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12. Vastine, William J. and Owensby, Raymond M. Customer Image Analysis of the Humble, Texas Market Area. Result Demonstration Project (in progress) Texas Agricultural Extension Service, Texas A&M University System, Fall 1977.
13. Vastine, William J., Thibodaux, Jon D. and Owensby, Raymond M. Image Analysis of El Campo Supermarkets, Texas Agricultural Extension Service, Texas A&M University System, September, 1977.
14. Watkins, Ed. "Customer Analysis and Market Strategy - Supermarkets vs. Convenience Stores." Journal of Food Distribution Research, VII, Number 1 (February, 1976), 110-111.
15. Watkins, Edgar P. "Managerial Economics and Customer Satisfaction." Journal of Food Distribution Research, IV, Number 2 (February, 1973), 65-69.
16. Wayman, Wilbur A., Jr. "A Retail Store Classification Technique Based on Customer Buying Power." Journal of Food Distribution Research, V, Number 1 (February, 1974), 115-119.

IMAGE ANALYSIS OF EL CAMPO SUPERMARKETS

A CASE STUDY

by

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Jon Thibodaux
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Introduction and Purpose

This report is based on a special undergraduate project conducted by Mr. Jon Thibodaux under the supervision of Dr. William J. Vastine. The project was conducted under the auspices of the Texas Agricultural Extension Service, Texas A&M University System. We would like to thank the participating stores and El Campo area shoppers who responded to the questionnaire.

Food retailers compete for the consumer's dollar by providing a set of products and services that will meet consumer needs. Price competition is

obvious, but nonprice competition may be even more important particularly if margins have been squeezed to the minimum level. Nonprice competition includes quality, services, and selection for example.

The purpose of this report is to provide information which will help evaluate how well foodstores are meeting consumer needs and aid competitors to meet consumer needs effectively. Specifically the following will be discussed: ratings of stores, customers' reasons for shopping at a specific store, a consumer profile, and suggested improvements.

Procedures

This report was developed from an analysis of consumer attitudes about Al Campo's four supermarkets: Frnka's, H.E.B., Newton's and Stanley's. The data were collected between March 15, 1977, and April 15, 1977. A random sample of 1,050 households was selected from approximately 4,400 households in the area from the 1976 telephone directory. A total of 226 complete questionnaires was returned. This represented 21.5 percent of those sampled and approximately five percent of all households in the area.

El Campo's population density by areas was estimated by identifying four quadrants formed by the intersection of highways 59 and 71. Figure 1 illustrates the projected proportion of population living in each quadrant and the proportion of respondents from each quadrant. Completed questionnaires were statistically representative of the population distribution.

Customer Evaluation of Stores

Customers rated the supermarkets as being good overall. (Table 1) This was based on a four point scale of excellent,

Figure 1. Estimated population and income distribution by quadrants and distribution of respondents, El Campo, Texas, Spring, 1977.

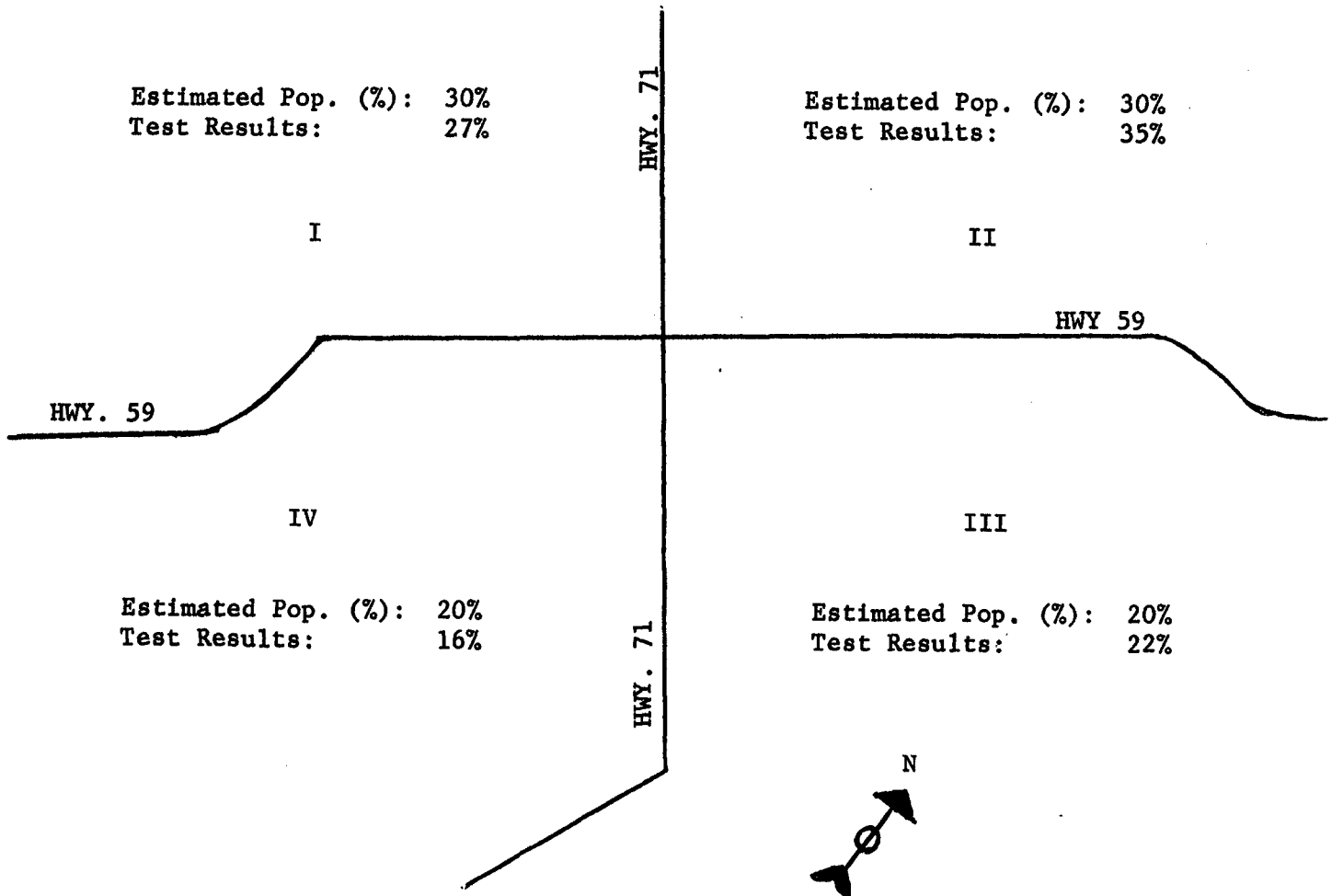


Table 1. Customer ratings of 16 attributes of El Campo Supermarkets Spring, 1977

Attribute	Average ¹ Score	Rank
Store management	3.12	1
Convenience of store location	3.10	2
Assortment of merchandise	3.05	3
Cleanliness and neatness	3.05	3
Meat quality	3.02	5
Fresh fruit and vegetable quality	3.01	6
Courtesy and friendliness	3.01	6
Store layout and ease of shopping	2.98	8
Overall rating	2.98	8
Employee efficiency	2.97	10
Checkout service	2.88	11
Weekly specials and coupons	2.83	12
Meat prices	2.69	13
Fresh fruit and vegetable prices	2.68	14
Grocery prices	2.60	15
Credit available	2.46	16

¹A weighted average based on frequency of responses. Stores rated on a scale of: (A) Excellent = 4 points
(B) Good = 3 points
(C) Fair = 2 points
(D) Poor = 1 point

good, fair, and poor. Five characteristics out of sixteen (nearly 33 percent) were considered good or better. Based on this analysis one could conclude that El Campo supermarkets, as perceived by customers, are well-managed, conveniently located, well merchandised, clean and neat, and offering good meat quality. Of the five low ranking attributes three were concerned with prices. Lack of credit availability and weekend specials were also among the lowest five.

Why Customers Shop Where They do

Store location is very important to the potential success of a supermarket. This analysis was consistent with that contention as it ranked first among the reasons given with nearly 30 percent of the respondents indicating location explaining why they shopped at their favorite store. (Table 2) When food prices, employee attitude, selection and variety, and meat are added to location they accounted for 75 percent of the reasons given for selecting a supermarket.

Several attributes of El Campo supermarket shoppers deserves comment. The rural nature of the community is evident by the fact that better than 31 percent of shoppers travel more than two miles to the first choice or second choice supermarket. Typically one expects to find that 50 percent or more of customers travel one mile or less. Even in this rural area, nearly 50 percent travel one mile or less. (Table 3)

Household size is about the same as the national average of 2.96. El Campo shoppers have generally resided in the area for nearly 14 years and nearly 55 percent are 41 years of age or older. (Table 3)

Table 2. Reasons Why El Campo Area Shoppers Select a Certain Food Store: Ranked in Order of Importance, Spring, 1977

Considerations	N	%	Cum.%	Importance Based on Number Times Named/214 Responses Terms Customers Used to Describe
Store location	65	29.6	29.6	Closest, convenient, near home, walking distance, on the way out of town
Food prices	50	22.8	52.4	Fair, reasonable, lower, cheaper, right
Employee attitude	23	10.5	62.9	Pleasant, courteous, helpful, friendly
Selection & variety	15	6.9	69.8	Better selection, wide assortment of items
Meat	10	4.6	74.4	Good quality, good selection, fresh
Cleanliness of store	6	2.7	77.1	Very clean, neat, cleanest
Credit availability	6	2.7	79.8	Offer credit, charge accounts
Food quality	5	2.3	82.1	Good merchandise, better quality
Produce	4	1.8	83.9	Always fresh, good quality
Specials	4	1.8	85.7	More variety, weekly specials
Product freshness	4	1.8	87.5	Freshest meat and vegetables
Habit	4	1.8	89.3	Habit, know where everything is
Store layout	4	1.8	91.1	Uncrowded aisles, ease of shopping
Services	3	1.4	92.5	Good, liked, get items when needed
Good store	3	1.4	93.9	Good, liked, want to keep small stores
Store atmosphere	2	0.9	94.8	Interesting store, cheerful atmosphere
Parking	2	0.9	95.7	Adequate, easy to park
Brands available	2	0.9	96.6	Have brands that I like, brand sizes
Hours open	2	0.9	97.5	Open long hours, convenient
Checkout	1	0.5	98.0	Fastest, quickest
Store displays	1	0.5	98.5	Easier to shop by
Check cashing	1	0.5	99.0	Can cash my checks
Trading stamps	1	0.5	99.5	Give trading stamps
Home owned	1	0.5	100.	Small store giving good service
	219*	100.		

*Exceeds 214 due to multiple responses.

Table 3. Profile of El Campo Supermarket Shopper, Spring, 1977

Characteristic	Average		Distribution			
1. Age of Shopper	35 yrs.		Age of Shopper (yrs.)			
			Less than 30	30-40	41-60	More than 60
			22.2%	23.1%	35.1%	19.6%
2. Year Moved to El Campo	Sept. 15, 1963		Year Moved to El Campo			
			1900-1930	1931-1955	1956-1967	1968-1977
			4.1%	20.4%	21.6%	54.0%
3. Household Annual Income	\$16,430		Annual Income (\$)			
			0-10,000	10,001-20,000	20,001-30,000	30,001 or more
			26.7%	43.8%	18.1%	11.4%
4. Household Size	2.89 people		Number in Household			
			1	2	3	4
			8.8%	32.3%	21.2%	16.8%
						10.6%
						6 or more
						10.2%
5. Number In Household Under 18 Years of Age	1.34 people		Number in Household			
			0	1	2	3
			48.7%	17.9%	17.4%	7.6%
						4.0%
						2.7%
						6 or more
						1.8%
6. Weekly Household Food Bill	\$33.16		Weekly Food Expenditures (\$)			
			0-20	21-40	41-60	61-80
			11.7%	41.0%	27.9%	12.6%
						81-100
						4.5%
						101 or more
						2.3%
7. Distance From Home to Favorite Store	1.48 miles		Distance From Home (Miles)			
			0- $\frac{1}{2}$	$\frac{1}{2}$ -1	1-2	More than 2
			25.8%	24.0%	18.9%	31.3%
8. Distance From Home to Second Store	1.53 miles		Distance From Home (Miles)			
			0- $\frac{1}{2}$	$\frac{1}{2}$ -1	1-2	More than 2
			26.7%	23.8%	17.1%	31.9%
9. Sources of Information about Stores			Sources of Information about Stores			
			Sources	%	Cum.%	Sources
			A. Newspapers	46.8	46.8	E. T.V.
			B. Friends	34.5	81.3	F. Signs
			C. Radio	5.9	87.2	G. Handbills
			D. Other	5.9	93.0	
						3.6
						2.2
						2.0
						96.6
						98.9
						100.8

The average weekly food bill for households in the El Campo area was \$33.16. This is somewhat lower than the national average of 39.75 per week. However, Table 3 illustrates that over 50 percent of El Campo shoppers spend \$40 or less per week for food.

Average income per household was estimated at \$16,431 for the El Campo market with nearly 71 percent earning \$20,000 or less annually. However, over 40 percent of those households surveyed earned between \$10,000 and \$20,000 annually.

Customers learn about grocery stores by several means. However, the most important media for informing customers about food stores is newspapers. This source of information was indicated by 46.8 percent of the El Campo shoppers responding to the survey. Information obtained through friends appeared to be another important source of information represented by 35 percent of the respondents. This source of information is indicative of the importance of customer image of food stores.

In summarizing and analyzing the results of the survey of food shoppers

in the El Campo, Texas trade area, a consumer profile was developed for supermarket shoppers for the Spring of 1976 (Table 3). This composite profile reflects the typical El Campo supermarket shopper's age, income, household size, average weekly food bill and the distance travelled to shop for food. The distribution of each variable also illustrates the spread or range for each factor. This profile may be useful to assist retailers in understanding and serving customer needs.

Suggested Improvements for El Campo Supermarkets

El Campo shoppers are generally satisfied with their supermarkets as was mentioned earlier. Checkout service leads the list followed closely by food prices. Selection, variety and meat quality factors comprised the list of most requested and important improvements for grocery stores in the El Campo trade area (Table 4).

NOTE ABOUT AUTHOR: Jon D. Thibodaux, Former undergraduate student and currently a management trainee, Kroger Company, Houston.

Table 4. Customers' Suggested Improvements for El Campo Supermarkets, Spring, 1977

Improvements Wanted	N	Percent of Responses	Cumulative Percent Responses
Checkout Service - faster, better counters, better service, more checkers	27	14.59	
Food Prices - lower, more controls, fairer	26	14.05	28.64
Selection and Variety - more specialty items, more selection, stock more bread, wine, cheese	15	8.11	36.75
Meat - better quality and less packaged meat	15	8.11	44.86
Satisfied - satisfied with the food retailers in the area	15	8.11	52.97
Employee Attitude - employees should be friendlier	12	6.49	59.46
Services - more carrying out of groceries to cars, more courtesy help	10	5.41	64.87
Store Layout - more directional signs, enclose frozen food sections to keep customers from freezing	9	4.86	69.73
Specials - more specials and sales	9	4.86	74.59
Parking - more parking area needed, improve parking area	7	3.78	78.37
Store Location - need stores farther out of town	4	2.16	80.53
Product Freshness - fresher meats and vegetables	4	2.16	82.69
Store Displays - reduce number of different prices marked on products	4	2.16	84.85
Cleanliness of Stores - neater shelves, clean floors	3	1.62	86.47
Produce - more variety, better quality of vegetables	3	1.62	88.09
Hours open - convenient, handy	3	1.62	89.71
Bakery and Deli - good bakery and deli, freshness, quality	3	1.62	91.33
Credit Available	3	1.62	92.95
Delivery	3	1.62	94.57
Others - those receiving less than 3	10	5.43	
TOTAL	185	100.00	