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PETER T. L. POPKOWSKI LESZCZYC
Department of Marketing, Business, Economics, and Law, University of Alberta 4-30F Faculty of Business Building, Edmonton, Alberta, Canada T6G R6
e-mail: ppopkows@gpu.srv.ualberta.ca

HARRY J. P. TIMMERMANS
Department of Marketing, Business, Economics, and Law, University of Alberta, 2-32G Faculty of Business Building, Edmonton, Alberta, Canada e-mail: htimm@gpu.srv.ualberta.ca; Faculty of Architecture, Building and Planning, Eindhoven University of Technology, P.O. Box 513, 5600 MB Eindhoven, The Netherlands
e-mail: eirass@bwk.tue.nl

Abstract

This study describes temporal aspects of consumer shopping behavior. Most cross-sectional studies either explicitly or implicitly assume that consumer choice behavior is constant over time. The results of this study, which is based on scanner panel data for twenty-one grocery stores for three years in Missouri, indicates that consumers are involved in substantial store-switching and variety-seeking behavior, the degree of which is related to a set of sociodemographic variables.

Key words: store choice, sociodemographic variables

Introduction

The study of consumer store-choice or patronage behavior has been an important area of research in retailing for many decades. Most of these studies analyze the relationships between consumer store-choice behavior and a set of variables assumed to influence their shopping-choice behavior. Some studies relate aspects of consumer choice behavior to store or shopping center attributes (e.g., Jain and Mahajan, 1979; Gautschi, 1981; Ghosh, 1984; Guy, 1987; Borgers and Timmermans, 1987; Fotheringham, 1988). Others take a more behavioral approach, arguing that it is not the physical attributes of the stores or shopping centers per se but rather consumers' perceptions and evaluations of these attributes that influence their shopping decisions (e.g., Nevin and Houston, 1980; Recker and Schuler, 1981; Verhallen and de Nooij 1982; Timmermans, 1982; Louviere and Gaeth, 1987; Moore, 1990). Still other studies try to explain shopping patterns in terms of sociodemographics. The vast majority of these studies of consumer shopping behavior are cross-sectional in nature. The aim of the present study therefore is to conduct an empirical investigation of some temporal aspects of consumer store-shopping behavior.

An examination of studies of consumer store-shopping behavior indicates that the temporal aspects of such behavior has remained largely underanalyzed. Several papers

have studied household store-choice behavior (e.g., Kau and Ehrenberg, 1984; Wrigley and Dunn, 1984a, 1984b; Uncles and Ehrenberg, 1988). Other studies have analyzed store-level data to study the effectiveness of marketing mix variables on store sales and store substitution. Weekly sales levels for brands within specific product categories are typically related to marketing mix variables (e.g., Kumar and Leone, 1988; Mulhern and Leone, 1990; Hoch et al., 1994, 1995). Thus, although these studies analyze temporal aspects of consumer shopping-choice behavior, often the focus is on parameter estimation and model testing, and descriptive analyses are not reported. An exception is the paper by Kahn and Schmittlein (1989) on the timing of shopping trips. This paper provides further descriptive statistics concerning store-shopping behavior.

Research questions

Although households may have a preference for a particular store, they may patronize different stores for a variety of reasons. First, the basket of goods that they need to buy on the shopping trip may influence their store-choice behavior in that certain stores may not offer all the goods they need to buy. Overall preference may shift as a function of the composition of the basket of goods one needs to buy. For example, if produce is the overriding type of good and if households evaluate produce highest at a particular store, then they may choose to go to that store if produce is included in their basket of goods to buy and decide to go elsewhere if it is not. Second, price-sensitive and promotion-sensitive consumers are likely to shop at different stores to profit from the lowest prices at the various stores. Third, because of time constraints, households may occasionally combine their shopping trip with a work trip and be engaged in multistop, multipurpose trip behavior. Fourth, households may make fill-in trips for some needed items to a smaller store nearby, while making regular trips to a different store. Fifth, individuals within a household may have different preferences for particular stores.

For all these reasons, different temporal store choice patterns characterized by different shopping trip frequencies, number of stores visited, and store loyalty behavior will emerge. The following research questions guided the analyses:

How many stores are visited by consumers?
What is the nature of the switching behavior?
How often do repeat shopping and store switching occur?
Are extent of store loyalty and sociodemographics related?
Are number of shopping trips and sociodemographics related?
Is there any systematic relationship between regular or fill-in trips and sociodemographics?

Analyses and results

Data

The data used in this study involved scanner panel data provided by A. C. Nielsen Inc. Data on 246,704 shopping occasions of 1,438 households in Springfield, Missouri, for a three-year period from 1986 through 1988 were provided. The data pertain to twenty-one grocery stores from five different store chains. Chain 1 has nine stores, Chain 2 has three stores, Chain 3 has five stores, Chain 4 has three stores, and Chain 5 has only one store. These stores account for 80 percent of all grocery retail sales in Springfield. Data are available about the number of shopping trips made, the actual store visited, the date of the store visit, the total amount spent during the shopping trip (both scanned and unscanned), and consumer demographics.

The variables provided in Table 1 are included in the analysis. The correlations in Table 1 indicate no serious problem with multicollinearity. Dummy variables used for Schooling determine whether adult family members have obtained some postsecondary education and determine whether a trip is either a repeat or switch trip or a fill-in or regular trip. A shopping trip is defined as a fill-in trip when less than $7.50 is spent and less than four days have passed since the previous trip. These numbers were selected after studying the distribution of both variables. Store loyalty is a dummy variable indicating whether a household made more than 50 percent of its purchases in a particular chain during a one-year holdout period. Shopping frequency is the number of shopping trips made by a household during the holdout period.

Research findings

The number of stores visited by consumers. The number of different stores visited by the sample households in Table 2 shows that most sample households visited more than ten different grocery stores. If a minimum of five trips over three years is taken as a cut-off value, only a small proportion of households visits more than ten stores. The largest proportions in this case are obtained for three and two different stores, followed by four and five different stores. Thus, the results of these analyses seem to indicate that a substantial proportion of households is involved in a grocery shopping pattern that involves two to five different stores. Consequently, asking respondents only where they shopped during their last shopping trip or shop most frequently is clearly at variance with these findings and suggests that studies that base their predictions of markets shares on measurements of the most frequently visited store may report biased and invalid results.

The nature of switching behavior. The extent and nature of store-switching behavior was examined for the twenty-one stores in the study area (see Table 3). This table includes both the shopping frequencies and average expenditures per shopping trip. To study the switch-

Table 1. Correlations between included variables.

Variables Included	Income	Hours worked (male)	Hours worked (female)	Household Size	Schooling	Shopping Frequency	Amount spent per Trip	Store Loyalty	Fill-in Trip	Time Since Last Trip	Previous Repeat Trip
Income	1.00	0.43	0.16	0.24	−0.21	−0.06	0.16	0.07	0.10	0.03	−0.01
Hours worked (male)		1.00	0.16	0.54	−0.13	−0.11	0.20	0.09	0.13	0.06	0.04
Hours worked (female)			1.00	0.11	−0.18	−0.11	0.09	0.06	0.07	0.08	0.04
Household size				1.00	−0.15	0.03	0.18	−0.04	0.12	−0.03	0.02
Schooling (well educated)					1.00	−0.05	−0.03	0.09	−0.01	0.02	0.01
Shopping frequency						1.00	−0.25	−0.21	−0.23	−0.39	−0.07
Amount spent per trip							1.00	0.11	0.51	0.28	0.06
Store loyalty								1.00	0.07	0.09	0.23
Fill-in trip									1.00	0.29	0.04
Time since last trip										1.00	0.06
Previous repeat trip											1.00
Average values	$28,282	23.2	19.0	2.69	0.42	76.7	19.92	0.40	0.30	3.3	0.43

Table 2. Number of grocery stores visited by households.

Number of Stores Shopped at	Number of Households[a]	Number of Households with >5 visits[b]
1	13 (1.0%)	103 (7.5%)
2	34 (2.5%)	247 (18.1%)
3	64 (4.5%)	300 (21.9%)
4	99 (7.2%)	273 (20.0%)
5	115 (8.4%)	207 (15.1%)
6	150 (11.0%)	101 (7.4%)
7	153 (11.2%)	57 (4.2%)
8	156 (11.4%)	40 (2.9%)
9	124 (9.1%)	21 (1.5%)
10	130 (9.5%)	11 (0.8%)
>10	329 (24.1%)	7 (0.5%)

a. Number of consumers who visited a store at least once over three years.
b. Number of consumers who shopped at least five times at a store.

ing in more detail, we summarize several statistics in Table 4. Overall, 57.2 percent of shopping trips are switches, 7.4 percent are to different stores in the same chain, and 49.8 percent are to different stores in different chains.

Loyalty (defined as those households that make more than 50 percent of their purchases in one store or chain) differs significantly by chain; 61.3 percent of all trips to Chain 1 are made by households loyal to Chain 1, 53.1 percent for Chain 2, 32.6 percent for Chain 3, 41.6 percent for Chain 4, and 26.7 percent for Chain 5. In total, 47.9 percent (40.1 percent) of all purchases are made by households who are loyal to a particular chain (store). Households that are loyal spent more per shopping trip to their regular store and spent less on average when they switched to another store. However, loyal consumers did not necessarily spend most at their regular store. For example, consumers loyal to Chain 1 spent more when they shopped at Chain 4.

Repeat shopping and store-switching behavior. A probit model was used for analysis. The dependent variable is a binary one (whether consumers make a repeat trip or not), and the sociodemographic, shopping frequency, amount spent per shopping trip, a dummy variable for fill-in trips, the time since the last trip, and lagged repeat trip were selected as independent variables.

The results, given in Table 5a, show that all the coefficients, except for household size, are significant. A household is more likely to return to the same store when the female and the male are working, they are better educated, they spent more per shopping trip, and the time between trips is longer. Households are more likely to switch when income is higher, they shop more frequently, and they are making a fill-in trip. A previous repeat trip has a positive effect, indicating that consumers are most likely to return to the store where they purchased last.

Table 3. Aggregate store switching matrix: Number of shopping trips and average expenditures per trip. Store Switched to

	1	5	6	8	9	11	12	14	15	17	19	20	22	23	25	27	28	30	31	40	41	Total
1	3154	150	74	124	321	69	45	54	102	34	658	101	29	90	200	971	57	801	71	57	718	7880
	$ 19.3	17.6	16.0	16.2	14.7	18.6	10.2	14.1	16.2	14.6	22.1	15.9	16.7	20.0	20.5	15.0	17.7	24.8	24.2	27.1	16.9	
5	145	6813	461	304	80	152	202	490	370	1387	179	259	1735	54	137	62	118	569	246	1125	1025	15913
	13.9	19.6	12.8	9.7	14.7	12.7	9.8	19.2	16.5	17.3	14.4	20.7	17.5	19.4	12.1	13.7	13.0	27.0	16.4	24.3	18.8	
6	81	448	5635	32	128	44	10	99	68	138	604	25	156	159	363	31	10	393	33	940	363	9760
	30.4	21.6	18.4	11.4	10.3	9.8	10.5	25.6	14.9	15.8	19.3	27.3	15.2	20.3	17.3	18.1	16.6	28.3	18.0	30.8	22.6	
8	106	292	27	3550	22	283	231	69	193	133	26	591	203	5	16	93	173	922	139	88	880	8042
	17.7	17.4	12.3	11.8	11.6	22.1	10.3	15.9	14.1	18.7	15.9	21.9	15.6	5.8	15.3	13.8	16.1	24.5	16.6	23.8	21.3	
9	336	81	125	9	1777	14	8	26	20	25	1106	22	21	507	295	99	12	217	22	94	225	5041
	19.3	17.2	15.1	12.5	15.7	29.1	12.0	13.0	13.7	8.7	18.0	16.6	16.9	19.6	13.3	14.8	12.6	25.1	14.0	27.0	18.5	
11	79	176	30	290	19	4694	435	116	322	145	29	2563	114	3	15	59	1401	553	371	89	396	11899
	13.9	14.0	11.8	9.6	14.3	19.7	11.7	23.3	16.9	16.6	26.5	19.3	11.6	20.8	10.0	12.0	14.8	24.5	22.0	29.1	20.6	
12	34	185	15	254	8	439	2975	103	679	306	29	996	258	13	11	21	195	205	460	112	271	7569
	12.0	15.7	14.1	10.1	8.6	22.1	14.8	20.0	22.3	18.7	26.5	26.6	22.0	7.7	8.9	15.6	19.5	22.6	20.2	31.5	19.0	
14	47	468	111	74	25	85	120	9406	957	2783	62	154	407	5	31	10	66	111	666	2652	245	18485
	21.1	14.6	15.0	7.7	16.2	20.9	14.3	24.8	20.3	23.3	15.7	20.1	16.5	11.9	13.5	3.0	15.6	25.7	21.4	28.1	21.0	
15	107	337	67	193	0	377	689	996	4901	1583	45	522	390	10	27	35	210	236	1301	533	417	12976
	15.7	19.0	18.1	9.7		15.2	11.8	24.1	21.7	21.1	21.2	23.4	18.0	15.4	11.2	14.5	17.7	26.4	18.9	28.9	20.8	
17	46	1401	150	126	20	155	298	2721	1582	11351	168	418	1103	17	62	32	71	205	684	2464	607	23681
	14.7	15.6	14.8	9.8	9.0	15.9	11.7	17.7	15.7	22.6	19.4	22.9	15.8	14.1	14.2	12.8	18.6	21.7	19.5	24.4	17.7	
19	662	181	593	29	1133	24	34	48	56	172	6256	69	52	920	506	146	16	424	38	315	632	12306
	26.6	13.2	16.5	8.5	14.1	19.3	9.3	20.1	18.3	23.9	21.5	16.7	18.7	23.1	18.0	14.6	26.7	29.3	16.9	28.9	22.5	
20	111	235	27	576	18	2578	1010	169	537	398	61	10191	136	14	15	70	1621	1010	596	148	805	20326
	14.3	15.4	10.3	10.9	10.5	20.5	11.7	24.4	20.4	25.6	23.6	23.7	16.0	9.8	12.7	9.6	17.3	26.6	18.8	31.5	21.1	
22	24	1851	158	178	17	116	234	398	386	1109	48	141	2601	35	72	36	80	237	226	539	391	8877
	12.7	16.9	17.3	9.0	6.9	13.9	13.9	13.4	14.0	16.0	18.6	12.7	18.6	33.4	15.56	18.0	15.8	19.5	16.3	20.0	17.9	
23	79	51	152	4	461	1	14	4	8	11	961	13	38	914	154	65	9	83	11	65	73	3171
	16.3	9.9	14.3	14.0	13.7	35.6	9.4	8.2	10.4	20.2	18.0	13.2	13.0	26.5	15.2	20.4	18.4	26.9	10.9	32.5	18.4	
25	182	128	343	20	328	15	5	41	25	59	507	15	80	153	2079	158	27	265	26	109	373	4938
	22.0	15.6	16.5	8.2	11.7	20.3	11.0	13.0	16.8	15.7	20.1	17.8	17.6	15.9	18.7	12.4	25.7	20.9	16.2	22.8	15.1	
27	1011	55	37	96	94	58	22	15	51	31	144	72	36	73	158	2995	42	777	52	27	546	6392
	15.8	20.0	8.5	14.3	12.5	26.8	14.0	23.6	14.7	11.0	17.9	15.8	27.0	15.6	14.8	15.7	16.8	24.8	17.6	25.9	20.2	

Table 3. Continued

	1	5	6	8	9	11	12	14	15	17	19	20	22	23	25	27	28	30	31	40	41	Total
28	45	103	8	165	17	1334	198	63	217	78	11	1713	89	10	20	50	1589	388	242	53	191	6584
	14.1	12.3	8.7	9.3	19.1	17.4	12.5	17.4	16.6	14.0	16.0	20.3	12.9	24.0	7.8	10.5	19.0	22.9	22.1	24.9	14.8	
30	799	583	394	906	202	607	199	94	238	212	430	999	210	62	263	829	399	7934	278	271	2538	18447
	15.0	15.2	13.2	11.5	11.3	20.3	7.8	16.4	16.6	16.7	14.8	17.0	14.3	11.2	11.4	14.1	16.1	27.3	16.8	31.2	17.4	
31	72	246	42	130	30	353	456	649	1296	764	46	575	219	7	25	44	252	282	2115	320	241	8164
	17.0	15.1	14.9	10.0	11.9	17.3	12.4	18.5	16.0	19.7	16.9	18.9	17.3	7.8	12.0	9.8	15.6	25.3	29.8	29.8	18.4	
40	56	1113	937	89	102	97	110	2656	550	2401	315	141	632	55	109	24	54	254	324	8095	351	18465
	16.2	16.0	14.8	11.8	11.0	14.5	9.9	21.7	16.3	19.2	20.5	19.7	14.1	16.3	15.3	17.6	20.8	30.7	19.5	28.6	20.3	
41	704	1008	367	893	211	426	255	264	393	575	622	783	420	74	378	550	175	2575	254	350	6511	17788
	16.2	16.2	12.7	12.5	12.9	19.1	9.2	23.1	18.9	21.1	19.4	21.8	18.3	20.3	13.3	14.0	16.5	24.2	20.5	24.1	20.7	
Tot	7880	15905	9753	8042	5013	11921	7550	18481	12951	23695	12307	20363	8929	3180	4936	6380	6577	18441	8155	18446	17799	246704
	18.5	17.7	16.8	11.4	14.1	19.3	12.8	22.5	19.1	21.3	20.2	22.1	17.2	22.1	16.7	15.0	17.1	26.0	21.7	27.5	19.7	20.2

Table 4. Switching and repeat purchasing within and between store chains.

Store	Percent Repeat Trips	Percent Switch Trips Within Chain	Percent Switch Trips Outside Chain	Percent Trips Made by Loyals	Percent Fill-in Trips	Average Amount Spent	Number of Trips
Chain 1:							
1	40.1%	11.9%	48.0%	39.3%	36.0%	$18.52	7,880
5	42.8%	13.4%	43.8%	42.4%	32.5%	$17.71	15,905
6	57.8%	9.3%	32.9%	62.7%	31.8%	$16.80	9,753
8	44.1%	15.9%	40.0%	39.3%	38.6%	$11.38	8,042
9	35.4%	12.0%	62.6%	22.1%	36.0%	$14.12	5,013
11	39.4%	12.3%	48.3%	34.0%	31.3%	$19.34	11,921
12	39.4%	23.0%	37.6%	37.7%	43.7%	$12.77	7,550
14	50.9%	10.6%	38.5%	55.5%	31.5%	$22.47	18,481
15	37.8%	20.9%	41.3%	29.0%	33.0%	$19.06	12,951
	44.0%	14.1%	41.9%	61.3%	34.3%	$17.89	97,496
Chain 2:							
17	47.9%	2.4%	49.7%	50.9%	32.5%	$21.31	23,695
19	50.8%	1.9%	47.3%	49.4%	33.7%	$20.20	12,307
20	50.0%	2.4%	47.6%	48.0%	30.1%	$22.11	20,363
	49.4%	2.3%	48.3%	53.1%	31.9%	$21.53	56,365
Chain 3:							
22	29.1%	2.7%	68.2%	20.6%	27.1%	$17.21	8,929
23	28.7%	8.5%	62.8%	27.1%	30.2%	$22.13	3,180
25	42.1%	8.2%	59.7%	28.0%	34.2%	$16.69	4,936
27	46.9%	4.8%	48.3%	40.4%	38.6%	$14.96	6,380
28	24.2%	2.4%	73.4%	14.4%	31.8%	$17.09	6,577
	34.0%	4.6%	61.4%	32.6%	32.1%	$17.14	30,002
Chain 4:							
30	43.0%	2.9%	54.1%	37.5%	20.0%	$26.04	18,441
31	25.9%	7.4%	66.7%	25.8%	30.8%	$21.74	8,155
40	43.9%	3.2%	52.9%	45.6%	19.5%	$27.51	18,446
	40.3%	3.8%	55.9%	41.6%	21.8%	$25.87	45,042
Chain 5:							
41	36.6%	—	63.4%	26.7%	29.7%	$19.68	17,799
Total	42.8%	7.4%	49.8%	40.1%	30.6%	$20.20	246,704

Store loyalty and sociodemographics. The following simple measure of store loyalty was used:

$$L = \frac{\sum_{j} \sum_{j>k} |p_j - p_k|}{N - 1},$$

where P_j is the proportion of shopping visits at store j, $j = 1, \ldots, k$; and N is the total number of stores.

Note that if consumers are perfectly loyal to one store, one of the proportions equals 1.0, whereas the remaining proportions are all equal to zero. Consequently, the index is equal to 1.0. Similarly, at the other extreme, consumers visit all stores an equal number of times. Consequently, the differences between proportions are all equal to zero, and hence,

Table 5. The relationship between selected sociodemographics, store switchers, loyal shoppers, frequent shoppers, and fill-in trips.

	Table 5a: Repeat Trips (Probit Model)	Table 5b: StoreLoyalty (Logistic Regression)	Table 5c: Frequent Shoppers (Poisson Regression)	Table 5d: Fill-in Trips (Probit Model)
Variable	Parameter (*T*-value)	Parameter (*T*-value)	Parameter (*T*-value)	Parameter (*T*-value)
Intercept	0.4821	0.8929	3.9710	0.6805
	(33.21)	(18.80)	(275.31)	(56.80)
Income	−0.0288	−0.0019	0.0573	−0.0677
	(7.84)	(0.12)	(12.21)	(17.21)
Hours worked (male)	0.0024	0.0028	−0.0007	−0.0002
	(12.11)	(3.66)	(3.13)	(0.97)
Hours worked (female)	0.0014	0.0003	−0.0012	−0.0019
	(8.06)	(0.49)	(5.75)	(10.67)
Household size	0.0041	−0.0223	0.0872	−0.1026
	(1.32)	(1.67)	(22.59)	(30.93)
Schooling	0.0328	0.0908	−0.0389	−0.0579
	(3.90)	(2.63)	(4.28)	(6.60)
Shopping frequency	−0.0005	−0.0035		0.0076
	(5.20)	(6.06)		(87.71)
Amount spent per trip	0.0380	−0.0269	−0.3090	
	(9.82)	(1.07)	(58.16)	
Store loyalty			−0.1541	−0.0927
			(17.21)	(13.83)
Fill-in trip	−0.0553			
	(6.73)			
Time since last trip	0.0268			
	(21.14)			
Previous trip was a repeat trip	0.8472			
	(33.04)			

L is also equal to zero. Thus, the index of store loyalty is equal to 1 for perfect store loyalty and equal to zero for maximum switching behavior. If a consumer divides shopping trips equally between two stores, the loyalty will be 0.5.

The index of store loyalty behavior was calculated for each household (the average value of the index is 0.75). Because the index is constrained between zero and unity, a logistic regression analysis was run to test for any systematic relationships between this index of store loyalty and sociodemographic variables, shopping frequency, and the average amount spent per trip. The results, given in Table 5b, indicate that households tend to be more loyal when the number of working hours of the male are higher and when the household is better educated. Heavy shoppers tend to be less store loyal.

Shopping frequency and sociodemographics. Because the dependent variable is a count, Poisson regression analysis was performed to test for any relationship. Results are provided in Table 5c. These are cross-sectional analysis and therefore fill-in trip, time, and

repeat trip are not included as independent variables. Parameter estimates suggest households shop less often when both male and female work more hours, they are better educated, they spend on average more per trip, and they are store loyal. A positive parameter for household size and income indicates that larger households and surprisingly households with higher incomes shop more often.

Regular and fill-in shopping trips and sociodemographics. A probit model is used to study the effect of sociodemographics on fill-in versus regular trips (Table 5d). Since fill-in trips are defined based on time and amount, these variables are not included in the analysis. Also, since loyalty and previous repeat trip are related, only loyalty is included. All sociodemographic variables (except for number of hours worked by the male) and loyalty are negatively related to fill-in trips. Only frequent shoppers are more likely to make more fill-in trips. Approximately 50 percent of the fill-in trips were repeat trips, and 50 percent were switches.

Conclusion and discussion

The present study reports on an empirical investigation of patronage behavior, store loyalty, and store switching for grocery shopping in Missouri, using scanner panel data. Our results indicate that there may be sociodemographic segments that differ in shopping behavior in several important ways. Double-earner households concentrate their shopping activity in time and space, are the most loyal, shop the least, and spend the most per trip. Not surprisingly, people shop around less if they have less time to try different stores or become involved in comparative shopping. Single-earner households represent the heavy shopper segment. This segment also makes the most fill-in trips and is the least loyal. These consumers have more time for shopping, tend to shop around, and spend the least per shopping trip.

From a managerial viewpoint, the results indicate that switching in this particular case is highly symmetrical. This seems to suggest that switching, although related to sociodemographics, is a more or less random event, implying that for consumers in general repositioning strategies based on sociodemographics are likely to have a minor impact at best. However, because shopping frequencies and the extent and nature of store switching are related to sociodemographics, managers can use this information to target those segments that are more likely to switch. For example, price promotions and loss leaders may be most effective when directed toward single-earner households, while additional services that reduce the shopping time will be most effective for the double-earner household.

The percentage of repeat shoppers, fill-in trips, store loyalty, and the average amount spent per shopping trip differ substantially by store. One area of future research is to determine whether these differences are proportional to store size and consistent with double jeopardy (see, e.g., Kau and Ehrenberg, 1984). Preliminary analysis, using store sales as a proxy for store size, indicated that the percentage of fill-in trips, repeat trips, and store loyalty are partially related to store size.

We observed that while most consumers tend to shop at two to five different stores, they make most shopping trips and spend most money at one particular store. A significant amount of switching remains, and most of this switching is between stores from different chains. While some switching may be attributed to fill-in trips (50 percent of the fill-in trips were switch trips) and other reasons, a significant amount of variety seeking appears to occur. While switching, store loyalty, repeat trips, and fill-in trips are partly related to store size, clearly there are some other factors that have an influence on loyalty, the amount spent, and so on. These differences are expected in part to be due to marketing strategies (such as price specials) used by different stores and in part due to variety-seeking. This is an important area of future research.

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