspaper	4.8
Shop Online	27.7
Economizing Behaviors (<i>% responding "every time I shop"</i>)	
Look in newspapers for grocery specials	50.5
Buy store brands or lower priced brands instead of national brands	13.3
Stock up on an item when you find a bargain	36.3
Compare grocery prices at different stores	25.5
Go to stores other than your primary grocery store for advertised specials	17.3
Buy products on special even if you hadn't planned to buy them that day	17.3

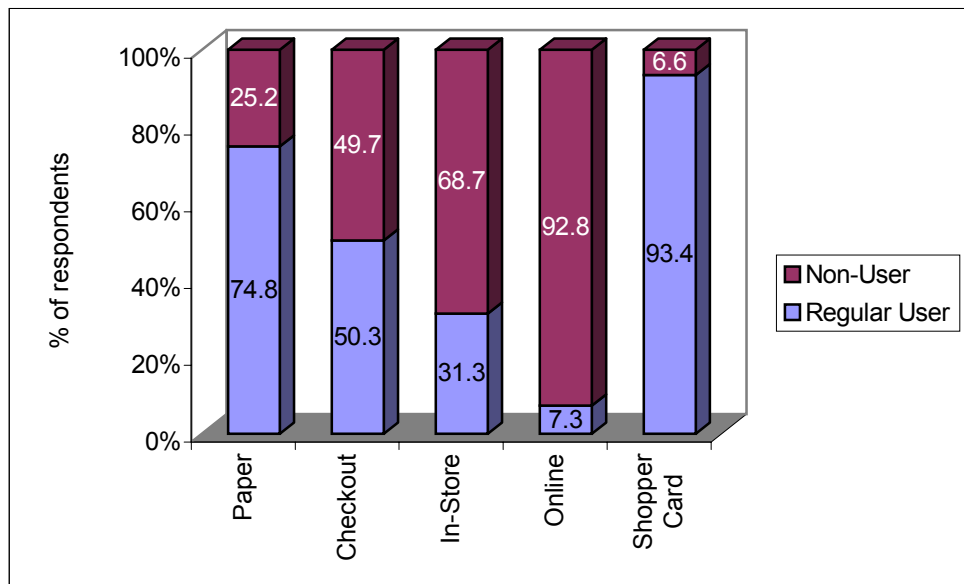
III. RESULTS

Defining the Coupon Users

Respondents were placed in categories defined by which coupons they used and how frequently they used those coupons. For example, those who reported using paper coupons “every time” or “fairly often” when shopping were designated regular paper coupon users; those who reported using checkout coupons “only occasionally” or “never” were designated as irregular checkout coupon users.

Respondents reported using paper coupons much more frequently than any other coupon type (Figure 6). Almost 75% of respondents reported using paper coupons regularly (“every time” or “fairly often”). Conversely, only 7.3% of respondents said that they use online coupons regularly.

Figure 6. Frequency of Coupon Use by Coupon Type



Reliability

Consumer perceptions and actual behavior sometimes diverge. We compared respondents self-reported perceptions of how frequently they use coupons with actual use on the day the survey was distributed.

For purposes of reliability, a subset of respondents were asked the day they received the survey whether or not they had actually used a coupon and what type of coupon they had used during the shopping trip. Regular coupon users were crosstabbed with actual use on the day the surveys were distributed. A greater proportion of “regular” coupon users—across every coupon type—did indeed use coupons than those who were labeled “irregular” users (Table 2). For example, 72.7% of regular paper coupon users used a paper coupon on the day the survey was distributed while only 32.7% of irregular paper coupon users used a paper coupon.

We should note that although regular users said they used the coupon type “every time” or “fairly often” when they shopped, there is still a large variation in actual use among coupon types. Almost 73% percent of regular *paper* coupon users used a paper coupon, whereas only 36.4% of regular *online* users used an online coupon. While we can be fairly certain that regular users do use coupons more frequently than irregular users, we cannot be certain that the label “regular” represents the same use across all coupon types.

Table 2. Percent of Regular Users Who Used the Coupon Method “Today”

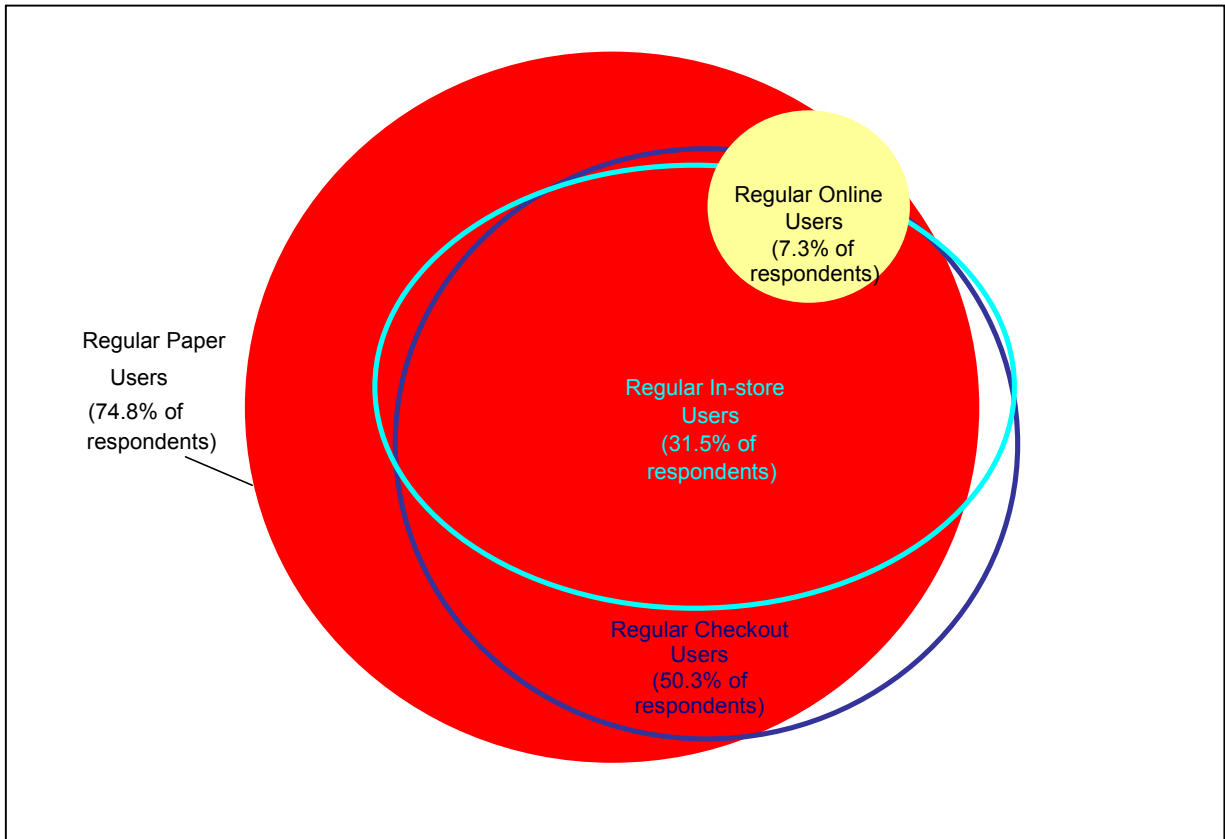
Coupons Used Day of Survey Distribution	Regular User by coupon type	Non-User by coupon type
	<i>% who used coupon “today”</i>	
Paper	72.7%	32.7%
Online	36.4	5.7
Checkout		
Paper Strip	36.7	23.4
Register Tape	24.3	16.1
In-Store	25.0	12.0

Coupon User Sets

One question often asked within the consumer packaged goods industry is whether consumers are prone to use only certain coupon types or whether they are prone to use any coupons regardless of type. Colombo, et al. reported both are true. Whereas some consumers were coupon prone across all coupon types, others were prone to use just specific coupon types. The researchers discussed the possibility that consumer segments may first have an underlying tendency to use coupons and beyond that may tend to use specific coupon types over others. The researchers suggested that the most practical way to manage coupons may be to act as though coupon proneness is type specific.

Results from this study suggest the value of this argument. Figure 7 depicts the various set memberships of regular coupon users of each coupon type. The largest circle represents respondents who reported using paper coupons regularly (74.8% of respondents), while the remaining circles represent regular users of checkout, in-store, and online coupons. When looking across the coupon types defined in this study, we see that regular users of checkout, in-store, and online coupons were, for the vast majority, subsets of paper coupon users.

Figure 7. Diagram of Coupon User Sets



Following Mittal's (1994) suggestion that demographics operate through a chain of mediators such as perception of financial wellness and comparison shopping, and following evidence from Blattberg (1997) that coupon proneness could operate through a chain of behaviors with demographics as an early descriptor which influences subsequent behaviors and beliefs, we also posit that demographics alone are likely not sufficient descriptors of the likelihood of someone being prone to using coupons.

A logit regression model was developed for each coupon type using the demographic and behavioral variables from the survey. This method was used to identify variables that significantly predict the description of regular coupon users and can be used to predict the probability of a shopper being a regular coupon user.

Empirical model

We employ binary constructs to measure coupon use. That is, CU_i equals 1 if the respondent is a regular user of coupons type i , zero otherwise ($i = \text{Paper, Checkout Register, In-Store, Online}$). Logit models are used to calculate the probability that a consumer is a regular coupon user conditioned to demographic and behavioral characteristics:

$$(1) \quad P(CU_i = 1 | \mathbf{D}, \mathbf{B}) = G(\gamma + \mathbf{D}\hat{\alpha} + \mathbf{B}\hat{\beta}),$$

where \mathbf{D} and \mathbf{B} are vectors of demographic and behavioral variables respectively; γ , α , β , are the corresponding coefficients; and G is the logistic function. The parameter estimates are presented in the Appendix.

We employ the parameter estimates in the Appendix to calculate probabilities of being a coupon user in Table 4. Note that readership and economizing behaviors have the largest impact on the probability of being a coupon user, except in the case of online coupons. To illustrate the impact of statistically significant variables on coupon usership we construct a baseline profile (Profile 1) that consists of dummy variables included in the intercept (males, no economizing behaviors, no readership, and no online shopping); age of respondent between 22 and 35; annual income less than \$25,000; weekly grocery expenditures between \$0-\$50; and the mean value for the household-level scale variables (three individuals; two earners). Table 3 shows that the probability of a consumer with the characteristics of Profile 1 being a paper coupon user is 7.8%. Under Profile 2 for paper coupons, adding the significant readership and economizing behaviors from the logit model (Appendix) increases the probability of coupon use substantially (87.3%). Profiles 3 - 5 change the significant, positive demographic variables. The change of gender to female, an increase in household size from three to five, and an increase in weekly grocery expenses to \$51-\$70 increases the probability of paper coupon usership by 10.4%.

This pattern of probability being more highly influenced by behavioral variables rather than demographic variables holds for checkout coupon users and in-store coupon users. For online coupon users, however, demographics do appear to play a more significant role. When significant readership and economizing behavior variables are added to the online Profile 1, the increase in probability is small (from 0.1% to 8.1%). When income \$25K-\$44,999 is added (Profile 4) probability increases to 37.9%. We summarize the main effects of relevant demographic and behavioral variables on the probability of coupon use for each type below.

The Paper Coupon User

The logit results for paper coupon usership resemble what most practitioners might normally consider a traditional coupon user. Paper coupon use is positively associated with household size and is also associated with being female. Weekly grocery expenses of \$51-\$70 significantly increase the likelihood of a consumer being a paper user. Paper coupon users read daily and Sunday newspapers which traditionally are very important sources of paper coupons. They also read promotional materials mailed to them. They search out specials in newspapers and compare store prices. The importance of readership in the model suggest a tendency for the paper coupon user to be a very active shopper, one who reviews all the information available in order to make informed choices. This is the only user who still reads both daily and Sunday papers.

Table 3. Probabilities of Coupon Usership, by Coupon Type

	Probability*
Paper Coupon Users	
<i>Profile 1:</i> Constant + Age(22-35) + Income(<\$25K) + HHSize(3) + Earners(2) + Male + Expenditures(\$0-\$50) + Readership(do not read) + Shop online(no) + Economizing(never)	0.078
<i>Profile 2:</i> Profile 1 + Readership(daily paper; Sunday paper; mail promos) + Economizing(looks in papers for specials; compares store prices)	0.873
<i>Profile 3:</i> Profile 2 + HHSize(5)	0.913
<i>Profile 4:</i> Profile 3 + Female	0.957
<i>Profile 5:</i> Profile 4 + Groceries(\$51-70)	0.977
Checkout Users	
<i>Profile 1:</i> Constant + Age(22-35) + Income(<\$25K) + HHSize(3) + Earners(2) + Male + Expenditures(\$0-\$50) + Readership(do not read) + Shop online(no) + Economizing(never)	0.174
<i>Profile 2:</i> Profile 1 + Readership(reads mail promos) + Shops online + Economizing(specials in newspapers; shops other stores for specials; buys unplanned on special)	0.604
<i>Profile 3:</i> Profile 2 + Earners(3)	0.658
In-Store Users	
<i>Profile 1:</i> Constant + Age(22-35) + Income(<\$25K) + HHSize(3) + Earners(2) + Male + Expenditures(\$0-\$50) + Readership(do not read) + Shop online(no) + Economizing(never)	0.109
<i>Profile 2:</i> Profile1+ Readership(read mail promos; read newspaper promos; gets online newspaper) + Economizing(compares store prices)	0.400
<i>Profile 3:</i> Profile2 + Age(51-65)	0.284
<i>Profile 4:</i> Profile2 + Age(66+)	0.233
<i>Profile 5:</i> Profile4 + Groceries(\$51-70)	0.342
<i>Profile 6:</i> Profile4 + Groceries(\$100+)	0.431
Online Users	
<i>Profile 1:</i> Constant + Age(22-35) + Income(<\$25K) + HHSize(3) + Earners(2) + Male + Expenditures(\$0-\$50) + Readership(do not read) + Shop online(no) + Economizing(never)	0.001
<i>Profile 2:</i> Profile 1+Readership(mail promos; newspaper promos; receives online paper) + Shops online + Economizing(specials in papers; stocks up)	0.081
<i>Profile 3:</i> Profile 2 + Age(51-65)	0.030
<i>Profile 4:</i> Profile 2 + Income(\$25-\$44,999)	0.379
<i>Profile 5:</i> Profile 2 + Income(\$45-\$64,999)	0.375

*probabilities calculated using the parameter estimates in the Appendix

The Checkout Coupon User

Checkout coupon users tend to have more earners per household than those who do not use checkout coupons; however, household income is not a significant variable in predicting usership. Users are more apt to read promotions sent to them in the mail; however, they are not any more likely to read a daily or Sunday newspaper than non-users. They do shop online more than non-users. Economizing behaviors which are significant to the model include looking in papers for specials, shopping alternate stores for specials and buying products on special even if they had not planned to. It may be possible to characterize these users as being interested in economizing, but not to the extent of perusing the newspapers and magazines for coupons to clip. When they are offered a valuable coupon which they do not have to search out, however, they tend to use it.

The In-Store Coupon User

This in-store coupon user is younger than the in-store non-user. Consumers age 51 and over are less likely to be in-store users. This age variable is the only significant demographic factor. The effect of weekly grocery expenses is bimodal. Grocery expenses of \$51-\$70 and \$100 and over are more likely than age categories to influence the likelihood of a consumer being an in-store user. This user reads promotions in the mail but reads promotions in the newspapers less than non-users. S/he is not any more likely to read a daily or Sunday paper than a non-user; however, s/he is more prone to receive an online newspaper. The only economizing behavior this user has over a non-user is s/he is more prone to compare store prices.

The Online Coupon User

The online coupon user may be somewhat younger than the non-user. Consumers age 51-65 are significantly less likely to be online users than consumers age 22-35. Those consumers whose household income is \$25K-\$64,999 are more likely to be users. Online coupon users are also more likely than non-users to be online in other respects, to receive an online newspaper and to shop online. They may be more likely to read promotional material in the mail, but they are less likely to read promotions in the papers. Although they more frequently look in newspapers for specials, this is the only active, participatory economizing behavior. They will stock up on a bargain if they see it.

Attitudes Towards Coupon Methods and Features

Usage Trend

This study asked shoppers, "Over the past 2 years have you been using different types of coupons or shopper card discount more frequently, less frequently, or has your use stayed the same?" In general, respondents indicated a tendency to be using certain coupons more frequently (Table 4). In particular, almost 43% of respondents reported using paper coupons more frequently, and only 17% said they were using them less frequently. In addition, a larger portion of respondents reported using checkout coupons more frequently rather than less.

Online coupons were an exception to this trend. Only 9.3% of respondents reported using them more frequently while 33.5% said they were using them less. The demise of many dot com companies and the

subsequent withdrawal of internet coupon support by many manufacturers led to a reduction in the volume of offers over the Internet until just recently.

Table 4. Changes in the Frequency of Using Coupons in the Last Two Years

Coupon Type	More Frequently	Less Frequently	Stayed the Same
	<i>% of respondents</i>		
Paper	42.5%	16.7%	40.8%
Checkout	35.8	22.6	41.6
In-Store	22.6	27.4	50.1
Online	9.3	33.5	57.1
Frequent shopper card	64.6	2.2	33.3

Attitudes toward Features

Shoppers rated coupon types on three features: value, time, and preference. On a scale of 1 to 4 where 1=strongly disagree and 4=strongly agree, respondents appear to regard shopper cards very highly. Almost 74% of respondents “strongly agreed” that shopper card discounts offer valuable savings, and only 6.5% “strongly agreed” that it takes too much time to use (Table 5). Just over 80% of respondents “strongly agreed” that they prefer shopper card discounts.

In agreement with the study by Forrester Research (Chain Store Age, 2003), which indicated that consumers found searching for online coupons difficult, just over 50% of our respondents “strongly agreed” that it takes too much time to use online coupons. Also, only 20.5% “strongly agreed” that they are valuable, and only 10.3% “strongly agreed” that they preferred to use online coupons.

Table 5. Measures of Attitudes Toward Different Coupon Types

Measure	Paper	Checkout	In-Store	Online	Shopper Card
	<i>% of respondents reporting “strongly agree”</i>				
This coupon offers valuable savings	62.4%	31.1%	19.5%	20.5%	73.9
It takes too much time to use this coupon	14.0	8.4	8.3	50.3	6.5
I prefer to use this type of coupon	62.8	32.2	24.3	10.3	80.3

Clustering Using Frequency of Use and Attitudes About Coupon Features

Clustering is a method used to classify study objects. Its classical use in marketing is to assist in segmenting customers into homogenous groups so they can more easily or effectively be targeted for

some marketing program. Specifically, clustering creates groups using multiple variables in such a way that there are minimum differences within groups and maximum differences among groups (Churchill, 1991).

In this analysis, we cluster shoppers by their attitudes towards the different coupon features presented above and their self-reported use of these coupon types to examine if any natural groupings exist. For example, a cluster may consist of consumers who: use coupons frequently; are very happy with the value; satisfied with the time it takes; and prefer to use coupons.

Three respondent clusters were extracted which appear logical and well defined. The largest cluster is Cluster 1 which contains 51% of the respondents (Table 6). This cluster centers around using paper and checkout coupons every shopping trip or fairly frequently, while in-store and online coupons are used less frequently. Shoppers in Cluster 1 also appear to strongly agree or agree in a positive way to the features of valuable savings, time, and preference.

Cluster 2, however, which contains about 30% of the respondents, are infrequent coupon users. They may agree that many of the coupon types are valuable and they may say they prefer them, yet it may take too much of their time to use coupons, especially paper, checkout and online coupons.

The attitudes and behavior of Cluster 3 lie somewhere between Clusters 1 and 2. Cluster 3 contains almost 19% of the respondents. They report using all coupon types, except online coupons, fairly often, yet they do not agree that paper coupons are valuable nor do they prefer them. This is the only group which apparently does not rate paper coupon features highly, yet appears to think more highly of checkout and in-store coupons. This group rated online coupon features more highly than did the other clusters.

Table 6. Final Cluster Centers

	Clusters		
	1	2	3
<i>cluster centers</i>			
Frequency of Use			
Paper coupons	1	3	2
Checkout coupons	2	3	2
In-store coupons	3	3	2
Online coupons	4	4	3
Paper coupons			
“I find these valuable”	4	3	2
“I prefer these”	4	3	2
“It does not take too much time to use these”*	4	2	2
Checkout coupons			
“I find these valuable”	3	3	3
“I prefer these”	3	2	3
“It does not take too much time to use these”*	4	2	3
In-Store coupons			
“I find these valuable”	3	3	3
“I prefer these”	3	2	3
“It does not take too much time to use these”*	4	3	3
Online coupons			
“I find these valuable”	3	2	3
“I prefer these”	2	1	3
“It does not take too much time to use these”*	2	1	2
Number of Cases in each Cluster			
Cluster	1	433	
	2	258	
	3	162	

*the feature of “time” has been flipped to match the scale of the other features

Reasons for Using Coupons

Manufacturers distribute coupons to solicit consumer trial as well as repeat purchasing. Specifically they may use them for inducing trial of an existing product or a new product, increasing sales, increasing market share, rewarding loyal users, and generating repeat purchases.

Worth-Baker, writer for the New York Times, prosaically described the reasons she, as a consumer, uses coupons:

“I like to experiment with new food, and coupons allow me to try things with less commitment to love them. . . And with coupons I can indulge my kids’ preferences for particular brands of raisins and yogurt without the I-should-be-buying-generic internal debate. For myself, too, I hoard shampoo coupons to avoid choosing between preference and price.”

Academics describe consumers’ reasons for using coupons in a rather more pedestrian fashion. Meloy (1988) reported that, overwhelmingly, respondents (93.1%) reported that using coupons made their grocery bill “much lower” or “slightly lower”. Fifty-five percent “strongly agreed” or “agreed” that coupons allowed them to buy a more expensive brand of a product they would have bought anyway; 57.3% said coupons “always” or “frequently” affected the brand selected.

Teel, et al. (1980) studied consumers who used coupons for new product trial versus those who never used coupons for trial. Eighteen percent of respondents said coupons “usually” influence their decision to try new products. Chain Store Age (1998) reported that 42% of shoppers strongly agreed that they often become aware of new products through samples or coupons. And Raphel (1995) claimed that one-third of consumers will actually use coupons to try a new brand. Raphel also reported that 9% consumers use coupons to buy brands they would have purchased anyway.

The survey used in this study provided shoppers with a list of possible reasons for using coupons in order to examine whether these reasons vary across different coupon types. Respondents who cited using a reason “every time I use this coupon” or “fairly often” were designated as using the reason “frequently”. For example, almost 34% of respondents who used paper coupons said they frequently (“every time” or “fairly often”) use them “to try a product they had never bought before” (Table 7).

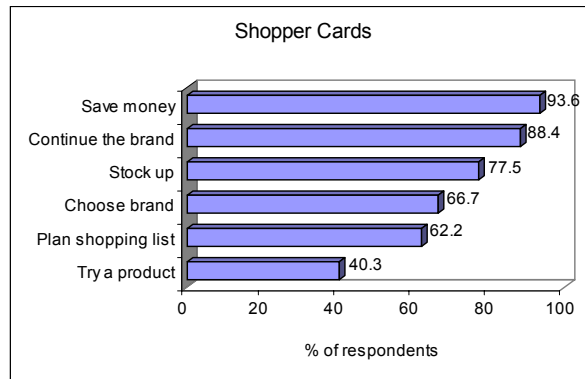
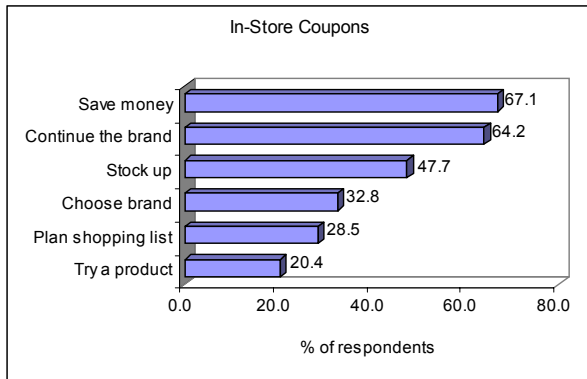
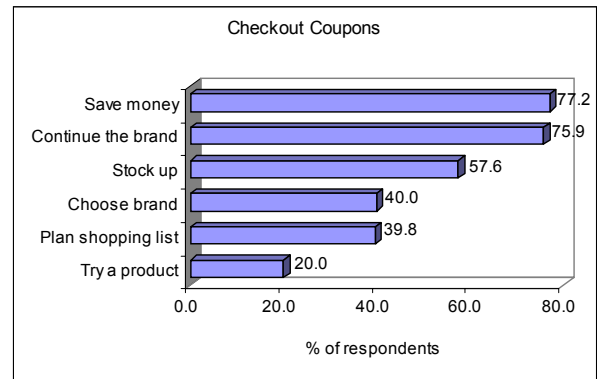
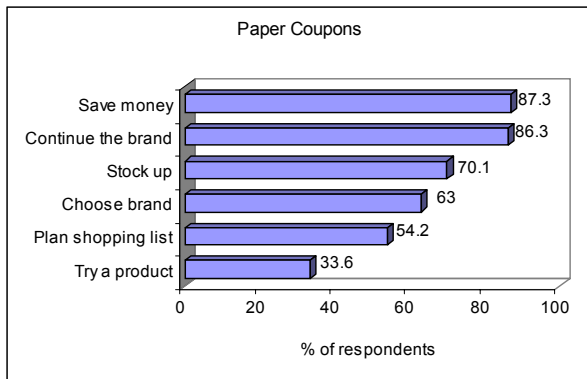
Although the percentage of respondents using coupons “to try a product they had never bought before” varies by coupon type, we do not believe this is strictly due to the different characteristics of each coupon type. One possibility is that respondents who use those coupons less frequently, automatically answered the question as being about frequency per shopping occasion as opposed to frequency per use of coupon. For example, if a person uses online coupons infrequently they therefore answered all the reasons as using infrequently.

Table 7. Reasons Used “Frequently”, by Coupon Type

Reasons	Coupon Type			
	Paper	Checkout	In-Store	Online
	<i>% of respondents who use “frequently”</i>			
To try a product you have never bought before	33.6	20.0	20.4	16.2
To choose which brand of an item you plan on buying	63.0	40.0	32.8	25.5
To continue buying the brand you like	86.3	75.9	64.2	45.2
To stock up on an item at a reduced price	70.1	57.6	47.7	37.6
To help plan your shopping list	54.2	39.8	28.5	22.8
To primarily save money on your total grocery bill	87.3	77.2	67.1	47.8

Regardless of coupon type, the reason for using coupons reported by the most respondents was to primarily save money on their total grocery bill (Figure 8). Closely following this reason, respondents also indicated that they use coupons to continue buying the brand that they like. And as a close third, respondents indicated they use coupons to stock up on items at a reduced price. The ordering of the reasons most highly used by respondents is identical across coupon types.

Figure 8. Respondents Frequently Using Reason



IV. SUMMARY

Respondents reported using paper coupons much more frequently than any other coupon type. Almost 75% of respondents reported using paper coupons regularly (“every time” or “fairly often”). Conversely, only 7.3% of respondents said that they use online coupons regularly.

Researchers note that regular users of checkout, in-store, and online coupons were, for the vast majority, subsets of paper coupon users. This pattern where the vast majority of respondents use paper coupons (routinely delivered via mass media) and where subsets of respondents use the more constrained or targeted coupon methods appears to support earlier studies which suggest that certain consumers may first need to have an underlying tendency to use coupons. Certain segments may then have a tendency to use specific coupon types over others. Those researchers suggested that the most practical way to manage coupons may be to act as though coupon proneness is type specific.

Marketers frequently use demographics to segment and target coupons. When logit models were used to predict the “regular user” profile of various coupon methods, respondent behavior appeared to be stronger predictors of regular coupon usership than demographics (see Table 4). Therefore attempting to target types of coupons using different demographic segments may not be cost effective.

Respondents’ attitudes towards 3 coupon features may give clues as to why consumers respond or do not respond to offers via different coupon methods. More respondents agreed that paper coupons and shopper card discounts offer valuable savings rather than checkout, in-store, and online coupons. In addition, online coupons appear to take too much time to find and use. Overall, shopper cards were preferred by more respondents than any coupon method (see Table 6).

The results of the logit model on predicting coupon usership of various types of coupons suggest that targeting specific coupon types using demographic profiles alone is not an efficient method of coupon distribution. Behavioral segmentation may offer marketers the possibility of delivering coupons in a more efficient, targeted manner than mere mass distribution. For example, consumers’ likelihood to be news media readers, particularly those who read promotional mailings, is more predictive of coupon usership. Not surprisingly, the other economizing behaviors used in the study to help predict coupon use are also more closely associated with coupon usership than are demographics.

These behavioral segments offer promise for marketers, but also a challenge. Identifying, isolating, and targeting methods to behavioral segments requires difficult and costly research. This study does not measure efficiency of each coupon delivery method, therefore, to determine efficiency of delivery method a study including an economical analysis should be conducted. A devil’s advocate might suggest that the low-cost, mass distribution of paper coupons may ultimately provide the best bang for the buck.

REFERENCES

- Bawa, Kapil and Robert W. Shoemaker. 1987. "The Coupon-Prone Consumer: Some Findings Based on Purchase Behavior Across Product Classes," *Journal of Marketing*, 51(October):99-110.
- Churchill, Gilbert A., Jr.. 1991. *Marketing Research Methodological Foundations*, The Dryden Press, Orlando, FL.
- Colombo, Richard, Kapil Bawa, and Sirini S. Srinivasan. 2003. "Examining the Dimensionality of Coupon Proneness: A Random Coefficients Approach," *Journal of Retailing & Consumer Services*, 10(1):27-33.
- "E-Coupons Hard to Find," *Chain Store Age*, June 2003.
- Green, Corliss L. 1997. "In-store vs. out-of-store coupons: An examination of Anglo-, African-, and Hispanic-American redemption," *Journal of Marketing Theory and Practice*, 5 (1): 113-121.
- Heilman, Carrie M., Kent Nakamoto and Ambar G. Rao. 2002. "Pleasant Surprises: Consumer Response to Unexpected In-Store Coupons," *Journal of Marketing Research*, 39(2): 242-252.
- Higie, Robin A., Lawrence F. Feick and Linda L. Price. 1987. "Types and Amount of Word-of-Mouth Communications About Retailers," *Journal of Retailing*, 63(Fall):260-278.
- internet retailer*. 2002. "Online Coupon Users are More Brand Loyal Than All Users, Says a New Survey." September 23, 2002. <http://www.internetretailer.com/dailyNews.asp?id=7679>.
- Karolefski, John. 2002a. "Coupon Comeback," *Supermarket News*, May 6, 2002.
- Karolefski, John. 2002b. "Hitting the Target," *Supermarket News*, November 4, 2002.
- Levedahl, William. 1988. "Coupon Redeemers: Are They Better Shoppers?" *Journal of Consumer Affairs*, 22:264-83.
- Meloy, Margaret. 1988. *A Segmentation Analysis of Consumer Attitudes and Usage of Grocery Coupons*, PhD Dissertation. Cornell University, Ithaca, NY.
- Mittal, B. 1994. "An Integrated Framework for Relating Diverse Consumer Characteristics to Supermarket Coupon Redemption," *Journal of Marketing Research*, 31(Fall):533-44.
- NCH Marketing. 2002. *Worldwide Coupon Trend Report*, NCH Marketing Services, Inc., Deerfield, IL.
- NCH Marketing. 2003. *Worldwide Coupon Trend Report*, NCH Marketing Services, Inc., Deerfield, IL.

Narasimhan, Chakravarthi. 1984. "A Price Discrimination Theory of Coupon Usage," *Marketing Science*, 3:128-46.

Ramaswamy, Venkatram and Srini S. Srinivasan. 1998. "Coupon Characteristics and Redemption Intentions: A Segment-Level Analysis," *Psychology & Marketing*, 15(1):59-80.

Tedeschi, Bob. 2003. "Consumers Downloading Coupons," *New York Times*, March 17, 2003.

Teel, Jesse E., Robert H. Williams, and William O. Bearden. 1980. "Correlates of Consumer Susceptibility to Coupons in New Grocery Product Introductions," *Journal of Advertising*, 9:31-5.

Verdon, Joan. 2001. "Couponing Is the Coming Craze," *Record, Northern New Jersey*, June 10, 2001.

Worth-Baker, Marcia. 2002. "A Rapid Clip," *New York Times*, February 10, 2002.

Appendix

Logit Models of Coupon Usership

Independent Variables	Paper coupons		Checkout coupons		In-Store coupons		Online coupons	
Demographics								
Age								
22-35								
36-50	-0.15 ^a	(0.32) ^b	-0.32	(0.24)	-0.16	(0.25)	-0.24	(0.40)
51-65	-0.38	(0.34)	-0.33	(0.26)	-0.52*	(0.28)	-1.05**	(0.50)
66 or over	-0.58	(0.48)	-0.53	(0.36)	-0.78**	(0.40)	-0.81	(0.83)
HH Income								
<\$25,000								
\$25-\$44,999	0.07	(0.41)	0.44	(0.30)	0.03	(0.31)	1.93*	(1.08)
\$45-\$64,999	0.16	(0.42)	0.05	(0.30)	-0.25	(0.32)	1.92*	(1.07)
\$65-\$84,999	-0.28	(0.44)	0.07	(0.33)	-0.30	(0.35)	1.29	(1.12)
≥\$85,000	-0.31	(0.45)	-0.34	(0.33)	-0.02	(0.35)	1.41	(1.12)
HH Size	0.21*	(0.11)	0.02	(0.08)	-0.08	(0.08)	-0.06	(0.15)
Number of Earners	-0.01	(0.17)	0.23*	(0.13)	0.12	(0.13)	-0.14	(0.24)
Gender	0.75**	(0.25)	-0.01	(0.20)	-0.16	(0.21)	0.032	(0.42)
Working Status	0.12	(0.54)	0.55	(0.40)	-0.12	(0.44)	-6.39	(13.59)
Weekly Grocery Expenses								
\$0-50								
\$51-70	0.65*	(0.37)	-0.02	(0.28)	0.54*	(0.32)	0.06	(0.58)
\$71-100	0.42	(0.39)	-0.04	(0.29)	0.19	(0.33)	-0.20	(0.61)
\$100+	0.39	(0.41)	0.51	(0.32)	0.91**	(0.35)	-0.07	(0.63)
Readership								
Read a daily paper	0.46*	(0.24)	0.21	(0.19)	0.06	(0.21)	-0.27	(0.37)
Read a Sunday paper	1.02***	(0.27)	0.34	(0.23)	0.15	(0.25)	0.68	(0.51)
Read promos in the mail	0.55**	(0.27)	0.45**	(0.23)	0.76**	(0.26)	0.91*	(0.53)
Read promos in the paper	0.12	(0.29)	-0.40	(0.25)	-0.66**	(0.27)	-1.05**	(0.47)
Receive online paper	-0.40	(0.45)	0.48	(0.38)	0.89**	(0.37)	1.00*	(0.54)
Shop Online	-0.24	(0.25)	0.35*	(0.20)	-0.18	(0.21)	0.63*	(0.34)
Economizing Behaviors								
Look in papers for specials	1.76***	(0.24)	1.18***	(0.23)	0.37	(0.25)	1.13**	(0.55)
Buy store brands	-0.33	(0.22)	-0.11	(0.17)	0.09	(0.18)	-0.49	(0.32)
Stock up on bargain	0.20	(0.27)	0.16	(0.22)	0.20	(0.24)	2.07**	(0.77)
Compare store prices	0.62**	(0.28)	0.15	(0.21)	0.71**	(0.23)	-0.14	(0.42)
Alternate stores for specials	0.15	(0.29)	-0.42**	(0.21)	0.20	(0.22)	0.01	(0.41)
Buy products unplanned	0.13	(0.24)	0.43**	(0.19)	0.21	(0.20)	0.28	(0.40)
Constant	-2.34***	(0.61)	-2.08***	(0.47)	-2.26***	(0.51)	-6.35***	(1.48)
Observations	735		725		726		682	

* significant at the 0.10 level; ** significant at the 0.05 level; ***significant at the 0.01 level;

^a estimated coefficient; ^b standard error

OTHER A.E.M. RESEARCH BULLETINS

RB No	Title	Fee (if applicable)	Author(s)
2004-06	Marketing and Merchandising Practices for Fresh Sweet Corn in Supermarkets		Cuellar, S. and Uva, W.
2004-05	Sweet Corn Marketing Channels in New York State -- A New York Sweet Corn Grower Survey		Uva, W.
2004-04	Optimal Seasonal Allocation of Generic Dairy Advertising Expenditures		Schmit, T. and H. Kaiser
2004-03	Status Quo Bias and Voluntary Contributions: Can Lab Experiments Parallel Real World Outcome for Generic Advertising?		Messer, K., Kaiser, H. and W. Schulze
2004-02	The Dairy Case Management Program: Does It Mooove More Milk?		Schmit, T., Kaiser, H. and C. Chung
2004-01	Assignment of New Products Under Classified Pricing: A Conceptual Dynamic Model of Class Assignment Outcomes		Nicholson, C., Stephenson, M. and A. Novakovic
2003-11	Dairy Cow Ownership and Child Nutritional Status in Kenya		Nicholson, C., Mwangi, L., Staal, S. and Thornton, P.
2003-10	Analysis of Risk Management Practices of Specialty Crop Producers in New York: Implications for Crop Insurance		White, G., Uva, W. and M. Cheng
2003-09	A Note on Elasticity Estimation of Censored Demand Systems		Dong, D. and Kaiser, H.

Paper copies are being replaced by electronic Portable Document Files (PDFs). To request PDFs of AEM publications, write to (be sure to include your e-mail address): Publications, Department of Applied Economics and Management, Warren Hall, Cornell University, Ithaca, NY 14853-7801. If a fee is indicated, please include a check or money order made payable to Cornell University for the amount of your purchase. Visit our Web site (<http://aem.cornell.edu/research/rb.htm>) for a more complete list of recent bulletins.