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The author proposes a model of consumer redemption of grocery coupons, integrating the separate literatures on consumer demographics, nondemographic consumer characteristics, and cost/benefit perceptions. The model posits that demographics are poor predictors of coupon-use behavior, because they are the farthest in the causal chain. The effects of demographics are mediated by three layers of mediating variables, each successively closer to coupon attitudes and use. Data from a sample of grocery shoppers show most of the hypothesized mediational paths to be significant. The research cautions against arbitrary use of demographics for targeting promotional efforts and offers an approach to constructing an understanding of the psychological processes that mediate between consumers' demographics and their marketplace behaviors.

An Integrated Framework for Relating Diverse Consumer Characteristics to Supermarket Coupon Redemption

Coupons are ubiquitous in today's marketplace. According to a recent Nielsen estimate, nearly four out of five households use coupons as an integral part of their shopping habits (Manufacturers' Coupon Control Center 1989). Research to understand consumers' coupon-use behavior is therefore of import to marketing managers and consumer researchers alike. Although there is a fairly large body of research in this area, its diversity and ad hoc coverage disallow a cohesive understanding. Many of the studies are limited to demographics, in effect focusing on *who* uses coupons rather than *why* coupons are used. The purposes of this research are to cull a set of possible explanatory variables to capture the psychology of coupon-use behavior, develop a theoretical model to link these variables among themselves and with coupon use, and empirically test the explanatory power of the model. In particular, the model articulates plausible theoretical processes that mediate the causal influence of demographics on coupon-use behavior and explain why demographics are often poor predictors of coupon-use behavior.

REVIEW OF LITERATURE

The growing literature on coupons and other promotional deals[1] can be classified broadly into two streams of research. The first involves aggregate modeling of the effects of coupon or deal characteristics (rather than consumer characteristics) on redemption rates (e.g., Henderson 1985) and related outcomes such as purchase acceleration and brand switching (e.g., Dodson, Tybout, and Sternthal 1978). The second stream, more relevant to our study, seeks to explain coupon/deal redemption in terms of individual consumer variables. (For a detailed review of both streams, see Blattberg and Neslin 1990; Cole 1990.) We review this second stream next, limiting coverage to studies most relevant to the issues examined here and structuring our review around a framework, which subsequently forms the basis of the proposed model.

An Organizing Framework

The framework organizes consumer characteristics into four groups of individual-difference variables (IDVs): (1) Objective IDVs—that is, demographics, (2) Subjective IDVs—consumers' self-perceptions of general traits such as self-perceived busyness or gregariousness, (3) domain IDVs—those in the domain of shopping (e.g., brand loyalty), and (4) cost/benefit perceptions—consumer perceptions about the costs and benefits of coupon use. Table 1 cross-references these categories by studies that examine them.

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[1] Deals include (in addition to coupons) cents-off, rebates, premiums, "two-for-one," and other price incentives.

Table 1

AN OVERVIEW OF PRIOR RESEARCH

	Webster 1965	Montgomery 1971	McCanne 1974	Cotton and Babb 1978	Nielsen 1985	Blattberg et al. 1978	Narasimhan 1984	Teel et al. 1980	Bawa and Shoemaker 1987	Shimp and Kavas 1984
Study #	1	2	3	4	5	6	7	8	9	10
Dependent Variable:										
Coupon (C) or Deal (D)	D	D	D	D	C	D	C	C	C	C
Demographics										
Income	NS		NS	V	V	+[a]	V	+	+	
Education	NS			−			+	NS	+	
Female employment	NS		NS	+		−	I	NS	NS	
Household size	NS		NS	−	+			+	+	
Age of the housewife	+		NS					−	NS	
Presence of children		NS						−	NS	
Subjective Individual-Difference Variables (IDVs)										
Opinion leadership		NS								
Innovativeness		NS								
Gregariousness		+[b]								
Venturesomeness		+[b]								
Media involvement		+[b]								
Housewife's interest in food, raising children, etc.		NS								
Domain Individual-Difference Variables (IDVs)										
Brand loyalty	−	−	NS					−	−	
Store loyalty			NS					NS	−	
Usage rate	−		NS							
Price sensitivity								+		
Costs/Benefits										
Utility Maximization									+	
Savings										+
Time and effort									−	
Encumbrances (e.g., need to buy a less favorite brand)									−	

[a]This positive effect vanished when car and home ownership were introduced as control.

[b]The relationship was nonsignificant in the second phase of the study.

Notation:

NS: The relationship was nonsignificant.

+: The correlation between the consumer characteristic and coupon/deal redemption was positive.

−: The correlation between the consumer characteristic and coupon/deal redemption was negative.

V: The relationship varied across levels of this demographic (e.g., deal proneness high for one income group, low for next group, and high again for the second next group).

I: The relationship was inconsistent across sections of the same study.

Demographics. Demographics have been the most frequently studied consumer characteristics, forming the principal focus of several early studies. These studies (studies 1 through 9 in Table 1) offered inconsistent findings. For example, deal or coupon use was not significantly related to income in studies 1 and 3, was positively related in studies 6, 8, and 9, was lowest among middle-income consumers in study 4, but peaked for the same income group in studies 5 and 7. Similar ambiguities exist for other demographics. Most of the demographics were either nonsignificant or of variable influence across studies (see Table 1).

The early studies (especially those focused on demographics) have been criticized for their atheoretical nature (Blattberg et al. 1978; Raju and Hastak 1980). Studies 6 and 7 were exceptions to this criticism, both grounding their use of demographics in economic-theoretic models. In a study of deal proneness, Blattberg and colleagues (1978) hypothesized a positive effect of income, arguing that high-income consumers had the resources (a car and storage space) needed to avail themselves of deals. They found that income had a positive effect on deal proneness but that this effect vanished when car and home ownership (resources enabled by

income) were used as control variables (study 6). Furthermore, they hypothesized (as did Narasimhan 1984 in study 7) a negative effect of the housewife's employment status and household size because these demographics raised a housewife's "opportunity cost of time." Such reasoning is illuminating and forms the premise of the present research.

Subjective IDVs. Moving beyond demographics, some studies included personality and psychographic characteristics as predictor variables. Studies 2 and 3 examined some 50+ "psychological" characteristics (e.g., gregariousness) and found either no relationship or variable and inconsistent relationships across subsets of data within the study. In general, the study of psychographic variables was as unproductive as that of demographic variables. One problem with psychographic variables was that their inclusion was unaccompanied by prior reasoning—an understandable gap, given the then-developmental stage of personality research in consumer behavior and the deal/coupon literature as well.[2]

Domain IDVs. Whereas subjective IDVs are general traits, domain IDVs are traits specific to shopping. Some studies (1 through 3, 8, and 9) examined such domain IDVs as brand loyalty, store patronage, and price sensitivity. A consistent finding here was the expected negative association between coupon use (or deal proneness) and brand loyalty, though even this association was found to be nonsignificant in study 3. Findings on store loyalty and usage rate are even less conclusive. Price sensitivity, examined only in study 8, was found to be positively related to coupon use.

Cost-benefit perceptions. Recent research has focused on an economic/utility-seeking model of coupon-use behavior. For example, positing a profit maximization model, Bawa and Shoemaker (1987; study 9) argued for and empirically demonstrated a cross-product consistency in consumers' coupon proneness. Shimp and Kavas (1984) directly examined the perceived costs/benefits of couponing (study 10). Using exploratory interviews with consumers, these researchers inventoried the benefits and costs of coupon redemption and conducted a formal test of the cost/benefit model. Grounding their model in Fishbein's "theory of reasoned action" (Fishbein and Ajzen 1975), they tested and found support for causal links among coupon-use behavior, attitudes, and the perceived costs and benefits of coupon use.

Gaps in Prior Literature

Although the studies reviewed here have collectively shed some light on consumers' deal/coupon-redemption behavior, several important gaps remain. First, the most commonly investigated consumer characteristics have been demographics, perhaps due in part to the use of consumer panel data that afford extensive information on demographics and purchase behavior but exclude explanatory variables. The findings with regard to the role of demographics, however, have been very inconsistent. Second, among the nondemographic variables, brand loyalty is the only consumer behavior variable examined and proven to be significantly (nega-

tively) correlated with coupon-redemption behavior. In effect, nondemographic characteristics of consumers have been underinvestigated in the coupon literature. Although demographic correlates of any consumer behavior facilitate managerial control and are therefore important to identify, they fall short of explaining that behavior in terms of the underlying psychological processes (Gardner and Strang 1984; Raju and Hastak 1980). Third, and most important, investigations of demographics, nondemographic consumer traits (e.g., brand loyalty), and cost/benefit perceptions have proceeded either in relative segregation or with arbitrary inclusion of variables from disparate categories. Consequently, dynamic interplay among these diverse antecedents has not been taken into account fully. In fact, this is what has made the study of demographics atheoretical, for to argue why certain demographics should be related to coupon use is to posit the cognitive and perceptual processes that intervene—in other words, to relate demographics to other explanatory constructs that mediate their effects on coupon use.

The advantage of incorporating intervening variables can be seen in prior research itself: In Blattberg and colleague's (1978) study, income showed the hypothesized positive (zero-order) effect, but this effect vanished when the effects of car and home ownership were accommodated. It was the articulation of these mediating mechanisms that made the positive-effect hypothesis sensible to begin with. On the other hand, in Narasimhan's study (1984), because the intervening "perceived opportunity costs of time" were not assessed, the negative or inconsistent findings about the role of demographics were impossible to reconcile. We believe that a model that delineates the intervening mechanisms between demographics and particular consumer behaviors provides a more complete understanding of the target behavior. Here, we advance such a model for consumers' coupon-redemption behavior.
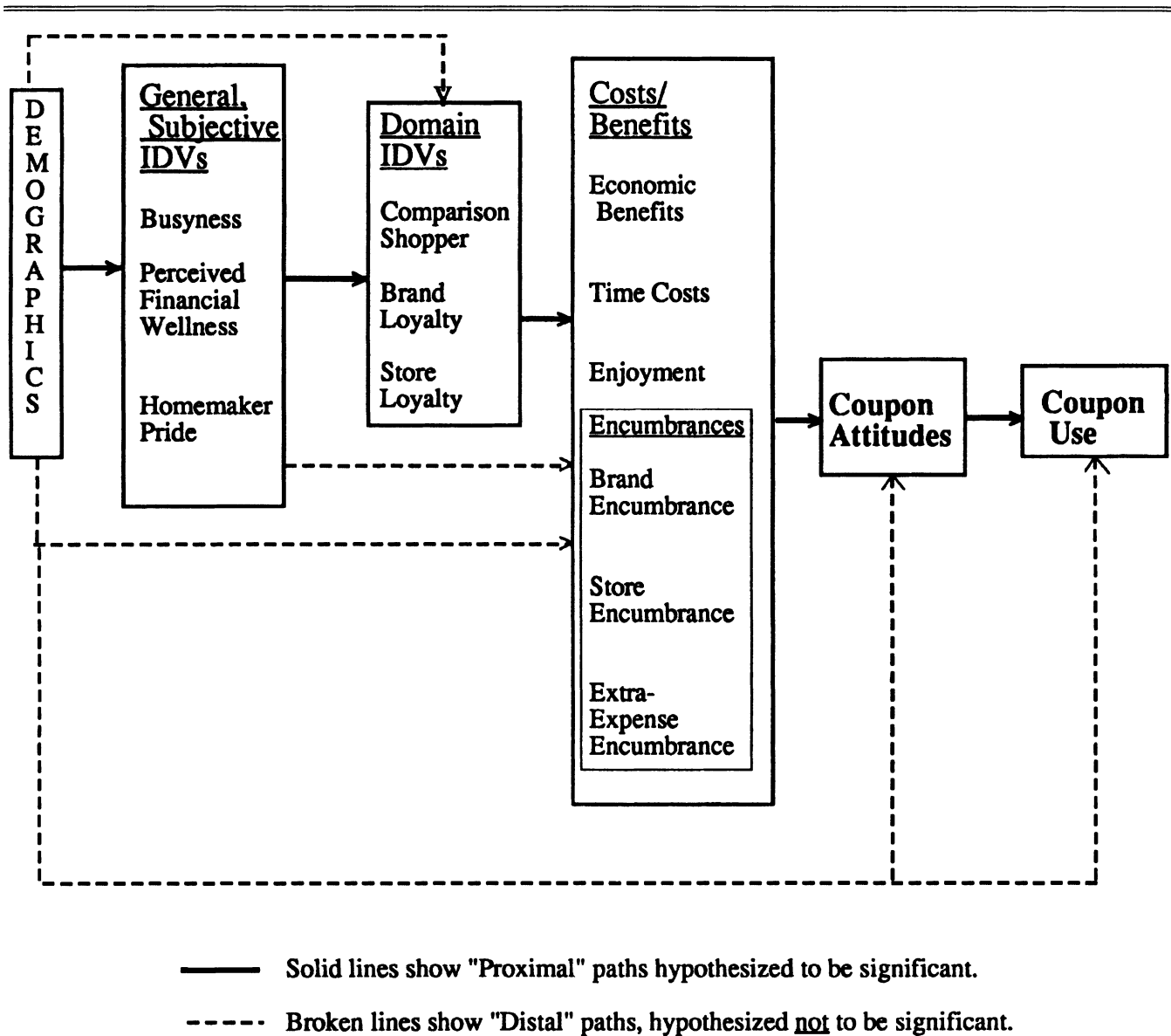
THEORY

Although some coupon-redemption behavior may be random, mindless, or scripted (Gardner and Strang 1984), our research is situated within the paradigm that views consumers as utility maximizers (cf. Bawa and Shoemaker 1987; Blattberg et al. 1978). Consistent with this paradigm, we posit that coupon-use behavior is driven, in part, by coupon attitudes. Coupon attitudes are in turn deemed to be driven by the perceived costs and benefits of using coupons. This perspective stems from the theory of reasoned action (Fishbein and Ajzen 1975) and was utilized by Shimp and Kavas (1984) in a study of consumers' coupon-use behavior. We extend this perspective by asking why perceptions of costs and benefits differ across consumers. This question is key to understanding the role of demographics in consumers' coupon-redemption behavior.

Our principal hypothesis is that demographics cause perceptions about the self or general traits (here termed subjective IDVs), which in turn cause certain shopping-related traits (domain IDVs); the latter in turn cause perceptions of costs and benefits. Illustratively, income leads to a perception of financial wellness (a subjective IDV), which in turn leads to reduced comparison shopping; reduced comparison shopping (a domain IDV) leads to discounting of potential

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[2]A theory-driven investigation of personality traits in coupon research is a recent study by Bagozzi, Baumgartner, and Yi (1992), premised on the argument (empirically supported in the study) that the personality trait of "action orientation" (i.e., the extent to which one self-regulates) moderates the strength with which coupon attitudes predict coupon use intentions.

Figure 1
A MEDIATIONAL MODEL OF CONSUMER CHARACTERISTICS, COUPON ATTITUDES AND USE

Solid lines show "Proximal" paths hypothesized to be significant.

Broken lines show "Distal" paths, hypothesized not to be significant.

savings, which in turn leads to a less favorable attitude toward coupon redemption. Thus, the mediating processes between income and coupon use are posited to be income → perceived financial wellness → reduced comparison shopping → diminished perception of potential savings → less favorable coupon attitudes → lower coupon redemption. This illustrative causal chain is one among many, and is formed by interposing two layers of IDVs between demographics on the one hand and perceived costs and benefits on the other (see Figure 1). We chose four demographics judged to play a theoretical role in the proposed model: income, education, female employment, and household size. The thrust of our investigation of demographics is not as much to confirm or disconfirm their bivariate covariance with coupon use, but rather to verify if their influence is mediated by subjective and domain IDVs, discussed next.

The Mediators

Subjective IDVs. Subjective IDVs are lifestyle and self-perception variables. Three are considered here: busyness, perceived financial wellness, and pride in homemaking. Our criterion in isolating these was that they be related simultaneously to demographics on the one hand and coupon redemption on the other. Thus, excluded from consideration are such personality variables as gregariousness, whose simultaneous links with demographics and coupon use escape introspection. Such introspection is by nature subjective; consequently our coverage cannot be exhaustive. But we delineate those mechanisms that we believe most clearly operate between demographics and coupon-use behavior.

The causal role of the three subjective IDVs chosen here is easy to argue. Because coupon clipping, organizing, and redeeming consume time, those who experience time pres-

sure are less likely to be coupon users. Opportunity costs of time have been recognized as a factor in previous literature (e.g., Narasimhan 1984), but rather than use demographics (e.g., female employment status) as proxy indicators, we deem consumers' own perception of time pressure (i.e., busyness) a more appropriate determinant. Thus, perceived busyness is posited as the intervening mechanism linking demographics (e.g., female employment) and coupon use. Likewise, instead of income (stated in objective terms), we expect its subjectively encoded experience (i.e., perceived financial wellness) to be a more appropriate antecedent to coupon use. By suppressing the motivational appeal of small monetary savings from coupons, financial wellness would induce a propensity to diminish coupon use. Our third IDV is "homemaking pride"—the extent to which one views one's homemaking role with pride rather than as "something one has to do." This IDV is expected to be influenced by such demographics as education and employment—educated consumers, and likewise those employed outside of the home, are less likely to seek and find their role satisfaction in homemaking. In turn, homemaking pride would influence coupon use positively, because couponing can be seen as a means of efficient management of household resources. Absent such pride in homemaking, couponing is likely to be avoided as another unnecessary homemaking chore.

Domain IDVs. Subjective IDVs are the first layer of mechanisms through which the influence of demographics is transferred to particular consumer behaviors. But this transferred influence is also not direct; it too must pass through the next layer of mechanisms, namely domain IDVs (see Figure 1). Domain IDVs are consumer traits in the domain of shopping; three are advanced here: brand loyalty, store loyalty, and comparison shopping. The overall argument is that coupon redemption is a specific behavior, molded by one's characteristic ways of shopping, that is, shopping traits. Therefore, any general traits posited as antecedents to coupon redemption must first influence these shopping traits, or domain IDVs.

The three domain IDVs are related to subjective IDVs (and through them to demographics) as follows: financial wellness and busyness should depress comparison shopping—perceived financial wellness, by withdrawing the motivation to economize, and busyness, by reducing available time. In contrast, homemaking pride should facilitate comparison shopping, because comparison shopping would serve one's goal of efficient homemaking. Financial wellness should promote brand loyalty and perhaps also store loyalty, because potential savings from opportunistic patronage of brands and stores are likely to be undervalued by the financially well off. Busyness should affect store loyalty positively in that visiting multiple stores would be time-consuming. It may also elicit brand loyalty, in that buying the same brand may be a means of coping with the time pressure.

Turning to the links between domain IDVs and coupon use, we expect brand loyalty to retard coupon use. This negative influence, found consistently in prior research (e.g., Montgomery 1971; Teel, Williams, and Bearden 1980; Webster 1965), is based on the consideration that coupon use entails the necessity of buying whatever brand one has the coupon for. Likewise, store loyalty would be expected to re-

duce coupon use (cf. Bawa and Shoemaker 1987), inasmuch as one may need to patronize multiple stores to redeem some coupons. Finally, comparison shopping is the third domain IDV proposed. This IDV is deemed an enduring behavior pattern, and hence a consumer trait in the shopping domain. Comparison shoppers are akin to Darden and Reynolds' (1971) "economic shopper" type, and they are likely to consider coupon redemption as a means of implementing their "economizing shopping strategy" (Lichtenstein, Ridgway, and Netemeyer 1993).

Cost/benefit perceptions. We turn now to a brief discussion of costs and benefits included in the proposed model. Among the perceived benefits, we included the one most obvious, monetary savings, and "enjoyment of couponing." Whereas for some consumers, coupon clipping, organizing, and redeeming is an effort-entailing, dull chore, for others it may be a useful way of occupying oneself when there is nothing else to do. Some might even enjoy the task, because finding the coupon one is looking for is a small pleasure of life or seeing coupons neatly organized appears to be an accomplishment of a sort. This factor bears some resemblance to Shimp and Kavas's (1984) "effort expended" item (when reverse scored) and "smart shopper feeling" item. It has also been alluded to in some recent literature (e.g., Conover 1989; Lichtenstein, Netemeyer, and Burton 1990; Price, Feick, and Guskey-Federouch 1988).

Among costs, following Shimp and Kavas (1984), we included time costs and three encumbrances: (1) *brand encumbrance*—the necessity of having to purchase less preferred brands to avail oneself of coupon offers; (2) *store encumbrance*—the need to shop at different grocery stores to take advantage of the coupon offers; and (3) *extra-expense encumbrance*—the need to incur the expense of subscribing to extra newspapers and magazines to obtain coupons. These costs, as perceived by the shopper, would be expected to inhibit coupon use.

Cost/benefit perceptions are translators of the influence of domain IDVs on coupon use. Specifically, we expect comparison shoppers to be more prone to perceiving coupon benefits (particularly the "economic benefits") and less prone to perceiving costs (particularly the time costs), for at least two reasons: (1) due to greater price knowledge, comparison shoppers may be more likely to recognize the price advantage of the couponed brand and (2) given a higher motivation for economizing, comparison shoppers are likely to overrate (or rate more than others) the coupon's face-value savings. Accustomed to investing time in comparison shopping, they are likely as well to underrate (or rate less than others) the time involved in coupon redemption.

The strongest effect of brand loyalty would be expected on the perception of brand encumbrance, and that of store loyalty on store encumbrance. That is, brand (store) loyals are likely to feel a greater degree of brand (store) encumbrance, because "having to buy a less preferred brand (patronizing a less preferred store)" becomes bothersome only if a consumer has a preference for specific brands (stores) to begin with.

The Model and Hypotheses

As previously mentioned, our overall hypothesis about mediation of effects among the proposed variables is as fol-

lows: Demographics → subjective IDVs → domain IDVs → cost/benefit perceptions → coupon attitudes → coupon use. Thus, in this chain of effects, we construe demographics to be the most distal (indirect) and costs/benefits the most proximal (direct) antecedents to coupon attitudes/use. We expect domain IDVs to be more proximal than subjective IDVs by definition; the former are consumer traits manifested in the domain of the target behavior. Therefore, they should exert a more direct influence on coupon perceptions compared with general traits. In turn, the domain IDVs are expected to be influenced by the subjective IDVs, and more so than they should be influenced directly by demographics (see Figure 1).

The Proposed Model and Prior Studies

The proposed model builds on and departs from prior studies as follows: First, we build the costs/benefits → attitude → coupon use sequence of the model based directly on the Shimp and Kavas (1984) study. Second, we include the two most researched behavioral variables (brand and store loyalty) as domain IDVs; our third domain IDV (comparison shopping) supplants the remaining shopping-related individual-trait variables (such as price sensitivity). Third, the subjective IDVs studied in prior research (see Table 1) are omitted for want of a priori reasoning; in their place, we propose three subjective IDVs, new to the coupon-redemption literature, which are meant to capture the subjective experience of one's own objective (demographic) characteristics. Fourth, and most important, rather than viewing diverse categories of consumer characteristics as independent and direct influencers of coupon use, we place them on a distal/proximal influence axis. The distal/proximal axis signifies that certain variables mediate the influence of other variables (the former more proximal than the latter). This axis is the principal organizing and integrative mechanism we propose for unifying the diverse studies in prior literature and for investigating the influence of other consumer characteristics in further research.

METHOD

Data

The data for this research were collected through a self-administered survey of female supermarket shoppers recruited by (1) requesting participation from members of six voluntary organizations (N = 108) and (2) shopping plaza interceptions (N = 106). Respondents were requested to mail the survey form within one week and save all grocery shopping receipts for four weeks starting from the day they mailed in their survey forms. Of the 214 subjects, 199 respondents (102 from the six organizations and 97 from the intercepts) completed this second phase of data collection by mailing their receipts. (All were offered a small monetary incentive for their assistance.) Of these, 184 provided complete responses to the survey questions and are utilized here.

Respondent demographics. All our respondents were females, and a majority were white (85%), married (71%), educated (mean number of years of education: 14.4), mature householders (63% were 35 years or older) with average household size of 3.28 and median income in the $35,000–$50,000 range. Although at variance with U.S.

population, our sample did include all demographic categories.[3]

Descriptive statistics. During the four-week period (for which coupon use was measured), 11.8% of our respondents did not use any coupons. Among the other 88.2%, about 26% used only 1 to 5 coupons, 17% used 6 to 10 coupons, 20% used 11 to 20 coupons, and the remaining one-fourth used 20+ coupons (7%, 50+ coupons). As a group, our respondents had favorable attitudes toward coupons (mean > 3, the midpoint of the scales), but our sample included respondents with widely ranging attitudes toward coupon redemption.

Measures

All measures were paper-and-pencil, self-report measures except for coupon use, which was assessed from the shopping receipts. Both the number of coupons used and the dollar amount saved by coupons were counted and summed over all the receipts submitted by a respondent. These two quantities were divided by the total shopping expenditure (also counted from the receipts), and then square-root transformations were applied to each ratio to normalize their skewed distribution. These transformed ratios were used as the twin indicators of coupon use.

Measurement items for all constructs in our model are shown in Table 2. Demographics (not shown in Table 2) were assessed by preformed categories (for age and income) or by an actual number written in (Education: highest grade attended; Household size: number of persons in the household; Employment: average number of hours/week employed—zero if not working).

RESULTS

The hypothesized model of Figure 1 was estimated by LISREL VI (Jöreskog and Sörbom 1984), with simultaneous fitting of the measurement and structural components of the model. In the first estimation of the model, all proximal paths were left free and all distal paths fixed. Proximal paths found to be nonsignificant were subsequently fixed, and distal paths judged to be potentially significant (on the basis of an inspection of "modification index") were freed. In addition, dependent variable constructs not connected by a causal path were allowed to correlate (by linking their unexplained variances) if their association was significant. The four demographics (which were modeled as independent variables) were also allowed to correlate. The final model had a χ^2 value of 1027.69 for 778 degrees of freedom (AGFI = .762, RMSR = .072). A null model was also estimated (in which all measurement and structural paths are fixed to zero), which yielded a χ^2 value of 4372.74 for 861 degrees of freedom (AGFI=.289, RMSR=.221). The significance of

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[3] All age groups were included: 17–20 years: 3%; 21–24 years: 7%; 25–34 years: 27%; 35–44 years: 43%; 45–54 years: 15%; 55+ years: 5%. Likewise, all income categories were included: <$10,000, 7%; $10,000–25,000, 20%; $25,000+–35,000, 16%; $35,000+–50,000, 20%; $50,000+–70,000, 17%; $70,000+, 19%. One-third (31%) of our respondents had no college education (a majority did graduate from high school), about one-fourth of them (28%) had some college education, another one-fourth (25%) graduated from college, and 15% had post-graduate education. Twenty-eight percent of the shoppers in our sample were nonworking women; 14% held a part-time job (up to 25 hours/week), and 58% a full-time job.

Table 2

MEAN AND STANDARD DEVIATIONS AND LISREL-BASED MEASUREMENT MODEL ESTIMATES

	Mean	S.D.	Loading	Reliability
Coupon Use (.960, .923)[a]				
1. Number of coupons used per $100 of grocery shopping (counted from receipts)	4.29	4.37	.99	1.00
2. Dollar amount saved due to coupons per $100 of grocery shopping.	3.35	3.82	.92	.85
Coupon Attitudes (.905, .761)				
1. Overall, do you like or dislike using coupons. (1-Dislike very much/5-Like very much)	3.63	1.13	.80	.65
2. Personally for me, using coupons for supermarket products is or would be: (1-Totally Useless/5-Very Useful)	4.05	.91	.90	.82
3. Taking everything into account, do you consider using coupons for supermarket shopping foolish or wise? (1-Very foolish/5-Very wise)	4.11	.92	.91	.83
Economic Benefits (.794, .563)				
1. Coupons can save you a lot of money.	4.16	.95	.70	.49
2. The money one can save by using coupons does not amount to much. (–)	3.94	1.14	.75	.56
3. I believe that one helps one's family financially by using coupons.	3.84	1.03	.80	.64
Time Costs (.806, .581)				
1. It is very time-consuming to use coupons for supermarket items.	2.92	1.39	.79	.62
2. One can save a lot of time if one does not get into the habit of using coupons.	2.30	1.20	.70	.50
3. It doesn't really take much time to take advantage of coupons on a regular basis. (–)	3.48	1.26	.79	.63
Enjoyment (.904, .703)				
1. I quite enjoy clipping, organizing, and using coupons.	2.94	1.46	.89	.81
2. Clipping, organizing, and using coupons is no fun. (–)	2.92	1.29	.74	.55
3. Clipping, organizing, and using coupons has become a habit with me that I have come to like.	3.06	1.38	.87	.77
4. It is a hassle to cut out, maintain, and redeem coupons. (–)	3.21	1.41	.82	.69
Encumbrances-Brand (.635, .467)				
1. To avail of coupons, often one has to buy less preferred brands.	2.81	1.15	.62	.40
2. Using coupons, one cannot expect to be buying one's favorite brands all the time.	3.32	1.17	.73	.54
Encumbrances-Store (.680, .515)				
1. To use coupons, one cannot depend on just one store.	2.81	1.31	.74	.58
2. Patronizing more than one store becomes necessary if you want to take advantage of as many coupons as possible.	3.08	1.17	.67	.47
Extra-Expense Encumbrance (.816, .700)				
1. One has to buy extra newspapers and magazines to obtain all the coupons one may want.	2.47	1.30	.99	1.00
2. One has to spend money buying newspapers in order to find coupons.	2.68	1.30	.63	.41
Comparison Shopping (.691, .430)				
1. I often check the prices in the grocery store even for small items.	3.93	1.13	.57	.32
2. I shop a lot for specials.	3.44	1.26	.75	.56
3. Clothing, furniture, appliances, ... whatever I buy, I shop around to get the best prices.	4.22	.96	.65	.42
Brand Loyalty (.758, .511)				
1. For most supermarket items, I have favorite brands and limit my purchase to them.	3.58	1.14	.76	.58
2. In most product categories in the supermarket, there are certain brands for which I (and my family) have a definite preference.	4.23	.96	.65	.43
3. I and my family will consume only certain brands, not others.	2.94	1.21	.73	.53
Store Loyalty (.589, .418)				
1. I buy my groceries from: 1) A single store, 2) 2 or 3 stores, (3) More than 3 stores. (–)	2.16	.54	.60	.36
2. Actual number of stores shopped during the 4-week period (counted from the receipts).	3.18	1.17	.69	.48
Financial Wellness (.712, .452)				
1. I consider myself financially well off.	2.73	1.26	.66	.44
2. I am generally on a tight budget. (–)	2.68	1.27	.70	.49
3. An unexpected expense of about $1000 would put us in financial hardship. (–)	2.80	1.58	.66	.43
Busyness (.792, .563)				
1. I am too busy to relax.	2.98	1.22	.61	.38
2. I am often juggling my time between too many things.	3.93	1.05	.81	.65
3. "So much to do, so little time," this saying applies very well to me.	3.80	1.10	.81	.66
Homemaker Pride (.755, .509)				
1. I take pride in being a homemaker.	3.92	1.09	.80	.64
2. There are more important things in life than simply being a homemaker. (–)	3.01	1.40	.68	.47
3. Homemaking is just something one does, nothing to feel great about. (–)	4.11	1.12	.64	.41

[a]Entries in parentheses for multi-item constructs are Construct Relaibility and Variance Captured, respectively.

Note:

1. All loadings are standardized values and all are significant at $p < .05$. For the first item in each construct, unstandardized value was fixed to zero for scaling purposes. Error variances for the first item of Coupon use and the first item of "extra-expense encumbrance" were fixed to zero; otherwise they were negative in valence (not significantly different from zero at $p < .05$). If time costs and enjoyment are merged, the loadings for the seven combined items (in the same sequence as above) would be: –.71, –.62, –.74, .89, .74, .87, and .83 (reliabilities: .51, .40, .55, .80, .55, .76, and .70) respectively.

2. Items were in jumbled order on the instrument. Except where shown, all items are assessed on 5-point "Strongly Disagree/Strongly Agree" scales. Items marked "(–)" are reverse-scored so that a higher score is always pro-construct.

the χ^2 value ($p < .05$) implies that the data do not fit the model perfectly, but its relatively low value (χ^2 to d.f. ratio, 1.32) compares well with the fit statistic found in prior research (e.g., Shimp and Kavas 1984). Moreover, Bentler's (1990) normed comparative fit index was .929, indicating a good fit (values $> .9$) for the fitted model. (Further details can be obtained from the author.)

The measurement model estimates are presented in Table 2. All free indicator-to-construct path coefficients (i.e., factor loadings; see third column of numbers in Table 2) are high in magnitude (all above .5, several above .7) and are significant at $p < .05$; individual item reliabilities (an indicator of coherence with other items of the same construct) are close to or above the acceptable value of .4. The reliability for the construct as a whole (shown in parentheses) is above the desired value of .7 for most constructs (except for four, for which it is still above the acceptable value of .5); correspondingly, the captured variances are all above the acceptable value of .4 (the majority are above the desirable value of .5). All constructs achieved discriminant validity (per tests suggested by Fornell and Larcker 1981) except two, namely time costs and enjoyment (correlation $-.88$). These were therefore combined in the estimated model and termed "enjoyment versus hassle."

The structural path estimates are shown in Table 3. These must be read with one important caveat in mind: Our data are correlational, not causal, and the direction of causality inherent in the estimated structural paths resides in a priori theory (not in the data, the use of LISREL notwithstanding). We speak subsequently of the support obtained (or not obtained) for the proposed influence of one variable on the other, leaning now, as at the outset, on a priori theory. Next we discuss the findings, one variable category at a time.

Explaining coupon use. In Table 3, box 1 shows the influence of coupon attitudes on coupon use. This beta coefficient is positive and statistically significant ($+.56$), indicating that the more favorable the attitudes, the greater is the extent of coupon use.

Explaining coupon attitudes. Box 2 shows the influence of perceived costs/benefits on coupon attitudes. Of the five hypothesized influences, three are statistically significant: perceived economic benefits ($+$), enjoyment versus hassle ($+$), and extra-expense encumbrances ($-$). These three factors explained 47.3% of the variance in coupon attitudes.

Explaining perceived costs/benefits. Box 3 shows the influence of domain IDVs on perceived costs/benefits. As hypothesized, comparison shoppers believed more than did noncomparison shoppers that coupons offer economic benefits ($\beta = +.62$). They also perceived greater enjoyment versus hassle ($\beta = +.51$) and less brand and extra-expense encumbrances. Contrary to expectations, however, brand and store loyalty were negatively associated with brand and store encumbrances ($\beta = -.15$ and $-.50$, respectively). That coupon use necessitates the purchase of less preferred brands and patronization of multiple stores was a perception held more by brand and store *dis*loyal consumers, respectively, than by loyal consumers—a finding we revisit subsequently.

Explaining domain IDVs. Box 4 shows the influence of subjective IDVs on domain IDVs. Those who perceived

themselves to be financially well off or busy tended to engage less in comparison shopping (the coefficients are negative), whereas consumers who took pride in homemaking tended to engage more in comparison shopping (the coefficient is positive). Financially well-off or busy consumers also tended to be more brand loyal, and busy consumers tended to be more store loyal. These relationships all have the expected valences.

Explaining subjective IDVs. Finally, box 5 shows the influence of demographics on subjective IDVs. As expected, financial wellness was positively and strongly associated with income ($\beta = .87$) and negatively associated with household size ($\beta = -.09$). However, contrary to expectations, financial wellness was negatively associated with education ($\beta = -.13$) and female employment ($\beta = -.11$). This apparent anomaly can perhaps be explained by recognizing the role of income as control: Given the same income level, educated persons (or working women) felt less well off than did those with lower education (or nonworking women).

Turning next to perceived busyness (second row in box 5), its strongest determinant was education, not employment. Employment did have a positive influence on busyness, as did household size: Shoppers with larger households or out-of-home employment perceived themselves as more busy. The last row in box 5 shows the demographic correlates of homemaking pride. Homemaking pride was associated with (1) higher income, (2) lower education, (3) absence of out-of-home employment, and (4) larger households.

Distal Paths and the Mediational Hypotheses

When the model was initially estimated, no distal paths were allowed. In this estimate, modification index values (a statistic yielded by the LISREL estimation procedure) indicated the need for three distal paths to be freed. These three paths were subsequently freed and found to be significant. As Table 3 shows, these are (see cell entries outside the solid boxes, encased in dotted circles) brand encumbrance to coupon use ($\beta = -.17$), financial wellness to extra-expense encumbrance ($\beta = -.24$), and employment to comparison shopping ($\beta = +.21$). These paths show that (1) consumers who believed that coupon redemption necessitated having to buy less preferred brands tended to use coupons to a lower extent, (2) financially well-off shoppers tended to be less mindful of the extra-expense encumbrance, and (3) employed females tended to engage in comparison shopping more (rather than less) than their unemployed counterparts (discussed subsequently). Note that in Table 3, a total of 72 distal paths are possible (all cells to the right side of the solid box perimeter), but only 3 of them were significant. The finding that very few distal paths are significant supports the mediational hypothesis.

Further corroborating support comes from two additional tests. We illustrate these tests with "attitude" as the dependent variable. In the first test, we expected the amount of variance in coupon attitudes explained by the proximal antecedents (i.e., costs/benefits) to be larger than the amount explained by any other set of distal predictors. Furthermore, we expected the amount of variance explained (in coupon attitudes) to decline as the predictor variables become more distal from coupon attitudes. In our data, these expectations

Table 3
LISREL ESTIMATES OF THE CAUSAL PATHS

Predictors / Criterion	Beta Matrix												Gamma-Matrix				R^2
	Atti-tude	Costs/Benefits					Domain IDVs			Subjective IDVs			Income	Educ.	Employ-ment	HH Size	
		Econ. Benef.	Enjoyment vs. Hassle	Encumbrances Brand Store Extra-Expense			Comparison Shopping	Brand Loyalty	Store Loyalty	Financial Wellness	Busy-ness	Home-making pride					
	2	3	4 & 5	6	7	8	9	10	11	12	13	14	1	2	3	4	
1. Use ①	.56		(-.17)														.380
2. Attitude ②		.55	.16			-.11											.473
3. Economic Benefits							.62										.380
4&5. Enjoyment vs. Hassle				③			.51										.261
6. Encumbrance-Brand							-.23	-.15[a]									.064
7. Encumbrance-Store									-.50								.247
8. Encumbrance-Extra Expense							-.22			(-.24)							.063
9. Comparison Shopper										-.52	-.14[a]	.57	(.21)				.480
10. Brand Loyalty								④		.32	.26						.153
11. Store Loyalty												.22					.051
12. Financial Wellness													.87	-.13[a]	-.11[b]	-.09[c]	.652
13. Busyness											⑤			.38	.11[b]	.13[b]	.160
14. Homemaking pride													.22	-.23	-.26	.15[a]	.216

[a, b, c]All path coefficients are significant at 2-tail $p < .05$, except these. Paths superscripted with a are significant at one-tail $p < .05$. Paths superscripted b and c are significant at one-tail $p < .1$ and $p < .12$, respectively, and are retained for substantive information.

NOTE: Blank cells inside the solid boxes denote paths omitted due to nonsignificance. Dotted circles contain paths found significant at $p < .05$.

were satisfied: coupon attitudes were explained the most by costs/benefits (47.3% of the variance explained), followed by domain IDVs (31.5%), subjective IDVs (15.5%), and demographics (3.0%) (not shown in tables).

This analysis showed that the three sets of variables each explained less variance in coupon attitudes than did the cost/benefit perceptions. But did these variables explain the same or a different portion of the variance? To answer this question, we freed costs/benefits paths as well as the domain IDVs paths (both sets of paths terminating in attitudes) and examined whether the freeing of the domain IDVs paths (in addition to the costs/benefits paths) resulted in significant improvement in (1) adjusted R^2 value and (2) model-data fit. In our data, additional variance explained by the inclusion of domain IDVs as predictors was trivial, and the model-data fit deteriorated as well. The same findings occurred when subjective IDVs or demographics were added as predictors.[4] (Details available from the author.)

This procedure was explained with respect to attitudes as the dependent variable. We in fact replicated the procedure for each of the other dependent variables (e.g., coupon use, comparison shopping) and found the results of these tests to

meet our desired criteria.[5] Thus, the mediational hypotheses received strong support in our data (except for the three distal paths that were significant).

Note that when we employed demographics as the only predictors, only 3.0% of the variance in attitudes and 2.7% of the variance in coupon use was explained (not in tables). Thus, not only are the effects of demographics on coupon attitudes and use indirect (as Table 3 shows), but they are small in magnitude as well. Thus, demographics accounted for a very small portion of variance in coupon redemption.

SUMMARY AND DISCUSSION

Summary

The proposed model explained significant variance in both coupon use and coupon attitudes (38% and 47.3%, respectively). Coupon attitudes alone explained coupon use substantially (36% of the variance). Coupon attitudes were in turn explained substantially by perceived costs and benefits alone (explained variance, 47.3%).

Our overall causal hypothesis, Demographics → subjective IDVs → domain IDVs → cost/benefit perceptions → coupon attitudes → coupon use, was supported. Except for 3 distal paths that emerged as significant (out of 72 possi-

[4]Improvement in the adjusted R^2 value was less than .01 in all model extensions; the improvement in the χ^2 value was less than 3.5 for 3 to 4 degrees of freedom loss, a highly nonsignificant change in model-data fit.

[5]The two tests were applied with the model in Table 4 as the base model that already contains the three distal paths.

ble), no other paths violating the previously mentioned causal chain were found significant. Demographics influenced coupon use only by first influencing subjective IDVs. Subjective IDVs in turn influenced coupon redemption only by first influencing domain IDVs. Finally, domain IDVs first affected cost/benefit perceptions. The influence of cost/benefit perceptions was then transferred to coupon attitudes, which, finally, influenced coupon redemption. These "layered" mediators (viz., subjective IDVs, domain IDVs, and cost/benefit perceptions) explain coupon attitudes/behavior much more substantially than do demographics in and of themselves.

Discussion

The value of the mediational model. In the mediational model presented and tested here, it is shown that demographics influence coupon use/attitudes by first influencing subjective IDVs, domain IDVs, and perceived costs/benefits, in that order. It is the articulation of these mediational processes that give the model its explanatory character. Our argument has been that demographics are descriptive and identifier characteristics; as such, they cannot influence voluntary behavior unless they (or their effects) are first "subjectively experienced" by the consumer. Thus, income is first felt by the consumer as a subjective quality of being financially well off, education and female employment as busyness and as a lower need for taking pride in homemaking, and household size as financial pressure and busyness. These subjective experiences (i.e., subjective IDVs) illustrate how other demographics must be "translated" into psychological processes if the goal is to relate demographics to consumer behaviors in an explanatory (rather than merely predictive) fashion.

Noteworthy mediational links. Several mediational chains of influence are noteworthy from Table 3. Illustratively, one chain from each of the four demographics is as follows: (1) Income → financial wellness → reduced comparison shopping → reduced perception of economic benefits → less favorable attitudes → reduced coupon redemption; (2) Education → busyness → reduced comparison shopping → lower perceived economic benefits → less favorable attitudes → lower coupon redemption; (3) Female employment → less homemaking pride → less comparison shopping → lower perceived economic benefits (or greater perceived time costs) → less favorable attitudes → lower redemption; and (4) Household size → busyness → less comparison shopping → lower economic benefits → less favorable attitudes → lower redemption rates. These and other chains discernible from Table 3 show not only how a particular demographic influence unfolds but also how each demographic variable could influence a behavior through multiple (sometimes opposing) intervening processes.

Reasons for distal paths. Distal paths were expected to be absent, and all but three of them were. The presence of direct distal paths such as these three implies that some mediating variables have been omitted. For the employment → comparison shopping distal path, the missing mediator might be the subjective IDV of "financial prudence"—working women might be more financially prudent with their hard-earned money and therefore more prone to do compar-

ison shopping. For the financial wellness → extra-expense encumbrance distal path, the missing mediator might be the greater exposure of the financially well off to promotional media and consequently greater access to coupons without having to subscribe to extra newspapers and the like. Finally, for the brand encumbrance → use path, the missing variable might be a nonattitudinal, expediency-based purchase: If on a particular occasion, a consumer does not have the coupon for the most preferred brand, he or she sometimes forgoes redeeming the coupon, notwithstanding an otherwise favorable predisposition toward coupon redemption (i.e., attitude). These necessarily are speculations, in need of further development and empirical testing.

Unexpected valence in relationships. The positive valence of the employment → comparison shopping path is unexpected and counterintuitive. We ask, how is it that employed women were engaged in comparison shopping *more* than were nonworking women? One explanation is that employed females take up employment out of necessity (i.e., due to insufficient or absent spousal income), and they continue to feel this financial pressure (path coefficient to financial wellness is negative; see Table 3). This mind-set of necessity perhaps codrives both female employment and their comparison-shopping stance. At the same time, working women used coupons less than did nonworking women, as our data show, due to a lack of time. The effects of female employment are therefore complex. On the one hand, it disfavors coupon use by causing time pressure; on the other, it reflects the unabated financial pressures that favor coupon use.

The valence of two other paths in Table 3 is counterintuitive: Brand loyalty is associated with lower (instead of higher) brand encumbrance perception; likewise, store loyalty is associated with lower store encumbrance perception. This perhaps reflects a process of adjustment: Perceivers of the need to buy less preferred brands and patronize multiple stores seem to have already sacrificed their loyalty, so that disloyal consumers are also the ones who tend to recognize that coupon redemption requires such disloyalty. This possibility too needs corroboration in further research.

The enjoyability of coupon redemption. Were we to retain enjoyment and time costs as two separate factors, enjoyment by itself would have predicted coupon attitudes better than would time costs (zero-order correlation, .55 versus –.48). Substantively, a considerable proportion (42%) of our respondents reported favorably on the enjoyability factor. One source for such enjoyment maybe the psychological self-congratulatory feeling resulting from having "earned" the price advantage (see, e.g., Schindler 1989; Zeithaml 1985). Another source may be an intrinsic liking for the coupon clipping and organizing activity. It would seem that, to some, couponing turns idle time into recreational engagement. Some of Price and colleague's (1988) respondents resonate this enjoyment factor when they report that couponing is "a game" or "a hobby," "it feels good," and "I am really addicted to double coupons."

Is coupon use entirely attitude-mediated? The variance explained in coupon use was substantive (38%) but not extremely high. For this moderate result, we suggest three explanations. First, normative influences—the extent to which significant others expect the consumer to use or not use

coupons (excluded from the present model)—play an important role independent of attitude, as Shimp and Kavas's (1984) results suggest. Second, coupon use may have become automated (i.e., habituated), so that current and future use is simply a routinized continuation of past use behavior, now detached from the contemplated costs and benefits and overall attitude that may have once produced it.

Finally, and importantly, the third possibility is that coupon use is a reasoned behavior, but only in part; in part, it happens whimsically, contingent on situational external or internal exigencies. This can transpire in at least two ways. First, some consumers may feel ambivalent toward coupons, experiencing a still unresolved "approach/avoidance" feeling due to economic benefits versus hassle (e.g., negative enjoyment) of couponing. Given this ambivalence, the use behavior may sometimes (or, for some consumers, often) be driven by the "approach" forces (e.g., "I don't really like coupons but the savings here are irresistible"). Second, the mere possession of coupons may induce their use (without the corresponding degree of favorable predisposition). Henderson (1988) calls it "the coupon primacy" (i.e., the consumer tendency to buy an item with a coupon in preference to another item with an equivalently discounted price—see Schindler 1992 for experimental evidence). As one of our respondents wrote, "I don't think of it much. If I have it, I use it."[6] The premise and bedrock of our theory is "reasoned action," and our empirical results support this premise; we would be remiss, however, if we did not so much as acknowledge the plausibility that reason (premeditation, deliberation, predisposition, and cost/benefit considerations) guides the coupon redemption action only in part.

Contribution. The contribution of our model is threefold: (1) It reveals why demographics typically explain very little variance in coupon-redemption behavior—they are the most distal of all possible causes; (2) It suggests intermediate consumer characteristics that must be assessed to explain and predict redemption behavior; and (3) it offers a way of assimilating diverse studies with divergent traits (or variables) as their foci. Even retrospectively, we can make sense out of positive or negative findings, variable by variable. Illustratively, the nonsignificance of gregariousness or opinion leadership in prior research (e.g., study 2 in Table 1) is easily understood, for there is no causal chain that is plausible a priori linking them to coupon use. Had they been found significant, on the other hand, one would be ill-advised to accept them as true influencers of coupon redemption, absent a priori intermediate links. In general, our model forces a priori explication of the processes by which a given consumer characteristic can influence coupon redemption.

The generality of the mediational model must be noted in two respects. First, the model's application is not limited to coupon redemption: All demographic correlates of any consumer behavior must be explained by relevant intervening psychological processes. Second, its starting point does not have to be demographics: The model's distal/proximal axis is just as useful for positioning the rest of the variables in re-

lation to each other and to explore nondemographic characteristics more comprehensively.

Limitations. Our results are limited on four counts: (1) Our sample is not representative of U.S. consumers; (2) All measures, except coupon-use behavior, were self-report measures, taken within a single instrument; (3) Some indicators employed to assess various constructs were not entirely satisfactory; and (4) Our data are obviously correlational, and the claims about the direction of influence in the structural model tested herein rest on a priori logic, not experimental manipulation or time-separated assessments of dependent (except coupon use) and independent variables.

Directions for further research. Overcoming these limitations will entail more representative population sampling, further developmental work on indicator refinement, and temporal separation of attitude measurement relative to the measurement of other psychological factors. Coupon use could also be sampled over longer than four weeks' duration.

An important task is to examine factorial distinctions and redundancies in greater detail. For example, a single-item measure we employed for "price awareness" coalesced onto the comparison shopping factor, an "effort" item (viz., "redeeming coupons takes a lot of effort") loaded on both enjoyment and time cost factors, and a "smart-shopper feeling" item loaded on both enjoyment and economic-benefits factors (these items were not incorporated into the reported analyses due to ambiguous loadings). More elaborate, multi-item measures would illuminate these related concepts better. In particular need of factorial reanalyses (with new data) are the twin concepts of enjoyment and time costs, which failed statistical discrimination in our data, but which we continue to hold as conceptually distinct. Indeed, the absence of perceived time costs does not in itself necessarily imply the presence of enjoyment; to the contrary, most recreational activities consume time.

Another forward step in the future would be to extend and enrich the nomological network. Possible constructs for inclusion in the mediational network are subjective norms, behavioral intentions, past use habit, "financial prudence" (in conjunction with financial wellness), impulse versus budgeted purchasing, shopping involvement, media exposure (particularly to coupon-carrying media), smart-shopper feelings (if successfully discriminated from economic benefits and enjoyment), effort encumbrance, and the use of an expediency-based purchasing strategy, for example.

A final extension of the present research would be to apply the suggested model to other consumer behaviors such as dieting and fitness activities, smoking cessation, blood donation, impulse buying, and purchases of generic brands. For such behaviors, the role of diverse consumer characteristics could be investigated in a unified fashion, aided by the proximal/distal axis of the current model.

CONCLUSION

Our research identifies four classes of explanatory variables for consumer use of coupons: cost/benefit perceptions, shopping-related person traits, nondemographic general consumer characteristics, and demographics. Whereas demographics have been studied considerably in prior research, the other three classes have been examined only spo-

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[6]In a previous study, toward the end of the instrument, respondents were asked to write down why they did not use coupons. Space constraints prohibit reporting these results in full.

radically. Our study broadens the coverage of these variable types. Among the cost/benefit perceptions, we find that though the traditionally considered economic benefits and time costs explain coupon use and attitudes, they do not totally account for variation in the latter. Encumbrances too were important factors, with brand encumbrance (having to buy a less preferred brand) curbing coupon use directly. Equally noteworthy was the presence of a hedonic benefit, that is, enjoyment of coupon redemptions: Although its influence overlapped with that of time costs, in substantive terms a considerable number of shoppers actually enjoyed coupon clipping, organizing, and redeeming (as opposed to finding it a time-consuming chore).

Even more importantly, the contribution of our research consists in providing an integrated framework for all four classes of variables. In prior research, these variables have been investigated but each in a separate study, leaving the resulting cumulative knowledge disjointed. By weaving these diverse explanatory variables together, our framework furnishes better explanations of why and how certain variables do or do not explain the target behavior. For example, our study showed that demographics in and of themselves explained coupon attitudes/use only minimally, but this is because demographics are the most distal of all antecedents considered, and as such they operate through a chain of mediators. Rather than the objective IDV that demographics are, it is the psychologically encoded self-perception transform (i.e., subjective IDVs) of these demographics (e.g., self-perceived financial wellness rather than income) that exert the stronger influence. By interposing subjective and domain IDVs as mediating mechanisms, our model is an important step in bridging the gap between the knowledge of who uses coupons and why coupons are used. Of course, even our framework does not posit mediating mechanisms exhaustively, but we offer it to serve as a stepping stone— for further research to harness, modify, enrich, and extend.

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