Supermarket Customer Observation and

Electronic Data Analysis

With Implications for the Marketing Plan

by

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Preface

This report is based on research initiated to determine the potential role of observation methodology in market plan development. This report is based on 100 observations conducted in a supermarket dairy department.

The findings have implications for market planning, merchandising and communication strategies.

As a pilot project, the results are not based entirely on randomly selected customers. This report represents efforts to apply and refine the observation technique and not necessarily to convey results that can be projected to all shoppers in a supermarket. Further work is being done to accomplish random observations.

Introduction

Role of Planning Data

Planning for efficient supermarket sales must be based on valid data. Economic data such as gross sales, gross profits, and other indicators of store productivity are gathered internally by management. The computer age allows management to generate numerous data characteristics and statistics.

Mail and telephone surveys of consumers, both among a store's customers and its non-customers, are another source of information useful in creating and monitoring the marketing plan. Survey data facilitate the determination of consumer awareness, attitudes and shopping activities.

Grocer associations, trade magazines, consultants and others conduct projects which generate industry data. This secondary data may or may not be applicable to a specific supermarket in its planning process. Both primary and secondary data are needed for effective market planning.

This report describes a pilot project which implemented customer observation methodology and analyzed data using a mini computer and a statistical software package.

Observation in Context

The process of conducting research on customer behavior includes numerous alternative methods and procedures. Observation is one alternative methodological tool useful for data collection. The characteristics of the observational method do not automatically limit analytical methods and procedures.

The procedural alternatives involved in implementing observation permit statistical analysis of a high degree (ANOV, Regression, etc.) or simply descriptive analysis consisting of frequencies, percentages, means and others. The alternative random procedure or non-random procedure dictates the extent to which observation data can be analyzed.

There are advantages to simplifying the collection of research data. Yet there is also a need to maintain a level of validity in the research results. Many times there is a need or desire for supermarket store management and/or employees to conduct research in order to obtain information in a timely and effective fashion.

Observation research can be justified in terms of its time and cost. Store employees can be trained to conduct observation research. Sophisticated analysis or simple tallies of the data can be made. Each result can be a valuable piece of information which management can use to determine shopping patterns, describe shoppers, profile market segments, and gain insight into store layout, advertising and promotional strategies.

Customer observations should be considered a means of establishing communication with the consumer. Communication uses and transports information from one decision maker to another. Communication is a critical tool in management decision making. Direct observation of overt behavior can be interpreted and "encoded" to facilitate communication between consumer and observer.

Communication with consumers is essential to profitable business management. Two-way communication is extremely important. But, does this communication have to be direct? Could it be observed, interpreted and reacted to in order to complete the communication cycle? In supermarkets today, consumers react to many factors: high prices, poor quality and poor service. Management needs to determine problems in some manner and then to take steps to reduce the number of complaints or possibly eliminate them. This process involves the presence of two-way communication.

This two-way communication can be accomplished indirectly by both parties. The customer can communicate through actions which are observable. Management, in turn, can communicate through its reaction to the observed actions of the consumer.

Research Project Goal

The goal of this research project was "to determine the potential role of the observation method in developing market planning information."

The research objectives of this project were:

1. Determine shopping and purchase actions of food store shoppers using direct observation during normal shopping hours.

2. Determine procedural strengths and weaknesses of the observation method in generating planning data.

3. Determine specific items purchased by demographic market segments, i.e., age, sex, etc.

4. Determine alternative types of recommendations for marketing strategies and tactics that can result from observation methodology.

Project Procedures

Data Collection

Permanent records were generated during the observation of each shopper. The generating of permanent records did not detract from the unobtrusive nature of the procedures. Observers had no discretion about what was to be observed. All actions and characteristics to be observed were included on the record page.

Consumers were "picked up" at either end of the dairy department or in mid-department. Consumers were not second-guessed; that is, consumers were observed regardless of whether or not interest was apparent or whether they seemed to be only passing through. All persons, once picked up, were documented and considered in the analyses even if no purchases were made.

This project was conducted in one supermarket during a four-week period. The 100 observations were conducted in one department--the dairy department of the store.

One person completed all observations in order to maintain a consistency of procedure. One department was involved in order for the observer to remain very unobtrusive. The method of observation in this project can be described as:

1. being in a natural setting and situation,
2. unobtrusive,
3. structured,
4. resulting in direct observations, and

5. involving a human observer.

The natural store setting was used. There was no obvious indication of any observations being made. The observation was structured so that specific pieces of data were observed. The observer was not instructed to "see what you can see." Rather, a consistent instrument (floor plan) was used. The observations were made directly; no mechanical equipment was involved.

The number of persons per time period was not proportional to the actual numbers shopping at various times during the day or night. The procedures were used in order to demonstrate what can be done, and how, regardless of store, department, time of day or any other situation.

Data Interpretation

The findings should be interpreted and the interpretation influenced by several situational factors. Such things as the following should be noted:

1. Weather (rain, snow, etc.)
2. Location of store
3. Street or construction obstructions
4. Time of week (end of week)
5. Time of month (payday, etc.)
6. Time of year (holidays, etc.)

Strengths of the Observation Method

The strength of observation data lies in "what it is." It is detailed action applicable to the setting in which the observation is made. It can be a complete record of actions taken during a period of time, within a prescribed spacial dimension.

Observational data do not result from interpretation. The person observed is not required to recall actions, to answer a questionnaire or to complete a personal interview. Likewise, the observer is not in a position to interpret an answer by an interviewee. Action is recorded, not interpretation.

The observation itself, the recording of the observation, the data processing, and the analysis have each individually and all collectively created greater potential for management information development. In summary, the benefits of observation include:

• Situation description development for market plan development.

• Department, section or location productivity improvement.

• Customer service and convenience improvements.

• Restocking procedures and policies analysis and improvements.

• Complementing the direct product profit analysis.

• Target market profile analysis and definition.

Weaknesses of the Method

There are those who express the opinion that a method that generates action data exclusively is methodologically weak. This reflects excessive expectations of the method and an attempt to stretch the capabilities of a research method which has limited purpose and limited potential.

One of the weaknesses often referred to is the inability to explain the cause or reason for the action taken. This is not one of the intended purposes of observation. The alternative method which a researcher can implement in order to accomplish interpretation is the personal interview. This method can be implemented upon completion of the observation without compromising the observed data. Unanswered questions can be resolved directly and obtrusively.

Observational data can be biased, just as any other data can be biased if non-acceptable procedures are used to carry out the observation method. Bias is minimized by providing every moment of a time frame and every unit of the observed population equal access to the observer. As applied to a supermarket, if a department is being observed, all shoppers during shopping hours should have an equal chance of being observed.

Likewise, there is no control of variables involved in comparable situations, i.e. two stores or two different time periods. Comparability is limited because of a lack of ability to determine cause and effect.

Others consider the data as qualitative data rather than quantitative. Wells and LoScinto [1] state "that the reports are narrative rather than quantitative." This report stresses

that some of the data can be quantitative and can be analyzed statistically.

The above weaknesses of the data resulting from observation are for the most part the result of excessive expectations of the method. On the other hand, the weaknesses can be offset by procedures which result in data representative of locations and time periods.

Highlights of Observed Findings

Introduction

The highlights that follow describe a number of pieces of information resulting from an implementation of the observation technique. These types of findings should provide store management with opportunities to develop marketing plans and communicate more effectively with the customer.

Highlights

1. Ninety-nine (99) percent of the observed shopped at least two sections ("section" represents a four-foot linear section of the display case) of the dairy case on the first pass through the department.

   All parties shopped an average of 12 of the 18 dairy case sections.

2. Eighty-five (85) percent of all parties purchased at least one unit (not item) from the dairy case.

   All parties observed averaged 2.45 units purchased on the first pass through the department.

   The 85 percent purchased an average of 2.88 units.

3. Forty (40) percent shopped at least two sections of the dairy case on the second or return pass through the dairy department.

   All parties shopped an average of 4.07 sections on a second or return pass through.

   The 40 percent of the parties making a second trip through the department reshopped an average of 10.18 sections.

4. Nineteen (19) percent purchased at least one unit of product on the second or return pass through.

   All parties observed averaged .27 units purchased. The 19 percent of parties purchased an average of 1.42 units on the second trip through the dairy department.

5. Forty-eight (48) percent stopped in front of at least one dairy department section without making a purchase.

   All parties stopped in front of an average of .77 (less than one) sections.

   The 48 percent stopped at an average of 1.6 sections.

6. Twelve (12) percent stopped in front of at least one dairy department section on the second pass through the dairy department without making a purchase.

   All parties stopped in front of an average of .16 sections on the second pass through.

   The 12 percent stopped at an average of 1.33 sections.

7. Ninety-nine (99) percent passed at least one gondola end on the first pass through the dairy department. All parties passed an average of 4.03 gondola ends out of the 6 possible.

8. Twenty-six (26) percent were observed stopping at a gondola but did not make a purchase. The average party shopped .33 gondolas. The 26 percent shopped an average of 1.27 gondolas.

9. Fourteen (14) percent of all parties purchased at least one unit from a gondola end. The average party purchased .15 units.

   The 14 percent purchased an average of 1.07 units.

Findings and Results

Introduction

The following findings are presented in order to demonstrate several alternative ways of analyzing observation data. This is not an exhaustive list and the data allow numerous

additional analyses to be made. The groupings of findings can be identified as:

1. Description of individuals observed.

2. Locations of purchases among shelves.

3. Relationships of descriptions of the observed and locations of the purchases.

4. Action profiles of market segments.

5. Ingress and egress characteristics.

6. Profile of the linear distribution of purchases and observations.

Description of Individuals Observed

Tables 1 through 5 represent descriptions of the shoppers and how they shopped the dairy department. This analysis provides the researcher with information that will probably raise questions to be answered through further analysis.

Table 1

The description of the parties observed with regard to sex, numbers in the parties, and the composition of the shopping party, 100 Fort Collins, CO Shopper observations, Fall 1987.

Percent	Party Composition
21	Individual female
30	Individual male
14	Mixed adult couple
21	Female with children
5	Male with children
1	Couple with children
4	Female under 18 years old
3	Male under 18
100	Total Observed Parties

62	Total adult females observed
53	Total adult males observed
115	Total adult persons observed

Table 2

The use of shopping carts and shopping lists by 100 shopping parties observed in Fort Collins, CO, Fall 1987.

Percent	Information
77	Used a shopping cart
23	Did not use a cart
40	Used a shopping list
60	Did not use a list
100	Total observation

Table 3

The time of day that grocery shoppers observations were made, 100 shopper observations, Fort Collins, CO, Fall 1987.

Percent	Time of Day
2	6 AM to 10:59 AM
25	11 AM to 1:59 PM
25	2 PM to 4:59 PM
44	5 PM to 8:59 PM
4	9 PM to 11:59 PM
100	Total

Table 4

The number of shopping parties observed with accompanying children, 100 parties observed, Fort Collins, CO, Fall 1987.

Percent	Children
73	No children observed
27	One or more
100	Total

Table 5

The estimated age classifications of the 100 shopping parties observed in Fort Collins, Co, Fall, 1987.

Percent	Age Estimate
9	Under 18
19	18 - 24
43	25 - 34
17	35 - 49
7	50 - 65
5	66 and over
100	Total

Weighted average age	33 years
Median	25 - 34
Mode	25 - 34

Location of Purchases Among Shelves

Where in the department were purchases made? Individual males made fewer purchases from lower shelves (Table 6) while females with children purchased from all shelves in the dairy case. Further analysis provides more details (Table 7) about the shelf location from which various parties (by sex classification) made purchases. Additional analysis involves another customer characteristic, age (Table 8).

Relationships of Descriptors and Locations of Purchases

What did the observed person buy in the dairy department? Tables 9, 10 and 11 present a description of some of the purchase behavior. For example, individual males were not observed purchasing sour cream. Milk purchases represented 21 percent of the purchases observed. Sour cream was not purchased by persons between the ages of 35 and 65 years old.

Table 6

The type of party observed and the shelf location from which purchases were observed, 100 Fort Collins, CO supermarket observations, Fall 1987.

Party Observed	Observed Shelf Purchases
Individual female	Fewer purchases from middle shelves
Individual male	Fewer purchases from lower shelves
Mixed Adults	Fewer purchases from lower shelves
Females with child/children	All shelves
Others	Fewer purchases from lower shelf

Table 11

The product groups most predominantly purchased by parties of various characteristics, 100 Fort Collins, CO, supermarket observations, Fall 1987.

Product Group	Observed Characteristics of Purchases
Eggs	Purchased by all parties
Dough	Purchased by all parties
Spreads	Less frequently purchased by individual females
Juices	Fewer purchases made by mixed adult parties
Yogurt	Purchased more frequently by mixed adult parties
Cottage cheese	More frequently purchased by females with a child
Sour cream	No purchases observed by individual males
Milk	Fewer purchases by individual females
End gondolas	Fewer units purchased by mixed adults and others

Table 7

The shelf location of dairy product purchases, by sex characteristics of party shopping, 100 Fort Collins, CO, supermarket observations, Fall 1987.

Location of Purchase

Upper Shelves	Middle Shelves	Lower Shelves	Characteristic of Party Observed
	--- percent ---		
16	10	10	Individual Female
14	26	15	Individual Male
25	26	19	Mixed Adult Pair
25	20	27	Female with Child(ren)
20	18	19	All Others
100	100	100	Total
35	38	27	Total of all purchases

Table 8

The shelf location of dairy product purchases, by age of party observed, 100 Fort Collins, CO, supermarket shopper observations, Fall 1987.

Location of Purchase

Upper Shelves	Middle Shelves	Lower Shelves	Age of Party
	--- percent ---		
22	17	13	Under 18 Years Old
14	20	17	18 - 24
48	40	42	25 - 34
14	9	20	35 - 49
0	6	5	50 - 65
2	8	3	66 Plus
100	100	100	Total

Table 9

The product groups purchased in the dairy department by observed parties by sex classification, 100 Fort Collins, CO, supermarket shopper observations, Fall 1987.

------------------ Characteristic ------------------

Individual Female	Individual Male	Mixed Adults	Female & Child(ren)	Others	Product Groups	% of Total
----------------------- percent -----------------------						
9	24	18	29	20	Spreads	24
10	27	19	21	23	Milk	21
20	12	37	19	12	Yogurt	18
16	21	21	21	21	Eggs	15
23	12	23	23	23	Juices	12
33	11	22	23	11	Dough	4
14	14	14	44	14	Cottage cheese	3
14	0	44	14	28	Sour cream	3

Table 10

The product groups purchased in the dairy department by observed parties by age characteristic, 100 Fort Collins, CO, supermarket shopper observations, Fall, 1987.

----------------- Shopping party -----------------

Under 18	18-24	25-34	35-49	50-65	66 Plus	Total	Product Groups	% of Purchases
----------------------- percent -----------------------								
15	11	45	20	7	2	100	Spreads	24
21	23	40	10	2	4	100	Milk	21
22	20	44	12	0	2	100	Yogurt	18
18	15	42	6	6	13	100	Eggs	15
15	12	50	19	4	0	100	Juices	12
0	22	34	22	0	22	100	Dough	4
14	29	43	14	0	0	100	Cottage cheese	3
29	14	43	0	0	14	100	Sour cream	3

Marketing plans frequently include a description of the target markets. How can a target market be profiled? Given a profile, how many customers are represented or included in the description?

A number of profiles of several market segments observed are presented below. Each of these profiles permits managers to determine the relationships of characteristics of those observed and the actions they have taken in the department.

Target Market Profile

"Individual Female"

1. Accounted for 21 percent of the parties observed.

2. Seventy-one (71) percent used a shopping cart.

3. Thirty-three (33) percent used a shopping list.

4. Thirty-eight (38) percent shopped in the morning and early afternoon and 38 percent shopped after 5 p.m.

5. Estimated average age, 35.7 years.

6. Purchased an average of 1.68 units of products.

Target Market Profile

"Individual Male"

1. Accounted for 30 percent of the parties observed.

2. Fifty-seven (57) percent used a shopping cart.

3. Thirteen (13) percent were observed using a shopping list.

4. Fifty (50) percent were observed shopping after 5 p.m. in the afternoon.

5. Estimated average age, 35.4 years.

6. Purchased an average of 1.78 units.

Target Market Profile

"Observations with Children"

1. Twenty-seven (27) percent of observed parties included children.

2. Sixty-seven (67) percent of observed parties with children included a sole female and 22 percent included a sole male.

3. Ninety-six (96) percent of parties with children used a shopping cart.

4. Sixty-four (64) percent of parties with children used a shopping list.

5. Sixty-one (61) percent of parties with children shopped after 5 p.m.

6. Sixty-four (64) percent of parties with children included adult shoppers age 25-34.

7. Purchased an average of 2.71 units.

Target Market Profile

"24 Years and Under Age Group"

1. This age group was equally distributed among the 5 major descriptive groups studied, i.e. individual female and male, etc.

2. Twenty-eight (28) percent of all observations were age group 24 years and under.

3. Seventy-one (71) percent used a shopping cart.

4. Thirty-six (36) percent used a shopping list.

5. Forty-three (43) percent shopped from 2 p.m. to 5 p.m.

6. Fourteen (14) percent were accompanied by at least one child.

7. Purchased an average of 3.2 units.

Target Market Profile

"Shopping Cart Users"

1. Seventy-seven (77) percent of all those observed used a shopping cart.

2. The most frequent cart users were females with at least one child; 27 percent of all users.

3. Fifty-one (51) percent observed using a shopping cart also used a shopping list.

4. A greater percent of persons (from 67 percent to 83 percent) used shopping carts as the time of day became later.

5. Thirty-five (35) percent of those who used a shopping cart involved at least one child.

6. Forty-three (43) percent of cart users were age 25-34 years old.

7. The most infrequent cart users were individual males.

8. Purchased an average of 3.2 units.

Target Market Profile

"Shopping List Users"

1. Forty (40) percent of those observed used a shopping list.

2. Thirty-five (35) percent of the list users were females with at least one child.

3. The most infrequent users of a shopping list were individual males; 43 percent of all users.

4. Ninety-eight (98) percent observed using a shopping list also used a shopping cart.

5. Fifty-three (53) percent of shopping list users shopped after 5 p.m.

6. Forty-five (45) percent of parties using a shopping list included children.

7. Forty (40) percent of list users were age 25-34, with another 35 percent age 35 or more.

8. Purchased an average of 3.6 units.

The objective of store management as well as department managers is to optimize the number of units sold in the display space. How can observation data reveal progress toward this objective?

Analysis revealed the number of units purchased and, with this number, a number of characteristics were associated. In other words, the average number of units purchased can be calculated for various market segments of the shoppers observed.

The greatest average number of units purchased was by mixed sex adult couples--4.5 units (Table 12). Shopping list users purchased 1.5 more units on average than did non-list users. The table reveals a number of other contrasts and comparisons.

Table 12

The number of units purchased by various segments of the customers who shopped a supermarket dairy department, Fort Collins, CO, Fall 1987.

Characteristic	Units Purchased
Entry from meat department	3.10
Entry from HABA aisle	1.50
Mixed adult couples	4.00
Individual females	1.68
Individual males	1.78
Cart users	3.20
Non-cart users	1.10
Shopping list users	3.60
No list	2.10
Evening shoppers	4.30
Morning shoppers	2.10
Children present	2.11
Children not present	2.35
Under 24 years old	3.20
Over 34 years old	2.00
Exited to meat department	2.80
Overall average	2.45

Ingress and Egress Characteristics

The placement of products in a department setting supposedly influences the route to and through the department. The route will be

influenced by the customer's planned next purchase, a knowledge of what items are next in the shopping sequence, and other factors.

Observation of the dairy department, located in a corner of the store, revealed the ingress and egress of the 100 customers (Tables 13 and 14).

No one predominant pattern was established. Forty (40) percent came from the meat department, following the periphery of the store, but 7 percent went out along the periphery. Forty-one (41) percent entered the dairy department from grocery aisles (Figure 1).

Persons entering the department from a perpendicular aisle shopped an average of nine sections of the dairy case while people coming from other entry locations shopped an average of 14 sections.

Persons entering from the meat department purchased an average of 3.1 units of product while those coming from the HABA aisle purchased an average of 1.5 units.

Additional graphic representation in Figure 2 shows both the ingress and egress patterns.

Distribution of Purchases

Figures 3 and 4 illustrate the observed location of purchases in the department by the 100 customers.

The evaluation of these observations reveals that there was not a significant variation in the number of purchases among the sections of the dairy department. There was a significant variation in the location of stops or observations by customers.

Observations versus purchases occurred in the mid-section of the department. These observations occurred in sections containing predominantly impulse items vs. staple or regular demand items.

The implications for communication strategies are at least three-fold. First, specials and coupons might reduce "looks" and increase purchases. Secondly, more advertising and promotional efforts may increase awareness of the items and improve attitudes toward these products. Thirdly, in-store demonstrations may reduce looking and increase purchases.

Table 14

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No list	2.10
Evening shoppers	4.30
Morning shoppers	2.10
Children present	2.11
Children not present	2.35
Under 24 years old	3.20
Over 34 years old	2.00
Exited to meat department	2.80
Overall average	2.45

General Conclusions

Introduction

There are a number of conclusions as a result of this project, conclusions regarding procedures and results. Recommendations for management and for improving the procedures follows in subsequent sections.

Results

The dairy department observations indicated that consumers, regardless of characteristic, make a very quick trip through the department. The infrequent stops and the frequency of units purchased reflect a hurriedly conducted shopping trip through the dairy department.

Observable differences in market segments were obvious. Individuals purchased fewer units while couples and evening shoppers purchased twice the number of units. Individual market segments were identifiable

Table 13

The characteristics of the shoppers entering the dairy department from three different directions: from the meat department, from adjacent aisles and from the HABA aisle, 100 Fort Collins, CO shoppers.

Location of Ingress

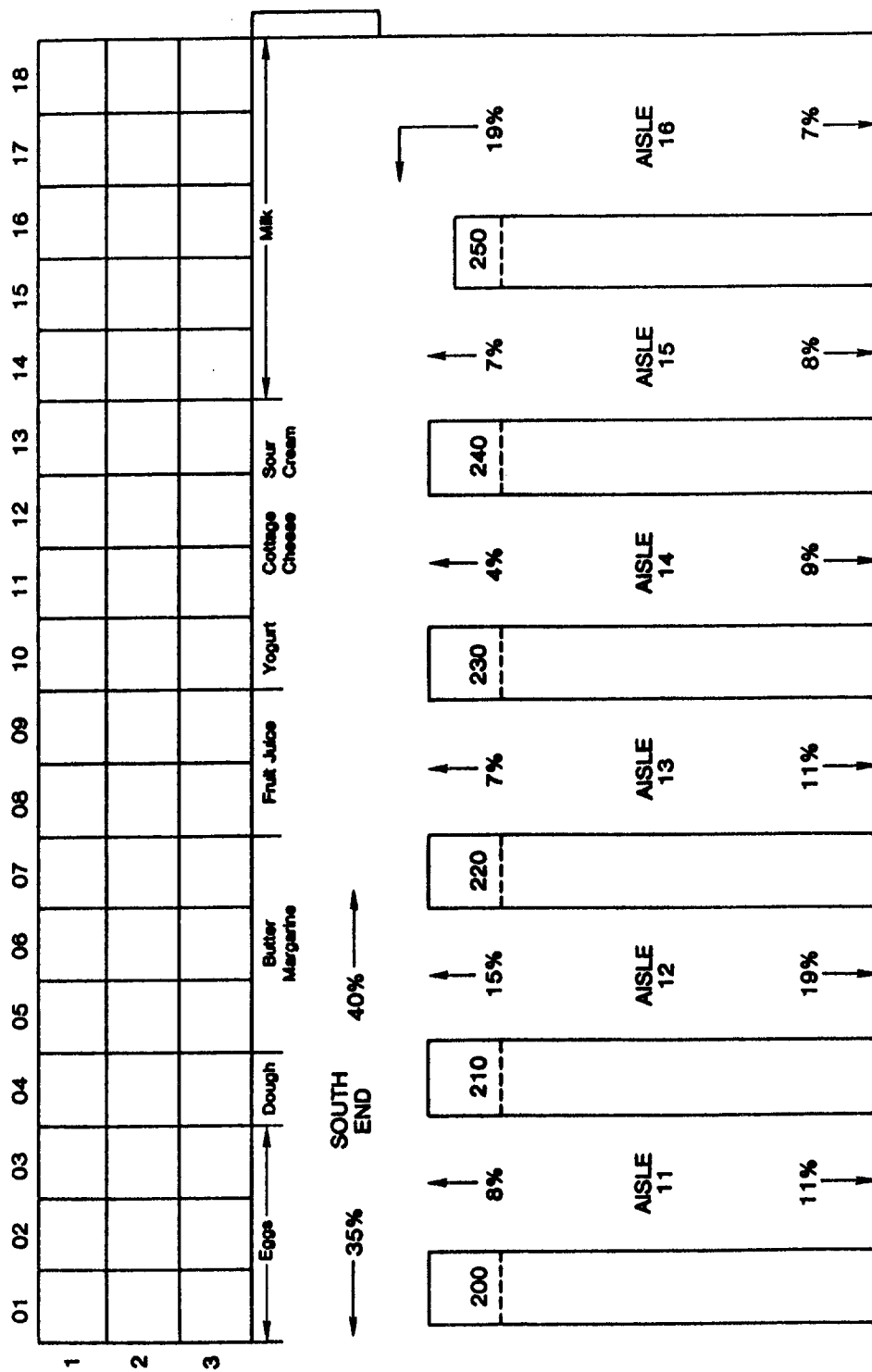| Shopper Characteristic	From Meat Department	Adjacent Aisles	HABA Aisle	Total
	----------- percent -----------			
Individual male	40	20	40	100
Individual female	38	43	19	100
Females in general	28	60	12	100
Males in general	40	20	40	100
With shopping carts	36	50	14	100
With shopping list	40	55	5	100
After 5 p.m. shoppers	38	49	13	100
With children	21	72	7	100
Age 25 - 34	33	46	21	100
Ingress same as Egress	35	2	0	NA
Sections shopped one-way (average)	14	9	14	
Units purchased (average)	3.1	2.9	1.5	
End gondola unit purchases (average)	.11	.37	.08	

Figure 1. The proportion of those observed entering from and exiting to the Dairy Department from various locations adjacent to the department, 100 supermarket customers, Fort Collins, CO, Fall 1987.
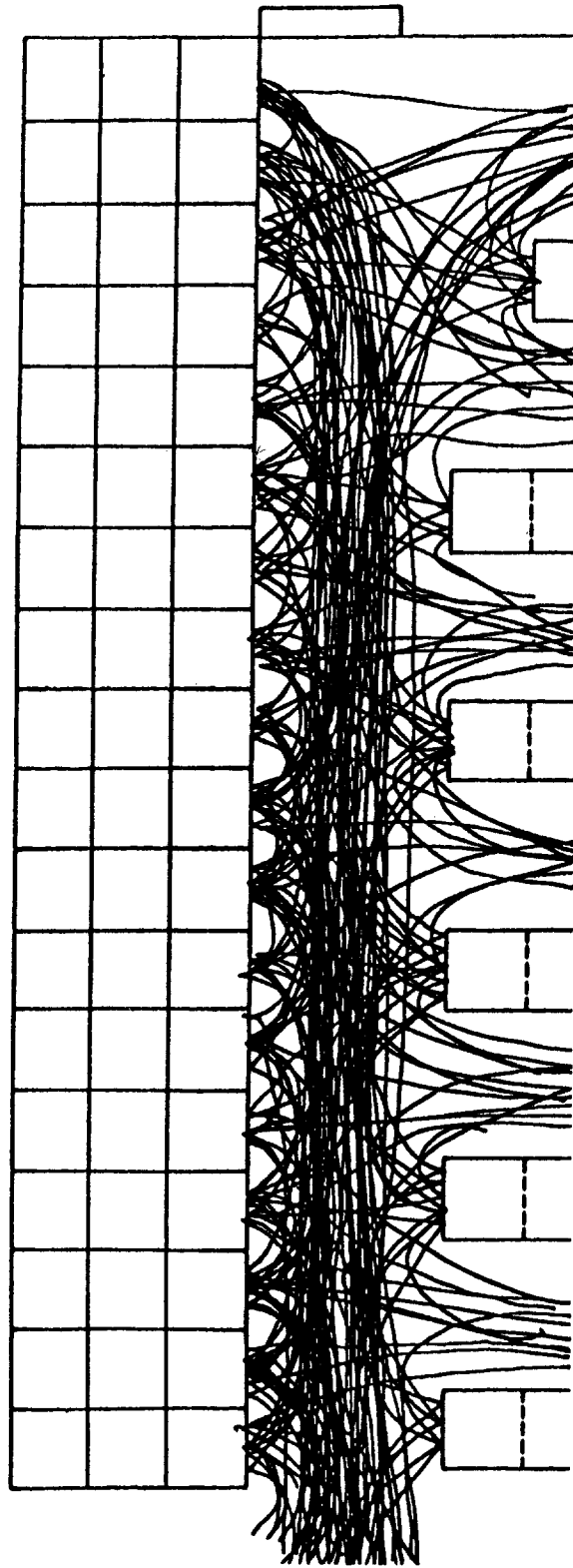
Figure 2. A summary display of the shopping routes followed by 100 supermarket customers, Fort Collins, CO, Fall 1987.

Figure 3

The number of items purchased from the various sections of the dairy department by 100 supermarket customers, Fort Collins, CO, Fall 1987.
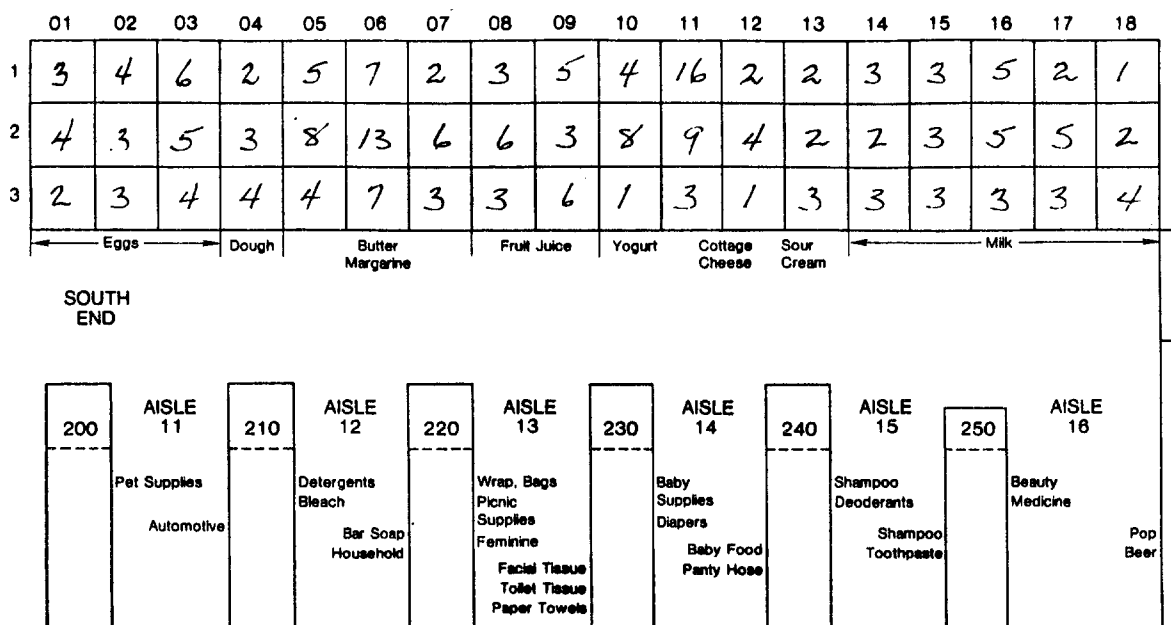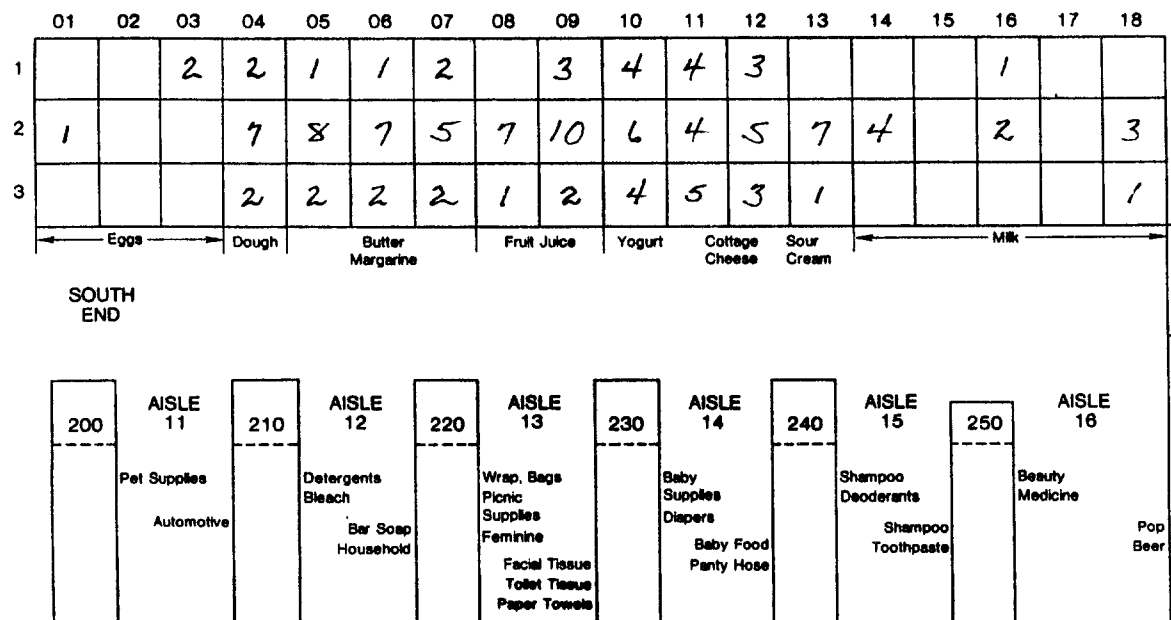
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
1	3	4	6	2	5	7	2	3	5	4	16	2	2	3	3	5	2	1
2	4	.3	5	3	8	13	6	6	3	8	9	4	2	2	3	5	5	2
3	2	3	4	4	4	7	3	3	6	1	3	1	3	3	3	3	3	4

Eggs	Dough	Butter Margarine	Fruit Juice	Yogurt	Cottage Cheese	Sour Cream	Milk

SOUTH END

200	AISLE 11	210	AISLE 12	220	AISLE 13	230	AISLE 14	240	AISLE 15	250	AISLE 16
	Pet Supplies		Detergents Bleach		Wrap, Bags Picnic Supplies Feminine		Baby Supplies Diapers		Shampoo Deoderants		Beauty Medicine
	Automotive		Bar Soap Household		Facial Tissue Toilet Tissue Paper Towels		Baby Food Panty Hose		Shampoo Toothpaste		Pop Beer

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Figure 4

The number of observations in the various sections of the dairy department by 100 supermarket customers, Fort Collins, CO, Fall 1987.

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
1			2	2	1	1	2		3	4	4	3				1		
2	1			7	8	7	5	7	10	6	4	5	7	4		2		3
3				2	2	2	2	1	2	4	5	3	1					1

Eggs	Dough	Butter Margarine	Fruit Juice	Yogurt	Cottage Cheese	Sour Cream	Milk

SOUTH END

200	AISLE 11	210	AISLE 12	220	AISLE 13	230	AISLE 14	240	AISLE 15	250	AISLE 16
	Pet Supplies		Detergents Bleach		Wrap, Bags Picnic Supplies Feminine		Baby Supplies Diapers		Shampoo Deoderants		Beauty Medicine
	Automotive		Bar Soap Household		Facial Tissue Toilet Tissue Paper Towels		Baby Food Panty Hose		Shampoo Toothpaste		Pop Beer

using numerous characteristics and, as a result, segment profiles could be developed.

The end gondolas were not shopped by consumers; the average person purchased .15 units--15 units per 100 customers.

It can be concluded that the potential for impulse shopping is relatively great. Sixty percent of those observed did not use a shopping list while 77 percent used a shopping cart.

Shelf locations of purchases reflected some differences among market segments. Several segments did not use lower shelves. Do there need to be changes in product location in order to achieve unit sales or greater department efficiency and productivity?

Product group purchases were influenced by market segments also. Again, this type of determination leads to conclusions regarding advertising strategies and product promotions.

Products were purchased throughout the department. The "looks" at various products were not distributed evenly throughout the department. Lookers were more concentrated in several sections--sections involving impulse items. It is concluded that these products are less familiar to consumers and would benefit from in-store product demonstrations, sales, special displays, advertising and promotion.

The entry into and exit from the department leads to the conclusion that store traffic does not consistently follow the periphery. The lack of a shopping list and the absence of a dairy product on the list suggests one reason for the traffic pattern.

Strategic Recommendations

The efficiency with which the average observed customer shopped the dairy department suggests a lack of a pull strategy to lure consumers into the dairy department. The results instead suggest a push strategy; consequently, the consumer is not influenced by point of purchase display attractions nor by the dairy department in general.

The traffic pattern reinforces the need for dairy department management to consider a more concerted effort to pull customers into the department.

The results suggest more advertising and promotion focused on mixed adult couples and evening shoppers. These two market segments

were observed to purchase an average of 4.0 and 4.3 units respectively.

On the other hand, several other low unit purchasing segments might also receive the focus of more advertising and promotion. These target markets would be individual males, individual females and persons over 34 years old.

Highlights of Procedural Findings

Introduction

This is the second of two highlights sections. The earlier one dealt with selected findings of the observation project.

As a result of the observations in the supermarket, several procedural findings were determined. These can be summarized as follows.

Procedural Findings

1. Persons making the observations should be better trained to recognize the age of individuals.

2. Distinct markings should be made on the floor of the observed area so that a person observed from a distance can be accurately traced in and out of the aisles.

3. Thorough familiarity with the displays in the observation area needs to be achieved before beginning observations.

4. Determine if any drastic changes in the product placement or location in display cases or on shelves is planned during the observation time period. Plan or reschedule the observation period if necessary.

Procedural Recommendations

Based on this pilot project, the use of several procedures was reinforced. The data recording sheet used in the pilot project should note:

1. Time entering and time exiting, allowing for the recording of elapsed time.

2. Ethnic classification of individual(s).

3. Any observable package inspection; outside or contents.

4. Any observable and obvious shopping cart or basket contents of interest.

5. Observation of any requests for assistance.

6. Notations of obvious frustration or consternation.

7. Notations regarding the observable use of a newspaper and coupons.

References

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