

**The Grocery Shopping Attitudes and Behaviors
Of Convenience Store Patrons**

by

Marshall Dean Dowdy

DISSERTATION submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

in

General Business (Marketing)

APPROVED:

Kent B. Monroe

Dr. Kent B. Monroe, Chairman

James E. Littlefield

Dr. James E. Littlefield,
Co-chairman

James R. Brown

Dr. James R. Brown

Monroe Murphy Bird

Dr. Monroe Murphy Bird

Charles W. Coale

Dr. Charles W. Coale

July 12, 1994

Blacksburg, Virginia

C.2

LD
5655
V856
1994
D693
C.2

**The Grocery Shopping Attitudes and Behaviors
Of Convenience Store Patrons**

by

Marshall Dean Dowdy

Dr. Kent B. Monroe, Chairman

General Business (Marketing)

(ABSTRACT)

This study measured the grocery shopping behavior of households through a hand delivered and hand retrieved questionnaire. The focus of this study was the identification of the convenience store as a place where grocery shoppers purchase fill-in grocery items between major supermarket trips. The survey measured the shopping behavior of households toward supermarkets and the shopping behavior of the households toward convenience stores.

This study replicates the Sequence of Effects Model of grocery shopping behavior and a grocery shopping strategy typology to address the issue of how convenience store patrons differ from nonpatrons in their attitudes and behavior toward grocery shopping and in their attitudes and behavior toward their primary supermarkets. This research also addressed the differences in relationships with the primary convenience store among patrons with different rates of patronage.

The attitude of grocery shoppers regarding their trust of supermarkets to have fair prices and quality products was found to influence their perception of their primary supermarkets. Grocery shoppers were also found to express an inverse relationship between the

feelings of time pressure during fill-in grocery shopping trips and their perception of their primary supermarkets.

The typology of grocery shoppers was found to describe different convenience store patrons as well as supermarket patrons. Typology membership indicates the likelihood of a shopper being a convenience store patron.

Convenience store patrons were found to give lower evaluations to their primary supermarkets, to feel greater time pressure during fill-in shopping, and to be less involved in information search than nonpatrons. They were also found to have larger evoked sets than grocery shoppers who do not patronize convenience stores. Convenience store patrons were found to hold greater feelings of personalization and socialization with their primary convenience store when they had greater frequency rates.

The supermarket was found to be the store of choice for fill-in grocery shopping by an overwhelming majority of grocery shoppers.

The study results show theoretical, methodological, and substantive implications concerning grocery shopping behavior and the patronage of convenience stores. This study concludes with suggestions for future research.

ACKNOWLEDGEMENTS

I am especially indebted to my committee chairman, Dr. Kent B. Monroe for his continued support over this project.

My thanks and appreciation are extended to Dr. James E. Littlefield for his efforts and assistance as the co-chairman of my committee.

I am also very grateful for the comments, suggestions, and support from the other committee members, Dr. James R. Brown, Dr. Charles W. Coale and Dr. Monroe M. Bird.

I extend my final thanks to Janice Blevins who typed the early draft, set up the GML program, and assisted me from time to time in getting the computer and printer to produce what I needed.

TABLE OF CONTENTS

Chapter I	1
INTRODUCTION	1
The Research Problem	2
Background	3
Industry Developments	5
Introduction Summary	10
OBJECTIVES	13
OVERVIEW OF THE CONCEPTUALIZATION OF THE STUDY	13
OVERVIEW OF THE METHODOLOGY	20
SIGNIFICANCE OF THE PROPOSED RESEARCH	21
Conceptual and Theoretical Significance	21
Methodological Level	22
Substantive Level	23
OVERVIEW OF CHAPTER II	24
OVERVIEW OF CHAPTER III	24
OVERVIEW OF CHAPTER IV	25
OVERVIEW OF CHAPTER V	25
Chapter II	26
LITERATURE REVIEW	26
Organization of the Review	26
IMAGE STUDIES	28
Table of Contents	v

Intermarket Reliability of Image Attributes	29
Issues In Image Study Findings	36
Summary and Implications	44
TYPOLOGY STUDIES	45
Socialization and Motivation Typologies	49
Shopping Orientation	52
Grocery Shopping Strategy Typology	56
Grocery Shopping Strategy Typology Goodness Of Fit Test	61
A Synthesis Of Typology Studies	64
Summary and Implications	67
THE SEQUENCE OF EFFECTS MODEL	70
AN INTEGRATIVE THEORY OF SHOPPING PREFERENCE	74
RETAIL STRUCTURE	74
SITUATIONAL INFLUENCES	76
THE EVOKED SET	78
SUMMARY OF THE LITERATURE REVIEW	79
Chapter III	83
HYPOTHESES AND METHODOLOGY	83
OVERVIEW	83
RESEARCH ISSUES	84
THE EXTENDED SEQUENCE OF EFFECTS MODEL	85
Importance of Store Attributes	88
Household Characteristics	88
Retail Structure	89
Table of Contents	vi

Store Experience	90
Price Attitude	91
Product and Brand Attitude	92
Situational Influences	93
Evoked Set	95
THE RESEARCH MODEL	95
HYPOTHESES	98
RESEARCH METHODOLOGY	107
Methodological Objectives	107
Research Plan	108
The Research Method	109
SAMPLING DESIGN	109
Sample Population	110
Sampling Frame	111
Sampling Unit	113
Sampling Method	113
Sample Size	115
Sampling Plan	117
Selecting The Sample	118
QUESTIONNAIRE DEVELOPMENT	119
VALIDITY ISSUES	121
Internal Validity	121
Construct Validity	122
External Validity	123
Statistical Conclusion Validity	124

Summary of Validity Issues	125
Chapter IV	126
FINDINGS	126
OVERVIEW OF CHAPTER IV	126
DATA COLLECTION	126
PATRONAGE RATE DETERMINATION	129
HYPOTHESES TESTING	132
Construct Determination	133
The Sequence of Effects Model Hypotheses 1a and 1b	137
The A Priori Model	137
The Extended Model	141
The Post Hoc Model	144
Summary of Model Findings	148
Shopper Typologies Hypothesis 2	150
The Typology Variables	151
The Typology Descriptions	152
Typology Comparison	158
Convenience Store Patronage Rates Hypotheses 3 through 8	160
Shopping Attitudes and Store Evaluation Hypotheses 9 and 10	163
Shopping Attitudes and Store Evaluation Among Convenience Store Patrons Hypotheses 11 and 12	166
Summary of Shopping Attitudes and Store Evaluation	170
Situational Influences Hypotheses 13a and 13b	172

Personalization and Socialization With The Primary Supermarket	
Hypotheses 14a and 14b.	177
Personalization and Socialization With The Convenience Store	
Hypotheses 15a and 15b	182
Evoked Set Size Hypotheses 16a, 16b and 16c	188
Evoked Set Determination	188
The Tests of Hypotheses 16a, 16b, 16c	189
OTHER FINDINGS	191
SUMMARY	192
Chapter V	195
CONCLUSION	195
OVERVIEW	195
STUDY OVERVIEW	195
CONCLUSIONS	197
The Model	197
The Strategy Typology	198
Frequency Rates By Typology	198
Attitude Differences	199
Evaluation of The Primary Supermarket	201
Situational Influences	202
Personalization and Socialization With Supermarkets	204
Personalization and Socialization With Convenience Stores	205
Evoked Sets	206
Evoked Sets Among Convenience Store Patrons	207

Positive Attitudes	207
The Convenience Store Definition	208
CONTRIBUTIONS OF THE RESEARCH	209
Conceptual and Theoretical Level	209
Methodological Level	211
Substantive Level	212
LIMITATIONS OF THE RESEARCH	213
FUTURE RESEARCH	215
REFERENCES	216
APPENDIX	234
VITA	245

LIST OF TABLES

Table 1. NUMBER AND PROPORTION OF GROCERY STORES BY TYPE OF STORE FOR 1979 AND 1992 WITH NUMBER AND PERCENT OF CHANGE BETWEEN 1979 AND 1992 6

Table 2. SALES OF GROCERY STORES BY TYPE OF STORE FOR 1979 AND 1992 WITH CHANGES BETWEEN 1979 AND 1992 7

Table 3. SALES AND MARKET SHARE OF GROCERY STORES BY TYPE OF STORE FOR 1979 AND 1992 WITH CHANGES IN MARKET SHARE BETWEEN 1979 AND 1992 9

Table 4. MERCHANDISE EMPHASIS FORMATS USED IN CONVENIENCE STORES . 11

Table 5. COMMONALITIES FOUND IN TYPOLOGY STUDIES 16

Table 6. IMAGE DIMENSIONS, COMPONENTS, AND ATTRIBUTES, WITH THE IMPORTANCE RANKING OF ATTRIBUTES FOR GROCERY STORES BY GROCERY SHOPPERS 30

Table 7. SELECTED GROCERY STORE IMAGE ATTRIBUTE IMPORTANCE RANKINGS BY GROCERY SHOPPERS BASED ON SHOPPING ENJOYMENT 34

Table 8. FINDINGS OF SELECTED IMAGE STUDIES 37

Table 9. COMMONALITIES ACROSS SELECTED IMAGE STUDIES 41

Table 10. FINDINGS OF SELECTED SHOPPER TYPOLOGY STUDIES 46

Table 11. SHOPPING STRATEGY TYPOLOGY DESCRIPTIONS 58

Table 12. COMMON ATTRIBUTE VALUES HELD BY SHOPPING STRATEGY TYPOLOGIES 60

Table 13. PROJECTED CONVENIENCE STORE USAGE RATES BASED ON GROCERY SHOPPING STRATEGY TYPOLOGY 62

Table 14. SHOPPER TYPOLOGY DEFINITIONS 65

Table 15. COMMONALITIES ACROSS TYPOLOGY STUDIES 66

Table 16. DEMOGRAPHIC PROFILE OF RESPONDENTS 114

Table 17. GROCERY STORE PATRONAGE STATUS AND PATRONAGE RATE CLASSIFICATION CRITERIA 131

Table 18. CONSTRUCTS AND THEIR CRONBACH ALPHA VALUES 134

Table 19.	REGRESSION STATISTICS FOR THE A PRIORI SEQUENCE OF EFFECTS MODEL	140
Table 20.	REGRESSION STATISTICS FOR THE POST HOC SEQUENCE OF EFFECTS MODEL	146
Table 21.	MEAN RESPONSES ON SELECTED SCALE MEASURES BY TYPOLOGY CLUSTER	153
Table 22.	RESPONSE FREQUENCY FOR SELECTED DEMOGRAPHIC DATA BY TYPOLOGY	154
Table 23.	GROCERY SHOPPER TYPOLOGY DESCRIPTIONS	155
Table 24.	SHOPPER TYPOLOGY COMPARISONS	159
Table 25.	HYPOTHESIZED RATES OF CONVENIENCE STORE USE BY GROCERY SHOPPER TYPOLOGY	161
Table 26.	CONVENIENCE STORE PATRONAGE STATUS FREQUENCY AND PATRONAGE RATE FREQUENCY BY TYPOLOGY	162
Table 27.	COMPARISONS OF PATRONS AND NONPATRONS OF THE CONVENIENCE STORE ON THEIR ATTITUDES TOWARD GROCERY SHOPPING AND THEIR PRIMARY SUPERMARKET	165
Table 28.	COMPARISONS OF CONVENIENCE STORE PATRONS WITH HEAVY AND MODERATE CONVENIENCE STORE PARTONAGE RATES ON THEIR ATTITUDES TOWARD GROCERY SHOPPING AND THEIR PRIMARY SUPERMARKET	168
Table 29.	COMPARISONS OF CONVENIENCE STORE PATRONS WITH HEAVY AND LIGHT CONVENIENCE STORE PARTONAGE RATES ON THEIR ATTITUDES TOWARD GROCERY SHOPPING AND THEIR PRIMARY SUPERMARKET	169
Table 30.	COMPARISONS OF CONVENIENCE STORE PATRONS WITH MODERATE AND LIGHT CONVENIENCE STORE PATRONAGE RATES ON THEIR ATTITUDES TOWARD GROCERY SHOPPING AND THEIR PRIMARY SUPERMARKET	171
Table 31.	COMPARISONS OF THE IMPACT OF SITUATIONAL INFLUENCES ON THE ATTITUDES TOWARD GROCERY SHOPPING BETWEEN CONVENIENCE STORE PATRONS AND NONPATRONS	173
Table 32.	DIFFERENCES IN THE IMPACT OF SITUATIONAL INFLUENCES ON THE ATTITUDES TOWARD GROCERY SHOPPING AMONG CONVENIENCE STORE PATRONS WITH HEAVY, MODERATE AND LIGHT PATRONAGE RATES	175
Table 33.	COMPARISONS OF THE IMPACT OF SITUATIONAL INFLUENCES ON THE ATTITUDES TOWARD GROCERY SHOPPING BETWEEN CONVENIENCE STORE PATRONS WITH HEAVY AND MODERATE PATRONAGE RATES	176

Table 34.	COMPARISONS OF THE IMPACT OF SITUATIONAL INFLUENCES ON THE ATTITUDES TOWARD GROCERY SHOPPING BETWEEN CONVENIENCE STORE PATRONS WITH HEAVY AND LIGHT PATRONAGE RATES	178
Table 35.	COMPARISONS OF THE IMPACT OF SITUATIONAL INFLUENCES ON THE ATTITUDES TOWARD GROCERY SHOPPING BETWEEN CONVENIENCE STORE PATRONS WITH MODERATE AND LIGHT PATRONAGE RATES	179
Table 36.	COMPARISONS OF PERSONALIZATION AND SOCIALIZATION WITH THE PRIMARY SUPERMARKET BETWEEN PATRONS AND NONPATRONS OF THE CONVENIENCE STORE	181
Table 37.	DIFFERENCES IN PERSONALIZATION AND SOCIALIZATION WITH THE PRIMARY CONVENIENCE STORE AMONG PATRONS WITH HEAVY, MODERATE AND LIGHT PATRONAGE RATES	183
Table 38.	COMPARISONS OF PERSONALIZATION AND SOCIALIZATION WITH THE PRIMARY CONVENIENCE STORE BETWEEN PATRONS WITH HEAVY AND MODERATE PATRONAGE RATES	184
Table 39.	COMPARISONS OF PERSONALIZATION AND SOCIALIZATION WITH THE PRIMARY CONVENIENCE STORE BETWEEN PATRONS WITH HEAVY AND LIGHT PATRONAGE RATES	186
Table 40.	COMPARISONS OF PERSONALIZATION AND SOCIALIZATION WITH THE PRIMARY CONVENIENCE STORE BETWEEN PATRONS WITH MODERATE AND LIGHT PATRONAGE RATES	187
Table 41.	SUMMARY OF HYPOTHESES FINDINGS	193

LIST OF ILLUSTRATIONS

Figure 1. SEQUENCE OF EFFECTS IN STORE CHOICE MODEL 71

Figure 2. POST-STUDY SEQUENCE OF EFFECTS IN STORE CHOICE MODEL . . 73

Figure 3. AN INTEGRATIVE THEORY OF SHOPPING PREFERENCE 75

Figure 4. EXTENDED SEQUENCE OF EFFECTS IN STORE CHOICE MODEL . . . 86

Figure 5. EXTENDED SEQUENCE OF EFFECTS IN STORE CHOICE RESEARCH MODEL 96

Figure 6. A PRIORI SEQUENCE OF EFFECTS MODEL 139

Figure 7. A PRIORI SEQUENCE OF EFFECTS FINAL MODEL 143

Figure 8. POST HOC SEQUENCE OF EFFECTS MODEL 145

Figure 9. POST HOC EXTENDED SEQUENCE OF EFFECTS MODEL 149

CHAPTER I

INTRODUCTION

This research uses the prior research results in consumer behavior and retail patronage choice processes as a basis to challenge the currently accepted definition of the convenience store as being solely a place where patrons purchase fill-in items, forgotten items or emergency needs between major supermarket shopping trips. An assertion in this research is that the body of patrons that utilize convenience stores constitutes a heterogeneous group as to their motivations for choosing the convenience store as a place to shop. This assertion is in contrast to the view, implied by the currently accepted definition, that convenience store patrons are a homogeneous group. A second assertion in this research is that the more fundamental measures of target markets such as; demographic variables, psychographic variables, and general opinion and activity variables, will also yield findings of heterogeneity among the patrons of convenience stores. A third assertion is that the primary reason for the continued acceptance of the prevailing definition is the lack of empirical knowledge about the patrons of convenience stores. There is the lack of empirical knowledge about the patron and the choice processes that result in the patronage of the convenience store. There is also a dearth of information regarding the choice influences that lead to the nonuse of the convenience store.

The significance of these assertions is that the managements of all forms of grocery stores hold incomplete knowledge and information about the household attitudes and behaviors related to the patronage and nonuse of the convenience store. A lack of knowledge of patrons' choice processes will lead to inappropriate strategies and policies. A greater level of knowledge would impact positively upon management decisions regarding competitive strategies, assessments as to trends and direction of the grocery industry, operational decisions, and marketing strategies and plans.

The Research Problem

Store choice is influenced by specific characteristics of buyers. Therefore, some stores have customers with a particular profile while other stores attract differing shopper profiles (Engel, Blackwell, and Miniard 1990).

Retail executives are increasingly aware of the diversity in the patterns of shopping behavior among consumers. This diversity has been accompanied by a shift in the channel power relationships in the distribution of goods and services. Both the diversity in the pattern of shopping behavior and the power shift have encouraged researchers to focus more attention on patronage behavior in an effort to better understand the consumer (Darden and Lusch 1983).

Surprisingly, the convenience store has almost been ignored in the research activities in academic circles. Even though the convenience

store is identified as being a food store, generally it has been overlooked in studies about grocery stores, grocery shopping, and grocery competition. Numerous studies have explored various grocery shopper typologies, shopper attributes, store choice determinants, and other facets of grocery and food shopping, but, rarely have these studies included convenience stores. The result is that the literature on grocery shopping behavior and store choice processes lacks empirical evidence of the nature of convenience store patrons.

At issue is whether the determinant attributes for behavioral choice of convenience store patrons has remained unchanged on a temporal or situational basis.

Background

A major reason that academic researchers have ignored the convenience store in their research efforts may be because the accepted definition of the convenience store identifies it as a place where fill-in, forgotten or emergency goods are purchased. For example, McCarthy and Perreault (1990) describe the convenience store as:

....a convenience oriented variation of the conventional limited-line food store...convenience stores limit their stock to "pick-up" or "fill-in" items like bread, milk, ice cream and beer. Such stores fill needs between major shopping trips to a supermarket. (p. 305)

McCarthy used this same definition in his 1978 edition and Evans and Berman (1992) echoed this view while observing that the convenience store is, "usually a well-situated, food oriented store." Evans and Berman also

noted that convenience stores account for eight percent of annual grocery sales in the United States.

The idea of a single purpose or function for the convenience store is unique among retail institutions and springs from views advanced in the past. For example, Duncan and Philips (1967) stated:

....these "vest pocket" supermarkets cater to workers whose odd hours prevent their shopping regularly elsewhere. (p. 18)

The definitions advanced by these and other academic sources have influenced the conduct of grocery store patronage research. Some market researchers have chosen to avoid the convenience store in patronage research efforts. This influence is highlighted by the example of Ezell and Russell (1985). They explained that they avoided convenience stores in a survey of a single and multiple person household grocery shoppers because they assumed that these shoppers only patronize convenience stores to obtain "fill-in" merchandise. They offered no empirical support for their assumption.

The "odd-hours" use in 1967 has been supplanted with an assumed "fill-in" role and either may provide the motivation for some patrons of some convenience stores. However, when the currently offered definition of the convenience store is extended to the total group of patrons attracted to this form of retail institution the implication is that the group is homogeneous as to motivation for the choice or use of a convenience store.

Industry Developments

The industry trade reports published annually by Progressive Grocer show the convenience store industry to be a growth industry on the measures of; number of stores, sales, and market share. Table 1 shows the relative number of grocery stores by type of store for 1979 and 1992. Chain supermarkets declined by 535 units (2.9%). The wholesale clubs, however, show an increase of 500 units as this is a new category for the 1992 report. These stores were previously considered to be competition from outside the grocery industry. The independent supermarkets declined by 2,665 units or 17.3 percent and small stores decreased by 52,275 units or 51.7 percent. Convenience stores grew, in number, from 34,125 to 58,200 - an increase of 24,075 stores or 70.5%. The convenience stores' unit growth partially offset a decline of 54,975 grocery stores (all other types) to result in an industry decline of 30,900 units for the fourteen year period.

It is apparent that convenience stores have become more readily available to consumers and other forms of grocery stores have become less available, particularly the small neighborhood grocery store. The convenience store may be replacing the neighborhood small store and the shopping behavior patterns of convenience store patrons as well as grocery shoppers in general may be changing.

Table 2 shows changes in the sales growth patterns of the various types of grocery stores. In the fourteen year period convenience store sales grew by \$17.0 billion. This is a sales growth of 170 percent versus

TABLE 1

**NUMBER AND PROPORTION OF GROCERY STORES BY
TYPE OF STORE FOR 1979 AND 1992 WITH NUMBER
AND PERCENT OF CHANGE BETWEEN 1979 AND 1992¹**

Type of Store	# Stores 1979	% Of Total	# Stores 1992	% Of Total	Number Change	% Of Change
Chain Supers	18,225	10.8	17,690	12.8	-535	-2.9
Independents	15,375	9.1	12,710	9.2	-2,665	-17.3
Total Supers	33,600	19.9	30,400	22.0	-3,200	-9.5
Small Stores	101,175	59.9	48,900	35.4	-52,275	-51.7
Wholesale Club ²			500	.4	500	100.0
Convenience	34,125	20.2	58,200	42.2	24,075	70.5
All Stores	168,900	100.0	138,000	100.0	-30,900	-18.3

1. The classification of Supermarkets in 1979 began with sales of \$1 million. Small Stores were stores with sales of less than \$1 million. In 1991 the limiting sales figure was \$2 million.
2. New category for 1992 previously considered as competition from outside the grocery industry.

Sources: Progressive Grocer, April 1980, April 1993, "Annual Report of The Grocery Industry."

TABLE 2

SALES OF GROCERY STORES BY TYPE OF STORE
FOR 1979 AND 1992
WITH CHANGES BETWEEN 1979 and 1992¹

Type of Store	Sales		\$ Change	% Of change
	1979	1992		
Chain Supermarkets	\$ 92.9	\$204.3	\$111.4	119.9
Independent Supers	61.2	82.0	20.8	34.0
Total Supermktks	\$154.1	286.3	132.2	85.8
Small Stores	35.3	52.8	17.5	49.6
Wholesale Club ²		16.5	16.5	100.0
Convenience Stores ³	10.0	27.0	17.0	170.0
All Grocery Stores	\$199.4	\$382.6	\$183.2	91.9

1. In billions \$. Sales figures are in nominal dollars. The classification of Supermarkets in 1979 began with sales of \$1 million. Small Stores were stores with sales of less than \$1 million. In 1991 the limiting sales figure was \$2 million.
2. New category for 1992 previously considered as competition from outside the grocery industry. Sales include supermarket items only.
3. Sales of supermarket items only, figures exclude gasoline sales.

Sources: Progressive Grocer, April 1980, April 1993, "Annual Report of The Grocery Industry."

an overall industry sales growth of 91.9 percent. The convenience store sales growth was almost twice the grocery industry growth. The convenience store sales grew by more than twice that of the 85.8 percent for all supermarkets, more than triple the 49.6 percent sales growth for small stores and five times the sales growth of independent supermarkets. While convenience stores grew from a significantly smaller sales base than other types of stores the sales growth is still remarkable. This growth must reflect changes in either the purchase volume per patron, the frequency of store visits per patron, an increase in the number of patrons, changes in the patrons' use of the store, or some mix of increases in all of these. The performance of both the independent supermarkets and small stores appears to have contributed to the positive growth of the convenience stores in both number of units and sales.

Market share growth paralleled the unit and sales trends for the convenience store. Table 3 shows the relative market share held by each type of grocery store in 1979 and 1992 and the changes in market share over the ten year period. Convenience stores' market share grew from five percent to 7.1 percent, a growth of forty-two percent. The chain store supermarkets showed a growth in market share from 46.6 percent to 53.4 percent. This growth of 14.6 percent is contrasted with a decline in market share for independent supermarkets of thirty percent. The small stores showed a decline in market share from 17.7 percent to 13.8 percent. The category of wholesale clubs is new for 1992 and this store form has achieved a 4.3% market share. The number of small stores and their market share has clearly declined while the large stores (including the wholesale

TABLE 3

SALES AND MARKET SHARE OF GROCERY STORES BY TYPE OF STORE
FOR 1979 and 1992
WITH CHANGES IN MARKET SHARE BETWEEN 1979 AND 1992¹

Type of Store	Sales 1979	Market Share %	Sales 1992	Market Share %	% Pt. Change	% Share Change
Chain Supers	\$ 92.9	46.6	\$204.3	53.4	6.8	14.6
Independents	61.2	30.7	82.0	21.4	-9.3	-30.3
Total Supers	154.1	77.3	286.3	74.8	-2.5	-3.2
Small Stores	35.3	17.7	52.8	13.8	-3.9	-22.0
Wholesale Clubs ²			16.5	4.3	4.3	100.0
Convenience ³	10.0	5.0	27.0	7.1	2.1	42.0
All Stores	\$199.4	100.0	\$382.6	100.0		

1. In billions \$. Sales figures are nominal dollars. The classification of Supermarkets in 1979 began with sales of \$1 million. Small Stores were stores with sales of less than \$1 million. In 1991 the limiting sales figure was \$2 million.
2. New category for 1992 previously considered as competition from outside the grocery industry. Sales include supermarket items only.
3. Sales of supermarket items only, figures exclude gasoline sales.

Sources: Progressive Grocer, April 1980, April 1993, "Annual Report of The Grocery Industry."

clubs) and convenience stores have grown in number and market share. Given the significant drop in the number of small stores (Table 1) this sector of the grocery industry most likely reflects some consolidation as overlapping competitors ceased operations as well as being replaced by convenience stores. The relative market share changes are yet another indication of shifts in consumer shopping preferences, shopping patterns and in market structure.

Another indication that not all consumers choose the convenience store for the same reason can be found in a report that appeared in the National Petroleum News September, 1990 issue. The fourteen different merchandise formats given in Table 4 were found to exist among convenience stores. While this isn't an exhaustive list it points to the variation in the product mix and positioning efforts among the 58,200 convenience stores. The different formats are used to draw patrons to the stores which have a broader convenience store merchandise offering than the emphasized product. Different stores are satisfying different product needs and therefore different motivations. The variety of formats gives weight to the argument that the convenience store serves a range of consumers and that some variety exists in their store choice processes.

Introduction Summary

Progressive Grocer has maintained for several years that the grocery industry has been polarizing with the larger chain supermarkets at one end of the spectrum and small stores and convenience stores at the

TABLE 4

MERCHANDISE EMPHASIS FORMATS USED IN CONVENIENCE STORES

Ice Cream	Tobacco Products
Soft Drinks	Beer
Fountain Specials	Singles
Plastic squeeze bottles	Can insulators
Multi-packs	Multi-packs
Coffee	Delicatessen
Multiple brands and types	Cooked foods
Sold by the cup	Deli sandwiches
Frequent buyer plan	Soft Serve Yogurt
Lottery tickets	Video rentals
Fast foods	Chicken Dinner Packages
Hamburgers	Mini-buffet
Hot dogs	
Fried Chicken	

Source: National Petroleum News, "C-Store Profit Boosters,"
September 1990, p. 38-55.

opposite end. The data appear to support the argument that chain supermarkets and wholesale clubs are replacing the independent supermarkets while in terms of units the convenience store is replacing the small store (Tables 1 and 2). The new category of wholesale clubs also shows the changing nature of competition among the supermarkets.

Despite a 51.7% reduction in the number of small stores, this category of stores showed a sales gain of 49.6 percent (Tables 1 and 2). These changes and the performance of other forms of grocery stores raises the question as to what patronage choice dynamics are taking place in the grocery industry.

Generally, the use of supermarkets and wholesale clubs suggests the purchase of large bundles and less frequent shopping trips. However, supermarkets have sought to enhance their competitiveness with longer hours of operation, adding small bundle checkout lanes, salad bars, and delicatessens. These offerings are efforts to develop a greater frequency of patronage, promote small bundle patronage, and are in direct competition with convenience stores.

The use of convenience stores suggests the opposite of large bundles and infrequent trips. Convenience store patrons purchase smaller bundles per trip and are said to make more frequent trips to the convenience store than supermarket patrons make to the supermarket.

Questions remain as to the choice processes and behavior patterns for the patrons of convenience stores. These questions are not answered by sales data and store counts. The balance of competitive forces among

the various types of grocery stores needs to be explained as well as the behavior of patrons and nonusers of convenience stores.

Despite the performance of the convenience store industry on the three growth measures of number of stores, sales, and market share, little empirical research has been conducted to define the patrons and explain the patronage choice processes that result in the behaviors toward this form of retailer.

OBJECTIVES

This research will, broadly stated, pursue the following objectives relative to the use of the convenience store by households:

1. Determine the role that the convenience store plays in the total acquisition of grocery products by households.
2. Determine the number of shopper typologies among the patrons of the convenience store.
3. Determine the behavioral characteristics that describe the various shopper typologies.
4. Identify the determinant attributes that influence the use or nonuse of the convenience store among grocery shoppers.
5. Compare and contrast convenience store patrons and nonpatrons.

OVERVIEW OF THE CONCEPTUALIZATION OF THE STUDY

Much of the prior retail patronage research has been observed as having been conducted with a focus that was too narrow (Monroe and

Guiltinan 1975; Hirschman and Stempf1 1980; Darden and Lusch 1983). The lack of sufficient models and measures to adequately explain and predict patronage choice behavior has also been observed for some time (Darden 1980; Monroe and Guiltinan 1975; Peterson and Kerin 1983; Sheth 1983). Demographics and traditional gravity models are no longer sufficient for the explanation of patronage choice behavior (Darden and Lusch 1983).

This research argues that the existing definition of the convenience store reflects a lack of understanding of grocery store patrons in general and convenience store patrons specifically. This lack of understanding stems from the failure of market researchers to include the use of the convenience store in the theoretical, conceptual and practical aspects of the consumer's grocery acquisition efforts. A further argument is that the models, methods, and means to develop consumer research on grocery consumers provide support for the conceptualization of convenience store patrons as multifaceted individuals. The body of convenience store patrons are varied as to demographics, shopping orientation, motives and the extent of use in their patronage of the convenience store. These patrons also make varied uses of the convenience store in their total acquisition of grocery products.

The study of the images that consumers hold of a variety of retail store types has shown that the attributes upon which the image is forged correlated with the behavior of those consumers toward the stores being evaluated (Peterson and Kerin 1983). Image studies have also shown that the attributes that patrons use to create the images of particular stores are not transferable across store types nor across consumer markets

(Hawkins et al. 1976; Hirschman et al. 1978). These findings suggest that the images held and the attendant behavior toward grocery stores do not serve to explain conceptual constructs or practical attributes that patrons use to evaluate the convenience store. Therefore, the attributes, the motives, and the influences that determine patrons' images and their use or nonuse of a convenience store are largely unknown and with little empirical support.

The general view that a taxonomy of patrons (based on a variety of variable sets) provides a means to understand why people patronize a particular store began with Stone (1954). He found four different types of department store patrons, based on their shopping orientations, among the 124 patrons he interviewed. The stream of research to disaggregate consumer groups has been a steady one since Stone's initial effort (Bellenger and Korganokar 1980; Darden and Ashton 1974; Darden and Reynolds 1971; Gultinan and Monroe 1980; Moschis 1976; Stephenson and Willett 1969; Tauber 1972; Westbrook and Black 1985; Williams, Painter and Nichols 1978). The dimensions upon which patron groups have been classified have included demographic variables, psychographic variables, shopping orientations, economic variables, attitude variables, socialization processes, shopping strategies, and shopping motivations.

Table 5 shows eight different typology labels which were drawn from the ten typology studies listed in the table. (Table 5 is a modified version of Table 12 which shows greater detail.) Although Westbrook and Black (1985, p. 83) commented that, "only a few typologies appear consistently across studies," Table 5 shows consistency on four

TABLE 5
COMMONALITIES FOUND IN SHOPPER TYPOLOGY STUDIES

STUDY	TYPOLOGIES 1,2,3							
	E	Pr	P	S	Et	A	C	L
Bellenger and Korgaonkar (1980)	X			X				
Darden and Reynolds (1971)	X		X		X	X		
Darden and Ashton (1974)	X			X		X	X	
Guiltinan and Monroe (1980)	X	X	X	X		X	X	
Moschis (1976)	X	X	X	X	X			X
Stephenson and Willett (1969)		X		X			X	X
Stone (1954)	X		X		X	X		
Tauber (1972)			X	X				
Westbrook and Black (1985)	X	X	X	X				
Williams et al.(1978)		X		X		X	X	

1. Typology codes: E = economic; Pr = price conscious; P = personalizing; S = social orientation; Et = ethical or moralistic; A = Apathetic; C = convenience; L = loyal to stores or brands.
2. The X's indicate that a typology description in the study classifies the typology under the description indicated by the respective column.
3. This table appears in a more detailed form in Chapter 2 as Table 14.

typologies and arguably six. The dimensions of economic person, personalizing individual, ethical person, and apathetic person as defined by Stone (1954) served as the basis for Table 5. The dimensions of convenience and loyalty as described by Stephenson and Willett (1969) were added to those given by Stone (1954). The typologies of price conscious and socializing were described in several studies. They were found to be closely related to Stone's economic and personalizing categories, respectively, but were also added. These four additional categories allow greater detail in the definition of each typology with less compromising and infringement during the classification process. The classification of a particular author's typologies was based on the description or definition given for the typology in the study and its similarity to the descriptions by the authors noted above. Upon comparison of the various definitions given for the typologies, similarities were evident even where different terms were used.

The economic person (E), the price conscious person (Pr), the personalizing type (P), the socially oriented person (S), and the apathetic person (A) appeared most often across studies. The dimension of convenience (C) means convenience in broad terms and includes the location of the store as well as, such aspects as, moving through the store and being familiar with the location of products in the store. Convenience appears in four of the nine studies and in those studies where convenience does not appear the issue of convenience was not addressed. The likelihood of convenience as a salient dimension is supported in the consumer behavior literature in general (Bellante and Foster 1984;

Jackson, McDaniel, and Rao 1985; Reilly 1982; Strober and Weinberg 1980). The broader view of convenience includes store choice as well as the choice of brands and products that save time in preparation.

The typology of loyal customer as described by Stephenson and Willett (1969) and Moschis (1976) appears to have been absorbed into the personalizing and socializing descriptions given in the other studies. Stone's (1954) ethical patron was described as essentially being a person who was loyal to local merchants (p. 38).

The lessening of a focus on loyalty in favor of personalization and socialization found in the latest studies may be attributed, in part, to the increased availability of both stores and brands. The increased level of awareness of consumer likes and dislikes by marketers and the niche approaches used by marketers in meeting the desires of consumers has also reduced the loyalty of patrons. Patrons have shifted away from the concern for local merchants and the concern for the ownership of stores. This shift is reflected in shopping behavior and in marketers' strategies for attracting patrons.

The applicable point for this study is that the economic, the personalizing, and the apathetic typologies have endured with some modification in their descriptions. The convenience typology has recently become more relevant. The convenience definition, with respect to grocery shoppers, includes products that are convenient to use, ease in movement through the store, choosing a store primarily because of its location, and minimizing the time spent in the purchase process. The use

of two additional dimensions, price conscious and social orientation, in some studies has added detail to their typology definitions.

The varied research efforts have demonstrated that a variety of consumer typologies exist. The repeated discovery of a few of the typologies suggests that the patrons of convenience stores can also be classified into typologies. Convenience store patrons are also likely to be influenced by a variety of motives in their choice of a particular form of retailer to patronize -- as opposed to a single motive of fill-in.

Monroe and Gultinan (1975) offered a model of store choice that established a sequence of effects based on a variety of variables that influenced store choice. Engel, Kollat, and Blackwell (1986) observed that the sequence model was essentially the same as their own concept of the store choice process. Darden (1980) supported the concept of a sequence of effects that lead to the development of a shopping orientation in his proposed model. Monroe and Gultinan's study showed that a patron's shopping strategy is determined by his behavior instead of a defined strategy determining the patron's behavior. The Sequence of Effects Model incorporated the complexities of the earlier Howard-Sheth (1969) model while maintaining a simple process that lent itself to being tested. Sheth (1983) proposed a model of patronage preference that mirrored the complexities of the earlier Howard-Sheth (1969) brand choice model and that incorporated the many intrinsic and extrinsic variables that were hypothesized to influence the outcome of the choice process. Since the Sequence of Effects Model is less complex than the Howard-Sheth and Sheth models it appears to hold promise as a basis to pursue an

understanding of the description and actions of convenience store patrons.

OVERVIEW OF THE METHODOLOGY

This research effort was conducted in a field setting. Residential areas with different socio-economic levels, with convenience stores located within the neighborhood, were identified. The trading area around the convenience store was delineated and the households within each trading area were sampled. Liles (1977) identified the trading area as a one-mile radius. However, Leed (1983) suggested that the trading area of the convenience store is from one to three miles around the store depending upon the location of the store. Neighborhood stores have one mile trading areas while stores located on highways are said to have three mile trading areas. Subjects were measured as to their use of the supermarket and convenience store. They were also measured as to the choice of one form of store relative to the other form in certain situations. Measures were taken on: attitude interest and opinion (AIO), store attribute rankings, socioeconomic data, patronage data related to each form of store, planning and budgeting relative to food shopping, attitudes toward products, attitudes toward brands, and attitudes given certain situational variables. The use of variables drawn from the literature and a pretest allowed for parsimonious sets of variables.

The issues addressed were; (1) the description of grocery shoppers that results when the use of both forms of grocery stores are considered,

(2) the attributes that influence the use and nonuse of the convenience store, and (3) how patrons and nonusers of convenience stores compare and contrast.

Principle components analysis and factor analysis was used to develop the constructs. Regression was used to determine the relationships among the various constructs. This allowed a replication of the Sequence of Effects Model (Monroe and Gultinan 1975). Frequency counts determined the membership for convenience store usage rates. Cluster analysis was used to determine the typology membership of the respondents as to their supermarket shopping. The convenience store usage rates for each grocery typology was determined and a chi square test was used to determine whether convenience store use is indicated by the manner in which shoppers patronize supermarkets. Profile analysis, analysis of variance, and the t test were used to detect differences between convenience store users and nonusers.

SIGNIFICANCE OF THE PROPOSED RESEARCH

This research contributes to the existing body of marketing knowledge at the conceptual, methodological, and substantive levels.

Conceptual and Theoretical Significance

This research tested an extended sequence of effects model for its application in the description of food shoppers' behavior relative to

grocery stores and convenience stores. This test also provided a replication and extension of a prior test of a sequence of effects model in grocery store selection. The research tested the concept of shopping orientation as an antecedent to convenience store use. It also identified the various shopper typologies that patronize grocery stores and convenience stores. The grocery shopper typology developed in this study replicated a prior shopping strategy typology. The typology also identified operationalized variables that are of value in describing the typologies of convenience store patrons. This research allows a comparison of grocery shopping behaviors and convenience store shopping behaviors among the various grocery shopper typologies. It also establishes a departure point from which a program of study of the patronage behavior of convenience store patrons may be developed and employed over time. Finally, it adds to the literature in the broad area of grocery shopping behavior. It provides a starting point from which a program of study of the acquisition of food products in general may be developed.

Methodological Level

At the methodological level this research demonstrates that a multidimensional approach to measurement provides a rich definition of the various shopper typologies for both the supermarket and the convenience store forms. This research is a replication test of the hypothesis that multiple measurements provide greater insight into the

descriptions of consumers (Darden 1980; Darden, Erdem and Darden 1983; Gultinan and Monroe 1980). This research also demonstrates that the description of various grocery shopper typologies can be enriched through combining the measurements of variables related to two competing forms of food stores - supermarkets and convenience stores.

Substantive Level

At the substantive level this research demonstrates that the target market of the convenience store is multifaceted. The identification of the typologies of grocery shoppers that patronize the convenience store gives insight into the variety of motivations and choice processes that convenience store patrons employ and the use situations that confront them.

The contrast and comparison of grocery store typologies provides the managements of each form of grocery store with information as to the use habits of grocery shoppers and to the vulnerabilities of the competing form of store.

The role of product and brand attitudes were measured and these measurements provide useful information relative to the product mix of the convenience store.

The measures of the store attribute perception give convenience store managers an abundance of qualitative information, beyond the location perspective, that will be of use in numerous management decisions.

The knowledge of the impact of situational influences will allow managers to plan marketing communication programs, plan the product mix of the store, and plan the appropriate service levels.

OVERVIEW OF CHAPTER II

The second chapter discusses the literature in the consumer behavior and patronage behavior areas that reflects on the probable nature of convenience store patrons. The chapter begins with a discussion of retail image studies. Next the prior research in consumer typologies is discussed and implications for this study are drawn. The third section a discussion of the sequence of effects and shopping preference store choice models. The fourth through sixth sections discuss retail structure, situational influences, and the evoked set concept for their relevance in developing an extended sequence of effects model.

OVERVIEW OF CHAPTER III

Chapter III begins with by presenting the research issues and then presents an extended sequence of effects model based on the Monroe and Gultinan (1975) model. The extended model is discussed for its application to the measurement of grocery store choice and for convenience store choice. Chapter III then gives a reduced research model taken from the extended model. The chapter next presents the hypotheses to be tested followed by a discussion of the methodology that was employed. The

chapter then discusses the sampling design and the questionnaire development followed by a discussion of the various validity issues that are of concern in this research.

OVERVIEW OF CHAPTER IV

Chapter IV begins with a discussion of the data collection followed by an explanation of the determination of the status of the respondent as a supermarket patron or nonpatron and as to whether the respondent is a convenience store patron or not. Included is a discussion of the determination of the rate of frequency of patronage for patrons of the convenience store. These discussions are followed by an explanation of the tests of the hypotheses and presentations of the findings. The final sections of Chapter 4 are a section on Other Findings and a summary of the hypotheses findings.

OVERVIEW OF CHAPTER V

Chapter 5 presents an overview of the study followed by a discussion of the conclusions based on the various hypotheses that were tested. Contributions of the conceptual, methodological, and substantive findings are given next. The chapter then lists the limitations of the research and concludes with suggestions for future research.

CHAPTER II

LITERATURE REVIEW

Numerous research efforts have investigated various aspects of retail stores to develop constructs and answer questions about the nature of consumer behavior. Images and their content, shopper attitudes, store attributes, choice determinants, shopper typologies and other facets of grocery and food shoppers have been the subject of empirical inquiry. However, rarely have these inquiries included any measures of convenience stores or the behavior of their patrons.

This lack of a cumulative body of research regarding the use of the convenience store necessitated the observation of studies in related areas of consumer behavior and patronage behavior for clues and implications as to the nature of convenience store patrons. Sufficient credible advice exists to support the practice of borrowing facts, theory, data, and extrapolating constructs from prior research in related fields (Hirschman and Stempf 1980; Kuhn 1970).

ORGANIZATION OF THE REVIEW

This review will begin with a discussion of the literature in image study with particular attention given to image studies that focused on

grocery shopping. The results of various image studies suggest implications for the patrons' evaluations of convenience stores.

The study of consumer typologies in grocery shopping and other store choice studies will be discussed. These studies also offer insight about attributes that influence and processes that precede the choice of stores.

The shopping strategy typology presented by Gultinan and Monroe (1980) will be discussed in detail. Their typology will be explored for its potential to give insight into the possible variety of convenience store patrons.

The sequence of effects model tested by Monroe and Gultinan (1975) will be discussed for its implication on the study of convenience store patronage. The post-study model will be shown. This discussion will draw implications from other store choice models as well. A brief discussion of an integrated model of shopping preference proposed by Sheth (1983) is given for its conceptual value.

The impact of the structure of the retail market environment will be discussed for its implications and for the appropriateness of including a market structure construct in a store choice model.

The situation in which need arousal occurs and the task environment will be discussed in the third section of the review. The factors that may influence store choice will be addressed.

The evoked set concept is the final literature discussion. This concept be explored for its potential value in expanding the paradigm for measuring store choice behavior.

IMAGE STUDIES

The area of image study has, to many market researchers, almost become synonymous with the term patronage behavior (Hirschman and Stampfl 1980). Since Martineau's (1958) seminal work image studies have generally served to confound and contradict each other. The complaints are usually related to the failure of the studies to show that the attributes which patrons use to form an image have a causal relationship with behavior. Most all studies do show that there is a correlation between attribute evaluation and the choice of a store but none have shown a causal relationship (Peterson and Kerin 1983).

Other research has attempted to demonstrate that image attributes are applicable across different types of stores (Hansen and Deutscher 1977) or across different markets or market segments (Hansen and Deutscher 1977; Hirschman et al. 1978). The evidence is largely in favor of Peterson and Kerin's (1983) view that image should be studied and developed for each type of store.

The image discussion will be presented in three parts. First, a discussion of the inter-reliability of image attributes as indicators of behavior will be discussed. This will be followed by a discussion of the issues in image measurement. The third section will be a summary of the image findings and the implications for the study of convenience stores.

Intermarket Reliability of Image Attributes

Peterson and Kerin (1983) have suggested that image research should follow a programmatic path designed to identify a common set of image dimensions by type of store. This view has its supporters (Hawkins et al. 1976; Hirschman et al. 1978) and its detractors (Hansen and Deutscher 1977). The view does seem valid after a review of the various image studies that fail to follow a programmatic approach.

Hansen and Deutscher (1977) addressed the considerable variation by researchers in the use of terms for image measurements and in the use of terms for aggregating measurements. They suggested a three-level classification scheme for measurement consisting of dimension, component and attribute. Under this classification merchandise is a dimension, merchandise quality is a component, and any specific question dealing with merchandise quality is an attribute. Attributes, in their study, were measured and ranked as to their importance and dimensions and components were inferred.

Table 6 shows 41 attributes (within 20 components, within nine dimensions) that were ranked by grocery shoppers to show the importance of the various attributes. Hansen and Deutscher used the nine dimensions found by Lindquist (1974) in his survey of image studies. However, they modified the placement of two components and four attributes. Sales personnel was placed under the Service dimension instead of Lindquist's placement of sales personnel under the Clientele dimension. The Friendliness of Store Personnel was used as the attribute measure of the

TABLE 6

IMAGE DIMENSIONS, COMPONENTS, AND ATTRIBUTES WITH THE IMPORTANCE RANKING OF ATTRIBUTES FOR GROCERY STORES BY GROCERY SHOPPERS¹

DIMENSION	COMPONENT	ATTRIBUTE	ATTRIBUTE ² RANK
1. Merchandise	Quality	Dependable products	1
		High quality	5
		High value for money	6
	Selection	Wide selection	14
		Fully stocked	7
		Numerous brands	18
		Well-known brands	19
	Style	High fashion items	34
		Price	Low prices vs. competition
			Many special priced items
2. Service	Lay-away	Lay-away available	40
		Sales personnel	Courteous personnel
	Helpful personnel		8
	Adequate number of personnel		10
	Ease of return	Easy to return purchases	26
Credit		Easy to get credit	39

TABLE 6 (continued)

IMAGE DIMENSIONS, COMPONENTS, AND ATTRIBUTES WITH THE IMPORTANCE RANKING OF ATTRIBUTES FOR GROCERY STORES BY GROCERY SHOPPERS¹

DIMENSION	COMPONENT	ATTRIBUTE	ATTRIBUTE ² RANK	
3. Clientele	Delivery	Easy to get home delivery	41	
		Store is known by friends	36	
		Store is liked by friends	37	
		Store is recommended by friends	35	
4. Physical facilities	Cleanliness	Many friends shop there	38	
		Store is clean	2	
		Easy to move through store	9	
		Easy to find what you want	3	
5. Convenience	Shopping ease	Fast check-out	3	
		Attractiveness	Attractive decor	29
			Company operates many stores	33
		Parking	Locational	Store is nearby
Short time to reach store	23			
Easy to drive to store	22			
Convenient to other stores shopped	28			

TABLE 6 (continued)

IMAGE DIMENSIONS, COMPONENTS, AND ATTRIBUTES WITH THE IMPORTANCE RANKING OF ATTRIBUTES FOR GROCERY STORES BY GROCERY SHOPPERS¹

DIMENSION	COMPONENT	ATTRIBUTE	ATTRIBUTE ² RANK
6. Promotion	Advertising	Advertising is informative	20
		Advertising helps planning	24
		Advertising is appealing	30
		Advertising is believable	16
7. Store atmosphere	Congeniality	Friendly store personnel	13
8. Institutional	Store reputation	Company is well known	31
		Been in community long time	32
9. Post-transaction satisfaction	Satisfaction	Easy to exchange purchases	25
		Fair on adjustments	12

1. Source: Hansen, Robert A. and Terry Deutscher (1977), "An Empirical Investigation of Attribute Importance In Retail Store Selection," Journal of Retailing, 53, (Winter), 59-72.

2. Importance ranking for 41 attributes where 1 is the most important and 41 is the least important.

Store Atmosphere dimension instead of Lindquist's description of this dimension as, "a customer's feeling of warmth, acceptance, and ease."

Hansen and Deutscher argued that the importance rankings for each attribute (question) were more important than the component or dimension aggregation levels. They compared the findings on the rankings for department stores and grocery stores and concluded that the same attributes are important across different types of stores. However, Gentry and Burns (1977) found that the importance rankings on 17 attributes used to determine a shopping center's image was of little use in determining patronage. Hirschman et al. (1978) found no support for the hypothesis of intermarket reliability of image dimensions. Hirschman also found no support for the reliability of the importance ratings of image attributes across geographic markets. Gentry and Burns, and Hirschman et al. support the findings of Monroe and Gultinan (1975 p. 26) that attribute importance measures contributed little to the ability to predict attitudes about retail stores or retail patronage.

Although Hansen and Deutscher concluded that the same attributes could be used to measure department stores and grocery stores they found differences in the importance rankings of attributes between two grocery shopper types. Table 7 shows the ranking of 13 attributes under six dimensions for both grocery shoppers who enjoy shopping and for those who do not enjoy shopping. The grocery shoppers who do not enjoy shopping gave significantly higher rankings to three attributes that measured the convenience dimension. This group also showed less concern for three attributes that measured the merchandise and promotion dimensions. These

TABLE 7

SELECTED GROCERY STORE IMAGE ATTRIBUTE IMPORTANCE RANKINGS
BY GROCERY SHOPPERS BASED ON SHOPPING ENJOYMENT

DIMENSION	ATTRIBUTE	ENJOY ¹ SHOPPING		RANGE ² OF DIFFER
		YES	NO	
Merchandise	High value for money	4	11	7
	Low prices vs. competition	17	23	6
	Many specially priced items	18	27	9
Service	Courteous sales personnel	8	13	5
	Easy to return purchase	26	19	7
Physical Facilities	Fast check-out	11	4	7
Convenience	Easy to drive to store	23	5	18
	Store is nearby	27	15	12
	Short time to reach store	24	16	8
Promotion	Advertising is believable	14	21	7
	Advertising is informative	20	25	5
	Advertising is helpful	22	26	4
Post Transaction	Fair on adjustments	15	9	6

1. Importance rankings of 41 attributes where 1 is the most important and 41 is the least important. Attributes were scored on a zero to ten scale, scores were averaged and attributes put in rank order. Sample size: Yes = 159, No = 56, Total = 215.
2. The range of difference in ranking between people who enjoy shopping and those who do not enjoy shopping. The authors report the differences as being significant.

Source: Hansen, Robert A. and Terry Deutscher (1977), "An Empirical Investigation of Attribute Importance In Retail Store Selection," Journal of Retailing, 53, (Winter), 59-72.

results may be indications that a lower involvement in grocery shopping points to a heavier use of the most convenient means to acquire goods. The authors note that the differences in the rankings demonstrate clear differences in these two groups of patrons.

Hansen and Deutscher also failed to justify the use of the three attributes; "easy to get credit", "easy to get home delivery", and "layaway available", for the evaluation of a grocery store. These attributes were ranked as the last three (39, 40 and 41) in importance most likely due to their being irrelevant to the grocery store. The lack of relevance on some attributes supports the argument that attributes are not applicable across different types of stores. Hansen and Deutscher do argue, in their conclusions, that the unit of measure in image studies should be the attribute instead of the dimension. This view has prior and recent support (Berry 1969; Zimmer and Golden 1988), however, the dimension level does allow for an unencumbered comparison between studies.

On balance, the literature fails to give convincing support for the view that image studies will yield attributes that can be used across markets or across types of stores. The relationship between the images of competing forms of grocery stores (the supermarket and the convenience store) has not been determined empirically. The trade-off in the choice between these two forms of grocery stores may be explained, in part, by a comparison of the image attributes that the patron employs in choosing each form of store.

Issues In Image Study Findings

The measurement of images has evolved along two issues. One issue is whether images should be measured by the identification of attributes or the identification of the dimensions on which they are formed. Another issue is whether images should be measured by open-end or structured questions. These two issues have ostensibly been settled by the results of various studies.

Table 8 summarizes the finding of eight image studies. These findings are compared to Hansen and Deutscher's dimension scheme in Table 9. While Hansen and Deutscher concluded that the attributes in their tri-level classification were applicable across stores (department and grocery) what is evident from Tables 8 and 9 is that dimensions are comparable. What is also evident from the various studies is that while dimensions are comparable, the attributes and their construction give an operationalized instrument to the researcher to measure the image of each type of store. The dimensions serve to show shifts in the focus of patrons from study to study. The attributes measure the degree of use and the degree of focus within the various dimensions which consumers use in developing an image for a particular store or a particular type of store.

A more appropriate conclusion appears to be the recognition that the nine image dimensions used by Hansen and Deutscher that show commonality (Table 9) should be operationalized with attributes which are specific to; (1) the geographic market, (2) the market segment that the physical

TABLE 8
FINDINGS OF SELECTED IMAGE STUDIES

AUTHOR AND DATE	FOCUS/ MEASUREMENT BASIS	NUMBER OF ATTRIBUTES	IMAGE DIMENSIONS ¹
Fisk (1961)	National Shoppers Range of stores Interviews Mail questionnaire	30	<ol style="list-style-type: none"> 1. Locational convenience 2. Merchandise suitability 3. Value for price 4. Sales effort and store services 5. Congeniality of the store 6. Post transaction satisfaction
Hansen and Deutscher (1977)	Metro Area Grocery stores Mail survey Ten point scale n = 2.5	41	<ol style="list-style-type: none"> 1. Merchandise 2. Service 3. Clientele 4. Physical facilities 5. Convenience 6. Promotion 7. Store atmosphere 8. Institutional factors 9. Post-transaction satisfaction
Kunkel and ² Berry (1968) Berry (1969)	Female charge card holders Department stores Open-ended questions Mail survey n=1050	43	<ol style="list-style-type: none"> 1. Prices 2. Merchandise quality 3. Assortment of merchandise 4. Fashion 5. Sales personnel 6. Locational convenience 7. Other convenience factors 8. Services 9. Sales promotions 10. Advertising 11. Store atmosphere 12. Reputation on adjustments

TABLE 8 (continued)
 FINDINGS OF SELECTED IMAGE STUDIES

AUTHOR AND DATE	FOCUS/ MEASUREMENT BASIS	NUMBER OF ATTRIBUTES	IMAGE DIMENSIONS ¹
Lessig (1973)	Grocery shoppers Panel Semantic differential n=91	24	<ol style="list-style-type: none"> 1. Overall store impression 2. Merchandise variety 3. Pleasantness of customers 4. Produce quality 5. Honesty of store 6. Prices 7. Quality of meats 8. Service
Lindquist (1974)	Summary of prior studies Measurement not discussed	40	<ol style="list-style-type: none"> 1. Merchandise 2. Service 3. Clientele 4. Physical facilities 5. Convenience 6. Promotion 7. Store atmosphere 8. Institutional factors 9. Post transaction satisfaction
Pessemier (1980)	Joint-space model not tested Recommended Phone survey Cluster analysis	not defined	<ol style="list-style-type: none"> 1. Clientele mix 2. Life cycle position of store 3. Merchandise offerings 4. Locational convenience 5. Shopping pleasure 6. Transaction convenience 7. Promotional emphasis 8. Integrity of store 9. Image strength and clarity

TABLE 8 (continued)
 FINDINGS OF SELECTED IMAGE STUDIES

AUTHOR AND DATE	FOCUS/ MEASUREMENT BASIS	NUMBER OF ATTRIBUTES	IMAGE DIMENSIONS ¹
Stephenson (1969)	Shoppers at a speciality meat store. Two interviews Semantic differential n=291	33	<ol style="list-style-type: none"> 1. Advertising 2. Physical characteristics of store 3. Convenience of reaching store 4. Your friends and the store 5. Merchandise selection 6. Store personnel 7. Prices 8. Dependability of the store
Zimmer and ² Golden (1988)	National mail panel Open-ended questionnaire to describe the image of Sears, K-Mart and Wards n=894	47	<ol style="list-style-type: none"> 1. Merchandise³ 2. Service 3. Facilities 4. Convenience 5. Promotion 6. Institutional 7. Post Transaction 8. Global⁴ 9. Label 10. Prototype and exemplars 11. Products 12. Behavior 13. Miscellaneous

TABLE 8 (continued)
 FINDINGS OF SELECTED IMAGE STUDIES

AUTHOR AND DATE	FOCUS/ MEASUREMENT BASIS	NUMBER OF ATTRIBUTES	IMAGE DIMENSIONS ¹
1.	Image dimensions as stated by the authors of the studies. Labels were varied, such as, attribute groups, characteristics, cognitive dimension, and components. However, the descriptions under the various labels fit the image dimension definitions given by Hansen and Deutscher (1977).		
2.	Kunkel and Berry 1968; Berry 1969; Zimmer and Golden 1988; focused on the use of open-end questions to allow the respondent to provide the image dimensions and attributes.		
3.	Zimmer and Golden (1988) presented 32 attributes under the label Attribute-Specific. These were classified under one of the nine dimensions used by Hansen and Deutscher (1977) for the purpose of this study. Shown here are seven dimensions Clientel and Store atmosphere were not represented in the 32 attributes.		
4.	Fifteen attributes were presented under the six global dimensions given here as eight through thirteen.		

TABLE 9
COMMONALITIES ACROSS SELECTED IMAGE STUDIES

STUDY ¹	IMAGE DIMENSION ²								
	M	S	CL	PF	CV	P	SA	IF	PT
Fisk (1961)	2,3	4	5	5	1	4	5		6
Hansen and Deutscher (1977) ³	1	2	3	4	5	6	7	8	9
Kunkel and Berry (1968) Berry (1969)	1,2 3,4	5,8	11	7	6,7	9,10	11	11	12
Lessig (1973)	2,4 6,7	8	3					1,5	5
Lindquist (1974) ³	1	2	3	4	5	6	7	8	9
Pessemier (1980)	3	6	1		4	7	5	2,9	8,9
Stephenson (1969)	5 7,8	6	4	2	3	1			
Zimmer and Golden (1988)	1,11	2	12	3	4	5	8	6,8 9,10	7

1. Summary of the studies listed in Table 8. The numbers in the Image Dimension columns refer to the numbers used in the listing of dimensions for each study in Table 8.
2. The nine dimensions used by Hansen and Deutscher (1977): M = merchandise, S = service, CL = clientele, PF = physical facilities, CV = convenience, P = promotion, SA = store atmosphere, IF = institutional factors, PT = post transaction satisfaction.
3. Hansen and Deutscher used the dimensions found by Lindquist as the basis of their study. Lindquist's study was a summary of previous image studies.

location can cater to, and (3) the type of store being evaluated. The operationalized attributes must also be responsive to the competitive structure where the store must survive (Berry 1969; Hansen and Deutscher 1977; Hawkins et al. 1975; Hirschman 1981; Pessemier 1980; Tigert and Arnold 1981; Zimmer and Golden 1988).

The dimensions upon which an image of a store is formed appear to be relatively consistent over time. While some studies argued that open-end questions give greater detail in the discovery of attributes (Berry 1969; Kunkel and Berry 1968; Zimmer and Golden 1988), no study demonstrated that the detail gives significantly more information to managers or results in better marketing decisions.

The annual survey findings of Progressive Grocer, over the period 1979-1992, on the evaluation of supermarkets, support the consistency of the findings of empirical image studies. The survey reports show that customers gave the two attributes, cleanliness and all prices clearly labeled, as the first and second ranked attributes for evaluating a grocery store in each year of the period. The grocery shoppers surveyed also ranked: freshness date marked on products; accurate, pleasant checkout clerks; low prices; and, good produce department; as the third through sixth most important attributes for a grocery store in each of the ten years. These four attributes traded places from year-to-year but were always within the third to sixth place. Zimmer and Golden (1988) argued that attributes should be measured not dimensions but their attribute-specific items (p. 281) fit neatly within the more easily compared dimensions used by Hansen and Deutscher (Tables 8 and 9).

The second issue of question construction is intermingled with the issue of whether image is a global picture or a combination of perceptions. Zimmer and Golden (1988) support the observations of Peterson and Kerin (1983) as to the fragmented nature of image inquiry. Zimmer and Golden argue that the problem in identifying a store's image is both conceptualization and measurement. They cite Dichter (1985) in accepting the definition of image as a global or overall impression and not a measure of individual traits or qualities. They tested their concept that content analysis and an unstructured approach to measurement is more objective in determining the attributes to be measured in image studies. Their study showed that consumers think of retail store image both in terms of specific store attributes (such as price, layout) and global or overall impressions (such as good, tacky, clean).

Zimmer and Golden support the argument that the customer must provide the attributes via open-ended questions so as to avoid losing some of the richness of the consumer's own imagery. Berry (1969) made this same argument twenty years earlier. However, the attributes that were found in earlier studies (Berry 1969; Kunkel and Berry 1968; Pessemier 1980) that employed the open-end question method like the attributes found by Zimmer and Golden (1988) were easily classified under the nine dimensions found by Lindquist (1974).

Summary and Implications

The body of image literature supports the conclusion that the attributes upon which patrons develop images of stores aids in the store choice process. The attributes correlate with store choice. Attributes serve to operationalize the constructs under consideration while dimensions serve to group attributes into categories that allow for comparisons between studies.

The image literature in grocery shopping behavior fails to include a measure of the attributes used by convenience store patrons to develop images and arrive at the choice of a store. The literature also fails to demonstrate any relationship or trade-off, due to image, in the choice of the type of food store used by grocery patrons. There is a void in the research as to the questions of how convenience stores are chosen, how they are used to complement the use of grocery stores, and what attribute evaluations cause them to be avoided.

Since the supermarket (grocery store) and the convenience store compete within the same industry the images held for each form of store would likely be weighted in some manner by patrons. Knowledge of the relative images could provide useful insight to the managements of both types of stores.

Prior image study has been conducted without a theoretical basis (Peterson and Kerin 1983). However, support has been shown for the concept of a set of attributes upon which patrons develop images of store which in-turn are used in the store choice process. While support is

shown for image identification of the convenience store, image as a specific topic will not be addressed in this research. This study will test an extended sequence of effects model and will identify shopping typologies in response to the research issues.

TYPOLGY STUDIES

Typology studies essentially seek to describe the various patrons who use stores by classifying the patrons into typologies that reflect a common set of descriptors. Motive, either stated or implied, has been a consistent construct in typology studies. Shopping orientation has been another recurrent focus in developing shopper typologies. These studies serve to clarify the behavior of patrons toward stores and to suggest ways in which patrons should be viewed. Table 10 lists ten selected typology studies and shows the population, the measurement basis, and findings. These are discussed below.

The literature review on typologies begins with Stone's (1954) seminal work and related studies on the subject of motivation. The second topic discussed is shopping orientation as a means to define shoppers. The third review is a discussion of the Shopping Strategy Typology and its implications for the behavior of convenience store patrons. This is followed by a chi square test of Guiltinan and Monroe's (1980) findings. Finally, a synthesis of the typology studies in Table 10 is given and a summary of these studies gives the implications for this research.

**TABLE 10
FINDINGS OF SELECTED SHOPPER TYPOLOGY STUDIES¹**

AUTHOR AND DATE	SHOPPER POPULATION	MEASUREMENT BASIS	SHOPPER TYPES
Bellenger and Korgaonkar (1980)	Adult Shoppers	Single Item Shopping Enjoyment	1. Recreational 2. Economic
Darden and Reynolds (1971)	Female Heads of Households	AIO Statements on shopping orientation Product usage	1. Economic ² 2. Personalizing 3. Moralistic 4. Apathetic
Darden and Ashton (1974)	Female Supermarket Shoppers	Store Attribute Preferences	1. Quality Oriented 2. Fastidious 3. Convenience 4. Demanding 5. Stamp Collectors 6. Stamp Avoiders 7. Apathetic
Guiltinan and Monroe (1980)	Supermarket Shoppers	Six sets of variables ³	1. Apathetic ⁴ or mechanistic 2. Convenience 3. Homemaker 4. In-store Economy 5. Involved Traditional 6. Economy Planner

TABLE 10 (Continued)
 FINDINGS OF SELECTED SHOPPER TYPOLOGY STUDIES¹

AUTHOR AND DATE	SHOPPER POPULATION	MEASUREMENT BASIS	SHOPPER TYPES
Moschis (1976)	Cosmetic Buyers	AIO Statements	1. Store Loyal 2. Brand Loyal 3. Specials Shopper 4. Psychosocializing 5. Name Conscious 6. Problem Solving
Stephenson and Willett (1969)	Adult Buyers of Apparel, Shoes, and Toys	Number of Stores Shopped and Patronized	1. Store Loyal 2. Compulsive/Recreational 3. Convenience 4. Price/Bargain Conscious
Stone (1954)	Female Department Store Shoppers	Depth Interview	1. Economic 2. Personalizing 3. Ethical 4. Apathetic
Tauber (1972)	Adult Men and Women	Depth Interview	1. Personal Motives ⁵ 2. Social Motives
Westbrook and Black (1985)	Department Store Shopper	Shopping Motivation Measures	1. Anticipated Utility ⁶ 2. Role Enactment 3. Negotiation 4. Choice Optimization 5. Affiliation 6. Power and Authority 7. Sensory Stimulation

TABLE 10 (Continued)
 FINDINGS OF SELECTED SHOPPER TYPOLOGY STUDIES¹

AUTHOR AND DATE	SHOPPER POPULATION	MEASUREMENT BASIS	SHOPPER TYPES
Williams, Painter, and Nichols (1978)	Adult Grocery Shoppers	Store Policies Service/Price Semantic Differentials	1. Price Conscious 2. Convenience 3. Involved Shopper 4. Apathetic

1. Adapted from: Westbrook, R. A. and W. C. Black (1985), "A Motivation Based Shopper Typology," Journal of Retailing, 61, Spring, 80-81.
2. Shopping orientations rather than shopper types.
3. Attitude, interest, opinion measures; grocery store attributes; socio-economic and grocery budget data; perceived travel time and in-store time; patronage data on primary store shopped; propensity to and reasons for, trying a new store.
4. Shopping strategies rather than shopper types.
5. The study focused on, "why people go to stores." Personal motives: role playing, diversion, self-gratification, learning about new trends, physical activity, sensory stimulation; Social motives: social experiences outside the home, communication with others having a similar interest, peer group attraction, status and authority, pleasure of bargaining.
6. Seven motivation typologies were validated. Six clusters were identified which had varying degrees of response across the seven motivations. The six clusters were not labeled.

Socialization and Motivation Typologies

Stone (1954) pioneered the use of taxonomy for the classification of shoppers. This first typology of department store shoppers was an attempt to supplement the findings of studies of the socialization process in an environment where life was supposedly impersonal and anonymous -- i.e., the city. Stone was addressing the social psychologists' concern over what was seen as the disintegrative effects or the dysfunctions of urbanism.

Stone's study identified four types of shoppers who used a single department store. The four typologies: (1) the economic consumer, (2) the personalizing consumer, (3) the ethical consumer and (4) the apathetic consumer were found among 124 women shoppers who had moved from a rural environment to an urban one. His findings were a significant contribution to the theoretical base of urban social psychology and equally important to marketing knowledge. He found that urbanities establish relationships with the personnel of retail stores and as a consequence they form identifications which bind them to the larger (impersonal urban) community.

Stone's results suggest that a highly mobile population may seek to establish relationships with neighborhood stores. Smaller less impersonal stores offer a greater opportunity for social linkages. Convenience stores may be the 1990's equivalent of the neighborhood store. In one study the supermarket was found to be a less social and less friendly place than a farmer's market when each market was evaluated by

its own patrons (Sommer, Herrick and Sommer 1981). The supermarkets were also observed to be organizationally and physically designed to minimize contact between customers and employees (Sommer et al. 1981). Darden and Reynolds (1971) replicated Stone's (1954) study while using an approach that focused on shopping orientations as a key determinant in measuring product usage rates. They found a small store personalizing factor and a chain (large) store depersonalizing factor among the individuals who were classified under the Personalizing consumer typology.

Tauber (1972) also supported the idea of social interaction in his study to develop hypotheses as to why people shop. He conducted interviews with thirty people asking them to describe their most recent shopping trip. He categorized his findings into personal motives and social motives. His personal motives were : (1) role playing; (2) diversion from the daily routine; (3) self gratification; (4) learning about new trends; (5) physical activity; and (6) sensory stimulation. His social motives were: (1) social interaction outside the home; (2) communication with others having similar interests; (3) peer group attraction; (4) seeking status and authority; and (5) the pleasure of bargaining.

Tauber's eleven types of motives fit within McGuire's (1974) sixteen cell typology matrix of motivation theories. The role playing is related to "identification theories" in which individuals are viewed as identity adopters seeking ego enhancement. The other five personal motives fit within McGuire's "stimulation theories" typology where the individual seeks varied experiences and stimulation to escape boredom. The social

motives of social interaction outside the home, communication with persons having similar interests, and peer group attraction show the shopper as being a cohesive social animal seeking acceptance among others indicating a fit with the "affiliation theories". The seeking of social status and authority through shopping and the bargaining activity reflect McGuire's "assertion category" wherein the person seeks power, success and admiration (Westbrook and Black 1985). Both the personal motive and social motive categories suggest that smaller more personal stores have an advantage over larger impersonal stores. The implication is that the motivation to patronize a convenience store, among some patrons, may vary along the themes of personal relationships and social interaction.

Westbrook and Black (1985) approached the classification of patrons with a study to develop a taxonomy of shoppers based on shopping motivation. They drew upon Tauber's (1972) hypothesized list of motives and earlier motivation research to formulate their own list of motives. They accepted five of Tauber's motives and added what they viewed as two neglected aspects of the direction and instigation of shopping behavior.

The first neglected aspect was the idea that the purchase of a product may provide the anticipation of satisfaction and that this "anticipated utility" may serve as a motivator. Viewed in learning theory terms this motive was stated to represent a "fractional antedating goal response". The second neglected aspect, seen to reflect the "autonomy" need, was termed "choice optimization". This was described as the achievement of or finding exactly what you have been looking for. McGuire (1974) presents compelling arguments that the motivating forces of

anticipated utility and achievement need not be confined to major life issues.

The seven major dimensions of motivation in their hypotheses were: (1) role enactment, (2) negotiation, (3) affiliation, (4) power and authority, (5) stimulation, (from Tauber) and the two neglected areas of (6) anticipated utility and (7) choice optimization. They operationalized the measure of the motivations by focusing on satisfaction since, as they noted, it is commonly agreed that the consummation of motive provides subjective satisfaction (Westbrook and Black 1985). Motives are fundamental and relatively permanent dispositions of the buyer to act. They are manifested through arousal and they give weight to the subjective attractiveness of specific outcomes (Howard 1977).

Support was found for the hypothesized multidimensional structure of shopping motivation. A cluster analysis based on observed differences in shopping motivations produced six clusters that resembled the typologies of earlier studies. A basic premise in the application of motivation theory to shopping is that shopping behavior is motivated by a variety of psychological needs beyond those related to the products being acquired (Tauber 1972; Westbrook and Black 1985).

Shopping Orientation

Shopping orientation refers to the theme underlying the complex of social roles performed by an individual (Merton 1949; Stone 1954). It

is the (tacit or explicit) theme which finds expression in each of the complex of social roles in which the individual is involved (Merton 1949). Darden (1980) hypothesized that terminal values, instrumental values, social class, stage in the family life cycle, and more general life styles are antecedent to shopping orientations. Shopping orientations serve as antecedents to patterns of conduct.

Shopping orientations served to predict usage rates for some categories of products (Darden and Reynolds 1971) and as a means of developing a shopper typology based on shopping strategies (Guiltinan and Monroe 1980). Shopping orientation was found to determine the amount of time spent on a shopping trip and the likelihood of making an unplanned purchase (Bellenger and Korgaonkar 1980). Darden's (1980) model of consumer patronage proposed that shopping orientation influences store attribute saliences. However, Monroe and Guiltinan's (1975) test of their sequence of effects model (discussed later) found that, "the importance of store attributes", did not contribute in a meaningful way to store choice. Westbrook and Black (1985) also found that subjective self-reports may have greater validity than the ratings of "importance of attributes" or the use of complex life-style statements. The focus on shopping orientation is supported by a shift to the practice of using multidimensional measures to provide more robust descriptions of the various typologies (Darden 1980; Darden et al. 1981; Guiltinan and Monroe 1980). Shopping orientation was found to define the shopping strategy of grocery store patrons as opposed to a chosen strategy defining behavior (Guiltinan and Monroe 1980).

Williams et al. (1978) developed a typology based on shoppers' responses to the price policies and customer service policies of grocery stores. They measured the perception of attributes of the stores where shoppers made the greatest portion of their grocery expenditures. They found four types of shoppers: Apathetic, Convenience, Price conscious, and Involved. The Apathetic shoppers held negative perceptions of their most shopped grocery store, were skeptical about search, not concerned about prices, shopped few stores and were the youngest shoppers. The Convenience group held neutral perceptions on the quality of their most used store, judged its prices and convenience as high, shopped the fewest number of stores, reported lower use of newspaper advertisements, and shopped at higher priced stores. They consciously paid high prices for convenience. Price shoppers perceived their favorite stores as having low prices, good advertising, and average quality but were seen as inconvenient. Price shoppers also reported heavy use of newspaper advertisements and a low level of store loyalty (as measured by the percent of purchases in a single store). The low level of loyalty suggests a high number of stores shopped. This group traded quality and convenience for price. Involved shoppers held positive views of their favorite stores on convenience, quality, advertising, and prices. They were the heaviest users of newspaper advertisements and shopped the greatest number of stores.

One additional observation from Williams' et al. (1978) findings is that in each of the four groups the largest percent of shoppers patronized medium priced stores. In the Involved group 57.6% shopped medium priced

stores, in the Convenience group 44.0%, followed by 43.2% for the Price conscious group, and 32.2% for the Apathetic group. The portion of Involved shoppers that shopped high priced stores was 18.2%, for the Convenience shopper 30.4%, in the Price conscious group 16.1%, and the Apathetic shoppers 28.8%.

These findings hold implications for the likely behavior of supermarket and convenience store patrons. Price conscious does not mean the shopper seeks the lowest prices. The price conscious trait may be expressed by seeking bargains instead of a strict price search. This may explain the high number of stores shopped by the Price conscious group. Other trade-offs are made on quality and convenience in store choice decisions. Price shoppers may, in practice, choose stores on one set of attributes, such as cleanliness or service, and make product and brand selections on a second set of attributes, such as price, once they are in the store. The Apathetic and Convenience shoppers appear to be the types of shoppers that would use convenience stores at higher rates than the price or involved shoppers. The Apathetic and Convenience shoppers will pay higher prices to avoid shopping and to reduce their effort in the shopping task.

One of the very few studies that focused on convenience store patrons was a segmentation study by Bearden, Teel and Durand (1978). (This study is not listed in Table 10 because it was not a typology study.) The study was based on the theory that multidimensional measures on psychographics (attitude, interest and opinion), demographics, and media usage would provide richer descriptions of the diverse market segments that patronize

stores. Dividing the heterogeneous market into homogeneous segments, in theory, allows more accurate descriptions of a firm's or industry's customers (Smith 1956; Evans and Berman 1992). These detailed descriptions then allow store managers to plan and execute strategies that more closely fit the wants and needs of the particular segment(s) being targeted. Bearden et al. (1978) studied patron and nonusers characteristic differences of department stores, discount stores, fast food, and convenience stores.

Convenience food store shoppers were found to be younger, better educated, to earn more income, and to be heavier users of all media than nonusers. These patrons were also more likely to be male, were less traditional, less outgoing, and less socially conscious than nonusers. These findings fit with the generally held belief that better educated, higher income individuals value their time greater than others (Bacon 1984; Becker 1965). However, they contrast with Williams et al. (1978) who found lower use of newspaper advertisements than other groups and Gultinan and Monroe (1980) who found the convenience shopper to be the lowest educated group.

Grocery Shopping Strategy Typology

Gultinan and Monroe (1980) added to the conceptual base in their study of shopping typologies. At the heart of their approach was both an extended view of describing shopper types and a measurement methodology that incorporated sets of variables to reflect the motives and decision

processes governing individual shopping behavior. Their multidimensional approach to data collection followed by a reduction process produced a richer set of descriptions for each shopper strategy type.

They collected five different types of data: (1) activity, interest, opinion (AIO), (2) ratings on the relative importance of 23 grocery store attributes, (3) general socioeconomic data and grocery budget data, (4) perceived travel time and in-store shopping time, and (5) patronage data related to primary store shopped. These sets of data produced a six-level typology of grocery (supermarket) shoppers based on shopping strategies. The shopping strategy typologies are defined in Table 11. The six shopper strategy typologies were consistent with earlier research (Darden and Reynolds 1971; Stone 1954; Williams et al. 1978).

The six typologies found by Gultinan and Monroe include the persistent four (apathetic, convenience, personalizing, and economic) found across studies. These were labeled respectively as Apathetic, Convenience, Homemaker, and Economy Planner. The remaining two typologies, In-store Economy and Involved Traditional, fit the price conscious and socializing typology descriptions given across studies.

The typology descriptions in Table 11 reveal the findings of the study. The negative nature of the Apathetic shopper shows little about what motivates this person. The Convenience shopper appears to be attracted to brands and quality as well as convenience. The Homemaker appears to be a potential moderate user of the convenience store because of the tendency to patronize one store. The In-store Economy typology compares to a price conscious shopper who seeks bargains, price specials,

TABLE 11

SHOPPING STRATEGY TYPOLOGY DESCRIPTIONS

CLASSIFICATION	DESCRIPTION
Apathetic or mechanistic	Negative attitudes toward shopping; negative feelings about value or enjoyment of shopping, menu planning or cooking; small family size and low concern for all attributes except trading stamps.
Convenience	Positive attitude toward redeeming coupons, do not use unit pricing, do not like to visit other stores because they know where things are in present store, will visit other stores to see what is new; believe brand name implies quality; lowest educated group; strong concern with ideal attributes related to convenience in reaching or moving through the store; low concern for store brands.
Homemaker	Believe brand name implies quality; plan menus, believe shopping is an important task; negative attitudes toward shopping in more than one store; average on all demographic variables; relatively less concerned about ideal attributes related to advertising, deals, and friends that shop there.
In-store Economy	Compare prices, use unit prices, redeem coupons; shop for bargains and believe you can save by shopping different stores; do not believe shopping is an important task; do not plan menus; relatively young with large family; well educated; desire store with many price specials and quality brands.
Involved Traditional	Positive attitudes toward trying new brands, planning, comparing prices and redeeming coupons; positive feelings about value, enjoyment of shopping, use of recipes and menu planning; older group; relatively high on all ideal attributes except quality of store brands.
Economy Planner	Positive attitudes toward using unit prices, coupons, and newspaper advertisements; compare prices; do not like to try new brands; like to plan menus and recipes; do not like to change stores; below average in age; largest family size; ideal attributes emphasize convenience and quality of store brands.

Source: Gultinan, Joseph P. and Kent B. Monroe (1980), "Identifying and Analyzing Consumer Shopping Strategies."

and quality. The Involved Traditional and Economy Planner typologies appear as planners who are deliberate in their shopping efforts and are not likely to frequent convenience stores.

The Convenience Typology (Table 11) has not been defined in terms of the convenience store per se. Therefore, it appears as an elusive indicator of the likely behavior of grocery patrons toward convenience stores. Convenience, as an attribute, has a variety of definitions depending upon the focus of the study (Hansen and Deutscher 1977; Lindquist 1974; Zimmer and Golden 1988). The variety of definitions of convenience requires caution to avoid misstatements regarding implications.

In a further analysis, Table 12 shows each typology's evaluation on nine attributes that were common in the strategy descriptions. The evaluations show that grocery shoppers range from a negative orientation to a positive one. They also imply possible attitudes toward the patronage of convenience stores. Observe from Table 12 that the typologies of Convenience and Economy Planner are distant on six of the nine attributes but stand out as the only two groups that have a positive view of convenience. It is likely that this term has different meanings to each group. The attribute evaluations also suggest that a particular typology's attitudes about products and brands, and prices may serve as indicators of that group's usage rate for convenience stores. For example, four columns in Table 12 (PR = price, UP = unit price use, DS = deal search or use of newspaper ads, CU = coupon use) are essentially under the broad concern of prices. A variety of price behaviors was

TABLE 12

COMMON ATTRIBUTE VALUES HELD BY SHOPPING STRATEGY TYPOLOGIES

TYPOLOGY ³	ATTRIBUTES ^{1,2}									
							Price Attributes			
	SA	PS	PL	BR	CV	PR	UP	DS	CU	
Apathetic	-	-	-							
Convenience	-	+		+	+		-		+	
Homemaker	+	+	+	+				-		
In-store Economy	- ⁴	-	-	+		+	+	+	+	
Involved Traditional	+	+	+	+		+			+	
Economy Planner	+	+	+	-/+ ⁵	+	+	+	+	+	

1. Attribute codes: SA = Shopping attitude; PS = Personalizing or Socialization focus based on a desire to shop a single store or having a positive shopping attitude; PL = Plan menus or use recipes; BR = Brand attitude; CV = Convenience focus; PR = Price comparison; UP = unit price use; DS = deal search or use of newspaper ads; CU = coupon use.
2. The pluses and minuses indicate whether the typology held positive or negative value for the attribute. Blanks mean no indication was given for the attribute.
3. See Table 11 for complete typology descriptions.
4. Will shop for bargains and to save money, do not believe shopping is an important task.
5. Negative on trying new brands, positive concern for quality of store brands.

Source: Guiltinan, Joseph P. and Kent B. Monroe (1980), "Identifying and Analyzing Consumer Shopping Strategies, in Advances in Consumer Behavior, Vol. 7, J. Olson, ed., Ann Arbor, MI: Association for Consumer Research, 745-8.

supported by Williams et al. (1978) in finding that 59.3% of price conscious shoppers patronize medium and high priced stores. Price conscious could mean bargain hunter. This suggests that attitude toward price considerations alone may be a major determinant for the behavior toward convenience stores for some patrons. Other indicators drawn from the shopping typology are shopping attitude, planning focus, and the inclination toward personalization or socialization with the personnel in convenience stores.

Grocery Shopping Strategy Typology Goodness Of Fit Test

The response data in the shopping strategy typology study are given in Table 13. The table shows number (and percent) of respondents that were classified into each of the shopping strategy typologies reported by Gultinan and Monroe (1980). Table 13 also shows a projected convenience store usage rate for each of the grocery shopping typologies. The projected usage rates were drawn from the typology descriptions as shown in Table 11 and summarized in Table 12. The projected usage rates also reflect consideration for the differences between people who enjoyed shopping and those who did not enjoy shopping (Hansen and Deutscher 1977) and the finding that shoppers will make trade-offs in store choice (Williams et al. 1978).

A X^2 goodness of fit test was conducted by grouping the respondents in the grocery shopping typologies (Table 13) by their projected status as users or nonusers of the convenience store. The Progressive Grocer's

TABLE 13

**PROJECTED CONVENIENCE STORE USAGE RATES
BASED ON
GROCERY SHOPPING STRATEGY TYPOLOGY**

FINDINGS ¹			PROJECTED ² USAGE RATE
TYPOLOGY	N	PERCENT	
Apathetic	15	8.9	Heavy
Convenience	20	11.8	Heavy
Homemaker	20	11.8	Moderate
In-store Economy	32	18.9	Light
Involved Traditional	40	23.7	Nonuser
Economy Planner	42	24.9	Nonuser
Total	169	100.0	

1. Source: Gultinan, Joseph P. and Kent B. Monroe (1980), "Identifying and Analyzing Consumer Shopping Strategies, in Advances in Consumer Behavior, Vol. 7, J. Olson, ed., Ann Arbor, MI: Association for Consumer Research, 745-8.
2. Based on the findings of Gultinan and Monroe (1980), Table 11; Darden and Reynolds (1971), Stephenson and Willett (1969), Stone (1954), Tauber (1972), Table 14; Hansen and Deutscher (1977), Table 7; Williams et al. (1978).

frequently reported ratio that 45 % of supermarket patrons use the convenience store was the basis for the expected values. The four projected user typologies totaled 87 with an expected 76. The projected nonusers in the Involved Traditional and Economy Planner groups totaled 82 with an expected 93. The X^2 test yielded a value of 2.893. This compares to a table value of $X^2_{.05, df=1} = 3.841$. The argument for a 45% to 55% ratio of convenience store use to nonuse among supermarket patrons cannot be rejected.

Progressive Grocer also reports that the average frequency for supermarket visits is 2.1 times weekly for grocery shoppers. Among the 45% of grocery shoppers who use the convenience store the average frequency of convenience store visits is 2.4 times per week. No figures are given regarding the range of frequency for convenience store visits for that population. The implication of a single average figure is that homogeneity exists among the population of patrons. This lack of detail supports the belief that deliberate definitions of the patrons and nonusers of the convenience store would be beneficial to managers of all forms of grocery stores in their efforts to develop marketing strategies and plans (Darden and Lusch 1983).

The use of typology classifications has shown merit in the past. The typology serves to describe and explain shopping attitudes and behaviors as well as other attitudes and behaviors. A replication of the shopping strategy typology would be appropriate.

A Synthesis Of Typology Studies

Table 14 is a display of the definitions of the eight "core" shopper typologies found in the earliest four studies in Table 10. These four studies - Stone (1954), Stephenson and Willett (1969), Darden and Reynolds (1971), Tauber (1972) - used similar definitions and were early studies in this area of inquiry. The findings in each of the ten studies were then classified under the definitions in Table 14 that best matched the author's descriptions. This classification appears in Table 15 with the studies listed in chronological order. Table 15 is essentially a summary of the findings in Table 10.

Table 15 shows that Stone's economic, personalizing, and apathetic typologies have endured (columns labeled E, P, and A respectively). The dimension of convenience has also endured in those studies where convenience was measured (column labeled C). The convenience attribute has been defined across studies by a range of descriptions from moving through the store, to preparation time for food products purchased, to location measured by distance or driving time (Hansen and Deutscher 1977; Lindquist 1974; Zimmer and Golden 1988). The typologies of social orientation and price conscious have also been useful additions to Stone's classification of consumers (columns labeled S and Pr respectively). In general, the studies that added a price conscious and a social orientation typology to the "standard" four provided greater detail in the descriptions of the various typologies. The classification set that responds to the dual needs of detail and parsimony is a six-way set of

TABLE 14
SHOPPER TYPOLOGY DEFINITIONS

TYPOLOGY	DEFINITION
Apathetic	Patron is not interested in shopping and does not discriminate as to the kind of store to shop in. Emphasis is on minimizing the shopping task and minimizing the effort in purchasing.
Convenience	Concerned with time and distance to the store, access from highways, moving through the store with ease, being familiar with the location of products in the store, fast checkout, and selecting products and brands that save time in preparation and are easy to use.
Economic	Regards shopping primarily as buying, the behavior being unambiguously directed toward the purchase of goods. Merchandise quality and value for money spent are primary concerns.
Ethical	Patron feels a moral obligation to patronize neighborhood and locally owned stores.
Loyal	Measured by the percent of purchases spent at a particular store or for a particular brand.
Personalizing	Shopping is defined as fundamentally and positively interpersonal. These patrons evaluate the store in terms of the closeness of the relationship between themselves and store personnel.
Price Conscious	Makes price comparisons, uses unit pricing, searches for deals, or uses coupons to reduce the cost of goods. Holds price as an important aspect of choosing stores, products, and brands.
Social Orientation	Patron shows a fundamental desire to affiliate directly or indirectly with others in the shopping process. This patron feels an elevated social position from the treatment received from store personnel. Seeks affiliation with other patrons. This patron is fully involved in the shopping process.

Sources: Darden and Reynolds 1971; Stephenson and Willett 1969; Stone 1954; Tauber 1972.

TABLE 15

COMMONALITIES ACROSS SHOPPER TYPOLOGY STUDIES

STUDY	TYPOLOGIES ^{1,2}							
	E	Pr	P	S	Et	A	C	L
Stone (1954)	1		2		3	4		
Stephenson and Willett (1969)		4		2			3	1
Darden and Reynolds (1971) ³	1		2		3	4		
Tauber (1972) ⁴			1	2				
Darden and Ashton (1974)	1			4		7	3	
Moschis (1976)	6	3	5	4	1			2
Williams, Painter, Nichols (1978)		1		3		4	2	
Guiltinan and Monroe (1980) ⁵	6	4	3	5		1	2	
Bellenger and Korgaonkar (1980)	2			1				
Westbrook and Black (1985) ⁶	3,4	2	5,7	1,6				

1. Typology codes: E = economic; Pr = price conscious; P = personalizing; S = social orientation; Et = ethical or moralistic; A = Apathetic; C = convenience; L = loyal to stores or brands.
2. The location of the numbers in the table indicate that the study described the shopper type indicated by the respective column. The numbers refer to the specific typology given in Table 10 by the authors of the study.
3. Shopping orientations rather than discrete shopper types. A study to replicate Stone's findings.
4. Classified responses to, "Why do people visit stores" into personal motives and social motives (motives other than the acquisition of goods).
5. Shopping strategies - see Table 13 for definitions.
6. Typology based on seven motivation dimensions.

apathetic, convenience, economic, price conscious, personalization, and socialization. The Shopping Strategy Typology (Guiltinan and Monroe 1980) fits this "standard" while allowing for descriptions unique to the target market of grocery shoppers. Hirschman et al. (1978) advise that measures of consumers in one market are not transferable to other markets.

Typology study has evolved to employ multidimensional measures which enhance typology descriptions. The multiple measures produce more typologies and allow richer definitions of the typologies (Darden 1980; Sheth 1983). For example, price consciousness is closely related to Stone's description of the economic person. However, when both price conscious and economic traits are measured the difference between these two typologies can be seen. A similar observation can be made about the personalizing and social orientation behaviors.

Since smaller stores offer a greater chance for personal and social linkages and convenience stores have grown in number by 67% in the past thirteen years, the use of more detail in typology studies appears appropriate as a means to fully describe the grocery consumer.

Summary and Implications

The literature stream in typology study since Stone's (1954) first effort has created a body of knowledge parallel to that of the body of image studies. However, since typology studies yield descriptions there has been no controversy regarding the need to predict consumer behavior. It has also been established that a multidimensional measurement approach

results in better typology definitions (Bearden et al. 1978; Darden 1980; Darden et al. 1981; Gultinan and Monroe 1980).

A number of implications for the study of convenience store patrons can be drawn from the findings of prior typology studies. First, Stone's (1954) results suggest that a highly mobile population may seek to establish social relationships with neighborhood stores. Considering the fact that more than seventy percent of the population of the United States lives within 1 1/2 miles of a convenience store (Liles 1977), and smaller stores offer a greater opportunity for social linkages (Sommer et al. 1981), a social, neighborhood relationship between convenience store patrons and the store personnel may exist. Darden and Reynolds (1971) found what they described as a small store personalizing factor. While the convenience store patron may seek fast unencumbered service and fill-in items the patron may also be motivated to frequent the store for social contact.

Second, prior research in supermarket patronage suggests that price shoppers and other typologies do not make consistent choices when offered a range of alternatives. The patrons of the convenience store may belong to several different supermarket typology groups. The greater portion of Price conscious shoppers were found to shop medium and high priced stores (59.3%). Convenience shoppers patronized medium and high priced stores at a 74.4% rate. However, Apathetic shoppers were found to be skeptical about search, to hold negative attitudes about shopping (Gultinan and Monroe 1980), to hold negative perceptions of their favorite grocery store, and to shop low, medium, and high priced stores

at about an equal rate (Williams et al. 1978). Apathetic shoppers may be more inclined to shop convenience stores than Convenience oriented shoppers.

Third, convenience store patrons are not homogeneous when measured on psychographic and demographic dimensions. Convenience store patrons appear to have a variety of different characteristics that point to different motivations for using the convenience store (Bearden, et al. 1978). Convenience shoppers were found to be the highest educated (Bearden et al. 1978) and the lowest educated (Guiltinan and Monroe 1980) group.

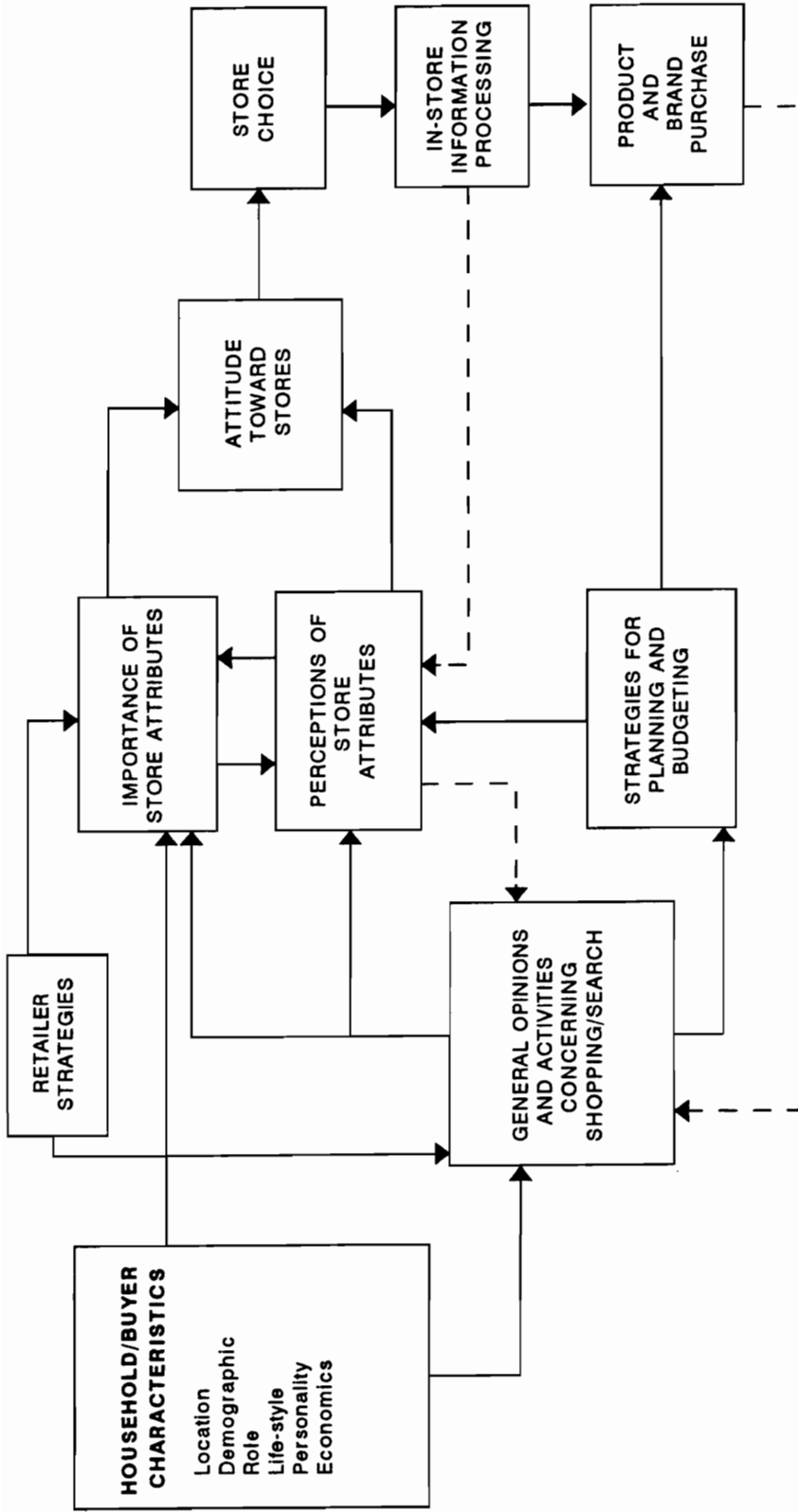
Fourth, motivation and satisfaction measures provide a means to classify shoppers. Motivation differences are valid for the classification and description of various types of shoppers. Shoppers are motivated by a range of needs and wants (Tauber 1972; Westbrook and Black 1985) instead of a single motivation such as fill-in (Ezell and Russell 1985).

Fifth, measuring the perception of store attributes is an appropriate method to distinguish between different type of shoppers. Typology classification provides an adequate means to compare and contrast the patrons of stores and different store forms (Darden 1980; Guiltinan and Monroe 1980; Westbrook and Black 1985; Williams et al. 1978).

THE SEQUENCE OF EFFECTS MODEL

Monroe and Gultinan (1975) proposed a working model for a sequence of effects in store choice to demonstrate the interdependence of store choice, product choice, and brand choice processes for grocery store patrons. Figure 1 shows the model in graphic form. They hypothesized the direction of influence among four sets of variables identified as: (1) general opinions and activities concerning shopping; (2) specific planning and budgeting strategies; (3) importance of store attributes dealing with buyer information; and (4) perceptions of stores in terms of attributes dealing with buyer information. The hypothesized directions of influence are indicated by the solid lines in Figure 1. The dashed lines imply feedback influences.

The Sequence of Effects Model was tested on grocery store (supermarket) shoppers to show the sequence position which each of various sets of variables had in influencing store choice. This model dealt with the store choice process as a repetitive event over time. This view contrasts with the earlier Howard-Sheth (1969) model of brand choice behavior and the later Sheth (1983) store choice model. The Howard-Sheth and Sheth models of choice behavior incorporated a task simplification process. The simplification process included the development of an evoked set as the result of an accumulation of experience, knowledge and store use over time. The simplification process, through the establishment and modification of an evoked set, allows the consumer to call upon the evoked set for routinized purchases. Since the evoked set is altered or



Source: Kent B. Monroe and Joseph P. Gullinan, "A Path-Analytic Exploration of Retail Patronage Influences," *Journal of Consumer Research*, 2 (June 1975), 21.

FIGURE 1. SEQUENCE OF EFFECTS IN STORE CHOICE

reinforced through experience these models fall under the rubric of "learning models".

Monroe and Gultinan's study to test the direction of influence among the four sets of variables resulted in findings that suggested that General Opinions and Activities and Store Perceptions preceded specific Planning and Budgeting Strategies which preceded Attribute Importance Ratings. The importance of store attributes was found to be of little value in predicting store choice when combined with store perceptions. The post-study model, shown in Figure 2, displays the tested constructs in the sequence in which they were found to influence store choice.

Engel et al. (1986) cited the study by Monroe and Gultinan in observing that store choice does not differ greatly from the EKB product decision model. Engel et al. note that the determinants of store choice varies widely by type of product, type of store and type of customer (p. 492).

Monroe and Gultinan's (1975) study also supports the idea of the value of more basic variables, such as, general shopping opinions, activities and interests, as serving to explain the choice behavior of patrons. The study demonstrated that subtle relationships may hold more value for the explanation of behavior than more complex or exotic construct arrangements. Finally, this study demonstrated both a correlation between sets of variables and patrons' actions and the ability of the management of a grocery store to influence the behavior of the target market in store selection when the correlation relationships are known.

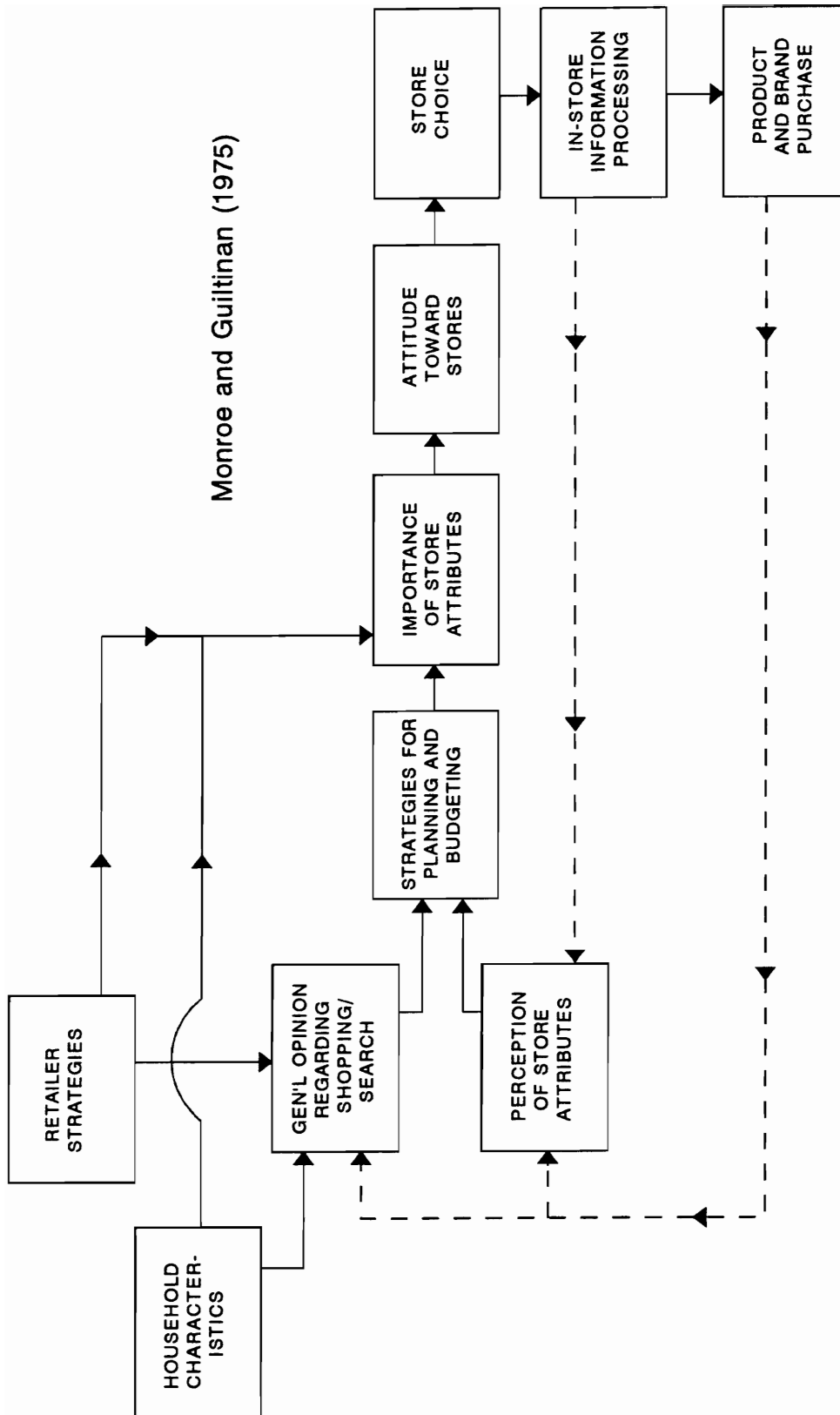


FIGURE 2. POST-STUDY SEQUENCE OF EFFECTS MODEL

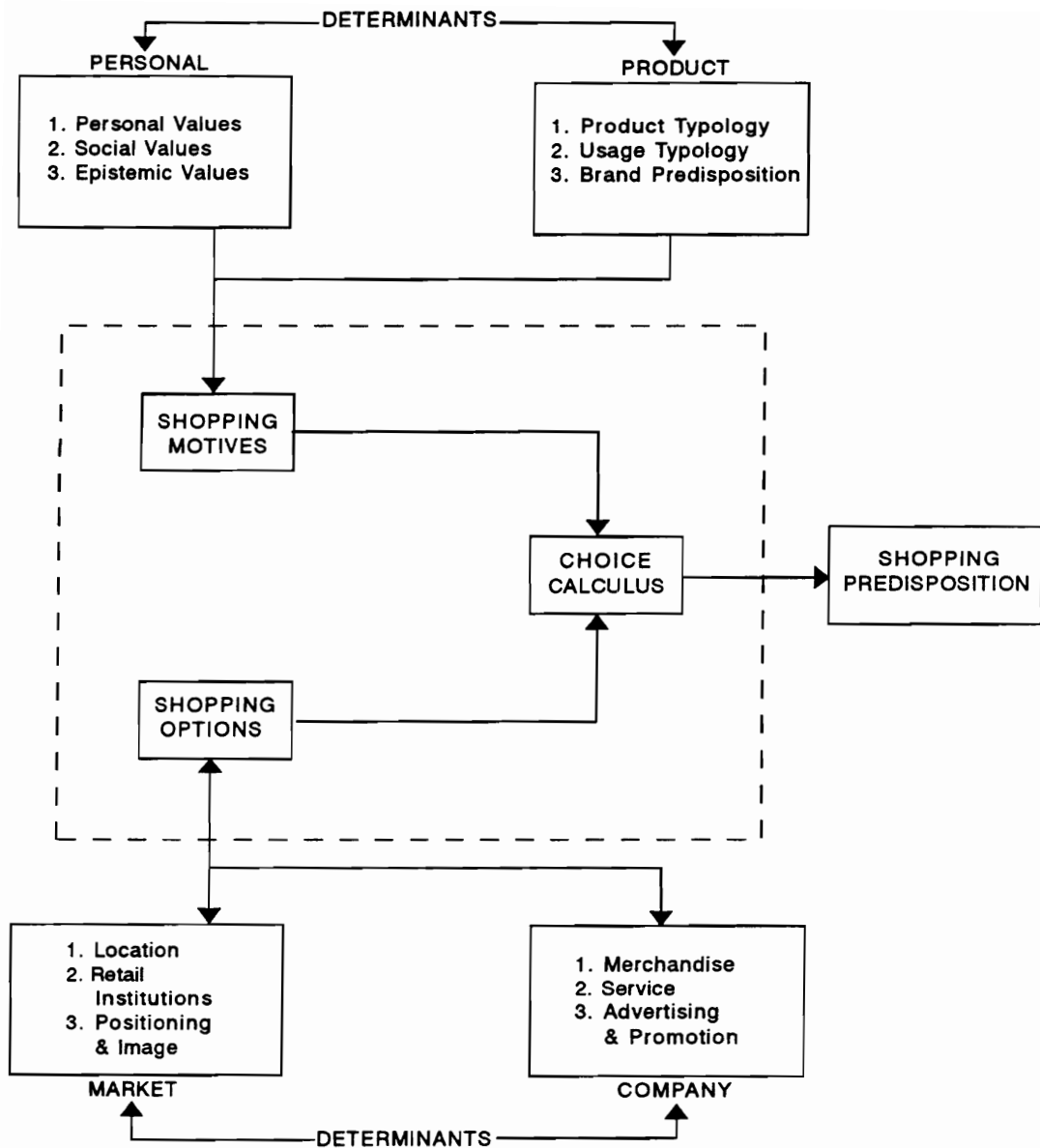
AN INTEGRATIVE THEORY OF SHOPPING PREFERENCE

Sheth's (1983) store choice model, shown in Figure 3, focuses on a trade-off process among available alternatives in contrast to the sequence of effects model which focuses on the strength of the constructs that pre-stage store choice. Sheth's shopping predisposition refers to the preference choice for a particular store.

Sheth divides motives into two types: functional needs and nonfunctional wants. The functional needs are stated as being linked to the attributes offered by the retail outlet such as, parking, availability of products, convenience in parking and shopping, and accessibility of the store. Nonfunctional wants are related to various outlets as a result of the outlet's associations with certain social, emotional and epistemic values. For example, the store image, atmospherics and clientele combine with the patron's value system to create a nonfunctional want. The nonfunctional want is said to be extrinsic to the outlets. While Sheth's (1983) model is untested Monroe and Guitinan's (1975) findings support the hypothesis that one source of nonfunctional motives is the general attitude toward shopping and subtle relationships with stores.

RETAIL STRUCTURE

The structure of a market is the manner in which the sale of some commodity is organized by the firms engaged in trading the commodity (Bucklin 1972). Retail structure (market structure) is seen as one



Source: Sheth, Jagdish N. (1983), "An Integrative Theory of Patronage Preference and Behavior," in Patronage Behavior and Retail Management, W. R. Darden and R. F. Lusch, eds., New York: New Holland, 9-28.

FIGURE 3. AN INTEGRATIVE THEORY OF SHOPPING PREFERENCE

component of the market determinants in Sheth's (1983) integrated store choice model. The structure of the market impacts choice through the "shopping option" construct.

Market structure changes over time and influences managerial and strategic decisions such as entry, exit, and product assortment (Ingene and Brown 1987). The inclusion of "structure" as an issue in store choice acknowledges that each store will offer and each store form will collectively offer, some strategy that differentiates the store form from alternative forms. The consideration of market structure also incorporates the concept that the level of retail activity plays a role in the degree of awareness of store choice alternatives (Hirschman et al. 1978; Ingene 1983a; March and Simon 1958). It is also thought that the level of spending can be extended by the addition of new stores (Ingene 1984). A change in the retail structure (the addition of a supermarket) has been found to impact shopping behavior (Monroe and Gultinan 1975). The issue of retail structure is a valid construct in the explanation of store choice behavior.

SITUATIONAL INFLUENCES

As noted in Chapter I, the currently used definition for the convenience store is that it is a place to purchase forgotten items or items to fill-in between grocery (supermarket) shopping trips (Evans and Berman 1992; McCarthy and Perreault 1990). This definition clearly suggests that the impetus to patronize the convenience store is provided

only by an unforeseen situation. This definition prevails even though the experience and continued behavior of patrons over time suggests the development of habit or routinized behavior (Howard-Sheth 1969; Sheth 1983).

Belk (1975) defined "consumer situation" as comprising all those factors particular to a time and place of observation which do not follow from a knowledge of personal and stimulus attributes and which have a demonstrable and systematic effect on current behavior. When the currently accepted definition of the convenience store is viewed in light of Belk's definition of situational influence, the patronage of the convenience store appears as a random event influenced by the momentary situation. Kollat and Willett (1967) found that approximately one-half of all grocery purchases are unplanned. Recent citations of this finding indicates that this remains a valid observation (Park, Iyer and Smith 1989).

Sheth (1974) offered a model of attitude structure showing an attitude-behavior relationship that included a construct identified as Anticipated Situation. This construct was considered to be more situation bound and ad hoc than the influence of a Social Environment construct that was also given. Anticipated Situation was defined as (but not limited to) : (1) cyclical phenomena such as holidays, vacations, birthdays, schooling and education; (2) anticipated mobility; and (3) financial status of the decision maker, including anticipated incomes and expenditures.

Other sources have defined situation as income, time pressure, and social pressure (Darden 1980; Darden et al. 1981). Situation has also been defined as store layout knowledge and the time available for shopping (Park et al. 1989). The outlook of one's own economic future could be seen as an influence in a purchase decision situation (March and Simon 1958). Mattson (1982) defined situation as the purpose of the purchase and time pressure. He found that "situation" influenced store attribute saliences and ratings in explaining the choice of a first and second store in shopping for a gift. Mattson (1982) specifically suggested that models of store choice such as the Sequence of Effects Model include a "situation" construct. Given the evidence and the espoused ad hoc nature of convenience store patronage the "situation" construct is a valid component for inclusion in a model of store choice.

THE EVOKED SET

The fact that many grocery products are purchased repeatedly over time supports the development of a means to reduce the effort in the choice process and to minimize the amount of effort required to acquire these products and execute the shopping task. Grocery products are an ideal case of a product that achieves routinized purchase status (Howard 1977). Over time patronage behavior may become routinized even for the infrequent patron. If grocery shoppers are to choose the convenience store to solve certain needs some form of recognition, such as, an evoked set, is necessary.

The evoked set was first described as a mental set of brands which the consumer actually considers when faced with making a purchase choice (Campbell 1969). For brand choice Narayama and Markin (1975) suggested that consumers also develop an inert set and an inept set in addition to the evoked set. The inert set is seen as the brands in a product line for which the consumer has neither a positive nor a negative evaluation. These brands are known but are not perceived to hold any advantage over the items in the existing evoked set. The inept set consists of the brands (or items of concern) that the consumer has rejected from any purchase or choice consideration. This rejection has resulted from either negative experience or because of negative feedback from other sources.

This three tier paradigm appears applicable to the store choice process among grocery shoppers since other brand choice behaviors and relationships among consumers have been appropriately adapted to store choice processes and behaviors (Sheth 1983). The convenience store is likely to be included in an inert set for the infrequent patron. This is especially likely among those consumers who are more acutely influenced by the situation. The inept set, as defined, is applicable for those consumers who do not patronize the convenience store.

SUMMARY OF THE LITERATURE REVIEW

The various studies of image, typologies, and situational influences, and the discussions of the evoked set concept as well as the models have shown application to the understanding of grocery

(supermarket) patrons. The various summaries of the sections above have highlighted the implications for the study of convenience store patrons.

The attributes upon which patrons form their images of stores have been identified and found to correlate with the patron's choice of a store. However, the literature in the study of image fails to demonstrate any causal relationship to consumer behavior or to provide a theoretical base.

Convenience stores have customarily been omitted from store image studies. However, the constructs and operationalized variables utilized in prior grocery patronage studies appear to be applicable to the study of convenience store patrons.

Typology studies provide numerous implications for the study of convenience store patrons. The studies that involve grocery shopping behavior have, with rare exception, ignored the convenience store. The implications range from the likelihood that some patrons seek personalization with convenience store personnel, to an implied set of typologies, to specific preferences such as, quality brands, willingness to pay high prices, or a dislike of shopping, to characteristics for the convenience store market segment such as, being less traditional, and earning more income.

The Guiltinan and Monroe (1980) grocery shopping strategy typology study showed that the six-level typology is appropriate because it reflects the long term general summary of typology studies (Tables 11 and 12). The strategy typology indicates possible convenience store usage rates among supermarket patrons and provides a means to identify the

motives for shopping of the various type of patrons. A chi square test of their findings supported an evaluative assignment of usage rates.

The Monroe-Guiltinan Sequence of Effects Model responds to the call for image research to show causality and for shopping orientation as a critical trait in the behavior of consumers. This model has demonstrated the validity of a multidimensional measurement approach in the study of patronage behavior and it supported the concept of a household strategy for the acquisition of grocery products. The model demonstrated its ability to show a path relationship among the various store choice constructs.

Retail structure has been found to influence store choice, managerial and strategic decisions of firms, and the level of retail activity. The activity level is reflected in competitiveness and sales levels. Retail structure is a valid construct to consider in measuring the store choice process.

The issue of situational influence has direct application to the behavior of supermarket and convenience store patrons. Given the widely held, but narrow, view of the motivation to patronize the convenience store the situational influence should be measured for its relevance in grocery shopping.

The concept of an evoked set is directly applicable to the study of grocery shopping behavior because of the frequency of this particular shopping activity. Support for development of routinized patronage behavior has conceptual arguments stemming from the various patronage models advanced in the past. Models have frequently been applied to

grocery shopping and such application is naturally extended to convenience store patrons.

Typology studies have shown compatibility in their findings, the potential for replication, and an ability to provide meaningful descriptions of shoppers' motives. A typology study will be conducted in this research as a means to identify the motives of users and nonusers of the convenience store and to compare and contrast these two groups of supermarket patrons.

Since the sequence of effects model was successful the post-study model has been extended to incorporate additional constructs and relationships in store choice to be tested in this study. An extended sequence of effects model will be discussed in Chapter III.

CHAPTER III

HYPOTHESES AND METHODOLOGY

The need to distinguish whether a consumer research effort is an effects application or a theory application is said to be of paramount importance (Calder, Phillips, and Tybout 1981). This research effort is an effects application. That is, the observed data are expected to mirror findings that would be observed if data were collected for other populations and settings. The primary goal of effects research is to obtain findings that can be applied directly to a situation of interest (Calder et al. 1981). In the present research the situation of interest is the behavior of grocery store patrons and their subsequent use of the convenience store in their total acquisition of grocery products. Also of interest are those grocery shoppers who favor the convenience store in their total grocery shopping behavior.

OVERVIEW

Chapter III begins with a list of the research issues to be addressed. This is followed by the presentation of an Extended Sequence of Effects model which discusses the modifications of constructs, the addition of constructs and the deletion of the construct "importance of store attributes." The presentation of the extended model is followed

by a display of the reduced research model taken from the extended store choice model. This was the model that was tested. The hypotheses that relate to the model is given followed by the hypotheses to be tested relative to grocery shopping behavior and convenience store patronage. The final portions of Chapter III are discussions of the research methodology that was employed, the sampling design, the questionnaire development, and the validity issues.

RESEARCH ISSUES

Chapter I listed five objectives that this research would seek to answer. These objectives and the questions and implications discussed in Chapter II were incorporated into a final set of issues that were addressed. The Sequence of Effects Model, the Extended Sequence of Effects Model, and the shopping strategy typology have also influenced the final list of issues to be examined. To respond to the various objectives, questions, shopping typology implications, and the extended model constructs this research will examine the following issues:

1. A test of the Extended Sequence of Effects Model which will replicate the test of the original Sequence of Effects Model.
2. A replication of the six-level typology of patronage shopping strategies.
3. Determination of the attributes that influence the use and nonuse of the convenience store by households.
4. The role of the convenience store in the total acquisition of grocery products for households.
5. The value of a multidimensional approach to defining the patronage process.

6. The effect of price attitudes on the perception of the store attributes of grocery stores and on the perception of the store attributes of convenience stores.
7. The effect of product and brand attitudes on the perception of the store attributes of grocery stores and on the perception of the store attributes of convenience stores.
8. The effect of situational influences on the perception of store attributes of grocery stores and on the perception of store attributes of convenience stores.
9. The existence of a three level paradigm of evoked, inert, and inept sets held by patrons of supermarkets and by patrons of convenience stores.
10. A comparison and contrast between households that patronize convenience stores and households that do not patronize convenience stores.

THE EXTENDED SEQUENCE OF EFFECTS MODEL

Monroe and Gultinan (1975) presented their Sequence of Effects Model (M-G) for a set of constructs and demonstrated the ability to show which constructs influence store choice in a sequential flow. That model has been extended in this research for use in testing the relationship between two forms of food stores among patrons who hold various orientations toward shopping. The Shopping Strategy Typology descriptions presented by Gultinan and Monroe (1980) were used to support the extended model and also provided the justification for some hypotheses to be tested.

Figure 4 presents an extended version of the Sequence of Effects post study model (E-M-G). As an outgrowth of the post-study model the extended model reflects the results of the study that tested the original M-G model, four additional constructs, two definition modifications, and the

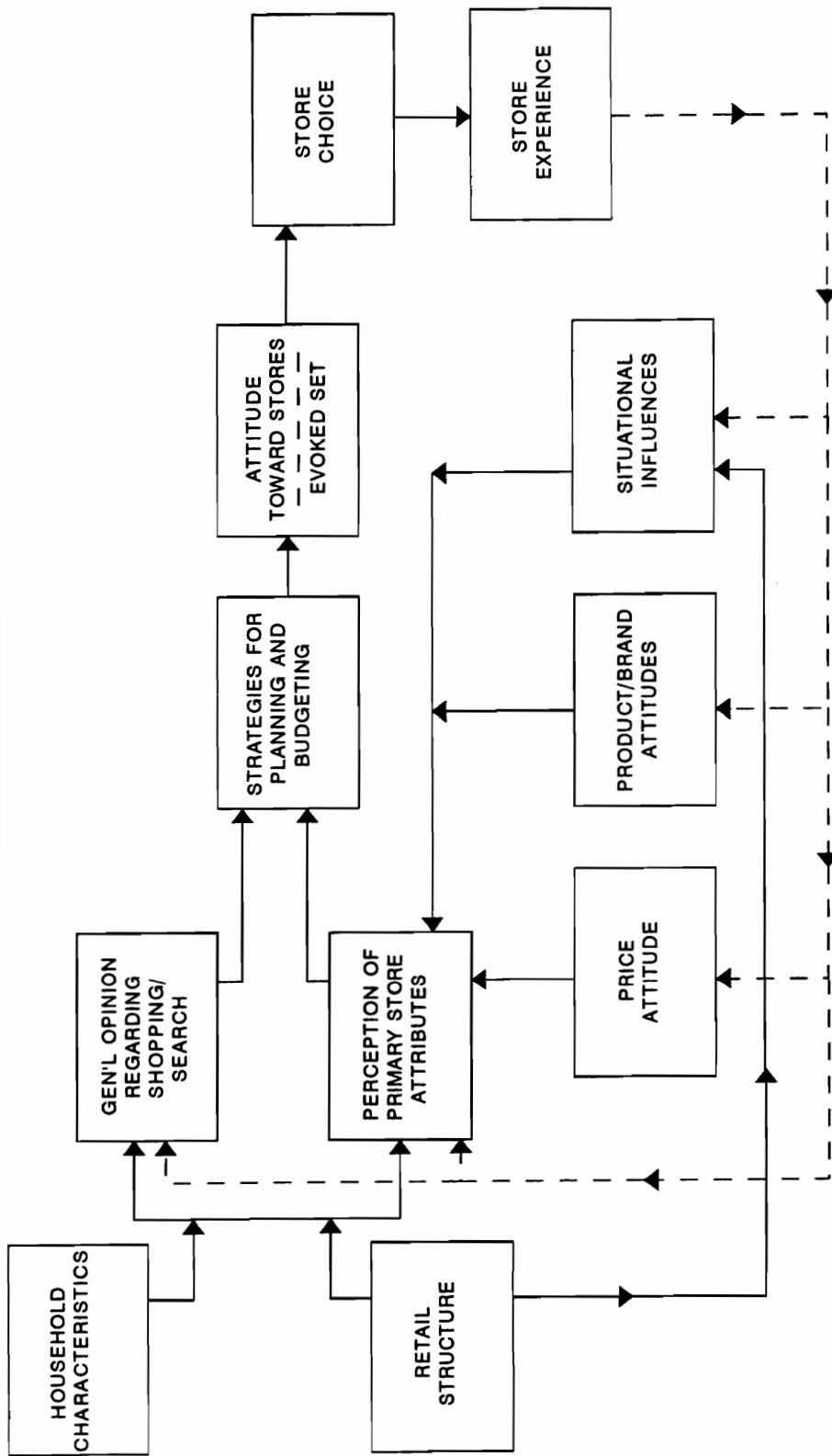


FIGURE 4. EXTENDED M-G SEQUENCE OF EFFECTS MODEL

deletion of one construct. The original M-G study found the following sequence for these tested constructs:

General Opinions and Activities
and Store Perceptions
preceded
Specific Planning and Budgeting Strategies
which preceded
Attribute Importance Ratings
which preceded
Attitude Toward Stores.

These constructs (except Attribute Importance Ratings) remain in the extended model. The construct "attribute importance" was omitted from the extended model and is discussed below. The four remaining constructs - general opinion and activities regarding shopping, perception of store attributes, strategies for planning and budgeting, and attitude toward stores - have been kept in the extended model because they were found to impact upon store choice (Monroe and Gultinan 1975). The construct "household characteristics" was not tested but remains from the original model. The retail strategy construct remains from the original model but has been redefined as retail structure. Four additional constructs: price attitude, product and brand attitude, situational influence, and evoked set; have been added to the model making it an extended model. Two other constructs, in-store information processing, and product and brand purchase, from the original model, have been incorporated into a broadened construct defined as "store experience".

A discussion of the extended model follows. The discussion begins with the justification for deleting the "importance of store attributes" construct. The construct "household characteristics" is discussed next. The two constructs that were redefined will then be explained followed

by discussions of the constructs that were added. The four constructs remaining (above) are not discussed in detail as they remain from the original model.

Importance of Store Attributes

The test of the Sequence of Effects model resulted in a suggestion that the "importance of store attributes" construct did not contribute in any meaningful way to the choice of a store (Monroe and Gultinan 1975). It appears that the value placed upon an attribute (its importance) is influenced by and expressed through household (buyer) characteristics (Becker and Connor 1982). Since the role of the "importance of store attributes" construct was not found to be a significant element in store choice it has been omitted in the extended model.

Household Characteristics

The "household characteristics" construct refers to what is essentially internalized personal characteristics and include such things as economic status, life styles, stage in the family life cycle, and other demographic measures. These measures are seen as exogenous variables and relatively permanent (Darden 1980; Darden et al. 1981). The acknowledgement that household characteristics have the primary role in influencing shopping behavior has long-standing support (Merton 1949;

Stone 1954) and recent support (Darden 1980; Monroe and Guiltinan 1975; Sheth 1983). Since this construct is accepted as being relatively permanent it will not be included in the study. The idea of limiting the number of tested constructs has support in the literature (Calder et al. 1981; Howard 1977; Howard and Sheth 1969; Monroe and Guiltinan 1975; Sheth 1983).

Retail Structure

The "retail structure" construct expands the concept of individual strategies of stores that impact upon the individual or household in a competing manner to account for the impact of store density in the geographic market. The "retail strategy" construct was proposed as influencing the construct "importance of store attributes" in the original Sequence of Effects Model but was not tested. The test of the model did demonstrate that changes in market structure (the addition of a supermarket during the survey period) had an affect on the three constructs of opinions regarding shopping, perceptions of store attributes, and shopping behavior (Monroe and Guiltinan 1975). Market structure changes over time and influences managerial and strategic decisions such as entry, exit and product assortment (Ingene and Brown 1987). The structure view - versus the strategy view - suggests that a global impact on the choice process results from the level of store density and the level retail activity in addition to the individual competitive strategies (Darden and Lusch 1983). For example, certain

geographic markets have few convenience stores while other geographic areas have significantly higher ratios of convenience stores to grocery stores and convenience stores per capita.

Household spending has been found to be materially influenced by the marketing actions of existing retailers (the market structure and the variety of competing strategies). The amount of time and energy expended and purchase costs borne by consumers are affected by such elements of retail structure as the number and size of retail outlets (Ingene and Brown 1987). In the extended model the "retail structure" construct has replaced the "retail strategy" construct and is seen to impact upon the general opinion concerning shopping, the perception of store attributes, and the situational influences.

While the "retail structure" construct is argued to play a role in store choice in the extended model it is not a focus of this study and will not be measured because its inclusion would encumber the study. The idea of limiting the number of tested constructs has support in the literature (Calder et al. 1981; Howard 1977; Howard and Sheth 1969; Sheth 1983).

Store Experience

The "store experience" construct is a set of activities and evaluations that result from the action that follows store choice. Store experience in the extended model includes the in-store information processing and the product and brand purchase constructs that were in the

original model. Store experience includes the satisfactions derived from the purchase experience and the satisfactions as expressed by an evaluation of the nine image attributes found to be consistent across image studies (Hansen and Deutscher 1978; Westbrook and Black 1985). The image measures would also include an expression of satisfaction on a global evaluation of the store (Zimmer and Golden 1985). Each of these experiences and evaluations (perceptions) provide feedback that either reinforces, alters, or has no effect on the various inputs toward determining the evoked set and subsequently the choice of a store. It is felt that the influence of store experience will manifest itself in the perceptions of attributes and in the general opinion of shopping held by patrons (Darden 1980; Monroe and Gultinan 1975; Sheth 1983). The construct of store experience will not be measured as a separate construct in this study because its inclusion would encumber the study. The practice of limiting the number of tested constructs has support in the literature (Calder et al. 1981; Howard 1977; Howard and Sheth 1969; Sheth 1983).

Price Attitude

Price has routinely been associated with the evaluation of quality, store choice, and other attributes related to brands and stores (Jacoby and Mazursky 1984; Monroe 1982; Monroe and Krishnan 1985). Since convenience stores are perceived (and known) to charge higher prices than supermarkets the price construct may be a significant determinant for the

behavior of grocery shoppers toward convenience stores. The attitude of patrons toward price has served as a construct to describe various shopper typologies among supermarket patrons (see Tables 10 and 11). Attitudes toward price will be measured and will be used as a component of the construct "perception of store attributes". It will also be used to determine whether price attitudes alone indicate convenience store use behavior.

Product and Brand Attitude

The influence of product and brand attitudes has evolved into two separate schools of thought. One position is that the product and brand attitudes are incorporated into the perception of the store attributes (Darden 1980; Darden et al. 1981) on the dimension of merchandise. The second view is that product and brand attitudes and brand preference precedes store choice in some manner and is a distinct factor in the choice of a store (Howard and Sheth 1969; Sheth 1983). Shopper typologies and image profiles often use the consumer's relative affinity toward brands to describe consumer groups (Berry 1969; Guiltinan and Monroe 1980; Moschis 1976).

In the Monroe and Guiltinan model (1975) the product and brand evaluation (attitude) followed purchase and was seen to function through feedback to impact the patron's general opinion of shopping and search. However, this construct was not tested. Darden (1980) holds the view that brand choice is made after store choice but sees the reputation of the

store for carrying good brands as attracting shoppers. This perspective is in line with the argument that shoppers hold a global image of stores (Dichter 1985; Zimmer and Golden 1988). Both sides of the before-or-after issue regarding the influence of product and brand attitudes support the idea that the evaluation of products and brands plays a role in store choice and both sides are incorporated into the extended model.

The influence of product and brand preference attitude on the perception of store attributes of convenience stores may be a critical item because of the limited selection that is associated with this type of store. The construct "product and brand attitude" has been added to the extended model for its consideration in the store choice process as a component of the "perceptions of store attributes". This attribute is seen as having a role in the behavior toward convenience stores whether or not the patron is a convenience store user.

Situational Influences

While the working definition of the convenience store suggests a single use situation for the convenience store any need arousal between major grocery shopping trips serves to delineate a store choice task. When the store choice task is combined with those factors particular to a time and place of observation which are outside the need arousal and stimulus attributes but have an effect on current behavior (Belk 1975) the influence of the "situation" arises. For the purpose of this study, the definition of "situation" is, (1) the nature of the shopping task

(task definition) and (2) the individual's perceived time pressure. This definition will address the stated role, "fill-in between major shopping trips", for the convenience store and for the supermarket as well.

Situation has been argued to impact shopping behavior and the store choice process suggesting a variety of store choice influences (Belk 1975; Darden 1980). Mattson (1982) found that "shopping situation" had an impact on store choice for the task of shopping for a gift. Since grocery store choice may be influenced by "situation" this construct is considered to be a component of the construct "perception of store attributes". The influence of "situation" results when momentary conditions cause the patron to evaluate store attributes under momentary influences. The new assessment then leads to a choice that subsequently impacts the evoked, inert, and inept choice sets for this situation. This process benefits from store experience in the same manner as other choices and a satisfactory experience will influence the choice set. Future "situation" arousal prompts the evoked set for a store choice (Sheth 1983).

One example is the case where a consumer runs out of an item and immediately thinks of the grocery store or convenience store to acquire the item. If this process is satisfactory it may become a routinized response through the evoked set. In a second case the "situation" causes a re-evaluation of store attributes in light of the "situation" and this may prompt the occasional use of a particular store. The experience may subsequently place the store into the evoked or inert set. In a third case a supermarket or convenience store may be acknowledged and evaluated

but still perceived as being unacceptable on one or more attributes such as having high prices or having a poor brand assortment. While re-evaluation occurs the result may be to place the store into the inept set. Each re-evaluation of store attributes combines with the choice experience and impacts either the evoked, inert, or inept set (Sheth 1983). Situational influence is an appropriate component in models of the store choice process (Darden 1980; Mattson 1982).

Evoked Set

The extended model includes the construct of an evoked set. The evoked set allows the consumer to respond to often repeated, routinized patronage choices (Campbell 1969; Engel, Kollat and Blackwell 1978; Howard 1977; Howard and Sheth 1969; Narayana and Markin 1975; Sheth 1983). Grocery products are an ideal example of the type of products for which an individual will develop an evoked set (Howard 1977). This research will measure for the existence of the evoked sets, the inert sets and the inept sets held among grocery store patrons.

THE RESEARCH MODEL

Figure 5 displays the research version of the Extended Sequence of Effects Model which will be tested in a replication of the test of the Sequence of Effects Model conducted by Monroe and Gultinan (1975). The extended model is reduced by the same constructs - household

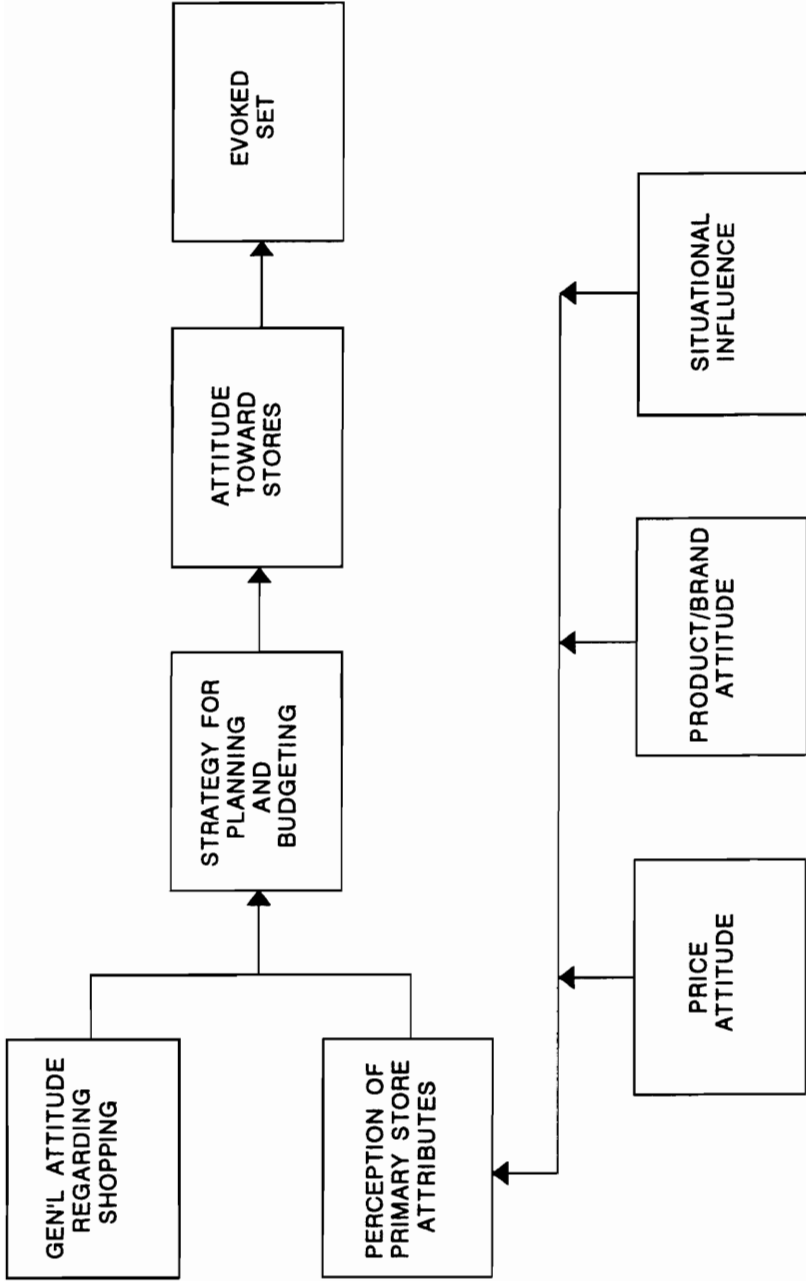


FIGURE 5. EXTENDED SEQUENCE OF EFFECTS RESEARCH MODEL

characteristics, retail structure, and store experience - as the original test model. It is argued that the influence of household characteristics and the influence of store experience are manifested through the general opinion and attitude toward shopping and the perception of store attribute constructs (Darden 1980; Darden et al. 1981; Monroe and Gultinan 1975). The retail structure construct has been removed to make the model less cumbersome. The research model retains the price attitude, product and brand attitude, situational influence, and evoked set constructs that were added in the extension process. The parsimonious model is more manageable and offers a better opportunity for finding meaningful results (Calder et al. 1981; Sheth 1983).

This research seeks to validate the Extended Sequence of Effects Model, to replicate the shopping strategy typology, and to provide meaningful data that respond to the research issues and the measure of supermarket patrons and convenience store patrons. The hypotheses have been influenced by and are supported by the Sequence of Effects Model (Monroe and Gultinan 1980), and the related literature in motivation and shopping orientation that supported the development of the Extended Sequence of Effects Model, the Integrated Theory of Shopping Preference (Sheth 1983), the findings of prior image studies, the results of prior typology studies, the observed influence of retail structure, the noted situational influence in store choice processes, and the literature on the concept of the evoked set.

HYPOTHESES

The argument for a shopping orientation as a basic construct has been the focus of several conceptual efforts in the past (Darden 1980; Sheth 1983) and one test of a sequence of effects model (Monroe and Gultinan 1975). The view that the "perception of store attributes" is a foundation trait is drawn from the argument that some form of evaluation occurs early in the shopping decision process (Darden 1980; Engel et al. 1986; Hansen and Deutscher 1977; Monroe and Gultinan 1975; Sheth 1983). Prices, product and brand attitudes, and situational influences have all been routinely associated with perception in the store choice process (Belk 1975; Darden 1980; Howard and Sheth 1969; Ingene and Brown 1987; Jacoby and Mazursky 1984; Mattson 1982; Monroe and Gultinan 1975; Sheth 1983; Zimmer and Golden 1988). The modified, extended model incorporates these variables into the construct of store attributes.

The constructs of planning strategy and attitude toward stores are also well supported by prior conceptual efforts (Darden 1980; Howard 1977; Sheth 1983). The empirical study by Monroe and Gultinan (1975) found the influence of the planning activity to follow both the shopping orientation and the perceptions of store attributes. The evoked set also has conceptual support (Campbell 1969; Darden 1980; Howard and Sheth 1969; Narayama and Markin 1975; Sheth 1983) and has been defended as particularly applicable to grocery products (Howard 1977). Sheth (1983) saw the planning effort as part of a periodic problem-solving process

toward the development of an evoked set which then responds to the choice task. This evidence supports the following hypotheses for the model:

- H_{1a} The choice of a primary supermarket is influenced by the variables: (1) general opinion regarding shopping, (2) the perception of store attributes, (3) the strategy for planning and budgeting, and (4) the attitude toward stores.
- H_{1b} The perception of the attributes of the primary supermarket is influenced by the the variables: (1) price attitude, (2) situation influence, and (3) product and brand attitude.

Typology study has shown a pattern of application to a variety of store forms, shopping orientations, and populations (Table 10). While the formulation of typologies is unique to the particular study, the collection of studies shows similarities across studies. Darden and Reynolds (1971) successfully replicated Stone's (1954) work in applying his department store typology to a study of product usage rates. Westbrook and Black (1985) found that a typology of motivations could serve to define a population of shoppers. The composite definitions drawn from a selection of studies (Table 14) show that typologies can be compared (Table 15). The body of work in typology study shows that a typology based on the "standard" six classes (Darden and Reynolds 1971; Stephenson and Willett 1969; Stone 1954; Tauber 1972) provides an adequate set of classifications to measure the patrons in various types of stores. The Guiltinan and Monroe (1980) shopping strategy typology is an appropriate standard for measuring grocery shoppers because it compares favorably to the "standard" six classes as noted in Table 15.

- H₂ The patrons of supermarkets constitute a typology of six groups on the dimensions of Apathetic, Convenience, Homemakers, In-store Economy, Involved Traditional, and Economy Planners.

The various types of grocery shoppers express differences when evaluating store attribute variables (Hansen and Deutscher 1977). Patrons also hold global images of stores and store forms (Zimmer and Golden 1988). These evaluations and images are said to influence the choice of stores. The variables of price, product and brand attributes, and situation influence have been identified as valid components of the choice process (Darden 1980; Gultinan and Monroe 1980; Howard 1977; Ingene and Brown 1987; Mattson 1982; Williams et al. 1977). Price conscious shoppers patronized medium and high priced stores at a rate almost equal to that of Involved shoppers who showed less concern for price (Williams et al. 1977). Price shoppers may seek bargains or other trade-offs in the shopping process instead of the lowest prices. This may mean that even price shoppers may see advantages in patronizing convenience stores given the right situations. Some patrons have shown that shopping is one of their activities but not necessarily focused on the acquisition of goods (Bellenger and Korgaonkar 1980; Tauber 1972). The strategy typology descriptions (Table 11) and the composite definitions of grocery shoppers (Table 14) indicate the likely behavior of supermarket patrons toward convenience stores. A chi square test on the results of the shopping strategy typology study (Gultinan and Monroe 1980) showed that the projected convenience store usage rates (Table 13) could not be rejected. These findings lead to:

- H₃ Apathetic grocery shoppers will be heavy users of the convenience store.
- H₄ Convenience grocery shoppers will be heavy users of the convenience store.
- H₅ Homemaker grocery shoppers will be moderate users of the convenience store.
- H₆ In-store Economy grocery shoppers will be light users of the convenience store.
- H₇ Involved Traditional grocery shoppers will be nonusers of the convenience store.
- H₈ Economy Planner grocery shoppers will be nonusers of the convenience store.

The reported proportion of supermarket patrons who use the convenience store is 45% (Progressive Grocer). The shoppers who hold a positive shopping orientation evaluate their preferred supermarket higher on store attribute variables than shoppers who hold an overall negative view of grocery shopping (Table 12). The patrons of supermarkets who express negative shopping orientations or the inclination to shop few stores (Hansen and Deutscher 1977; Gultinan and Monroe 1980; Williams et al. 1977) are those identified as more likely to be moderate or heavy users of the convenience store (Tables 7, 12, 15). While the typologies may patronize the convenience store at various rates, the typology descriptions indicate that users of the convenience store can be contrasted with nonusers on store choice attributes and on their evaluations of their primary supermarket. This prompts the following:

H₉ Among supermarket patrons, those who patronize the convenience store will express a lower value than those who do not patronize the convenience store for the attributes of:

- a). Shopping attitude
- b). Information search
- c). The use of price information
- d). Planning and budgeting for grocery shopping

H₁₀ Among supermarket patrons, those who patronize the convenience store will express a lower value in the perception of their primary supermarket than those who do not patronize the convenience store for the attributes of:

- a). Product assortment
- b). Brand assortment
- c). Store brand assortment
- d). The store as a fill-in source
- e). Fair prices
- f). Quality products

Supermarket patrons are not homogeneous as to store use or motivations (Darden and Reynolds 1971; Darden and Ashton 1974; Gultinan and Monroe 1980; Westbrook and Black 1985; Williams et al. 1977). This research makes the same argument regarding convenience store patrons. Price conscious shoppers indicated a negative attitude toward the shopping activity but also believe they could save by shopping and making price comparisons (Gultinan and Monroe 1980). Their use of medium and higher priced stores (Williams et al. 1977) suggests that this shopper may use the convenience store in certain circumstances despite the higher prices charged. The Homemaker is positive on shopping but is less concerned with price comparisons and searching for deals or bargains (Gultinan and Monroe 1980). This shopper expresses an interest in shopping but appears to see the shopping activity as part of a greater whole of homemaking. The Homemaker is projected to use the convenience

store at a moderate rate to supplement supermarket trips because this shopper favors one store and relies on marketing factors such as brand names rather than shopping to accomplish the grocery buying task (Table 11). The Apathetic and Convenience typologies are projected to be heavy users of the convenience store. The Apathetic shopper is the most negative on the task of shopping. The Convenience typology is also negative on the shopping task but uses brands as a quality measure and is motivated by convenience, coupons, and an attachment to one store. Differences in typology descriptions and store usage rates suggest:

H₁₁ Among convenience store patrons the patrons who use the convenience store at higher rates will express a lower value than patrons who use the convenience store at lower rates for the attributes of:

- a). Shopping attitude
- b). Information search
- c). The use of price information
- d). Planning and budgeting for grocery shopping

H₁₂ Among convenience store patrons the patrons who use the convenience store at higher rates will express a lower value than patrons who use the convenience store at lower rates in their perception of their primary supermarket for the attributes of:

- a). Product assortment
- b). Brand assortment
- c). Store brand assortment
- d). The store as a fill-in source
- e). Fair prices
- f). Quality products

The supermarket patrons projected to be convenience store users show either a clear dislike of shopping; such as the Apathetic, Convenience, and In-store Economy typologies, or a clear desire to limit their shopping to one store, such as the Homemaker (Bearden 1978; Guitinan and Monroe 1980; Williams et al. 1977). Since these patrons are not as involved in

the shopping process as others it is likely that they would see interruptions to their routines (needing a grocery item) as being a greater disruption to their routines than individuals who hold grocery shopping in a more favorable light. Involved shoppers and Economy planners may also see fill-in necessities as disruptive but would likely have a response planned and therefore view the disruption as less serious.

Situational influence has been argued to affect the store choice process and shopping behavior (Belk 1975; Darden 1980). Situation has also been found to impact the choice of a store in a specific task situation and has been argued to be an appropriate variable for inclusion in store choice models and specifically in the Sequence of Effects Model (Mattson 1982). When the influence of situation combines with the shopper's attitude toward shopping the following is suggested:

H_{13a} Convenience store patrons will express a higher level of concern for situational influences as disruptions to their routine than nonusers.

H_{13b} Among convenience store patrons the concern over situational influences as disruptions to their routine will be greater for those patrons with higher rates of convenience store use.

The supermarket, in comparison to farmer's markets, was described as being designed to prevent social interaction due to the narrow aisles, the size of the shopping carts, the lack of conversational nooks, the checkout line arrangement, and the cashier's attention to ringing prices on the cash register (Sommer et al. 1981). Supermarkets were also observed to be organizationally and physically designed to minimize contact between customers and employees (Sommer et al. 1981). Smaller less formal stores offer a greater opportunity for social linkages.

Convenience stores may be the 1990's equivalent of the neighborhood store. Typology studies that measured the personal relations dimension in grocery shopping found either a personalizing or socializing typology among the patrons (Bellinger and Korgoankar 1980; Darden and Reynolds 1971; Tauber 1972; Westbrook and Black 1985). Personalizing shoppers evaluate stores in terms the feeling of closeness in the relationship between themselves and store personnel (Table 14).

The typology labeled social orientation (Table 14) is defined as receiving gratification from from being waited on by store personnel and affiliating with other shoppers in the shopping process. This patron will be more involved with the shopping process and patronizes the largest number of stores (Williams et al. 1977). This patron is projected to be a nonuser of the convenience store (Table 13). The price conscious shopper has a negative attitude about shopping but shops a large number of stores. The Homemaker has a positive attitude toward shopping but prefers to shop in a single store. The Economy planner is positive about the shopping process but does not like to try new brands or change stores. The relative focus on the shopping process among the typologies suggests the following:

H_{14a} Supermarket patrons who also patronize the convenience store will express a lower level of personalization with their preferred supermarket than supermarket patrons who are not patrons of the convenience store.

H_{14b} Supermarket patrons who also patronize the convenience store will express a lower level of socialization with their preferred supermarket than supermarket patrons who are not patrons of the convenience store.

H_{15a} Among convenience store patrons the level of personalization with the convenience store will be greater for those patrons with higher rates of use of the convenience store.

H_{15b} Among convenience store patrons the level of socialization with the convenience store will be greater for those patrons with higher rates of use of the convenience store.

Several conceptual models of patronage behavior embrace the evoked set as part of the shopping process for repetitive goods such as groceries (Darden 1980; Howard and Sheth 1969; Howard 1977; Narayama and Markin 1975; Sheth 1983). The Extended model incorporates the evoked set as part of the store choice process. Past typology descriptions have shown variation in the number of stores patronized and other inclinations by shoppers toward the number of stores shopped (Williams et al. 1977). The data show that the more involved the shopper is with the shopping process the greater the number of stores shopped (Guiltinan and Monroe 1980; Williams et al. 1977). These differences lead to:

H_{16a} The size of the evoked sets of supermarket patrons will be smaller for supermarket patrons who patronize convenience stores than for supermarket patrons who do not patronize the convenience store.

H_{16b} The size of the evoked sets of supermarket patrons will vary positively with their shopping attitude.

H_{16c} The size of the evoked sets of supermarket patrons will vary inversely with their rate of use of the convenience store.

RESEARCH METHODOLOGY

This section presents the methodological procedures that were used to test the hypotheses. This section is divided into six parts. First, the overall methodological objectives will be presented. This will be followed by an overview of the research plan and a discussion of the research method. The fourth section is the sampling design. It contains seven subsections that cover the issues related to sample design and includes a description of the research setting. The final section is a discussion of the collection plan.

Methodological Objectives

This study was concerned with the grocery shopping strategy of households with respect to the combined use of the supermarket and the convenience store. The study replicated the findings of Monroe and Gultinan's (1975) Sequence of Effects Model of store choice. It also expanded the model beyond the original findings relative to the supermarket to include the impact of price attitudes, brand attitudes, and situational influences on the patron's evaluation of the primary supermarket.

A second objective of this study was to replicate the typology of shopping strategies as found by Gultinan and Monroe (1980) for supermarket patrons. This study also sought to define the various convenience store use typologies among the grocery shoppers.

A final effort was to compare and contrast the various shopper typologies to demonstrate that there is a variety of convenience store shoppers and to demonstrate to what degree each grocery shopper typology patronizes the convenience store.

Research Plan

The target population of this study was the household. This research sought to demonstrate that the use of a convenience store follows a pattern of influences (effects) in a manner similar to that for the choice of a grocery store. Households within the geographic market area of a convenience store were selected for sampling so as to afford the representation of three socioeconomic levels. Households in these areas were surveyed as to their choice behavior for grocery stores and convenience stores.

A field survey was administered by first notifying an individual in the household, in writing, about the survey's intent and then by delivering a self administered questionnaire, by hand, to the household (see Appendix). The respondent was the individual in the household most responsible for the grocery shopping. The questionnaire was collected in person in order to attain a higher response rate.

The Research Method

The research method employed in this study was a field survey. The field setting allows greater realism in the research setting, in the selection of subjects, and in the treatment of subjects when required. The field setting also allows the researcher to seek natural units of behavior. The disadvantages of using a field setting are getting subject cooperation, maintaining attentiveness, gaining adequate response rates, preventing extraneous events from interfering with the responses, and the high cost of data collection (Churchill 1983; Zaltman and Burger 1975).

Some of the disadvantages of the field setting were overcome by delivering a letter to potential respondents explaining the purpose and nature survey and soliciting their help. The questionnaire was delivered in person which encouraged the subjects to participate and complete the questionnaire in timely fashion. This method of data collection allowed the researcher to peruse the questionnaire for missing data and to conduct an immediate follow-up discussion to gather missing data when necessary.

A detailed discussion of the research setting, sample characteristics, and other methodological concerns is included under the discussion of the sampling design, which follows.

SAMPLING DESIGN

The seven step process recommended by Tull and Hawkins (1987) to develop a sampling design was used in this study. Their steps include:

defining the population; specifying the sampling frame; specifying the sampling unit; specifying the sampling method; determining the sample size; specifying the sampling plan; and selecting the sample.

Sample Population

Industry studies have shown that the neighborhood within a one-and-a-half mile radius around the convenience store is its trading area (Liles 1977). However, more recently Leed (1983) has suggested that the trading area is between one mile and three miles depending upon the location of the store. The sample population for this study consisted of households that are within a one to three mile radius of a convenience store as suggested by Leed. The size of the sample areas depended upon the location of the convenience store and the configuration of the residences within the prescribed radius. The convenience-store neighborhoods were selected by observation for differences in the socioeconomic status of the neighborhoods as expressed by home prices and rents. The sample population included low, middle, and high socioeconomic neighborhoods.

The use of households as the sample unit allowed for a respondent group that is familiar with the task of grocery shopping (Ferber 1977). Mazumdar (1987) found that undergraduate students exhibit large variations in terms of their grocery shopping habits due to their demographic factors. Residence, employment status and the nature of their financial support influenced their responses to grocery shopping. He also

found that a large portion of the undergraduate student population was not experienced in regular grocery shopping for their households.

The target element of the study is the household. The residential areas around convenience stores include patrons and nonpatrons of the convenience store. These households can also be expected to patronize supermarkets (grocery stores) in their food acquisition efforts. Since the focus of the study is convenience store use, the sampling of households of three socioeconomic levels provided a broad range of demographics within the total sample. This study was not focused on a particular social or economic group but different neighborhoods were used to give a richer sample and accommodate the need for the sample to also measure the use of supermarkets.

Sampling Frame

The original sampling frame consisted of households surrounding the geographic market areas of selected convenience stores in the town of Christiansburg, Virginia. The selected geographic areas were of sufficient density of homes to collect an appropriate number of responses while allowing for some households to refuse to participate. The sample was to be drawn from the total number of households without concern for the size or make-up of the household. However, due to an unusual and lengthy period of severe cold weather during the planned collection period the data were collected from households in six different residential areas within the town of Christiansburg, Virginia and from four

administrative and service offices within Virginia Polytechnic Institute and State University.

Each of the six residential areas were within the geographic market area (one to three miles) of a convenience store. An observation of the homes and apartments in the six areas and the advice of real estate agents suggested that the six areas could be grouped into two neighborhoods.

The four administrative and service offices were selected on the basis of population counts. The responses of the office personnel compared favorably to the data collected from the residential areas. The respondents included clerical and managerial personnel and they were grouped into two "neighborhoods" based on the location of their offices. The registrar's office and the student advisory services constituted a third "neighborhood" and the personnel department and the purchasing department formed a fourth "neighborhood".

The two samples, residences and office personnel were compared to determine whether they were from the same population. The mean responses on 79 variables from the residential respondents were compared to the mean responses from the respondents in the university offices. The 79 variables used a seven point Likert scale. A t test was used. The mean responses showed no significant differences on 76 of the 79 variables.

The income responses for each constituted neighborhood were viewed as a surrogate measure of the socioeconomic status of the neighborhood. The income measure and a measure of the rates of patronage of the convenience store were used in additional tests to determine whether the university personnel represented a different population than the

residential respondents. A X^2 test was performed on the income responses and on the convenience store patronage rates among the four constituted neighborhoods.

The test of income resulted in a X^2 of 21.09, $p = .049$, indicating that the four neighborhoods were heterogeneous as to income levels. This was acceptable because one intent in the sampling plan was to achieve a cross section of income levels. The test of the convenience store patronage rates among the four neighborhoods resulted in a X^2 of 14.42, $p = .28$, indicating that there is no neighborhood effect on the rates of patronage of the convenience store. The data from the two samples were pooled and treated as one data set for analysis in this study. All references to neighborhoods in this study refer to the four constituted neighborhoods described above. Table 16 shows the demographics of the pooled sample.

Sampling Unit

The sampling unit was the adult within the household who identified herself or himself as being the person most responsible for the acquisition of the grocery products purchased by the household.

Sampling Method

The sampling method was a convenience sample. It was a nonprobability sample. The sample was a fixed size as determined in the

TABLE 16

DEMOGRAPHIC PROFILE OF RESPONDENTS

Gender	n	%			Housing Status	n	%
Female	184	84			Renter	71	33
Male	34	16			Owner	144	66
Totals	218	100			Omitted	3	1
						Totals	218 100

Age Distribution	n	%			Type of Home	n	%
25 or less	28	13			Mobile Home	9	4
26 to 35	55	25			Apartment	18	8
36 to 45	49	22			Townhouse	17	8
46 to 55	43	20			Duplex	32	15
56 to 65	26	12			House	142	65
over 65	17	8			Totals	218	100
Totals	218	100					

Household Membership				Education		n	%
Number Adults	Number Of Children						
	0	1	2	3	4	5	
n							
1 33	24	8	1				Less than high 2 1
2 157	81	34	32	7	2	1	High School 66 30
3 21	13	7	1				Comm College 25 12
4 6	4	1	1				Some College 55 25
5 1				1		College Grad 40 18	
Tot 218	122	50	35	8	2	1	Grad Degree 30 14
						Totals 218 100	

Income	n	%			Employment	n	%
Under \$15,000	16	7			Employed	167	77
15,000 to 29,999	43	20			Not Emp	18	8
30,000 to 44,999	61	28			Retired	34	11
45,000 to 59,999	51	23			Student	9	4
60,000 & above	34	16			Totals	218	100
No Response	13	6					
Totals	218	100					

following section on sample size and was determined to accommodate a specified alpha level, power level and effect size. The sample unit respondent was selected by single unit sampling. That is, each of the residential and office neighborhoods were sampled by canvassing the households and individuals and offering a questionnaire to each household and person willing to participate. Data collection was stopped when a sufficient number of responses were obtained.

Sample Size

The sample size was determined to support the three values of an alpha level, a desired effect size, and a power level (Churchill 1983; Cohen 1977; Rosenthal and Rosnow 1984). The alpha level, the likelihood of rejecting a true null hypothesis (Type I error), was set at .05 in order to give a rigorous standard for null hypotheses rejection. The .05 level has, "come to serve as a convention," in behavioral science measures (Cohen 1977, p. 12).

The effect size is the degree to which the phenomenon under study is present in the population or the degree to which the null hypothesis is false (Cohen 1977). The effect size is further classified as being either small, medium or large. A small size means that the independent variable's influence on or value in predicting the dependent variable is small or will be difficult to detect. Cohen (1977) observes that in prior behavioral research the ability to detect relationships has been small. He notes that a small effect size ($r = .10$) has been the usual result.

However, Cohen gives an argument for using a medium effect size of $r = .30$ when planning research. Rao and Monroe (1988) found an association for eta squared of .142 between brand name and perceived quality to be significant for the average of fourteen studies. The association of brand name with other variables is one of the relationships being studied here and these results support a medium effect size estimate in determining the sample size.

Power is the probability of not making a Type II error (failing to reject the null hypothesis when it is false). The major purposes of power analysis are (1) the planning of research and (2) the evaluation of research already completed. The planning of a power analysis for product-moment correlation is appropriate to determine the size of the sample necessary while also achieving a given alpha level (Rosenthal and Rosnow 1984). The power level in this study was set at .80 as recommended (Cohen 1977).

The correlation coefficient (r) using an alpha level of .05, a medium effect size of $r = .30$, and a power level of .80 requires a response from 85 households. The effect size index d , for the t test, requires a response of 65 for each of the convenience store user and nonuser groups (Cohen 1977; Rosenthal and Rosnow 1984). This would require an input from 130 households. The need for an adequate sample for the regression analysis and principle components analysis requires the use of a sample of about 150 (Guadagnoli and Velicer 1988; Stevens 1986, 1992). Progressive Grocer's figure of a 45% rate of convenience store users among

supermarket patrons equates to an observation of 144 grocery patrons (the t test = $65/.45 = 144$).

Gaudagnoli and Velicer (1988) advise the researcher to select variables that will be good markers for a component. The selected variables should define a particular component and should load highly. The benefit of prior research and a test of the research instrument should enhance this. Gaudagnoli and Velicer (1988) specifically cite Velicer, Peacock, and Jackson's (1982) research that shows a sample of 144 to be "quite good." To provide an adequate response it was decided that a minimum of 200 responses should be attained. The desired response of 200 households, given an estimated rate of participation of 30%, means that the areas to be canvassed must contain a total of 667 households. Door-to-door delivery and collection of questionnaires was planned to allow a close observation of the return rate and insure that the required number of responses would be achieved.

Sampling Plan

The sampling plan consisted of selecting the neighborhoods to be surveyed. Neighborhoods were within the geographic market radius of a convenience store and the office areas were selected on the basis of population counts of adults (adults being the target population). The residential areas were selected so as to give representation of three different socioeconomic levels. The responses from the office "neighborhoods" were compared to those from the residential areas to

determine whether the data were from significantly different populations. t tests on 79 variables produced differences on three variables. The t test results were considered as indicating no significant differences between these groups and the data were pooled.

The basis for determining the socioeconomic levels in the neighborhoods was the prices of houses and the monthly rent rates for apartments. The home prices and rents that identify the socioeconomic level of each of the three neighborhoods were determined in consultation with two different real estate and rental agencies. The actual sample unit was selected when the household member agreed to participate during the process of hand delivering the survey instrument. The office neighborhoods were canvassed in a similar manner with the test for socioeconomic variation being accomplished by observing the demographic data that were collected.

Selecting The Sample

The calculations above determined a need for 667 households in the total sample from which 30% would respond to the request to complete a questionnaire. The neighborhoods were to be of low, medium, and high socioeconomic status as measured by rents and home prices.

All households in the selected neighborhoods were given a letter (delivered by hand) explaining the nature of the survey and soliciting their future cooperation. Selecting the sample was accomplished by personally delivering questionnaires to the households and individuals

in each neighborhood. The questionnaire was left at the residence or with the individual after it is determined that the sample unit was willing to participate. A log was maintained of the addresses of participants so the questionnaires could be retrieved and to allow for continued sampling to achieve an adequate response rate. Questionnaire responses were anonymous but the address of each respondent was marked on completed questionnaires after they were retrieved to allow for follow-up questions during data analysis, if necessary, and to obtain responses when omissions were discovered.

QUESTIONNAIRE DEVELOPMENT

The questionnaire was developed by observing prior studies and adopting questions that proved to be successful in the past. Studies that measured images of stores, shopping attitudes, shopping behaviors and related shopping issues were perused. The shopper typology studies listed in Table 10 and Table 15 were particularly valuable for obtaining measures of attitudes and behaviors. The criteria for the selection of a primary supermarket were taken from Progressive Grocer's annual survey of grocery shoppers which is reported in the April issues each year. The attitude, interest and opinion measures were taken from a number of sources since these measures have been widely used. Additional questions were developed, first hand, to measure price attitude (Trust) and the evaluation of the primary supermarket. Original questions were also developed to measure the frequency of patronage of the supermarket, the

evoked set size, and the frequency of patronage of the convenience store. The measures of the general attitude toward convenience stores and the evaluation of the primary convenience store (for patrons) were mirror images of the questions that measured the attitude toward stores (supermarkets) and mirror images of the questions that measured the evaluation of the primary supermarket, respectively. The Handbook of Marketing Scales (Bearden et al. 1993) was useful. This source was perused thoroughly for questions, clues and indicators for the development of questions.

The questionnaire was tested in Christiansburg, Virginia following the procedures described under Data Collection in Chapter 4. Letters were delivered (see the Appendix) to 150 residences and a door-to-door canvass was conducted to solicit participation. The test collection was discontinued after 30 questionnaires were completed.

The survey instrument was discussed with cooperative respondents and specific questions were discussed. Respondents were asked to reveal any questions or instructions they thought were confusing or vague. For the most part the participants understood the questions and had little difficulty completing the questionnaire.

A limited data analysis was conducted and the questionnaire was reviewed, altered and corrected based on the comments of respondents and observed omissions. The final questionnaire was prepared and used in the formal survey. The questionnaire is shown in the Appendix.

VALIDITY ISSUES

The literature generally recognizes four types of research validity (Cook and Campbell 1979). Each type of validity is concerned with a different aspect of the information content of research study results. The four types are (1) internal validity, (2) construct validity, (3) external validity, and (4) statistical conclusion validity. It is widely acknowledged that validity is essentially an ideal state to be pursued but not likely to be attained (Brinberg and McGrath 1985). It is also accepted that all research methods are flawed to some degree (McGrath and Brinberg 1983). A discussion of the various validity issues as they impact this study follows.

Internal Validity

Internal validity is concerned with the issue of causal relationships among the variables that have been measured and found to covary (Cook and Campbell 1979). In this study no attempt is being made to find or conclude that a causal relationship exists. This study seeks to establish, as an exploratory effort, a correlation between the variables and the choice of a store. This study also seeks to describe the variant shoppers that use the supermarket and the convenience store. The threats of maturation of respondents, familiarity with a test, assignment to experimental groups, and other experimental concerns as outlined by Cook and Campbell are not a concern here because no attempt

will be made to establish dependency of any variables or to manipulate respondents.

Construct Validity

Construct validity is concerned with the extent to which a particular measure relates to the theoretical variables under examination (Carmines and Zeller 1979). Cook and Campbell (1979) argue that construct validity depends on testing for the convergence of measures across different measures and testing for a divergence between measures of related but different "things".

Reliability is one test of the internal consistency of a measurement instrument (Carmines and Zeller 1975; Peter 1979). Reliability is a necessary, but not sufficient, condition for validity (Carmines and Zeller 1979; Nunnally 1970; Peter 1979). One widely used test of reliability which will be used in this study is Cronbach's (1984) Alpha.

Construct validity ideally would include tests of nomological validity in addition to a test of trait validity (reliability) (Carmines and Zeller 1979; Peter 1981). However, the theory and the nature of the constructs being investigated determine whether empirical results support or invalidate measures in nomological tests (Peter 1981). Nunnally (1970) suggested that the validity of the measure should be judged by the character of the plan and by the skill with which the plan is carried out. Two major standards for ensuring such validity were recommended. The first is a representative collection of measurement items and the second

is a sensible method for instrument construction. In this study the variables will be drawn from prior research efforts and the instrument will be tested for its ability to gather representative data.

Regression analysis will be performed as part of the data analysis. This study will seek, in part, to support the findings of patronage behavior influences revealed by Monroe and Gultinan (1975). However, it is recognized that construct validation is an ever-extending process (Cronbach 1971), therefore, a single study does not establish construct validity (Peter 1981).

External Validity

External validity is concerned with the degree to which the results of a particular study can be generalized to populations (Cook and Campbell 1979). Since this research is an effort to explore the nature of the patrons of convenience stores and contrast the behavior of the sample of patrons to their behavior in grocery shopping the likelihood of the generalizability of the findings is remote and not a part of this effort. This research is a beginning effort in the study of grocery patronage and its link to other store forms. Sufficient evidence suggests that the application of findings to other markets is not valid (Hirschman et al. 1978; Hirschman and Stampfl 1980).

Generalizability includes the act of extending the results of the research across the population being sampled. It also means generalizing the results across methods, situations, settings, and many varied

background factors. No single research effort can produce results that can be generalized across all populations (Lynch 1983; McGrath and Brinberg 1983).

Statistical Conclusion Validity

Statistical conclusion validity is concerned with the extent to which the statistical tests are capable of detecting postulated relationships (Cook and Campbell 1979). This validity, stated narrowly, is concerned with the power of the statistical tests and the ability to make inferences about the covariation of variables given a specified alpha level (Calder et al. 1982; Cook and Campbell 1979).

Cook and Campbell (1979) warn of the threats to statistical conclusion validity such as; low statistical power, reliability, error problems, experimental setting and heterogeneity of respondents. These threats have been addressed in this research in several ways.

Power, effect size and the alpha level have been included in a power analysis to insure an adequate sample size. A reliability test will be conducted as noted above to test for the convergence of measures. Prior studies offer insight into the choice of measurement variables. The experimental setting has been evaluated for its appropriateness in responding to a grocery survey. The geographic areas to be sampled will be selected to insure homogeneity in the use of convenience stores.

Summary of Validity Issues

Since some trade-offs are inevitable in the control for the various validity types it is unrealistic to expect that a single piece of research effectively answer all of the validity questions surrounding even the simplest relationships (Cook and Campbell 1979). This study will employ a reliability check and multiple measures of variables which have shown positive results in prior studies.

CHAPTER IV

FINDINGS

OVERVIEW OF CHAPTER IV

Chapter IV begins with a discussion of the data collection followed by an explanation of the determination of the status of the respondent as a supermarket patron or nonpatron and as a convenience store patron or nonpatron. Patronage status determination includes a classification by the rate of frequency of patronage for patrons of the convenience store. These discussions are followed by an explanation of the determination of constructs, discussions of the hypotheses tests and presentations of the findings. The final sections of Chapter 4 include a section on Other Findings and a summary of the hypotheses findings.

DATA COLLECTION

The data for this study were collected during the period December 1, 1993 through March 25, 1994. The data were collected from households in six different residential areas within the town of Christiansburg, Virginia and, due to an extended period of unusually cold weather, four administrative offices within Virginia Polytechnic Institute and State University.

Each of the six residential areas which were within the geographic market area (one to three miles) of a convenience store. Observation of the homes and apartments in the six areas, advice of real estate agents, and the responses to rent rates and home market value questions indicated that the six areas could be grouped into two neighborhoods.

Approximately fifty percent of the households were not at home or did not respond to knocks and door-bells. Of the households that responded to knocks and door-bells the rate of agreement to participate was 87%. A total of 141 questionnaires were collected from 162 households answering their doors out of a total of 330 households that were approached.

An additional 77 questionnaires were collected from 80 people who were canvassed in four different administrative offices at Virginia Polytechnic Institute and State University. The four offices constituted two additional "neighborhoods" as explained above under Sampling Frame. These respondents were asked if they lived near a convenience store or travelled past a convenience store on their way to work before being given a questionnaire. A question asking the respondents to name the convenience store they patronized most often provided an additional check on the availability of a convenience store. Given the proliferation of convenience stores all respondents met both criteria. Respondents were advised to take the questionnaire home in cases where the spouse or another member of their household was the primary grocery shopper. The response rate was 96% prompted by a willingness to help one of their own and the offer of a lottery ticket.

All potential respondents were given a letter (delivered by hand) explaining that the survey was a grocery survey and advising the household that a questionnaire would be hand delivered during a particular period of days (see the Appendix). The letter explained that the questionnaire should be completed by the individual in the household who had the primary responsibility for grocery shopping. Upon delivery of the questionnaire each person who agreed to participate was advised, verbally, that the questionnaire should be completed by the individual in the household who had primary responsibility for grocery shopping. The questionnaire instructions contained an advisory in the second sentence that the questionnaire should be completed by the person in the household who had primary responsibility for grocery shopping.

The letter explained that the respondent would be asked to complete the questionnaire in an allotted time. The questionnaire was hand delivered and then collected at an agreed upon time allowing sufficient time for completion. Questionnaires were either collected later on the day of delivery or on the next day. Upon collection some respondents were not at home or had forgotten the task. In those cases a new collection time was agreed upon.

Upon initial contact each respondent was advised that they would be offered the choice of a State of Virginia Lottery ticket or a dollar if they completed a questionnaire. The lottery ticket was selected 211 times, the dollar five times, and five people declined their incentive. Eight questionnaires were left at residences due to absences upon repeated returns for collection. A total of 221 questionnaires were collected with

218 being completed correctly. Three were discarded due to improper completion.

The questionnaires were examined when they were collected to insure completion (several questionnaires were left on door-steps and did not afford follow-up). Respondents were asked about any omissions of data and the data collector assisted in recording the additional responses. Some households refused to respond to questions on income, rent prices, and the market value of their homes. Overall the personal collection greatly reduced the number of omitted answers and insured that the respondents did not delay in completing the questionnaire.

This collection method also allowed for an efficient means of getting the required number of respondents. A record of the addresses of participants, refusals and those not-at-home was kept. The record facilitated the returning to the neighborhoods for additional respondents and insured that no household was sampled more than once.

PATRONAGE RATE DETERMINATION

The shopper's patronage status and rate of patronage of both the supermarket and the convenience store are central to the findings and discussions in this research. The process by which the respondent was classified as to use user status and patronage rate follows.

Respondents were asked to report the period of time in which they referenced their supermarket visits and the frequency of their visits. The following question measured supermarket patronage frequency:

How often do you or a member of your household go to a supermarket?
____ Weekly, How many times? ____ Quarterly, How many times? ____
____ Monthly, How many times? ____ Yearly, How many times? ____
____ Other, Please explain_____.

The measure of convenience store patronage included questions on the use of the convenience store for gasoline purchases and a measure of the patronage frequency when not buying gasoline. The measures were:

How often does a member of your household buy gasoline at a convenience store? (Check one period and fill in the number of times)
____ Weekly, How many times? ____ Quarterly, How many times? ____
____ Monthly, How many times? ____ Yearly, How many times? ____
____ Household members do not buy gasoline at convenience stores.

How often does a member of your household go to a convenience store when not buying gasoline? (Check one period and fill in the number of times)

____ Weekly, How many times? ____ Quarterly, How many times? ____
____ Monthly, How many times? ____ Yearly, How many times? ____
____ Household members NEVER go to convenience stores.

The use of the supermarket and convenience store was measured for the household unit as reported by the individual most responsible for grocery shopping.

The responses were used to compute an annual frequency count for each respondent who was then classified as to patronage rate as indicated in Table 17. A rule-of-thumb of once or twice a week as a moderate rate was employed. The break-points for the categories were determined after observing the distribution of annual frequency counts.

TABLE 17

**GROCERY SHOPPER PATRONAGE STATUS AND PATRONAGE
RATE CLASSIFICATION CRITERIA**

PATRONAGE FREQUENCY	SUPERMARKET AND CONVENIENCE STORE PATRONAGE RATE
Three times a week or more	Heavy
Four times a month to fewer than three times a week	Moderate
Fewer than four times a month	Light
Less than once a month	Nonuser*
Declares self as nonuser	Nonuser*

* Shoppers with this patronage rate are given a status of nonpatron all others are patrons.

The sample of supermarket patrons included 217 patrons and one nonpatron. The sample was also classified as to convenience store patronage status. There were 134 patrons of the convenience store and 84 nonpatrons. The patrons were further classified as either heavy, moderate or light users. There are 68 heavy users, 49 moderate users, and 17 light users.

Initially the nonpatrons fell into one of two groups, that of gas-only or nonuser. The gas-only convenience store patrons were compared to the patron group and the nonusers. T test comparisons were made on 14 measures of their attitudes toward convenience stores. The t test results indicated that the gas-only patrons held attitudes regarding convenience stores similar to those of the nonusers. They were pooled with the nonusers. The resulting groups were patrons and nonpatrons. The sample has a patron rate for convenience stores of 61.5% and a nonpatron rate of 38.5%. The proportion of patrons is higher than the 45% figure reported annually by Progressive Grocer.

This study focuses on the differences in the attitudes and behavior of the two convenience store patronage groups relative to the supermarket and the convenience store.

HYPOTHESES TESTING

This section begins with an explanation of the method by which the constructs were developed. The determination of construct makeup is the necessary first step. The construct discussion is followed

by discussions of the tests of the hypotheses in the sequence in which the hypotheses were first stated. Each discussion begins with a restatement of the hypothesis, explains which statistical methods were used, presents the findings and gives a conclusion.

Construct Determination

The data were first analyzed by principle components analysis and factor analysis procedures to reduce the data set to a more manageable number of constructs. Table 18 shows the nine constructs that resulted, their alpha values as a result of Cronbach's alpha test, and a description of the variables used to measure each construct. The alpha values range from a low of .53 to a high of .85 showing both strong and weak constructs. Three of the nine constructs are revisited from Monroe and Gultinan (1975) and six are newly developed constructs. Pessemier (1980) observed that in the early stages of basic research, reliabilities (alphas) of .50 to .60 are sufficient. Changes in the behavior of grocery shoppers over time suggests that constructs may essentially take on new meanings.

The constructs of General Attitude Toward Grocery Shopping, Perception of Primary Store Attributes, Planning and Budgeting, and Attitude Toward Stores that were found in Monroe and Gultinan's (1975) study were repeated in the results here. However, the alpha levels showed two constructs to be in the low range. The Planning and Budgeting construct had an alpha of .53 with the construct loading

TABLE 18

CONSTRUCTS AND THEIR CRONBACH ALPHA VALUES

CONSTRUCT	CONSTRUCT MEASURES	ALPHA VALUE
General Attitude Toward Grocery Shopping	<ul style="list-style-type: none"> • Attitude toward shopping for bargains • Attitude toward seeking specials • An evaluation of the use of time in searching for bargains 	.72
Information Search	<ul style="list-style-type: none"> • The use of the advertising sheets mailed to homes and offered upon entry to the store • The value of television advertisements as serving to remind the shopper of needed grocery items during shopping planning • The use of newspaper advertisements in search for grocery shopping information 	.77
Price Attitude (Tools)	<ul style="list-style-type: none"> • The importance of the availability of price labels in the selection of a primary supermarket • The importance of the availability of unit prices in the selection of a primary supermarket • Importance of the frequency of sales in the selection of a primary supermarket • Making price comparisons as an automatic behavior • The propensity to use unit prices • The stated likelihood of increased unit price usage over past behavior 	.62
Planning and Budgeting	<ul style="list-style-type: none"> • The propensity to prepare a shopping list • The propensity to use coupons • The propensity to use a weekly budget 	.53
Attitude Toward Stores	<ul style="list-style-type: none"> • The level of agreement that supermarkets are all alike • The level of agreement that most supermarkets offer some products at low prices • The level of agreement that any supermarket is a good fill-in store • The level of agreement that supermarkets, in general, do a good job 	.59

TABLE 18 (CONTINUED)

CONSTRUCTS AND THEIR CRONBACH ALPHA VALUES

CONSTRUCT	CONSTRUCT MEASURES	ALPHA VALUE
Perception of The Primary Supermarket	<ul style="list-style-type: none"> • An evaluation of the product assortment • An evaluation of the brand assortment • An evaluation of the store brand assortment • A rating of the fairness of the store's prices • An rating of trust in the store to have quality products • The level of belief that store personnel would make an extra effort to accommodate • The extent to which the shopper identifies with other patrons • The extent to which the shopper identifies with the supermarket workers 	.85
Price Attitude (Trust)	<ul style="list-style-type: none"> • The degree of preference for everyday low prices over weekly specials • The degree of preference for everyday low prices over searching for bargains • The level of trusting a store to have fair prices versus bargain hunting • The level of trusting a store to have quality products versus bargain hunting 	.84
Situation (Reverse Scored)	<ul style="list-style-type: none"> • The degree to which a trip to purchase groceries between major grocery shopping trips disrupts the shopper's routine • The degree of time pressure felt when required to purchase groceries between major grocery shopping trips 	.67
Brand Attitude	<ul style="list-style-type: none"> • The propensity to buy national brands • The level of agreement that brand name implies quality • The importance of store brand quality in the selection of a supermarket to patronize (reverse scored) 	.79

only three of the original five variables omitting the variables that measured information search. The budget variable joined the preparation of a shopping list and the use of coupons variables to form the Planning and Budgeting construct. The low alpha of .53 may be explained by the low average response of 3.8 (n=218) on the budget measure. This compares to means of 5.1 and 5.4 on preparation of a shopping list and the use of coupons respectively. The Attitude Toward Stores which loaded all four variable measures resulted in an alpha of .59. The General Attitude Toward Grocery Shopping construct had an alpha of .72 while loading three of the original five measures. The construct, Perception of Primary Store Attributes, achieved an alpha of .85 and loaded all eight of the variable measures. The five additional constructs that emerged from the principle components and factor analyses were Information Search with $\alpha = .77$, Price Attitude (Tools) with a low α of .62, Price Attitude (Trust) with $\alpha = .84$, Situation with a low α of .67, and Brand Attitude with an α of .79.

The variables that measured Information Search in this study were incorporated into the Planning and Budgeting construct in the original study by Monroe and Gultinan (1975). In this study the planning of the grocery shopping effort did not meld into a single measure. If these variables had remained "in-step" the four constructs that were repeated would have been close to the original Sequence of Effects Model. The low alpha value of .53 for Planning and Budgeting compared to an $\alpha = .77$ for the Information Search construct suggests that the activity of planning has changed over

time. Changes in shopping behavior may be caused by changes in the structure and makeup of households and family units.

The Price Attitude (Tools) and Price Attitude (Trust) constructs reflect variable measures of (1) activity in the shopping process and (2) price issues that impact upon the shopper's evaluation of the primary supermarket respectively (Table 18).

The Sequence of Effects Model Hypotheses 1a and 1b

The hypotheses that addressed the sequence of effects model stated that the choice of a primary supermarket is influenced by the variables: (1) general opinion regarding shopping, (2) the perception of the primary store attributes, (3) the strategy for planning and budgeting, (4) the attitude toward stores, and (5) the evoked set (H1a). The extended portion of the model called for three constructs to impact the Perception of the Primary Store. The constructs (1) price attitude, (2) situation influence, and (3) product and brand attitude, were expected to be related to the Perception of the Primary Store attributes (H1b).

The A Priori Model

The discussion on construct development, above, noted that the information search measures evolved as a separate construct whereas they had been included in the Planning and Budgeting construct in the

original study. The additional Information Search construct was incorporated into the a priori model as shown in Figure 6.

The six constructs, General Attitude Regarding Shopping, Perception of the Primary Store, Information Search, Planning and Budgeting, Attitude Toward Stores, and the Evoked Set were tested for their relationships using regression analysis. The test was to determine whether the Sequence Of Effects Model remains valid for explaining the store choice process.

Scale measures were determined for the model constructs by averaging the responses on the variables that measured each construct as indicated in Table 18. The a priori extended model was modified after the construct development process (principle components analysis and factor analysis) produced the Information Search construct separate from the Planning and Budgeting construct. Table 19 shows the regression statistics for the test of the a priori model.

The data in Table 19 show that the model as given in Figure 6 does not show resilience. The constructs General Shopping Attitude and Perception of the Primary Store show a relationship of $R^2 = .04$, $p = .01$, ($r = .20$, a small to medium effect) with the Planning and Budgeting construct. The General Shopping Attitude and Perception of the Primary Store constructs show a stronger relationship with the newly found Information Search construct of $R^2 = .18$. This R^2 equates to a value of $r = .42$ which approaches the large effect size of $r = .50$ (Cohen 1977).

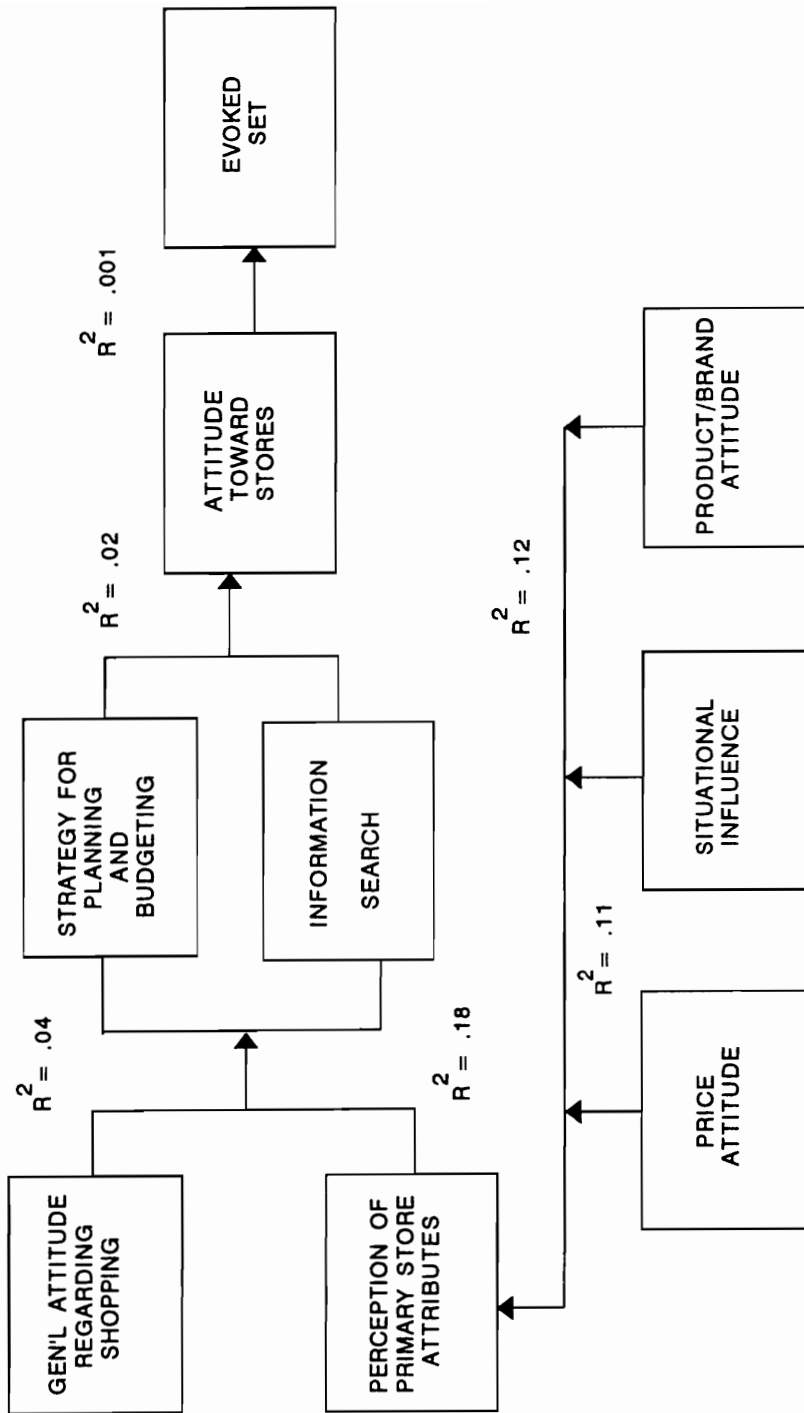


FIGURE 6. A PRIORI SEQUENCE OF EFFECTS MODEL

TABLE 19

**REGRESSION STATISTICS FOR THE A PRIORI
SEQUENCE OF EFFECTS MODEL**

INDEPENDENT VARIABLE	DEPENDENT VARIABLE				
	PRIMARY STORE EVAL	INFO SEARCH	PLAN & BUDGET	ATTITUDE TOWARD STORES	EVOKED SET
Attitude Toward Stores					β -.04 B -.03 t -.46
Plan & Budget				β .11 B .14 t 1.97	
Info Search				β .00 B .01 t .10	
General Shopping Attitude		β .40 B .32 t 5.10	β .14 B .14 t 2.13		
Primary Store Eval		β .45 B .24 t 3.77	β .19 B .13 t 1.86		
Price (Trust)	β .18 B .26 t 4.03				
Situation Influence	β .13 B .25 t 3.80				
Brand Attitude	β .07 B .10 t 1.58				
R ²	.12	.18	.04	.02	.001
F	9.95	23.61	4.71	2.18	.21
df	3	2	2	2	1
p	.0001	.0001	.01	.115	.65
R ² adj	.11	.17	.03	.01	-.004

The relationship of the Planning and Budgeting and Information Search constructs with the Attitude Toward Stores is $R^2 = .02$, $p = .115$. This shows a failure to demonstrate a relationship at the .05 level. The Information Search construct has no impact on the Attitude Toward Stores construct as reflected by the β and B values of .00 and .01 respectively (Table 19). In a separate test the Planning and Budgeting construct, as a single independent variable, showed a value for R^2 of .02, $p = .04$ ($r = .14$, a small effect) with the Attitude Toward Stores construct as the dependent variable.

A meaningful relationship between the Attitude Toward Stores construct and the Evoked Set size also failed to materialize. The R^2 of .001, $p = .65$, indicates that no relationship exists between these two constructs. (The Evoked Set construct is tested further in hypothesis 16.)

The Extended Model

The extended a priori model viewed the Price Attitude (Trust), Situational Influence, and Brand Attitude constructs as impacting the Perception of the Primary Store. Table 19 shows $R^2 = .12$, $p = .0001$, a medium effect size of $r = .35$. However, not shown in Table 19 are the p values for the individual t values for the constructs. Separate tests for the Brand Attitude construct showed a t value of 1.58 ($p = .12$) while Price Attitude (Trust) and Situation Influence showed $t = 4.03$ ($p = .0001$) and $t = 3.80$ ($p = .0002$) respectively. In a separate

test Price Attitude (Trust) and Situation Influence were modeled as two independent variables for the dependent variable Perception of the Primary Store. Price Attitude (Trust) and Situation Influence gave an R^2 of .11 with both t values at .0001. The Brand Attitude construct was not considered as showing a significant effect on the Perception of the Primary Store construct because variables which do not improve R^2 by .02 or more are probably not adding to the measure (Dunn and Clark 1974). Figure 7 shows the a priori model with the Information Search, Evoked Set, and Brand Attitude constructs removed.

A correlation test was made to evaluate the relationship between Price Attitude (Trust) and Situation Influence. The relationship was found to be positive with $r = .14$, $p = .046$, a small effect. The importance of the Price Attitude (Trust) measure is related to the degree that the shopper feels time pressure and disruption as a result of the need to shop for fill-in items between major grocery shopping trips.

In another measure shoppers ($n=185$) gave an average response of 3.0, on a seven point scale, to a question about whether they ask another household member to do any required fill-in shopping. This indicates that the primary grocery shopper in the household is also the fill-in shopper in most households and Situation Influence is a valid concern.

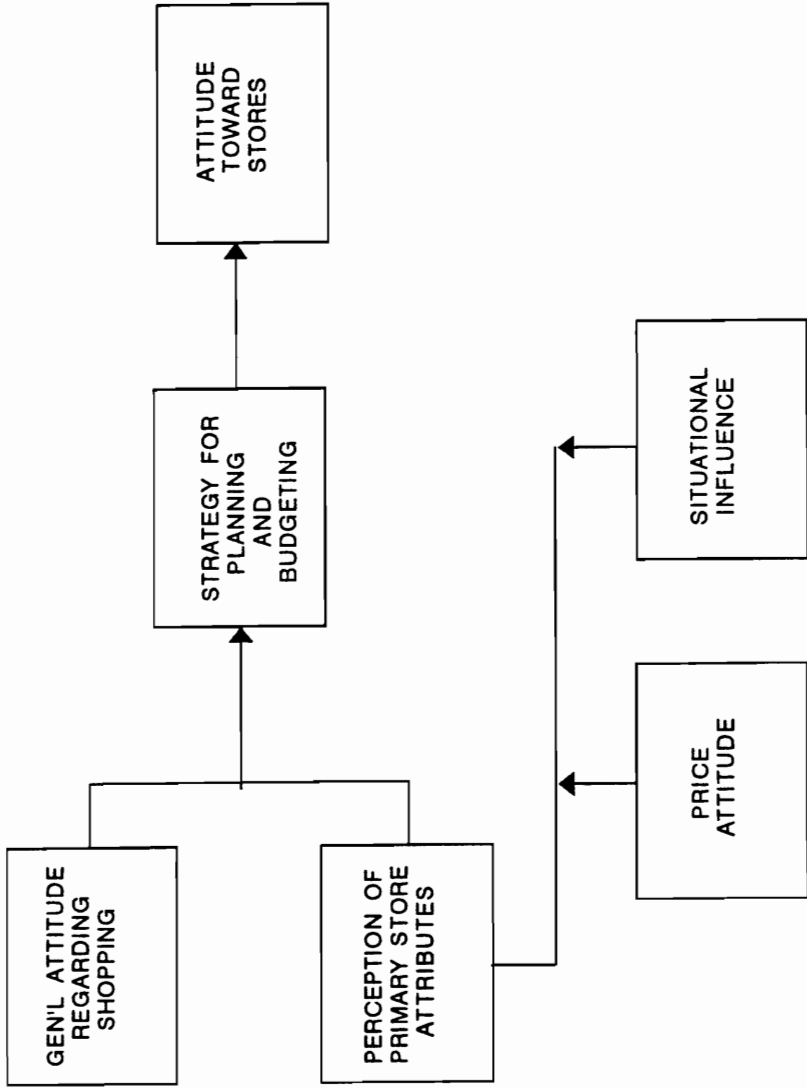


FIGURE 7. A PRIORI SEQUENCE OF EFFECTS FINAL MODEL

The Post Hoc Model

The observation that the Information Search construct was dependent on the two constructs General Shopping Attitude and Perception of the Primary Store but failed to show a relationship with the Attitude Toward Stores construct prompted an exploration of all the constructs that evolved from the principle components and factor analyses (Table 18). In addition to the Information Search the construct development produced a construct that was labeled Price Attitude (Tools). The Price Attitude (Tools) construct was not considered in the a priori model and was not tested as part of it. The Price Attitude (Tools) construct was included in the exploration efforts along with the nine constructs that were tested in the a priori model.

Stepwise regression was employed to explore for relationships among the ten constructs (nine as listed in Table 18 and the Evoked Set). Figure 8 shows the post hoc model that was developed using the ten constructs. Table 20 displays the regression statistics for the post hoc model.

The relationship between the Planning and Budgeting construct and the Attitude Toward Stores was the same as in the a priori model. The same held true for the relationship between Attitude Toward Stores and the Evoked Set as well as the relationship between the constructs that impacted on the Perception of the Primary Store. The major findings were the dependent relationships of Information Search, Price Attitude (Tools), and Planning and Budgeting.

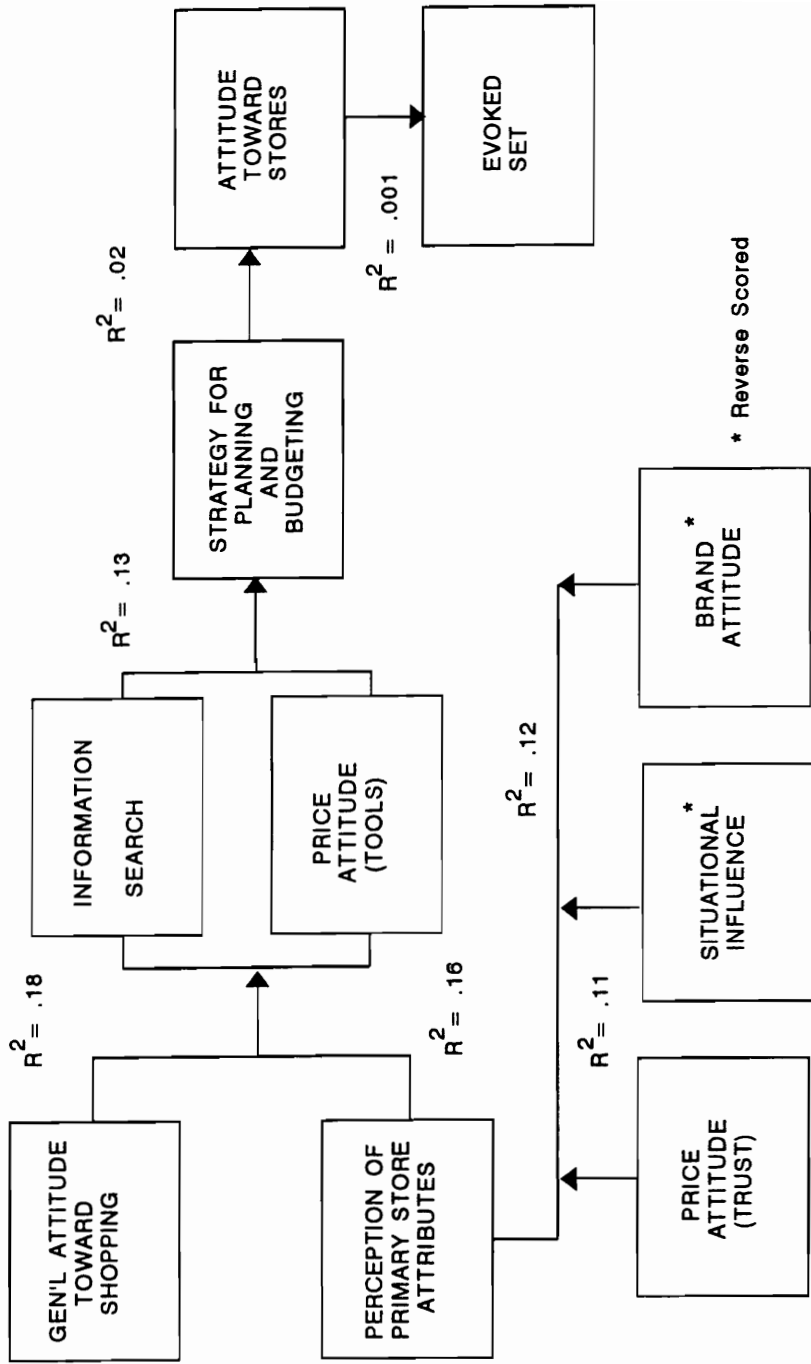


FIGURE 8. POST HOC SEQUENCE OF EFFECTS MODEL

TABLE 20

REGRESSION STATISTICS FOR THE POST HOC
SEQUENCE OF EFFECTS MODEL

INDEPEND VARIABLE	DEPENDENT VARIABLE					
	PRIMARY STORE EVAL	PRICE (TOOLS)	INFO SEARCH	PLAN & BUDGET	ATTITUDE TOWARD STORES	EVOKED SET
Attitude Toward Stores						β -.04 B -.03 t -.46
Plan & Budget					β .11 B .14 t 2.09	
Info Search				β .19 B .24 t 3.61		
Price (Tools)				β .32 B .23 t 3.45		
General Shopping Attitude		β .21 B .30 t 4.74	β .40 B .32 t 5.10			
Primary Store Eval		β .24 B .22 t 3.48	β .45 B .24 t 3.77			
Price (Trust)	β .18 B .26 t 4.03					
Situation Influence	β .13 B .25 t 3.80					
Brand Attitude	β .07 B .10 t 1.58					
R ²	.12	.16	.18	.13	.02	.001
F	9.95	20.28	23.61	16.54	4.38	.21
df	3	2	2	2	1	1
p	.0001	.0001	.0001	.0001	.038	.65
R ² adj	.11	.15	.17	.13	.02	-.004

The General Shopping Attitude and Perception of the Primary Store loaded on both the Information Search and the Price Attitude (Tools) constructs with R^2 values of .18 and .16 respectively. These R^2 values equate to $r = .42$ and $r = .40$ respectively showing effect sizes approaching the large effect size of .50 (Cohen 1977). The Planning and Budgeting construct showed a dependent relationship of $R^2 = .13$ ($r = .36$ a medium effect) with the Information Search and Price Attitude (Tools) constructs. This relationship indicates why Information Search failed to show a meaningful relationship with Attitude Toward Stores in the a priori model. Planning and Budgeting demonstrated a small effect ($r = .14$) with a value of $R^2 = .02$ with Attitude Toward Stores being the dependent variable. As in the a priori model, Attitude Toward Stores failed to show a relationship with the Evoked Set size. The impact of Price Attitude (Trust), Situation Influence, and Brand Attitude on the Perception of the Primary Store was the same as the relationships found in the a priori test model.

The SAS program used a default significance level of .15 for the entry of variables into the model. The F values were observed (Table 20) and variables that entered but showed a significance level greater than .05 were not considered as part of the final model. Scale variables that did not improve the R^2 by .02 or more were also removed from the stepwise analysis (Dunn and Clark 1974). The final regression analysis, with one exception, produced R^2 values that exceeded a p value of .000. The exception was the Planning and

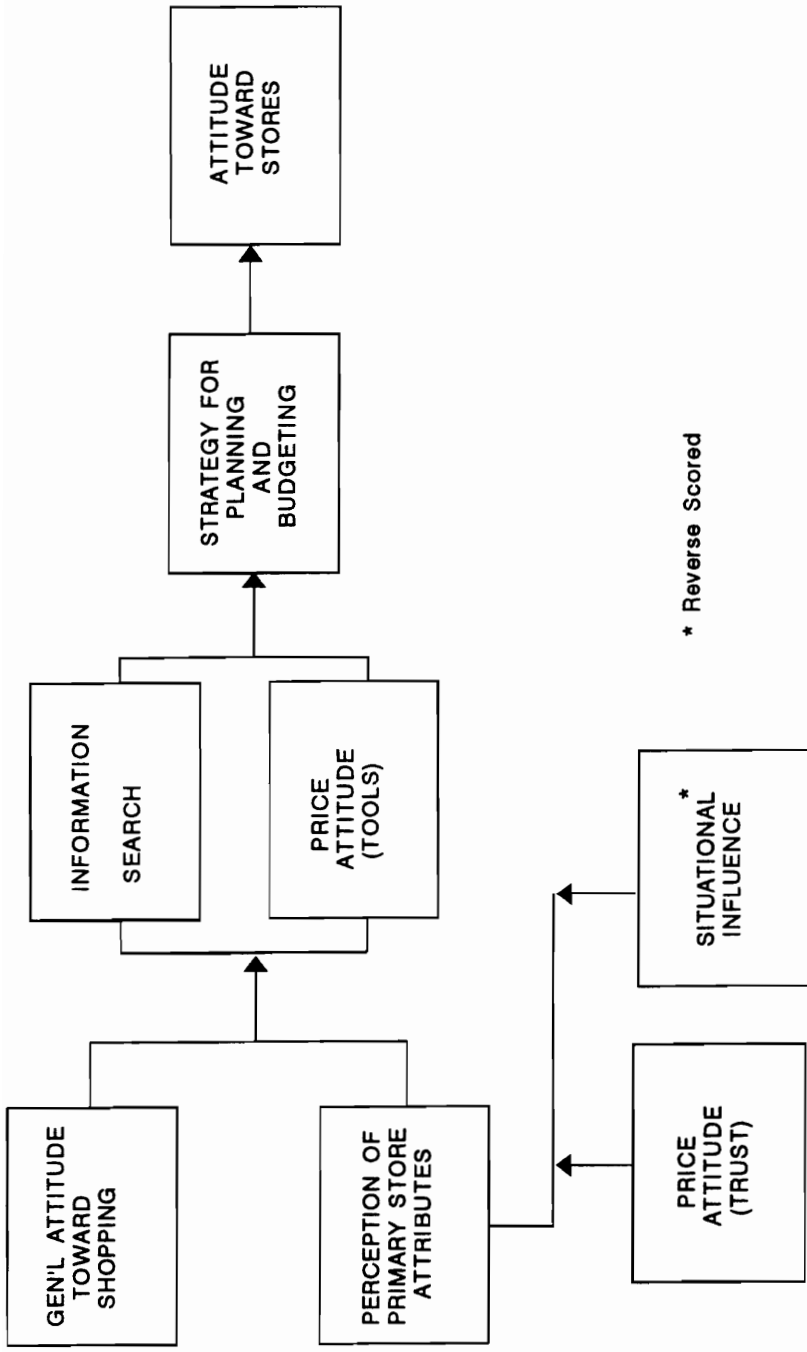
Budgeting measure which was the single measure that loaded on the Attitude Toward Stores construct at the .04 level. Figure 9 shows the final model that was considered to offer the best representation of the constructs.

Summary of Model Findings

The a priori model failed to show that it could serve as an explanation of the store choice process. The Planning and Budgeting construct evolved into two constructs, Planning and Budgeting and Information Search. The while Planning and Budgeting showed a relationship with Attitude Toward Stores the Information Search construct failed to show a relationship with Attitude Toward Stores. The Evoked Set size did not materialize as an aspect of the store choice process either. Hypothesis 1a is rejected.

The extended portion of the a priori model showed that Price Attitude (Trust) and Situational Influence both impact the Perception of the Primary Store. Brand Attitude did not demonstrate a significant relationship with the Perception of the Primary Store. Hypothesis 1b is partially accepted.

The post hoc model showed significant relationships among eight of the ten constructs that were explored. Several of the relationships showed medium to large effect sizes. The final post hoc model (Figure 9) shows promise as an explanation of the store



* Reverse Scored

FIGURE 9. POST HOC EXTENDED SEQUENCE OF EFFECTS MODEL

choice process and as an evolutionary step in the changing nature of both customer behavior and markets.

Shopper Typologies Hypothesis 2

The second hypothesis addressed the issue of clustering the sample into six typologies in a replication of the grocery shopping strategy typology found by Gultinan and Monroe (1980).

The basic question in developing a typology is how many clusters to create. Two basic approaches to determining the number of clusters are heuristic procedures and formal tests. These methods, however, are largely subjective and tend to be selected on the basis of the researcher's needs (Aldenderfer and Blaschfield 1984). Cluster analysis also fails to have an acknowledged theoretical basis or a suitable null hypothesis.

In this study the purpose for developing a typology is to replicate the prior six-level typology by Gultinan and Monroe (1980) as a basis for observing the various clusters for their membership of convenience store patrons. Given this purpose with no effort being made to determine an appropriate or optimum number of clusters in the sample, the number of clusters was specified at six.

The Typology Variables

The typology was determined by using Ward's method of cluster analysis. Ward's method was one of three methods described as outperforming other methods (Hair, et al. 1987). The frequently mentioned bias of Ward's method toward creating clusters of equal size did not materialize in this case.

The seven variable measures that were used to develop the original typology were repeated in this study. The distribution of responses on each variable measure was examined to determine whether the variable appeared to offer a good basis for discriminating. The frequency counts showed that on each of the seven variables the responses were spread across the seven point Likert scale. The seven variables appeared to offer a good basis for discriminating. There were no missing responses on any of the seven variables (n=218).

The variables used to develop the clusters were measures of the general attitude toward grocery shopping, of planning and budgeting, a measure of socialization with the primary supermarket, and a measure of the nutritional focus of the respondent. The variables were:

- I shop a lot for store specials.
- For certain brands I buy the item without making price comparisons.
- Shopping different stores for grocery bargains is a good use of my time.
- Before going shopping I prepare a shopping list.
- I budget a certain amount to spent on groceries each week.

- When I am shopping at my primary supermarket I usually see other shoppers who I know.
- I use nutritional labeling information in making my product choices.

The Typology Descriptions

The data that were used to develop the typology descriptions were attitude measures, behavior measures, and demographic measures. Scale measures were determined for the nine constructs shown in Table 18 and on the measures of socialization with the supermarket and socialization with the convenience store. The measures of personalization with the supermarket and personalization with the primary convenience store were also used in the descriptions. These scale values and measures are shown in Table 21. Selected demographic frequencies that were used in developing the typology descriptions are shown, by typology, in Table 22. Additional information from the remaining variables in the questionnaire was also used when the responses to a particular variable demonstrated a meaningful contrast or highlight regarding a particular typology. Table 23 shows the labels and descriptions given to the six shopping clusters that were formed as well as the size of the typology.

The Apathetic shopper appears to be a store avoider as indicated by the low level of interest in the shopping process. Significant for this typology is the small evoked set of grocery stores, the largest inept set (those stores the shoppers refuses to patronize) and the lowest proportion

TABLE 21

MEAN RESPONSES TO SELECTED SCALE MEASURES BY TYPOLOGY CLUSTER*

SCALE MEASURE	CLUSTER NUMBER					
	1	2	3	4	5	6
General Attitude Toward Shopping	3.6	2.6	4.8	5.5	3.3	3.9
Information Search	2.8	2.4	3.4	4.2	3.3	3.5
Price Attitude (Tools)	5.1	4.7	5.4	6.0	5.4	5.7
Planning and Budgeting	5.6	3.5	3.3	4.9	4.7	5.7
Attitude Toward Supermarkets	4.6	4.5	4.5	4.6	4.6	4.5
Evaluation of Primary Supermarket	4.7	5.4	5.7	5.8	5.5	5.6
Price Attitude (Trust)	5.1	5.9	4.9	5.0	5.5	5.8
Situation Influence	4.9	4.4	2.8	4.1	3.7	4.2
Brand Attitude	4.1	3.5	4.2	4.3	4.0	4.0
Personalization with Primary Supermarket	2.7	4.0	4.3	4.6	4.0	4.2
Socialization with Primary Supermarket	3.4	5.4	5.7	5.9	5.5	5.7
Personalization with** Convenience Store	1.8	3.2	2.6	3.5	3.1	3.2
Socialization with** Convenience Store	2.3	3.2	2.7	4.0	3.3	3.0

* On a seven point Likert scale where 1 = Strongly Disagree and 7 = Strongly Agree.

** Responses from convenience store patrons in each cluster.

TABLE 22

RESPONSE FREQUENCY FOR SELECTED DEMOGRAPHIC DATA BY TYPOLOGY

DEMOGRAPHIC MEASURE	CLUSTER NUMBER					
	1	2	3	4	5	6
Cluster Size	17	32	14	29	77	49
Gender						
Female	13	30	10	24	63	44
Male	4	2	4	5	14	5
Total	<u>17</u>	<u>32</u>	<u>14</u>	<u>29</u>	<u>77</u>	<u>49</u>
Ages						
25 or less	3	4	2	2	15	2
26 to 35	6	7	3	8	15	16
36 to 45	4	12	3	5	14	11
46 to 55	2	6	3	6	15	11
56 to 65	1	2	2	4	13	4
Over 65	1	1	1	4	5	5
Total	<u>17</u>	<u>32</u>	<u>14</u>	<u>29</u>	<u>77</u>	<u>49</u>
Income						
Under \$15,000	1	1	2	5	11	10
15,000 to 29,999	6	5	5	6	21	6
30,000 to 44,999	8	9	3	8	20	18
45,000 to 59,999	1	9	2	4	14	8
60,00 and above		6	1	6	7	2
Total	<u>16</u>	<u>30</u>	<u>11</u>	<u>29</u>	<u>73</u>	<u>44</u>
Housing Status						
Renter	12	9	6	6	21	18
Buyer	5	22	8	23	56	30
Total	<u>17</u>	<u>31</u>	<u>14</u>	<u>29</u>	<u>77</u>	<u>48</u>
Type of House						
Mobile Home		1	1	1	4	2
Apartment	1	1	2	3	9	2
Townhouse	3	2	1		8	3
Duplex	7	8	2	2	4	9
House	6	20	8	23	52	33
Total	<u>17</u>	<u>32</u>	<u>14</u>	<u>29</u>	<u>77</u>	<u>49</u>

TABLE 23

GROCERY SHOPPER TYPOLOGY DESCRIPTIONS

CLASSIFICATION	DESCRIPTION
Cluster 1 Apathetic Avoider	Low on General Shopping Attitude; lowest on information search; low on Price (Tools); lowest on primary super evaluation; high on Planning and Budgeting; dislikes shopping; low on Price (Trust); highest on Situation pressure both on time and disruption; very negative on the use of time to shop; lowest on personalization and socialization with primary supermarket; has small evoked set count; largest inept set, 77% have a store they refuse to shop in; makes fewer major trips; moderate to high use of supermarkets; lowest use of convenience stores and highest use of convenience stores for gas only; middle to low income; largest percent of renters (77%). n=17
Cluster 2 Convenience	Lowest on General Shopping Attitude and most negative about the use of time to shop; lowest on information search; low on use of Price (Tools); lowest on Planning and Budgeting and lowest on coupon use; low on evaluation of primary super; highest on Price (Trust); highest on use of national brands; prefers primary supermarket for fill-in store; low on shopping between major trips; highest percent of convenience stores users; highest on convenience store as a time saver; average on supermarket and convenience store socialization; medium to higher income; middle age groups; all neighborhoods. n=32
Cluster 3 Store Involved	High on General Shopping Attitude but negative about the use of time in shopping; average on Price (Tools); below average on Price (Trust) but high on evaluation of the primary supermarket; lowest on all aspects of Planning and Budgeting and menu planning, recipe use; lowest on Situation pressure; positive about necessary trips between major supermarket trips; no preference on fill-in store; low on information search; below average on AIO variables; lowest on concern for nutrition; moderate to heavy frequency of supermarket; prefers supermarket with high service level; above average on socialization with supermarket; next to lowest use of convenience stores; negative on socialization with convenience store; all age groups; lower income; above average number of renters. n=14

TABLE 23 (Continued)

GROCERY SHOPPER TYPOLOGY DESCRIPTIONS

CLASSIFICATION	DESCRIPTION
Cluster 4 Homemaker	Highest on General Shopping Attitude, time use, search for information, use of Price (Tools); high on Planning but low on budgeting; highest on the evaluation of the primary super but average on Price (Trust); above average on Situation pressure (time); highest on product assortment and quality at primary super; highest on personalization and socialization with supermarket; high on convenience store for saving time; second highest use rate for convenience store; highest on personalization and socialization with convenience store; even distribution across all income levels; largest percentage of homeowners (79%); even distribution across 26 to 55 age groups. n=29
Cluster 5 Task Oriented	Next to lowest on General Shopping Attitude; average use of Price (Tools); does not like to shop; high on use of shopping list and use of coupons but negative on budget use; average on evaluation of primary super, focus on national and store brands and quality; average on Price (Trust); makes fewer major shopping trips; highest on expectation of fill-in trips; low on Situation pressure; high frequency of supermarket use; large evoked set of grocery stores; 60% use convenience store; above average on convenience store as time saver; average on socialization with supermarket and convenience store; all age groups; middle income level. n=77
Cluster 6 Economic Planner	Above average on General Shopping Attitude but below on the use of time; high use of Price (Tools) and automatic comparison of prices; very high on Price (Trust); highest on the importance of shopping; highest on all variable measures in Planning and Budgeting; highest on menu planning, use of recipes; highest on use of nutritional labeling; high on national brands and trying new brands; average on information search; above average on primary store evaluation; high on Situation pressure; tries to avoid fill-in shopping; lowest on family members eating alone; fourth highest user of convenience store; middle to higher age groups; middle to lower income; full range of evoked sets (large, med, small); high school and community college. n=49

of convenience store patrons. This group has lower to middle incomes and has the highest proportion of renters.

The Convenience shopper demonstrates a lower interest in the shopping process than the Apathetic shopper but has the highest proportion of convenience store patrons. This group is the highest on the Price (Trust) evaluation of the primary supermarket and highest in the use of national brands. Convenience shoppers demonstrate the expected economic trade-off of convenience versus shopping effort reflecting the members' higher than average income. The use of convenience stores and the choice of a supermarket which they evaluate higher reduces their effort in grocery shopping. This group is older than average and is represented in all neighborhoods.

The Store Involved typology gives a high evaluation to their primary supermarket. This group also has a moderate level of interest in the shopping process. They are next to the lowest in the use of convenience stores. They frequent supermarkets at moderate and heavy rates. These shoppers appear to select a supermarket that they are comfortable with and patronize it without concern for information search and planning. This approach reduces their need to hold a large evoked set.

The Homemaker shows a high level of interest in the grocery shopping process. The group is high on all variables that involve the evaluation of the store, brand names, and in personalization and socialization with their primary supermarket. This group has the second highest percentage of convenience store patrons reflecting their above average rating on Situation Influence. This group has the largest percent of homeowners,

crosses all income levels and all age groups. These shoppers may arguably be the "core" shopper who prompts most marketing strategies and positioning efforts.

The Task Oriented shopper is generally negative on all aspects of grocery shopping but not on the behaviors that reduce the task of shopping. This shopper uses price information and relies on their selection of a primary supermarket to reduce the shopping effort. This shopper has a large evoked set of grocery stores. The group has about an average proportion of convenience store patrons. The members represent all income and age groups.

The Economic Planner is noted for the high level of planning to include making a shopping list, making a budget, planning menus and recipe use. This shopper has a below average attitude toward grocery shopping and reduces the shopping task through planning and the use of price information. The group has an average number of convenience store patrons reflecting high Situation Pressure and a desire to avoid fill-in shopping trips. This group appears to fit the stereotyped convenience store "fill-in" user. The members are middle aged to older, middle to lower income and about average (high school with some community college) in education.

Typology Comparison

On the whole the typologies compare favorably with Guitinan and Monroe's (1980) findings. Table 24 shows a comparison of the typologies

TABLE 24

SHOPPER TYPOLOGY COMPARISONS

STRATEGY ¹ TYPOLOGY	SHOPPER TYPOLOGY
Apathetic	Apathetic Avoider
Convenience	Convenience
Homemaker	Homemaker
In-store Economy	Store Involved
Involved Traditional	Task Oriented
Economy Planner	Economic Planner

1. Gultinan, Joseph P. and Kent B. Monroe (1980).

identified here with those found in the 1980 study and given in Table 11. The conclusion is that the strategy orientation approach remains a valid approach to classifying shoppers. The typologies are also valid for describing convenience store patrons.

Convenience Store Patronage Rates Hypotheses 3 through 8

Hypotheses 3 through 8 expected that the various typologies would include either patrons or nonpatrons. More specifically, certain typologies were predicted to have a majority of the members at specific patronage rates. Table 25 displays the hypothesized patronage rates for the six typologies.

The frequency of patronage rates was not supported as predicted. Table 26 shows the number of shoppers in each typology that are patrons or nonpatrons of the convenience store. The number of patrons at each frequency rate for the convenience store is also indicated by typology. Table 26 also gives the proportion of convenience store patrons for each typology cluster. Rather than each typology demonstrating a dominant use rate as predicted, each typology has heavy and moderate users and four of the six clusters have light users. Fifty percent of the 134 convenience store patrons are heavy users and 37% are moderate users. A X^2 test to determine whether a typology effect existed was unproductive. Too many cells had low counts (less than 5). The membership in a typology does not indicate any frequency of convenience store use. However, typology group membership does indicate the likelihood of being a patron or nonpatron. A X^2 test on this question resulted in a $X^2 = 18.89$, $p =$

TABLE 25

**HYPOTHESIZED RATES OF CONVENIENCE STORE USE
BY GROCERY SHOPPER TYPOLOGY**

TYPOLGY	USAGE RATES ¹
Apathetic	Heavy
Convenience	Heavy
Homemaker	Moderate
In-store Economy	Light
Involved Traditional	Nonuser
Economy Planner	Nonuser

1. Based on the number of store visits per week.

TABLE 26

**CONVENIENCE STORE PATRONAGE STATUS FREQUENCY
AND PATRONAGE RATE FREQUENCY BY TYPOLOGY**

TYPOLOGY	SIZE	NON PATRON	PATRONS			TOTAL	% OF GROUP
			HEAV	MOD	LT		
Apathetic	17	11	4	2	0	6	35
Convenience	32	4	13	11	4	28	88
Store Involved	14	9	3	2	0	5	36
Homemaker	29	9	10	8	2	20	69
Task Oriented	77	31	22	15	9	46	60
Economic Planner	49	20	16	11	2	29	59
Totals	218	84	68	49	17	134	61.5

.002. indicating that there is a typology effect on the probability of being a convenience store patron.

Table 26 shows that the Convenience typology is well above average in the proportion of convenience store patrons, 88% of the group. The Homemaker is also above average in the proportion of users at 69%. The Task Oriented and Economic Planner typologies have a slightly below average proportion of patrons (60% and 59%). The Apathetic Avoider and Store Involved typologies show the lowest proportion of patrons at 35% and 36%, respectively.

Shopping Attitudes and Store Evaluation Hypotheses 9 and 10

Supermarket patrons who patronize convenience stores were expected to give lower evaluations on their shopping attitudes, on their desire to search for information, on their use of available price information, and on their planning and budgeting activities than supermarket patrons who do not patronize convenience stores (H9).

The tenth hypothesis argued that convenience store patrons would give lower evaluations to their primary supermarket on the six variables of product assortment, brand assortment, store brand assortment, the use of the store as a fill-in source, having fair prices, and having quality products than nonpatrons of convenience stores.

The construct measures noted in Table 18 were used in a profile analysis to compare the patron and nonpatron groups to determine whether the groups hold differences as to their attitudes about grocery shopping

(H9). The measures on the six primary supermarket evaluations, given above, were used in a profile analysis to test Hypothesis 10.

In profile analysis there are three questions to be asked of the data in the following order (Morrison 1979; Stevens 1992):

1. Are the profiles parallel? If the answer is yes for two groups, it implies that one group scored uniformly better than the other on all variables.
2. If the profiles are parallel are they coincident? In other words, did the groups score the same on each variable?
3. If the profiles are coincident, are they level? Are the means on all variables equal to the same constant?

The rules for profile analysis state that a failure on any of the questions is grounds for rejection of the null hypothesis that the profiles (means) are equal (Stevens 1992).

The significance levels of the F values found on the four constructs testing Hypotheses 9 and the six-variable construct testing Hypothesis 10 are shown in Table 27.

The measures of attitude and behavior show that the patrons and nonpatrons of the convenience store are different in the value they place on Information Search in the grocery shopping process. The mean scores on Information Search were 3.1 for patrons and 3.5 for nonpatrons of convenience stores. The profile test allows a rejection of the null that the means are equal at the .05 level. The general shopping attitudes show no difference. The use of Price (Tools) and Planning and Budgeting are different for the two groups at the .088 and .057 levels respectively.

TABLE 27

COMPARISONS OF PATRONS AND NONPATRONS OF THE CONVENIENCE STORE ON THEIR ATTITUDES TOWARD GROCERY SHOPPING AND THEIR PRIMARY SUPERMARKET

CONSTRUCT	SCALE MEANS		PROFILE ANALYSIS		Sig of F value
	PATRON	NON PATRON	PARALLEL	COINCIDENT	MEANS CONSTANT
General Shopping Attitude	3.8	3.8	.48	.96	Yes
Information Search	3.1	3.5	.046*	.068	.022*
Price (Tools)	5.3	5.5	.26	.088*	Yes
Planning and Budgeting	4.6	5.0	.88	.057*	Yes
Primary Supermarket Evaluation**	5.6	5.8	.20	.031*	.062

* Reject the null that the profiles are the same at the indicated level.

** Includes only the six variables indicated in hypothesis ten.

The test of whether the patrons and nonpatrons of convenience stores give different evaluations to their primary supermarket was confirmed. Table 27 shows that the means were not coincident and the null hypothesis of equality of means was rejected at the .05 level. Aggregated scale means on the six variables that measured the evaluation of the primary supermarket were 5.6 and 5.9 for the patrons and nonpatrons, respectively. Convenience store patrons give lower evaluations to their primary supermarkets than nonpatrons of the convenience store give to their primary supermarkets.

Shopping Attitudes and Store Evaluation Among Convenience Store Patrons

Hypotheses 11 and 12

Hypothesis 11 argues that convenience store patrons with higher patronage rates would have a lower attitude on the variables of general attitude toward shopping, on their desire to search for information, on their use of price information, and on their planning and budgeting than convenience store patrons with lower patronage rates.

Hypothesis 12 makes the argument that patrons of the convenience store with higher patronage rates would give lower evaluation of their primary supermarket. The measures of product assortment, brand assortment, store brand assortment, the use of the store as a fill-in source, having fair prices, and having quality products were compared for differences.

Tables 28 through 30 show the comparisons of heavy, moderate and light users of convenience stores. The heavy users are compared to the moderate users and to the light users. The moderate users are compared to the light users. The results were mixed.

Table 28 gives the significance levels of the F values for the four constructs in question for hypotheses 11 and the six-variable construct for hypothesis 12 in comparing the heavy user patrons and the moderate user patrons of convenience stores. The two groups differ in their use of price information at the .05 level. The planning and budgeting measures were different at the .064 level with the heavy user scoring higher (H11). The heavy user scored higher on the scale mean for the price information variables but not uniformly higher on all variables. The hypothesis is rejected as the heavy user values the shopping attributes higher and no differences are shown in the other tests (H11). The evaluation of the primary supermarket was no different for the heavy and moderate user groups (H12).

The heavy and light users are compared in Table 29 on their attitudes toward grocery shopping and on the primary supermarket evaluations. These two groups exhibit differences on three constructs. The general attitude toward shopping differs for these groups at the .05 level. The profile analysis rejects the null on the basis that the means are not uniformly higher on all variables. The heavy and light groups also differ on their responses to the use of price information as measured by the Price (Tools) construct variables. These measures are significant at the .05 level in that the means are not coincident. The final difference is at the .054

TABLE 28

COMPARISONS OF CONVENIENCE STORE PATRONS WITH HEAVY AND MODERATE CONVENIENCE STORE PATRONAGE RATES ON THEIR ATTITUDES TOWARD GROCERY SHOPPING AND THEIR PRIMARY SUPERMARKET

CONSTRUCT	SCALE MEANS		PROFILE ANALYSIS		Sig of F value
	HEAVY	MOD	PARALLEL	COINCIDENT	MEANS CONSTANT
General Shopping Attitude	3.8	3.8	.61	.98	Yes
Information Search	3.2	3.2	.86	.82	Yes
Price (Tools)	5.5	5.3	.048*	.16	No
Planning and Budgeting	4.9	4.4	.93	.064*	Yes
Primary Supermarket Evaluation**	5.7	5.7	.88	.85	Yes

* Reject the null that the profiles are the same at the indicated level.

** Includes only the six variables indicated in hypothesis ten.

TABLE 29

COMPARISONS OF CONVENIENCE STORE PATRONS WITH HEAVY
AND LIGHT CONVENIENCE STORE PATRONAGE RATES
ON THEIR ATTITUDES TOWARD GROCERY SHOPPING
AND THEIR PRIMARY SUPERMARKET

CONSTRUCT	SCALE MEANS		PROFILE ANALYSIS		Sig of F value
	HEAVY	LIGHT	PARALLEL	COINCIDENT	MEANS CONSTANT
General Shopping Attitude	3.8	3.5	.035*	.28	No
Information Search	3.2	2.5	.68	.054*	Yes
Price (Tools)	5.5	4.7	.22	.002*	No
Planning and Budgeting	4.9	4.6	.58	.15	Yes
Primary Supermarket Evaluation**	5.7	5.5	.21	.31	Yes

* Reject the null that the profiles are the same at the indicated level.

** Includes only the six variables indicated in hypothesis ten.

level for information search. The heavy and light groups respond differently on the search for information but the test is at a higher level. The group means are not equal across the three variables in this construct. The heavy user patrons have a higher mean than the light users on all measures. Hypothesis 11 is rejected because the differences were expected in the opposite direction. The heavy and light convenience store patrons hold the same evaluation of their primary supermarket.

The moderate and light convenience store patrons compared in Table 30 show only one difference on the attitude measures. This difference is also at the more tolerant level of .057 on the use of price information as measured by the Price (Tools) construct variables. The general shopping attitude, the information search attitude, and the planning and budgeting responses were all well within the acceptance range. The evaluation of the primary supermarket was also well within the acceptance of a null hypothesis of no difference.

Hypotheses 11 and 12 are rejected. The various patronage groups gave different scores on the shopping attitude variables but the higher means were given by the patrons with greater patronage rates. The three convenience store patronage groups showed no significant difference in their evaluations of the primary supermarket.

Summary of Shopping Attitudes and Store Evaluation

The convenience store patrons showed clear differences when compared to nonpatrons on three of the four attitude constructs. These two groups

TABLE 30

**COMPARISONS OF CONVENIENCE STORE PATRONS WITH
MODERATE AND LIGHT CONVENIENCE STORE PATRONAGE
RATES ON THEIR ATTITUDES TOWARD GROCERY SHOPPING
AND THEIR PRIMARY SUPERMARKET**

CONSTRUCT	SCALE MEANS		PROFILE ANALYSIS		Sig of F value
	MOD	LIGHT	PARALLEL	COINCIDENT	MEANS CONSTANT
General Shopping Attitude	3.8	3.5	.23	.32	Yes
Information Search	3.2	2.5	.88	.16	Yes
Price (Tools)	5.3	4.7	.20	.057*	Yes
Planning and Budgeting	4.4	4.4	.47	.87	Yes
Primary Supermarket Evaluation**	5.7	5.5	.40	.40	Yes

* Reject the null that the profiles are the same at the indicated level.

** Includes only the six variables indicated in hypothesis ten.

are different in their response to information search and to a lesser degree they are different on the measures of the use of price information and planning and budgeting. The patrons and nonpatrons differ in their evaluation of their primary supermarket with the convenience store patrons giving lower evaluations to their primary supermarket.

Among the three rates of patronage for those shoppers who use the convenience store the differences lie only in the attitude area. The heavy users differ from the moderate users on the use of price information and from light users on general shopping attitude and the use of price information. The moderate and light users are most alike and differ only on the use of price information at the .057 level. The three groups evaluate their primary supermarkets at the same level.

Situational Influences Hypotheses 13a and 13b

Situational Influence is defined as the need to purchase grocery items between major grocery shopping trips. This variable was measured by a question as to what degree fill-in trips were disruptive and a question as to what degree the shopper felt under time pressure during fill-in trips. The patrons of convenience stores were expected to display a higher level of concern for situational influences as disruptions to their routine than nonpatrons (H13a).

The response to Hypothesis 13a is shown in Table 31. The variable that measured time pressure was found to be different for the patrons and nonpatrons of the convenience store. The mean was significantly different

TABLE 31

COMPARISONS OF THE IMPACT OF SITUATIONAL INFLUENCES
ON THE ATTITUDES TOWARD GROCERY SHOPPING BETWEEN
CONVENIENCE STORE PATRONS AND NONPATRONS

MEASURE	PATRON MEAN*	NON PATRON MEAN*	t test p value
Situation Influence Scale**	4.18	3.76	.06***
When I have to shop for groceries between major shopping trips it disrupts my routine.	3.72	3.44	.26
When I need to buy grocery items between major shopping trips I am usually pressed for time.	4.64	4.08	.04***

* On a seven point Likert scale where 1 = Strongly Disagree and 7 = Strongly Agree.

** The Situation Influence Scale is the mean of the two measures that follow.

*** Reject the null that the means are equal at the indicated level.

at the .05 level. The scale measure was significant at the .06 level. The difference can be attributed to lower responses on the question about the disruptive nature of fill-in trips. Patrons of the convenience store experience a greater level of time pressure due to Situational Influences than nonpatrons of the convenience store. Hypothesis 13a is not rejected.

Some respondents were questioned in follow-up discussions about their responses on the "disruptive" question. The lower feelings of disruption are due to the attitude of many shoppers that fill-in trips were to be expected. The measure of time pressure is a better measure. The typology descriptions (Table 23) show that while some shoppers avoid stores only the Convenience and Economic Planner typologies expressed an overt effort to avoid fill-in trips. These two typologies have the highest proportions of convenience store patrons.

Hypothesis 13b addressed the differences among the three types of convenience store patrons on the Situation Influence variables. The expectation was that Situational Influence would be greater for patrons of the convenience store with higher patronage rates. Table 32 shows the results of the analysis of variance in the responses to the Situation Influence measures among the three patron use groups. The analysis of variance showed a difference on the measure of fill-in grocery shopping disrupting the shopper's routine at the .054 level. Additional t tests were made to determine where differences in the patronage rates exist.

The heavy and moderate use patrons are compared in Table 33. The expectation that the heavy user patron would express a higher score on

TABLE 32

DIFFERENCES IN THE IMPACT OF SITUATIONAL INFLUENCES ON THE
ATTITUDES TOWARD GROCERY SHOPPING AMONG CONVENIENCE
STORE PATRONS WITH HEAVY, MODERATE AND LIGHT PATRONAGE RATES

MEASURE	MEAN RESPONSE BY PATRONAGE RATE			ANOVA RESULTS		
	Heavy	Mod	Light	F	df	p
Situation Influence Scale*	4.21	4.36	3.59	1.59	2	.21
When I have to shop for groceries between major shopping trips it disrupts my routine.	3.66	4.08	2.94	3.03**	2	.052
When I need to buy grocery items between major shopping trips I am usually pressed for time.	4.75	4.63	4.23	.53	2	.59

* The Situation Influence Scale is the mean of the two measures
that follow.

** Reject the null that the means are equal at the indicated p level.

TABLE 33

COMPARISONS OF THE IMPACT OF SITUATIONAL INFLUENCES ON THE
ATTITUDES TOWARD GROCERY SHOPPING BETWEEN CONVENIENCE
STORE PATRONS WITH HEAVY AND MODERATE PATRONAGE RATES

MEASURE	HEAVY MEAN*	MOD MEAN*	t test p value
Situation Influence Scale**	4.21	4.36	.61
When I have to shop for groceries between major shopping trips it disrupts my routine.	3.66	4.08	.19
When I need to buy grocery items between major shopping trips I am usually pressed for time.	4.75	4.63	.74

* On a seven point Likert scale where 1 = Strongly Disagree and
7 = Strongly Agree.

** The Situation Influence Scale is the mean of the two measures
that follow.

Situation Influence was not found. The t test showed no differences in the mean scores on the three measures.

The expected differences between the heavy and light users of the convenience store were also not realized. Table 34 gives the comparisons for these two user types. These two patrons hold similar views as to the extent of situation influence on all three measures.

The moderate use patron is influenced by the situation to a greater degree than the light frequency patron. Table 35 shows that the moderate patron expresses a significantly greater feeling of disruption on the occasion of fill-in shopping than the light user patron. This difference is significant at the .01 level. These two patronage types do not differ significantly on the measure of time pressure. It should be noted that the moderate patron expressed the highest feeling of disruption of the three groups. The heavy users expressed the greatest time pressure but not significantly greater than the moderate or light users.

The data do not support hypothesis 13b which states that convenience store patrons with higher rates of patronage will experience greater situational influences.

Personalization and Socialization With The Primary Supermarket

Hypotheses 14a and 14b.

It has been argued that supermarkets are organized to process customers in an efficient manner and the physical arrangement of supermarkets inhibit social interaction (Sommer et al. 1981). The

TABLE 34

COMPARISONS OF THE IMPACT OF SITUATIONAL INFLUENCES ON THE
ATTITUDES TOWARD GROCERY SHOPPING BETWEEN CONVENIENCE
STORE PATRONS WITH HEAVY AND LIGHT PATRONAGE RATES

MEASURE	HEAVY MEAN*	LT MEAN*	t test p value
Situation Influence Scale**	4.21	3.59	.15
When I have to shop for groceries between major shopping trips it disrupts my routine.	3.66	2.94	.13
When I need to buy grocery items between major shopping trips I am usually pressed for time.	4.75	4.23	.31

* On a seven point Likert scale where 1 = Strongly Disagree and
7 = Strongly Agree.

** The Situation Influence Scale is the mean of the two measures
that follow.

TABLE 35

COMPARISONS OF THE IMPACT OF SITUATIONAL INFLUENCES ON THE
ATTITUDES TOWARD GROCERY SHOPPING BETWEEN CONVENIENCE
STORE PATRONS WITH MODERATE AND LIGHT PATRONAGE RATES

MEASURE	MOD MEAN*	LT MEAN*	t test p value
Situation Influence Scale**	4.36	3.59	.053***
When I have to shop for groceries between major shopping trips it disrupts my routine.	4.08	2.94	.01***
When I need to buy grocery items between major shopping trips I am usually pressed for time.	4.63	4.23	.44

* On a seven point Likert scale where 1 = Strongly Disagree and
7 = Strongly Agree.

** The Situation Influence Scale is the mean of the two measures
that follow.

*** Reject the null that the means are equal at the indicated
level.

convenience store may offer a more informal and a more personal and social environment due to the nature of the shopping task involving smaller bundles and being of shorter duration. The frequency of patronage is also higher for convenience store patrons than for supermarket patrons thus offering a greater number of opportunities for social interaction.

Personalizing shoppers evaluate stores in terms the feeling of closeness in the relationship between themselves and store personnel. Hypothesis 14a stated that patrons of the convenience store would hold lower feelings of personalization with the supermarket than nonpatrons of the convenience store.

Socializing shoppers are defined as receiving gratification from being waited on by store personnel and affiliating with other shoppers in the shopping process. Hypothesis 14b stated that patrons of the convenience store would hold lower feelings of socialization with their primary supermarket than nonpatrons of the convenience store.

The tests of the differences in personalization and socialization with the supermarket between the patrons and nonpatrons of convenience store are shown in Table 36. The patrons of convenience stores do not express lower feelings toward their primary supermarket on personalization and socialization measures. The tests show that the mean responses on four measures were not significantly different.

Hypotheses 14a and 14b are rejected since the data do not show the patrons and nonpatrons of convenience stores to have different feeling of personalization and socialization with their primary supermarket.

TABLE 36

COMPARISONS OF PERSONALIZATION AND SOCIALIZATION
WITH THE PRIMARY SUPERMARKET BETWEEN PATRONS AND
NONPATRONS OF THE CONVENIENCE STORE

MEASURE	PATRON MEAN*	NON PATRON MEAN*	t test p value
Personalization Measure			
Seeing the people who work at my primary supermarket part of my normal routine.	3.98	4.18	.47
Socialization Measures			
Socialization Scale**	5.40	5.45	.77
The people who work at my primary supermarket would make an extra effort to accommodate me if I asked.	5.46	5.61	.37
When I am shopping at my primary supermarket I usually see other shoppers who I know.	5.33	5.27	.80
* On a seven point Likert scale where 1 = Strongly Disagree and 7 = Strongly Agree.			
** The Socialization Scale is the mean of the two measures that follow.			

Personalization and Socialization With The Convenience Store Hypotheses

15a and 15b

Convenience store patrons with higher rates of patronage were expected to demonstrate a higher level of personalization with the convenience store (H15a). Convenience store patrons with higher rates of patronage were also expected to demonstrate a greater level of socialization with the convenience store (H15b).

Table 37 shows the results of a comparison of the levels of personalization and socialization with the primary convenience store among the patrons with heavy, moderate and light patronage rates. The results were significant. The greater the patronage rate the higher the feelings of personalization and socialization with the primary convenience store. Differences were found on the single measure of personalization and on two of the three socialization measures and on the socialization scale measure.

The differences in personalization and socialization among the three patronage rates prompted further analysis using the t test to compare the three use rates by pairs. This analysis is shown in Tables 38 through 40.

The heavy user of the convenience store expresses a greater level of personalization and socialization with the primary convenience store than moderate users. These results are shown in Table 38. The differences are significant at the .05 level on the single personalization

TABLE 37

DIFFERENCES IN PERSONALIZATION AND SOCIALIZATION
WITH THE PRIMARY CONVENIENCE STORE AMONG PATRONS
WITH HEAVY, MODERATE AND LIGHT PATRONAGE RATES

MEASURE	MEAN RESPONSE BY PATRONAGE RATE			ANOVA RESULTS		
	Heavy	Mod	Light	F	df	p
Personalization Measure						
Seeing the people who work at our primary convenience store is part of the normal routine for some members of my household.	3.72	2.55	2.41	6.31	2	.002*
Socialization Measures						
Socialization Scale**	3.85	3.06	2.65	5.18	2	.007*
The people who work at our primary convenience store usually know what my household member wants when the member walks in.	3.31	2.24	1.88	5.96	2	.003*
The people who work at our primary convenience store would make an extra effort to accommodate my household member if asked.	4.25	3.82	3.71	.96	2	.385
My household member(s) usually see shoppers they know when they are shopping at our primary convenience store.	4.0	3.12	2.35	5.81	2	.003*
* Reject the null that the means are equal at the indicated level.						
** The Socialization Scale is the mean of the three measures that follow.						

TABLE 38

COMPARISONS OF PERSONALIZATION AND SOCIALIZATION
WITH THE PRIMARY CONVENIENCE STORE BETWEEN
PATRONS WITH HEAVY AND MODERATE PATRONAGE RATES

MEASURE	HEAVY MEAN*	MOD MEAN*	t test p value
Personalization Measure			
Seeing the people who work at our primary convenience store is part of the normal routine for some members of my household.	3.72	2.55	.002**
Socialization Measures			
Socialization Scale***	3.85	3.06	.016**
The people who work at our primary convenience store usually know what my household member wants when the member walks in.	3.31	2.24	.006**
The people who work at our primary convenience store would make an extra effort to accommodate my household member if asked.	4.25	3.82	.24
My household member(s) usually see shoppers they know when they are shopping at our primary convenience store.	4.0	3.12	.025**
* On a seven point Likert scale where 1 = Strongly Disagree and 7 = Strongly Agree.			
** Reject the null that the means are equal at the indicated level.			
*** The Socialization Scale is the mean of the three measures that follow.			

measure and on two of the three socialization measures as well as the aggregated scale measure on socialization.

The comparison of heavy and light users of the convenience store showed similar results. Table 39 displays differences on the personalization measure at the .05 level. The heavy user demonstrates a higher level of personalization with the primary convenience store than the light user. The same results are shown for the measures of socialization with the primary convenience store. The heavy users have a significantly higher feeling of socialization with their store than light users at the .05 level also.

The moderate and light users of the convenience store, in contrast, do not show significantly different feelings on the personalization and socialization measures. As Table 40 shows, these two types of patrons are not different on any of the five measures for these two aspects of behavior toward convenience stores.

Support was found for Hypotheses 15a and 15b; they are not rejected. It is notable that while the means are significantly different between the heavy and moderate, and heavy and light patrons they are not very high for any of the three convenience store patron groups. The Likert scale of 1 to 7 would allow an average of 4 as a noncommittal response. While the heavy user shows a larger mean on all measures only one of the five means are above the scale mean with three below the scale mean (see Table 37). In an absolute sense even the heavy patrons hold a fairly low level of commitment on these two dimensions.

TABLE 39
COMPARISONS OF PERSONALIZATION AND SOCIALIZATION
WITH THE PRIMARY CONVENIENCE STORE BETWEEN
PATRONS WITH HEAVY AND LIGHT PATRONAGE RATES

MEASURE	HEAVY MEAN*	LT MEAN*	t test p value
Personalization Measure			
Seeing the people who work at our primary convenience store is part of the normal routine for some members of my household	3.72	2.41	.023**
Socialization Measures			
Socialization Scale***	3.85	2.65	.013**
The people who work at our primary convenience store usually know what my household member wants when the member walks in.	3.31	1.88	.014**
The people who work at our primary convenience store would make an extra effort to accommodate my household member if asked.	4.25	3.71	.32
My household member(s) usually see shoppers they know when they are shopping at our primary convenience store.	4.0	2.35	.003**
* On a seven point Likert scale where 1 = Strongly Disagree and 7 = Strongly Agree.			
** Reject the null that the means are equal at the indicated level.			
*** The Socialization Scale is the mean of the three measures that follow.			

TABLE 40

COMPARISONS OF PERSONALIZATION AND SOCIALIZATION
WITH THE PRIMARY CONVENIENCE STORE BETWEEN
PATRONS WITH MODERATE AND LIGHT PATRONAGE RATES

MEASURE	MOD MEAN*	LT MEAN*	t test p value
Personalization Measure			
Seeing the people who work at our primary convenience store is part of the normal routine for some of my household members.	2.55	2.41	.78
Socialization Measures			
Socialization Scale**	3.06	2.65	.33
The people who work at our primary convenience store usually know what my household member wants when the member walks in.	2.24	1.88	.45
The people who work at our primary convenience store would make an extra effort to accommodate my household member if asked.	3.82	3.71	.83
My household member(s) usually see shoppers they know when they are shopping at our primary convenience store.	3.12	2.35	.15
* On a seven point Likert scale where 1 = Strongly Disagree and 7 = Strongly Agree.			
** The Socialization Scale is the mean of the three measures that follow.			

Evoked Set Size Hypotheses 16a, 16b and 16c

Supermarket patrons are expected to reflect their attitudes toward the task of grocery shopping by the size of their Evoked Sets. Supermarket patrons who also patronize convenience stores are expected to have smaller Evoked Sets (H16a) than supermarket patrons who do not use the convenience store. The argument is that convenience store patrons are saving time and using the store for fill-in purchases as a method of reducing the shopping task. Supermarket patrons, without reference to convenience store use, who demonstrate higher positive attitudes on grocery shopping in general are expected to have larger Evoked Sets (H16b). Convenience store patrons are expected to avoid the supermarket and are expected to have smaller evoked sets when their rate of use of the convenience store is larger (H16c).

Evoked Set Determination

Respondents were asked to name their primary supermarket, to name the grocery store they usually patronized for fill-in grocery shopping, to name any second supermarket that they routinely patronized during major grocery shopping trips, to name any third supermarket that they routinely patronized during major grocery shopping trips, to name all other sources of grocery products, and to name all grocery stores that they refuse to shop in (Appendix).

The primary supermarket plus a different supermarket for fill-in constitutes the evoked set. The inert set includes the second and third supermarkets routinely patronized on major grocery shopping trips plus the number of all other grocery sources. The inept set is the number of stores that the respondent refused to shop in. The Evoked Set for the purpose of these hypotheses is the sum of the evoked, the inert, and the inept sets.

An Evoked Index was created for use as a dependent measure in regression analysis. The index reduced the spread of Evoked Set sizes (from 1 to 8) to a more manageable Index of 1, 2, or 3 thus reducing the "noise" level. Respondents with 1 or 2 stores in their Evoked Set were indexed as 1, those with 3 or 4 stores were indexed as 2, and those with 5 or more stores were indexed as 3.

The Tests of Hypotheses 16a, 16b, 16c

The test for the differences in evoked set size between convenience store patrons and nonpatrons (H16a) was a t test on the group means of the Evoked Set. The patron group (n=134) had the larger set with a mean Set size of 3.85. The nonpatron group (n=83) had a mean Set size of 3.17. The t test was significant at the .000 level and the hypothesized relationship that nonpatrons would have larger Evoked Sets is rejected. The test showed an opposite result, patrons of the convenience store have larger Evoked Sets of grocery stores than nonpatrons of the convenience store. A X^2 test produced a value of 15.27, $p = .000$, showing that there

is a patron group effect on the size of the Evoked Set. The patrons of convenience stores have larger Evoked Sets.

The expectation that Evoked Sets would be larger for supermarket patrons with more positive attitudes (H16b) was tested by regression. The three measures for the construct General Attitude Toward Grocery Shopping were averaged into a scale measure as the independent variable.

The regression analysis failed to support the hypothesis that shoppers with more positive shopping attitudes would have larger Evoked Sets. Hypothesis 16b is rejected. The R^2 was .000 showing no relationship between shopping attitude and Evoked Set size.

The question of whether the Evoked Set size decreases as convenience store patronage increases (H16c) was also tested by regression and a chi square test. A convenience store use Index was created to provide a matching scale measure for the Evoked Set index. Convenience store patrons with heavy use rates were indexed as 3, moderate users were indexed as 2, and light users were indexed 1. The R^2 was .02 showing a small positive effect. The X^2 test gave a value of 3.19, $p = .53$, showing that there is no relationship between the rate of patronage of the convenience store and the Evoked Set size. Hypothesis 16c is rejected. The relationship is such that the greater the patronage of convenience stores the larger the Evoked Set.

OTHER FINDINGS

A basic issue in this research was to evaluate the accuracy of the widely held view that the convenience store functions primarily as a fill-in store to augment grocery needs between major supermarket trips. Some measures were taken that bear directly on this issue.

Respondents were asked to name the store their household members usually patronize for fill-in items. Among the 124 responses from convenience store patrons 15 (12%) named a convenience store. The remainder named a supermarket with 80 (65%) of the respondents naming their primary supermarket.

In response to the question, "Name ALL OTHER sources (other than supermarkets) where you buy grocery products when you are in a hurry or that you use just once in a while," 90 of the 134 convenience store patrons responded. Fifty-six respondents (62%) listed a convenience store. This question was fourth in a series of six questions that asked for grocery sources to be named. This question preceded a question asking the respondent to name the grocery store the household usually patronized for fill-in items. The respondents were prompted to think of all grocery sources just prior to being asked to name their fill-in source.

While convenience store patrons purchase grocery items from convenience stores only 12% give a convenience store as a top-of-mind response for a fill-in store (even with prompting). None of the 72 nonpatrons of the convenience store, who responded to this question, listed a convenience store as a fill-in source supporting their

classification as nonpatrons. In the nonpatron group 71% listed their primary supermarket as the usual source for their household to patronize for fill-in grocery items, the remaining 29% listed other supermarkets.

The conclusion about the convenience store being a fill-in source for needed grocery items between major grocery shopping trips is that this description is not applicable to the households represented by this sample.

SUMMARY

Chapter 4 presented the data collection, the hypotheses and their tests, and discussed the findings. The final section, Other Findings, presented results of measures that were taken to address the basic issue of the role of the convenience store in total grocery shopping.

Table 41 is a summary listing of the hypotheses that were tested. Of the 22 hypotheses tested, seven were supported, two were partially supported, and 13 were rejected. The primary reason for the rejection of several hypotheses was the unexpected findings that convenience store patrons patronize a greater number of grocery stores than nonpatrons of the convenience store. Convenience store patrons exhibit larger Evoked Sets and frequent the convenience store at heavy and moderate rates as a rule. The larger Evoked Sets were significantly different (in size) but they were expected to be smaller. The conclusions and contributions of the research are discussed in Chapter 5.

TABLE 41

SUMMARY OF HYPOTHESES FINDINGS

HYPOTHESIS	CONCEPT TESTED	TEST METHOD	RESULTS
H1a	The Model	Regression	Rejected
H1b	Extended Model	Regression	Supported 2 of 3 Price (Trust) Situation Influence
H2	Typology	Ward's Cluster	Supported six Typologies
H3 - H8	Convenience store patronage rates	Cluster Frequency	Rejected Rates are random
H9	Differences in the shopping attitudes of convenience store patrons and nonpatrons	Profile Analysis	Supported 1 of 4 Information Search is greater for nonpatrons
H10	Differences in the evaluation of the primary supermarket by convenience store patrons and nonpatrons	Profile Analysis	Supported lower evaluations by patrons of the convenience store
H11	Differences in the shopping attitudes among convenience store patrons	Profile Analysis	Rejected. Higher patronage rates do not mean lower shopping attitudes
H12	Differences in the evaluation of the primary supermarket among convenience store patrons	Profile Analysis	Rejected. Higher patronage rates do not mean lower evaluations
H13a	Differences in situational influences between convenience store patrons and nonpatrons	t test	Supported. Patrons of convenience stores feel greater situation influence
H13b	Differences in situational influences among convenience store patrons	ANOVA t test	Supported 1 of 3 Moderate users feel greater disruption than light users

TABLE 41 (Continued)

SUMMARY OF HYPOTHESES FINDINGS

HYPOTHESIS	CONCEPT TESTED	TEST METHOD	RESULTS
H14a	Differences in personalization with the primary supermarket between convenience store patrons and nonpatrons	t test	Reject. Convenience store patrons do not hold views that are different from nonpatrons
H14b	Differences in socialization with the primary supermarket between convenience store patrons and nonpatrons	t test	Reject. Convenience store patrons do not hold views that are different from nonpatrons
H15a	Differences in personalization with the primary convenience store among convenience store patrons	ANOVA t test	Supported. Patrons with higher use rates personalize with the store to a greater degree.
H15b	Differences in socialization with the primary convenience store among convenience store patrons	ANOVA t test	Supported. Patrons with higher rates of use socialize with the store to a greater degree
H16a	Convenience store patrons have smaller Evoked Sets than nonpatrons	t test	Reject. Convenience store patrons have significantly larger Evoked Sets
H16b	Grocery shoppers with more positive shopping attitudes will have larger Evoked Sets	Regression	Rejected. No causal relationship
H16c	Evoked Set size decreases as use of convenience store increases	χ^2	Rejected. Evoked Sets are larger for patrons with higher use rates

CHAPTER V

CONCLUSION

This study addressed five objectives, as noted in Chapter I, that were incorporated into ten issues given in Chapter III. The ten issues provided a basis for 22 hypotheses regarding the behavior of grocery shoppers relative to the use of both supermarkets and convenience stores. The findings demonstrated the value of measuring shopping behavior toward competing store forms. This chapter presents the conclusions drawn from the research findings.

OVERVIEW

Chapter 5 begins with an overview of the study followed by a discussion of the conclusions based on the issues and the hypotheses that were tested. Contributions of conceptual, methodological, and substantive findings are given next. The chapter then lists the limitations of the research and concludes with suggestions for future research.

STUDY OVERVIEW

This research measured the 22 hypotheses through a self-administered questionnaire. The data collection was achieved by personally delivering

and personally retrieving the questionnaires. Households in selected residential areas and selected personnel in the offices of Virginia Polytechnic Institute and State University were requested to participate. The unit of measure was the household.

A sequence of effects model (Monroe and Gultinan 1975) and a shopping strategy typology (Gultinan and Monroe 1980) were replicated to provide a basis for comparisons of grocery shoppers who patronize and do not patronize convenience stores. Measures were made on shoppers' general grocery shopping attitudes, on planning and budgeting behavior, on the attitude toward supermarkets as a group, and on the evaluation of the primary supermarket used by each shopper. Measures were also taken on the shopper's level of personalization and socialization with the primary supermarket. Convenience store patrons were asked to evaluate convenience stores as a group, to evaluate their primary convenience store on selected store attributes, and they were measured as to the levels of personalization and socialization they felt with their primary convenience store. The measures allowed comparisons between patrons and nonpatrons of convenience stores and between convenience store patrons with different rates of patronage of the convenience store. Comparisons of attitudes and behaviors were made regarding both the supermarket and the convenience store.

Tests included a comparison between patrons and nonpatrons of the convenience store on the size of their Evoked Sets and comparisons of the size of the Evoked Sets among convenience store patrons with different rates of patronage. Finally, a test was conducted to determine whether

a positive relationship existed between shopping attitudes and the size of the Evoked Set among all grocery shoppers.

CONCLUSIONS

Table 41 (Chapter IV) provided a summary of the hypotheses that were tested. This section will present the conclusions drawn from the findings. The order of discussion follows the order in which the hypotheses were given and discussed.

The Model

The rejection of the a priori model, the validation of the extended model and the discovery of the post hoc model demonstrate to academics and practitioners that the focus, attitudes and behaviors of patrons change over time. Changes in lifestyles, family structure, and other changes of a social nature are reflected in patronage behavior. The effect of various constructs on the selection of stores and the relative importance of stores change over time also. Changes suggest to researchers that current concepts, theories, and beliefs about patrons must be reevaluated on a continuing basis. Managers are advised that patrons not only shift their wants and needs relative to products and services they also change their behavior due to shifts in their strategy for the acquisition of goods and services.

The Strategy Typology

The duplication of the strategy typology classification indicates that while patrons may shift their focus and the relative importance of certain attitudes and behaviors regarding shopping and patronage, customers remain diverse and selective in their attitudes and behavior. The typology highlights differences in the strategy for acquiring grocery products for both supermarket patrons and convenience store patrons. These highlights point to an aspect of competition that is not necessarily recognized by managers. The description of convenience store patrons that implies they are homogeneous as to motivation is contradicted by the variety of patrons found to patronize convenience stores. The differences suggest that managers should give attention to merchandising and promotion in ways that appeal directly to each of the various segments that patronize convenience stores. Academic researchers should be aware that assumptions about the competitive relationships among store forms need to be verified on a repeated basis.

Frequency Rates By Typology

The identification of a dominant convenience store patronage rate for each strategy typology did not materialize. Each strategy typology includes convenience store patrons with both heavy and moderate usage rates and four of the six typologies include convenience store patrons with light usage rates.

The Convenience and Homemaker typologies demonstrate support for the conclusion that patrons of convenience stores are not single-minded as to motivation. Their descriptions are distinct yet both typologies have above average proportions of convenience store patrons. The Apathetic and Store Involved typologies show that certain shoppers avoid convenience stores and these shoppers also avoid supermarkets. Their actions to avoid convenience stores is part of their store avoidance strategy which is to reduce the total number of stores they patronize and to shop infrequently as opposed to using stores for particular needs or purchase situations.

The strategy typology descriptions highlight what is not known about patrons of convenience stores as much as they describe supermarket patrons. The typology indicates a variety of purposes and needs for the motivation of patrons to shop in convenience stores. Managers of convenience stores need to approach their patrons as a segmented market that requires different appeals and products.

Attitude Differences

Convenience store patrons hold the same general grocery shopping attitudes as nonpatrons of the convenience store. They also hold the same attitudes toward planning and budgeting as well as the same inclinations toward the use of price information. The single difference found between convenience store patrons and nonpatrons in the area of general attitudes is the degree to which patrons and nonpatrons search for information prior

to grocery shopping. These two groups differ in the extent of their search activities with patrons of convenience stores engaging in search to a lesser degree than nonpatrons of convenience stores. The reduced inclination toward information search among convenience store patrons matches their heightened feelings of being disrupted and being under time pressure when they are required to accomplish fill-in grocery shopping. Managers should develop a greater appreciation of the different strategies that are employed by all shoppers in their acquisition of groceries. Supermarket managers should use different promotion appeals and should explore different communication channels to reach this group of shoppers.

Among patrons of convenience stores, patrons with heavy rates of patronage showed unexpected differences in their greater use of price information, in their higher general attitude toward shopping, and in their greater willingness to conduct information search than moderate and light users. Convenience store managers should be aware that while 51% of their patrons are heavy users these patrons are also more aware of competitors prices and the availability of alternative sources for goods than the patrons who frequent the store at lower rates. This knowledge should be considered when setting prices and making merchandise decisions.

One aspect of the behavior of heavy users of convenience stores (considering their higher use of price information) is that they make choice decisions using their large Evoked Sets and make trade-offs between

their need situation, store choice and the prices they are willing to pay. This is an aspect that was not measured.

Evaluation of The Primary Supermarket

Patrons and nonpatrons of the convenience store differ in their evaluations of their primary supermarkets. Convenience store patrons give lower evaluations to their primary supermarket than nonpatrons. The lower evaluations reflect the larger Evoked Sets held by convenience store patrons and the manner in which convenience store patrons satisfy their grocery needs. The observation that convenience store patrons have large Evoked Sets and that they give lower evaluations to their primary supermarket indicates a need by managers of supermarkets to identify the strategies employed by households to acquire groceries. Managers of supermarkets should expect store loyalty to be tenuous. Patrons experience the service levels, merchandise presentations, and prices of many stores. The potential for switching stores may be greater among convenience store patrons. Store displays and point-of-purchase displays may be more effective in serving convenience store patrons. Convenience store patrons may also be more susceptible to impulse purchasing than other patrons.

Academic researchers should be aware that shoppers who give lower evaluations to stores are not necessarily indicating lower shopping attitudes toward shopping. Shoppers who give lower evaluations to their primary store are also not indicating that they shop in fewer stores.

Convenience store patrons are apparently less loyal to particular stores as well as store forms. The idea of convenience extends to the acceptance of a larger number of sources to satisfy needs.

Among patrons of convenience stores the various user types show no significant differences in the evaluations given to their primary supermarkets.

Situational Influences

Patrons of convenience stores feel greater time pressure when required to shop between major grocery shopping trips than nonpatrons. However, using the convenience store is not their method of compensating for the time pressure during fill-in shopping. Most patronage of convenience stores is on purchase occasions other than fill-in trips. Eighty-nine percent of all grocery shoppers (n=196) use supermarkets for fill-in grocery shopping while 85% of convenience store patrons (n=124) patronize supermarkets for fill-in grocery shopping. The rate of use of the primary supermarket, for fill-in shopping, is 67% for all grocery shoppers and 65% for convenience store patrons.

Convenience store patronage is not based on fill-in grocery shopping for the majority of patrons. Convenience store patrons appear to satisfy certain need states aside from grocery fill-in needs in their patronage of the convenience store. The typology descriptions indicate that grocery shoppers either avoid grocery stores or they have an Evoked Set of sufficient size to reduce or minimize their use of time.

Situation influence differences among the three convenience store patron types (heavy, moderate and light) was mixed. Differences between heavy and moderate and heavy and light users was not found to be significant. In contrast, patrons with moderate patronage rates feel greater disruption than patrons with light patronage rates when fill-in trips are necessary. The difference in the feeling of disruption provides additional evidence that convenience stores serve more than a single market segment and satisfy more than one motive.

While convenience store patrons with moderate patronage rates show greater feelings of disruption when fill-in grocery shopping is necessary they also hold significantly lower feelings of personalization and socialization with their primary convenience store (discussed next) than patrons with heavy patronage rates.

The moderate user patronizes the convenience store to ameliorate feelings of disruption while the heavy users demonstrate a greater level of acceptance of the convenience store as a means to accomplish the acquisition of goods. As noted above, among convenience store patrons, the heavy users have the higher attitudes toward grocery shopping, engaging in information search, and using price information than moderate and light patrons of convenience stores. Patrons of convenience stores with moderate patronage rates (37% of convenience store patrons) appear to be the patrons who use the convenience store as a fill-in source. It is this patron's behavior by which all patrons are erroneously described. The heavy users (51% of convenience store patrons) are the patrons whose

behavior challenges the accepted definition that describes all convenience store patrons as making fill-in purchases.

Supermarkets are apparently doing a good of satisfying the fill-in grocery needs of all grocery shoppers. This refutes the view that the organization, physical arrangement, and layout of supermarkets serve as barriers to shopping (Sommer et al. 1981). Managers of supermarkets should develop greater in-store access to goods, provide more convenient merchandise arrangements, and focus on transaction speed to serve fill-in patrons. Convenience store managements should acknowledge that their niche is greater than fill-in grocery provision. Convenience store managers should examine the patterns of behavior of their patrons as well as their product and service needs.

Academic marketers should be careful in labeling stores and in describing patrons. Research efforts should explore for shifts in patron attitudes and behaviors.

Personalization and Socialization With Supermarkets

Convenience store patrons feel the same level of affiliation with supermarkets as nonpatrons of the convenience store indicating that convenience store patrons are not avoiding the supermarket in their use of convenience stores. The differences between patrons of the convenience store and nonpatrons are best defined by their typology memberships.

The positive and equal feelings of affiliation (personalization and socialization) among all supermarket patrons refute the prior conclusion

that supermarkets are organized and physically structured in a manner that hinders social interaction (Sommer et al. 1981). Supermarket managements have the potential to develop deeper relationships with convenience store patrons and nonpatrons alike.

Personalization and Socialization With Convenience Stores

The feelings of personalization and socialization with the convenience store are significantly greater for heavy frequency patrons compared to both moderate and light users. The heavy users could be considered more important customers because of their greater identification with store personnel and because they represent 51% of the patrons. Moderate and light users of the convenience store show no differences in their feelings of personalization and socialization with their primary convenience store. The moderate and light users offer the potential for increasing their usage rates if their motivations were understood in detail beyond the assumed fill-in need.

Supermarket managements and convenience store managements should observe the absolute and relative responses on the feelings of personalization and socialization with each store form held by convenience store patrons. Heavy user convenience store patrons give relatively low responses to their affiliation with their primary convenience store. Their responses are significantly greater because the moderate and light users give very low responses. Convenience store patrons, as a group, show greater levels of personalization and

socialization with their primary supermarkets than they show for their primary convenience store. Managements of both store forms should give attention to developing closer relationships with their patrons. Convenience store managements have failed to develop feelings of affiliation among their patrons.

Evoked Sets

Convenience store patrons have larger Evoked Sets than nonpatrons to accomplish their acquisition of groceries. The larger Evoked Sets indicate that these patrons look for a greater number of acceptable stores. These patrons are less loyal to their primary supermarket and less loyal to particular store forms as a general rule. The typology descriptions show convenience store patrons are not store avoiders.

Larger Evoked Sets suggest that the structure of competition for many grocery stores is greater than is recognized, is from large geographic areas, and is from many store forms. The one to three mile radius that is given as a convenience store's trading area may be greater today due to changes in lifestyles and household structure. The mobility of shoppers and their use of large numbers of stores also indicates the need to identify and measure market structures.

Managements and researchers need to seek methods and measures to describe the attitudes and behaviors of patrons. Traffic counts and distance measures are invalidated over time by shifts in patron attitudes and behaviors.

Evoked Sets Among Convenience Store Patrons

Patrons of the convenience store who demonstrate higher rates of patronage have larger Evoked Sets than patrons with lower frequency rates. Heavy users of convenience stores have a greater awareness of alternative sources of grocery products than patrons with moderate and light rates of patronage. The impact of market structure is greater on heavy users of convenience stores and they should be attracted to new stores and stores that appeal to their lifestyles and their store use patterns.

The large Evoked Sets held by convenience store patrons demonstrate to managers and researchers an unrecognized strategy that grocery shoppers take to acquire their groceries and to reduce time use and disruption to their routines. The challenge to managers and researchers is to continue to measure, evaluate, and respond to what patrons do and to be aware of hidden motivations and responses.

Positive Attitudes

A more positive attitude about grocery shopping does not indicate the use of a greater number of stores. No relationship was found between the general shopping attitude and the size of the Evoked Sets. This conflicts with prior research that found that shoppers with more positive attitudes about shopping patronized a greater numbers of stores. Shoppers with more positive attitudes tend to limit their exposure to stores, building a relationship with fewer stores. However, they do not give

significantly higher evaluations to their primary supermarket than shoppers with lower attitudes toward shopping. The finding highlights the varied nature of consumers and their confounding differences. Attitude measures, alone, will lead managers and researchers to draw inaccurate conclusions. It is necessary to measure a wide variety of influences on shopping behavior in addition to attitudes about shopping in order to understand customers and their behavior relative to the selection of store forms. The idea of developing closer relationships with customers extends to firms that market routine products, such as groceries, as well as complex products.

The Convenience Store Definition

The basic issue in this study was the question of the motivation for grocery shoppers to patronize convenience stores. The conclusion is that the convenience store serves an ancillary purpose to the grocery shopping effort as opposed to a fill-in role for most of its customers. Several findings bear directly on this question, (1) despite prompting, the response rate for the convenience store being the fill-in store of choice was a low 12% among convenience store patrons, (2) convenience store patrons do not avoid stores and have larger Evoked Sets than nonpatrons, (3) heavy users of convenience stores have larger Evoked Sets than moderate and light users, (4) convenience store patrons hold the same level of feelings of personalization and socialization with supermarkets as nonpatrons, (5) higher usage rates among convenience store patrons

does not indicate more negative attitudes about the activity of grocery shopping, and (6) the typology descriptions show nonpatrons of convenience stores to be store avoiders as a response to grocery shopping.

Table 4 presented non-grocery product lines that offer attractions at some convenience stores in addition to the grocery product offerings. The term grocery shopping failed to prompt a convenience store as a response to needing fill-in grocery items among 85% of convenience store patrons. Many food items offered by convenience stores are of a supplemental or recreational nature and are usually not viewed as groceries, per se, by grocery shoppers. The convenience store is a place that provides food items, beverages, and a variety of products that grocery shoppers consider aside from groceries. A convenience store's strength lies in its variety of products and its service nature as opposed to its offering of groceries.

CONTRIBUTIONS OF THE RESEARCH

This study has made contributions at the conceptual, methodological, and substantive levels. These contributions are discussed in the three sections that follow.

Conceptual and Theoretical Level

The a priori model was not confirmed. The planning and budgeting construct has evolved into a planning and budgeting construct and an

information search construct. These changes and the discovery of an additional construct, price information, support the argument that patron attitudes and behaviors have changed over time. The extended model was confirmed for the constructs of price (trust) and situational influence having an effect on the evaluation shoppers give their primary supermarket. Additional confirmation of changes in the attitudes of shoppers. The post hoc model shows medium to large effects among its constructs. The post hoc model offers an explanation of the current nature of relationships in the store choice process.

The Strategy Typology remains a viable means to segment grocery markets and to identify the different types of customers that patronize supermarkets. The typology format is also beneficial in describing the types of grocery shoppers who patronize or do not patronize the convenience store. The patronage rate of convenience stores is not typology specific.

Attitude toward grocery shopping is not an appropriate means to identify convenience store patrons. Convenience store patrons were found to hold the same general attitudes toward shopping as shoppers who do not use convenience stores. Some subtle differences exist between grocery shoppers who patronize convenience stores and those who do not. Convenience store patrons' evaluation of their primary supermarkets and their information search activities were found to be less than nonpatrons of the convenience store.

The description of convenience store patrons as being shoppers who are primarily conducting fill-in shopping is misleading. Convenience

store patrons use convenience stores for the acquisition of ancillary food, beverage and grocery items and for the purchase of other products.

Convenience store patrons demonstrate that their strategy for acquiring groceries is broad based. Grocery shopping strategy is not a narrow issue of search, preparation, and in-store behavior. The large Evoked Sets of convenience store patrons indicate a global approach to satisfying grocery needs.

The feeling of affiliation with supermarkets (personalization and socialization) is universal among all supermarkets shoppers. The feeling of affiliation (personalization and socialization) with convenience stores is distinct between heavy users and other users.

Methodological Level

The use of multidimensional measurements provided rich descriptions of the shopper typologies supporting the long standing use of this technique. The inclusion of convenience store patronage rates enhanced the descriptions of each shopper typology. The use of aggregate scale measures taken from the construct measures gave a balance of influence among measures. The scale allowed the use of regression to show a series of descending relationships among the constructs in the model. Profile analysis demonstrated the use of a multivariate technique combined with a univariate technique to detect differences between two groups of grocery shoppers.

Substantive Level

This research shows that the target market of the convenience store is multifaceted. Convenience store patrons were expected to be store avoiders and this was found to be false. They use a greater number of stores and manifest a significantly different strategy for satisfying their grocery needs than nonpatrons. Convenience store patrons have a greater awareness of grocery stores and grocery sources than nonpatrons. Convenience store patrons use a large number of stores and are less loyal to store forms and particular stores. They express greater Situational pressure but they do not avoid stores in their grocery shopping efforts. Fill-in grocery shopping is an expected activity and does not constitute a disruption to most shoppers.

Price Attitude (Trust) and feelings of Situational pressure influence the evaluation of the primary supermarket for all shoppers. The differences between convenience store patrons and nonpatrons in their evaluations of their primary supermarkets indicate serious contrasts in the manner in which these two groups satisfy their total grocery shopping needs.

Convenience store patrons with higher rates of patronage express greater feelings of personalization and socialization with their primary convenience store than patrons with lower rates of patronage.

Convenience store patrons do not differ from nonpatrons in their general attitude toward grocery shopping as was expected. Positive

attitudes about grocery shopping do not indicate the use of more grocery stores.

Patronage of convenience stores is an activity aside from grocery acquisition for many patrons. The expectation of fill-in shopping as a routine activity and the large Evoked Sets held by convenience store patrons indicate that the food purchases made in convenience stores are not considered to be grocery shopping by many patrons of convenience stores.

LIMITATIONS OF THE RESEARCH

This research was limited to the comparison of patrons and nonpatrons of the convenience store on their attitudes and behaviors toward the general activity of grocery shopping and in their evaluations of their primary supermarkets. Additional comparisons were made among the convenience patrons with different rates of patronage of the convenience store on the same attitudes and behaviors toward grocery shopping and in their evaluations of their primary supermarkets.

The comparison of convenience store patrons on their attitudes toward their primary convenience store was limited to the levels of personalization and socialization with their primary convenience stores.

This research was limited to the geographic area of households canvassed in Christiansburg, Virginia and the households represented by the employees in selected offices of Virginia Polytechnic Institute and

State University. The results of this study are not generalizable to other populations.

The not-at-home households were not measured and the convenience sample may have produced a sample that is not representative of the geographic areas.

The measure of convenience store use by households was reported by the persons in the households who identified themselves as being most responsible for grocery shopping. Eighty-five percent of the respondents were female. The patrons of convenience stores are primarily male. Some respondents may have speculated as to how other household members behave toward or evaluate convenience stores that they use.

The data collection methodology did not support an argument for precedence among the various constructs in the sequence of effects model. The data collection method precluded the use of path analysis in the replication of the sequence of effects model. The data were collected at one time instead of in phases.

The orientation of the study toward measuring grocery shopping in general as well as convenience store use limited the collection of information regarding the patronage of convenience stores. The study did not include measures of unit purchase habits, attitudes toward quantity purchasing, or scenarios that could reveal the store selection process on a momentary basis.

FUTURE RESEARCH

This research sets a starting point for inquiry into the use of convenience stores in the total grocery acquisition efforts of shoppers. Additional inquiry should be made to more closely identify the critical attitudes that influence the patronage of convenience stores in a variety of situations and to study the relative images of convenience stores.

The post hoc model should be tested to determine if it describes the store choice process of supermarket patrons.

The classification of convenience store patrons by their patronage rates is a basic approach to establishing that different types of consumers patronize this store form. The classification of patrons based on attitudes, motivations and patronage situations should be pursued to provide a descriptive typology classification of convenience store patrons based on attitudes toward convenience stores.

Future research should examine the process of convenience store selection and the attendant influences in the selection process.

Future research should continue to examine the relationship between supermarket patronage and convenience store patronage and should examine the patronage of convenience stores as competing units.

REFERENCES

- Achabal, Dale D., Mary Ann O. Kriewall and Shelby McIntyre, (1983), "The Effect of Time and Situational Factors on Food Store Patronage," in Patronage Behavior and Retail Management, William R. Darden and Robert F. Lusch, eds. New York: North-Holland, 377-87.
- Akaah, Ishmael P. (1988), "Cluster Analysis Versus Q-Type Factor Analysis as a Disaggregation Method In Hybrid Conjoint Modeling: An Empirical Investigation," Journal of the Academy of Marketing Science, 16 (Summer), 11-18.
- Aldenderfer, Mark S. and Roger K. Blashfield (1984), Cluster Analysis, Beverly Hills, CA: Sage Publications, Inc.
- Alexis, Marcus (1974), "Food Shopping Behavior Of Low-Income Households," in Models of Buyer Behavior, Jagdish N. Sheth, ed. New York: Harper & Row 218-41.
- _____ and Leonard S. Simon (1967), "The Food Marketing Commission and Food Prices By Income Groups," Journal of Farm Economics, 49 (May), 436-46.
- Allvine, Fred C. (1968), "The Supermarket Challenged!," Business Horizons, 11 (October), 61-70.
- Alpert, Mark I. (1980), "Unresolved Issues In Identification of Determinant Attributes," in Advances In Consumer Research, Vol. 7, Jerry C. Olson, ed. Ann Arbor, MI: Association for Consumer Research, 83-8.
- Anderberg, Michael R. (1973), Cluster Analysis for Application, New York: Academic Press.
- Anderson, Paul F. (1983), "Marketing, Scientific Progress and Scientific Method," Journal of Marketing, 47 (Fall) 18-31.
- _____ (1986), "On Method In Consumer Research: A Critical Relativist Perspective," Journal of Consumer Research, 13 (September), 155-73.
- Antil, John H. (1984), "Conceptualization And Operationalization Of Involvement," in Advances In Consumer Research, Vol. 11, Thomas J. Kinnear ed. Provo, UT: Association For Consumer Research, 203-9.
- Arnold, Stephen J., Tae H. Oum, and Douglas J. Tigert (1983), "Determinant Attributes In Retail Patronage: Seasonal, Temporal, Regional and International Comparisons," Journal of Marketing Research, 20 (May), 149-57.
- Axelson, Marta L. and David Brimberg (1989), A Social-Psychological Perspective on Food-Related Behavior, New York: Springer-Verlag New York, Inc.

- Bacon, Robert W. (1984), Consumer Spatial Behavior, New York: Oxford University Press.
- Bearden, William O., Jesse E. Teel, and Richard M. Durand (1978), "Media Usage, Psychographic and Demographic Dimensions of Retail Shoppers," Journal of Retailing, 54 (Spring), 65-74.
- _____, Richard G. Netemeyer, and Mary F. Mobley (1993), Handbook of Marketing Scales, Newberry Park, CA: Sage Publications, Inc.
- Becker, Boris W. and Patrick E. Conner (1982), "The Influence of Personal Values on Attitude and Store Choice Behavior," Proceedings, Marketing Educators Conference, American Marketing Association, 21-4.
- Becker, Gary S. (1965), "A Theory Of The Allocation Of Time," Economic Journal, 75 (September), 493-517.
- Belk, Russell W. (1974), "An Exploratory Assessment Of Situational Effects In Buyer Behavior," Journal of Marketing Research, 11 (May), 156-63.
- _____, (1975), "Situational Variables and Consumer Behavior," Journal of Consumer Research, 2 (December), 157-64.
- Bellante, Don and Ann C. Foster (1984), "Working Wives and Expenditure on Services," Journal of Consumer Research, 11 (September), 700-07.
- Bellenger, Danny N. and Pradeep K. Korgaonkar (1980), "Profiling the Recreational Shopper," Journal of Retailing, 56 (Fall), 77-91.
- _____ and George P. Moschis (1982), "A Socialization Model of Retail Patronage," in Advances In Consumer Research, Vol. 9, A. Mitchell, ed. Ann Arbor, MI: Association for Consumer Research, 373-8.
- Bennett, Peter D. (1988), ed. Dictionary of Marketing Terms, Chicago, IL: American Marketing Association.
- Berry, Leonard L. (1969), "The Components of Department Store Image," Journal of Retailing, 45 (Spring), 3-20.
- _____ (1979), "The Time Buying Consumer," Journal of Retailing, 55 (Winter), 58-68.
- Bettman, James R. (1979), "Memory Factors In Consumer Choice: A Review," Journal of Marketing, 43 (Spring), 37-53.
- Bloom, Gordon F. (1978), "The Future of The Retail Food Industry: Another View," Journal of Retailing, 54 (Winter), 3-14.

- Boote, Alfred S. (1984), "Interactions In Psychographics Segmentation: Implications For Advertising," Journal of Advertising, 13, Number 2, 43-48.
- Brinberg, David and Joseph E. McGrath (1985), Validity and The Research Process. Beverly Hills, CA: Sage Publications, Inc.
- Browne, Michael B. (1968), "A Comparison of Factor Analytic Techniques," Psychometrika, 33, 267-344.
- Bucklin, Louis P. (1972), Competition and Evolution In The Distributive Trades. Englewood Cliffs, NJ: Prentice-Hall.
- Burnett, John L. and Patrick M. Dunne (1986), "An Appraisal of The Use of Student Subjects In Marketing Research," Journal of Business Research, 14 (August), 329-43.
- Calder, Bobby J., Lynn W. Phillips and Alice M. Tybout (1981), "Designing Research For Application," Journal of Consumer Research, 8 (September), 197-207.
- _____, _____, and _____ (1982), "The Concept of External Validity," Journal of Consumer Research, 9 (December), 240-4.
- _____, _____, and _____ (1983), "Beyond External Validity," Journal of Consumer Research, 10 (June), 12-14.
- Campbell, Brian M. (1969), "The Existence and Determinants of Evoked Set In Bound Choice Behavior," unpublished doctoral dissertation, Columbia University, cited in; Howard, John A. and Jagdish N. Sheth (1969), The Theory of Buyer Behavior. New York: John Wiley & Sons.
- Campbell Donald T. and Julian C. Stanley (1966), Experimental and Quasi-experimental Designs For Research. Chicago: Rand McNally.
- Carman, James M. (1969), "Some Insights Into Reasonable Grocery Shopping Strategies," Journal of Marketing, 33 (October), 69-72.
- _____ (1970), "Correlates of Brand Loyalty: Some Positive Results," Journal of Marketing Research, 7 (February).
- _____ (1977), "Values and Consumption Patterns: A Closed Loop," in Advances In Consumer Research, Vol. 5, K. Hunt, ed. Ann Arbor, MI: Association for Consumer Research, 401-7.
- Carmines, Edward G. and Richard A. Zeller (1979), Reliability and Validity Assessment, Beverly Hills, CA: Sage Publications.
- Cattell, Raymond B. (1988), "The Meaning and Strategic Use of Factor Analysis," in Handbook of Multivariate Experimental Psychology, Second Edition, John R. Nesselrode and Raymond B. Cattell eds. Chicago: Rand McNally, 131-206.

- _____ and John A. Jaspers (1967), "A General Plasmode For Factor Analytic Exercises and Research," Multivariate Behavior Research Monographs.
- Churchill, Gilbert A. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs," Journal of Marketing Research, 55 (February), 64-73.
- _____ (1983), Marketing Research: Methodological Foundations. Third Edition, New York: The Dryden Press.
- Cohen, Jacob (1977), Statistical Power Analysis for Behavioral Sciences. Orlando, FL: Academic Press, Inc.
- Coleman, Richard P. (1983), "The Continuing Significance of Social Class to Marketing," Journal of Consumer Research, 10 (December), 265-80.
- Comish, Newell W. (1958), "What Influences Customer Choice of a Food Store," Journal of Retailing, 34 (Summer), 90-100.
- Converse, Jean M. and Stanley Presser (1986), Survey Questions: Handcrafting the Standardized Questionnaire. Beverly Hills, CA: Sage Publications, Inc.
- Cook, Thomas D. and Donald T. Campbell (1979), Quasi-Experimentation: Design and Analysis Issues for Field Settings. Chicago: Rand McNally College Publishing Company.
- Cooper, Harris M. (1984), The Integrative Research Review. Beverly Hills, CA: Sage Publications, Inc.
- Cosmas, Stephen C. (1982), "Life Styles and Consumption Patterns," Journal of Consumer Research, 8 (March), 453-5.
- Cote, Joseph A., Jr. and John K. Wong (1985), "The Effects Of Time And Situational Variables On Intention-Behavior Consistency," in Advances In Consumer Research, Vol. 12, Elizabeth C. Hirschman and Morris B. Holbrook, eds. Ann Arbor, MI: Association for Consumer Research, 374-7.
- Crafton, Steven M. (1979), "Convenience Store Price and The Value of Time," Southern Economic Journal, (April), 1254-60.
- Cronbach, Lee J. (1971), "Test Validation," in Educational Measurement, 2nd. Edition, Robert L. Thorndike, ed. Washington D.C.: American Council on Education, 443-507.
- _____ (1984), Essentials of Psychological Testing. 4th. Edition, New York: Harper & Row.
- _____ and Paul E. Meehl (1955), "Construct Validity in Psychological Tests," Psychological Bulletin, 52, 281-302.

Daniel, Cuthbert and Fred S. Wood (1980), Fitting Equations To Data, Second Edition, New York: Wily-Interscience.

Darden, William R. (1980), "A Patronage Model of Consumer Behavior," in Competitive Structure In Retail Markets: The Department Store Perspective, Ronald W. Stampfl and Elizabeth Hirschman, eds. Chicago: American Marketing Association, 43-52.

_____ and Dub Ashton (1974), "Psychographic Profiles of Patronage Preference Groups," Journal of Retailing, 50 (Winter), 99-112.

_____ and Robert F. Lusch (1983), eds. Patronage Behavior and Retail Management. New York: North-Holland.

_____ and Fred D. Reynolds (1971), "Shopping Orientation and Product Usage Rates," Journal of Marketing Research, 8 (November), 505-8.

_____, Donna K. Darden, Roy Howell, and Shirley J. Miller (1981), "Consumer Socialization Factors In a Patronage Model of Consumer Behavior," in Advances In Consumer Research, Vol. 8, Kent B. Monroe, ed. Ann Arbor, MI: Association for Consumer Research, 655-61.

_____, Orhan Erdem and Donna K. Darden (1983), "A Comparison and Test of Three Causal Models of Patronage Intentions," in Patronage Behavior and Retail Management, William R. Darden and Robert F. Lusch, eds. New York: North-Holland, 29-43.

Davidson, William R., Albert D. Bates, and Stephan J. Bass (1976), "The Retail Life Cycle," Harvard Business Review, 54 (November - December), 89-96.

Dawson, Scott, Bruce Stern, and Tom Gillpatrick, (1990), "An Empirical Update and Extention of Patronage Behaviors Across The Social Class Hierarchy," in Advances In Consumer Research, Vol. 17, Marvin E. Goldberg et al., eds. Provo, UT: Association For Consumer Research, 833-8.

Dichter, Ernest (1985), "What's In An Image," The Journal of Consumer Marketing, 2, Winter, 87-91, cited in; Zimmer, Mary R. and Linda L. Golden, (1988), "Impressions of Retail Stores: A Content Analysis of Consumer Images," Journal of Retailing, 61 (Fall), 265-94.

Dixon, Donald F. and Daniel J. McLaughlin, Jr. (1971), "Shopping Behavior, Expenditure Patterns and Inner-City Food Prices," Journal of Marketing Research, 8 (February), 96-9.

Dodge, H. Robert and Harry Summer (1969), "Choosing Between Retail Stores," Journal of Retailing, 45 (Fall), 11-21.

Dove, Rhonda W. (1984), "Retail Store Selection and The Older Shopper," in Marketing Comes of Age, D.M. Klein and A.E. Smith, eds. Boca Raton, FL: Southern Marketing Association, 75-7.

- Downs, Anthony (1961), "A Theory of Consumer Efficiency," Journal of Retailing, 37 (Spring), 6-12.
- Doyle, Peter and Ian Fenwick (1974), "How Store Image Affects Shopping Habits In Grocery Chains," Journal of Retailing, 50 (Winter), 39-52.
- Draper, Norman R. and Harry Smith (1981), Applied Regression Analysis, New York: Wiley.
- Duncan, Delbert J. and Charles F. Phillips (1967), Retailing: Principles and Methods, Seventh Edition. Homewood, Illinois. Richard D. Irwin, Inc., 18.
- Dunn, Olive J. and Virginia A. Clark (1974), Applied Statistics: Analysis of Variance and Regression, New York: John Wiley & Sons.
- Durkheim, Emile (1947), The Division of Labor In Society, trans. George Simpson, Glencoe, IL: Free Press, cited in; Stone, Gregory P. (1954), "City Shoppers and Urban Identification: Observation on the Social Psychology of City Life," American Journal of Sociology, 60 (July), 36-45.
- Engel, James F., David T. Kollat, and Roger D. Blackwell (1969), "Personality Measures and Market Segmentation," Business Horizons, 12 (June), 61-70.
- _____, _____, and _____ (1978), Consumer Behavior, Third Edition. Hinsdale, IL: The Dryden Press.
- Engel, James F., Roger D. Blackwell and Paul W. Miniard (1986), Consumer Behavior, Fifth Edition. Hinsdale, IL: The Dryden Press.
- _____, _____, and _____ (1990), Consumer Behavior, Sixth Edition. Hinsdale, IL: The Dryden Press.
- Evans, Joel R. and Barry Berman (1992), Marketing, Fifth Edition. New York: Macmaillan Publishing Company, 403.
- Ezell, Hazel F. and Giselle D. Russell (1985), "Single and Multiple Person Household Shoppers: A Focus on Grocery Store Selection Criteria and Grocery Shopping Attitudes and Behavior," Journal of the Academy of Marketing Science, 13 (Winter), 171-87.
- Farley, John U. (1968), "Dimensions of Supermarket Choice Patterns," Journal of Marketing Research, 5 (May), 206-9.
- Ferber, Robert (1979), "Research By Convenience," Journal of Consumer Research, 4 (March), 57-58.
- Fisk, George I. (1961), "A Conceptual Model for Studying Customer Image," Journal of Retailing. 37 (Winter), 1-8+.

- Fowler, Floyd J. (1984), Survey Research Methods. Beverly Hills, CA: Sage Publications.
- Fromkin, Howard L. and Siegfried Streufert (1976), "Laboratory Experimentation," in Handbook of Industrial and Organizational Psychology, Marvin D. Dunnette, ed. Chicago: Rand McNally, 415-65.
- Fulgoni, Gian M. and E.J. Eskin (1983), "The Behavior Scan Research Facility for Studying Shopping Patterns," in Patronage Behavior and Retail Management, William R. Darden and Robert F. Lusch, eds. New York: North-Holland, 263-74.
- Gentry, James W. and Alvin C. Burns (1977), "How 'Important' are Evaluative Criteria In Shopping Center Patronage?" Journal of Retailing, Winter, 73-86+.
- Girish, Punj and David W. Stewart (1983), "Cluster Analysis In Marketing Research: Review and Suggestions for Application," Journal of Marketing Research, 20 (May), 134-48.
- Gorsuch, Richard L. (1983), Factor Analysis, 2nd. Edition. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., Publishers.
- Granzin, Kent L. and Kathryn H. Schjelderup (1982), "Situation As An Influence On Anticipated Satisfaction," in Advances In Consumer Research, Vol. 9, Andrew A. Mitchell, ed. Ann Arbor, MI: Association For Consumer Research, 223-8.
- Guadagnoli, Edward and Wayne F. Velicer (1988), "Relation Of Sample Size To The Stability Of Component Patterns," Psychological Bulletin, 103, 265-275.
- Guiltinan, Joseph P. and Kent B. Monroe (1978) "Identifying and Analyzing Consumer Shopping Strategies," Working Paper In Business Administration, No. BA20, University of Kentucky.
- _____ and _____ (1980), "Identifying and Analyzing Consumer Shopping Strategies," in Advances In Consumer Research, Vol. 7, J. Olson, ed. Ann Arbor, MI: Association for Consumer Research, 745-48.
- Hair, Joseph F., Rolph E. Anderson, and Ronald L. Tatham (1987), Multivariate Data Analysis with Readings, 2nd. Edition. New York: Macmillan.
- Hakstain, A. Ralph, W. Todd Rogers, and Raymond B. Cattell (1982), "The Behavior of Number-of-Factors Rules With Simulated Data," Multivariate Behavioral Research, 17 (April), 193-219.
- Hammert, Fred (1976), "Convenience Store's Place In Serving The Consumer's Needs Today and In 1985," Journal of Food Distribution Research, (February), 74-8.

- Hansen, Robert A. and Terry Deutscher (1977), "An Empirical Investigation of Attribute Importance In Retail Store Selection," Journal of Retailing, 53 (Winter), 59-72+.
- Hawes, Douglas K., W. Wayne Talarzyk, and Roger D. Blackwell (1975), "Consumer Satisfactions From Leisure Time Pursuits," in Advances In Consumer Research, Vol. 2, Mary Jane Schlinher, ed. University of Illinois, Chicago Circle: Association for Consumer Research, 817-36.
- Hawkins, Del I., Gerald Albaum, and Roger Best (1974), "Stapel Scale or Semantic Differential In Marketing Research," Journal of Marketing Research, 11 (August), 318-22.
- _____, _____, and _____ (1976), "Reliability of Retail Store Images as Measured by the Stapel Scale," Journal of Retailing, 52 (Winter), 32.
- Helgeson, James C., E. Alan Kluge, John Mayer, and Cheri Taylor (1984), "Trends In Consumer Behavior Literature: A Content Analysis," Journal of Consumer Research, 10 (March), 449-54.
- Hirschman, Elizabeth C., Barnett Greenberg and Dan H. Robertson (1978), "The Intermarket Reliability of Retail Image," Journal of Retailing, 54 (Spring), 3-12.
- _____ and Ronald W. Stampfl (1980), "Retail Research: Problems, Potentials and Priorities," in Competitive Structure In Retail Markets: The Department Store Perspective, Ronald W. Stampfl and Elizabeth Hirschman, eds. Chicago: American Marketing Association, 68-77.
- Hocking, R. R. (1976), "The Analysis and Selection of Variables In Linear Regression," Biometrics, 32, 1-49.
- Holloway, Lois N. and Olive J. Dunn (1967), "The Robustness Of Hotelling's T^2 ," Journal of The American Statistical Association, 124-36.
- Hornik, Jacob (1984), "Subjective vs. Objective Time Measures: A Note On The Perception of Time In Consumer Behavior," Journal of Consumer Research, 11, 615-18.
- _____ (1985), "Household Production Approach To Consumer Shopping Time Behavior," Advances In Consumer Research, Vol. 12, Elizabeth C. Hirschman and Morris B. Holbrook eds. Ann Arbor, MI: Association of Consumer Research, 200-3.
- Houston, Franklin S. and John Stanton (1984), "Evaluating Retail Trade Areas for Convenience Stores," Journal of Retailing, 60 (Spring), 124-36.

- Houston, Michael J. and Michael L. Rothschild (1978), "Conceptual and Methodological Perspectives On Involvement," in Research Frontiers In Marketing: Dialogues and Directions, Subhash C. Jain ed. Chicago: American Marketing Association, 184-7.
- Howard, John A. (1977), Consumer Behavior: Application of Theory. New York: McGraw-Hill Book Company.
- _____ and Jagdish N. Sheth (1969), The Theory of Buyer Behavior. New York: John Wiley & Sons, Inc.
- Hoyer, Wayne D. (1984), "An Examination of Consumer Decision Making for a Common Repeat Purchase Product," Journal of Consumer Research, 11 (December), 822-9.
- Huberty, Carl J. (1989), "Problems With Stepwise Methods - Better Alternatives," in Advances In Social Science Methodology, Bruce Thompson, ed. Greenwich, CN: JAI Press, 43-70.
- Huff, David (1972), "A Probabilistic Analysis of Consumer Spatial Behavior," in Emerging Concepts in Marketing, William S. Decker, ed. Chicago: American Marketing Association, 443-61.
- Huff, David L. (1962), Determination of Intra-Urban Retail Trade Areas. Los Angeles: University of California Printing Department.
- Hurt, John W., Jr., (1983), "Super-C-Stores," Journal of Food Distribution Research, (February), 48-50.
- Ingene, Charles A. (1983a), "Intertype Competition: Restaurants versus Grocery Stores," Journal of Retailing, 59 (Fall), 49-75.
- _____ (1983b), "Structural Determinants of Competition In Food Retailing," in 1983 AMA Educators' Proceedings, Patrick E. Murphy, et al., eds. Chicago: American Marketing Association, 251-6.
- _____ (1984), "Structural Determinants of Market Potential," Journal of Retailing, 60 (Spring), 37-64.
- _____ and James R. Brown (1987), "The Structure of Gasoline Retailing," in Journal of Retailing, 63 (Winter), 365-392.
- Jackson, Ralph W., Stephen W. McDaniel, and C.P. Rao (1985), "Food Shopping and Preparation: Psychographic Differences of Working Wives and Housewives," Journal of Consumer Research, 12 (June), 110-3.
- Jacoby, Jacob (1978), "Consumer Research: A State of The Art Review," Journal of Marketing, 32 (April), 87-96.
- _____ and David Mazursky (1984), "Linking Brand and Retailer Images - Do The Potential Risks Outweigh The Potential Benefits?," Journal of Retailing, 60 (Summer), 105-22.

- Jensen, Thomas D. and C. P. Rao (1988), "Inflation, Customer Adaptations, and Retailing", Journal of Retailing, 64 (Winter), 453-470.
- Johnson, Richard A. and Dean W. Wichern (1992), Applied Multivariate Statistical Analysis, 3rd. Edition. Englewood Clifts, NJ: Prentice-Hall.
- Jolson, Marvin and Walter Spath (1973), "Understanding and Fulfilling Shoppers' Requirements: An Anomaly In Retailing?" Journal of Retailing, 49 (Summer), 38-50.
- Judd, Charles M. and David A. Kenny (1982), "Research Design and Research Validity," in New Directions for Methodology of Social and Behavioral Science: Forms of Validity In Research, David Brinberg and Louise H. Kidder, eds. 12 (June), San Francisco: Jossey-Bass.
- Keppel, Geoffrey (1991), Design and Analysis: A Researcher's Handbook. Englewood Clifts, NJ: Prentice-Hall.
- Kleinbaum, David G., Lawrence L. Kupper, and Keith E. Muller (1988), Applied Regression Analysis and Other Multivariate Methods. Boston: PWS-Kent Publishing Company.
- Kollat, David T., Roger D. Blackwell, and James F. Engel (1972), "The Current Status of Consumer Behavior Research: Development During The 1968-1972 Period," in Proceedings of The Third Annual Conference of The Association for Consumer Research, M. Venkatesan, ed. 576-85.
- _____ and Ronald P. Willett (1967), "Customer Impulse Purchasing Behavior," Journal of Marketing Research, 4 (February), 21-31.
- Kuhn, Thomas S. (1970), The Structure of Scientific Revolutions, Second Edition, Enlarged. Chicago: University of Chicago Press.
- Labaw, Patricia J. (1980), Advanced Questionnaire Design. Cambridge, MA: Abt Books.
- Lastovicka, John L. and David M. Gardner (1979), "Components of Involvement," in Attitude Research Plays For High Stakes, John C. Maloney and Bernard Silverman eds. Chicago: American Marketing Association, 53-73.
- Laudan, Larry (1984), Science and Values: The Aims of Science and Their Role In Scientific Debate. Berkley: University of California Press.
- Leed, Theodore W. (1983), Convenience Store Merchandising. Ithica, NY: Cornell University.
- Lessig, Parker V. (1973), "Consumer Store Images and Store Loyalties," Journal of Marketing, 37 (October), 72-4.
- Liles, Allen (1977), Oh Thank Heaven!" Dallas, TX: The Southland Corporation.

- Lindquist, Jay D. (1974), "Meaning of Image," Journal of Retailing, 50 (Winter), 29-38.
- Lincoln, Douglas and A. Coskun Samli (1979), "Definitions, Dimensions and Measurement of Store Image: A Literature Summary and Synthesis," in Southern Marketing Association Proceedings, R. Franz, R. Hopkins, and A. Toma eds. 430-3.
- Linn R L. (1968), "A Monte Carlo Approach To The Number Of Factors Problem," Psychometrika, 33, 37-71.
- Lussier, Dennis and R. Olshavsky (1979), "Task and Contingent Processing In Brand Choice," Journal of Consumer Research, 6 (September), 154-65.
- Lynch, John G., Jr. (1982), "On the External Validity of Experiments In Consumer Research," Journal of Consumer Research, 9 (December), 225-39.
- _____ (1983), "The Role of External Validity In Theoretical Research," Journal of Consumer Research, 10 (June), 109-11.
- Malhotra, Naresh K. (1986), "Modeling Store Choice Based on Censored Preference Data," Journal of Retailing, 62 (Summer), 128-44.
- March, James G. and Herbert A. Simon (1958), Organizations. New York: John Wiley & Sons, Inc.
- Martineau, Pierre (1958), "The Personality of The Retail Store," Harvard Business Review, 36 (January-February), 47-55.
- Massart, D. Luc and Leonard Kaufman (1983), The Interpretation of Analytical Chemical Data By Use of Cluster Analysis. New York: John Wiley & Sons.
- Mattson, Bruce E. (1982), "Situational Influences On Store Choice," Journal of Retailing, 58 (Fall), 46-58.
- Mazumdar, Tridib (1987), "The Effects Of Learning Intentions And Choice Task Orientations On Buyers' Knowledge Of Price: An Experimental Investigation," unpublished dissertation, Virginia Polytechnic Institute and State University, Blacksburg, VA.
- Mazursky, David and Jacob Jacoby (1986), "Exploring the Development of Store Images," Journal of Retailing, 62 (Summer), 145-65.
- McCarthy, E. Jerome (1978), Basic Marketing, Sixth Edition. Homewood, Ill: Richard D. Irwin.
- _____ and William D. Perreault, Jr. (1990), Basic Marketing, Tenth Edition. Homewood, IL: Richard D. Irwin, Inc.

- McDaniel, Stephen W. and John J. Burnett (1990), "Consumer Religiosity and Retail Store Evaluative Criteria," Journal of the Academy of Marketing Science, 18 (Spring), 101-12.
- McDougall, G.H.G. and J. Fry (1974), "Combining Two Methods of Image Measurement," Journal of Retailing, 50 (Winter), 53-61.
- McGrath, Joseph E. (1982), "Dilemmatics: The Study of Research Choice and Dilemmas," in Judgement Calls In Research, Joseph E. McGrath, Joanne Martin, and Richard A. Kulka, eds. Beverly Hills, CA: Sage Publications, 69-102.
- _____ and David Brinberg (1983), "External Validity and The Research Process: A Comment on Calder/Lynch Dialogue," Journal of Consumer Research, 10 (June), 115-24.
- McGuire, William J. (1974), "Psychological Motives and Communication Gratification," in The Uses of Mass Communications: Current Perspectives on Gratification Research, Jay G. Blumler and Elihu Katz, eds. Beverly Hills: Sage Publications, 167-96.
- Menezes, Dennis and Norbert F. Elbert (1979), "Alternative Semantic Scaling Formats for Measuring Store Image: An Evaluation," Journal of Marketing Research, 16 (February), 80-7.
- Merton, Robert K. (1949), "Patterns Of Influence," in Communication Research 1948-1949, Paul F. Lazarsfeld and Frank Stanton, eds. New York: Harper & Bros, p. 187, cited in Gregory P. Stone (1954), "City Shoppers and Urban Identification: Observation on the Social Psychology of City Life," American Journal of Sociology, 60 (July), p. 37.
- Monroe, Kent B. (1973), "Buyers Subjective Perceptions of Price," Journal of Marketing Research, 10 (February), 70-80.
- _____ (1982), "The Influences of Price on Product Perceptions and Product Choice," in Advances In Consumer Research, Vol. 9, Andrew A. Mitchell, ed. Ann Arbor, MI: Association For Consumer Research, 206-9.
- _____ and Joseph P. Gultinan (1975), "A Path-Analytic Exploration of Retail Patronage Influences," Journal of Consumer Research, 2 (June), 19-28.
- _____ and K. Krishnan (1985), "The Effect of Price on Subjective Product Evaluations," in Perceived Quality: How Consumers View Stores and Merchandise, Jacob Jacoby and Jerry C. Olson, eds. Lexington, MA: Lexington Books, 209-32.
- Moschis, George P. (1976) "Shopping Orientations and Consumer Uses of Information," Journal of Retailing, 52 (Summer), 61-70+.

- Morrison, Donald F. (1976), Multivariate Statistical Methods. New York: McGraw-Hill Book Company.
- Moyer, Morris L., Joseph B. Mason, and Morris Gee (1971), "A Reconceptualization of Store Classification as Related to Retail Strategy Formulation," Journal of Retailing, 47 (Fall), 27-36.
- Muncy, James A. and Shelby D. Hunt (1984), "Consumer Involvement: Definitional Issues and Research Directions," in Advances In Consumer Research, Vol. 11, Thomas J. Kinnear ed. Provo, UT: Association For Consumer Research, 193-6.
- Murphy, Patrick E. (1978), "The Effect of Social Class on Brand and Price Consciousness For Supermarket Products," Journal of Retailing, 54 (Summer), 33-42+.
- Narayana, Chem L. and Rom J. Markin (1975), "Consumer Behavior and Product Performance: An Alternative Conceptualization," Journal of Marketing, 39 October, 1-6.
- National Petroleum News (1990), "C-Store Profit Boosters," September, 38-55.
- Nicosia, Francesco (1966), Consumer Decision Processes. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Nickols, Sharon Y. and Karen D. Fox (1983), "Buying Time and Saving Time: Strategies For Managing Household Production," Journal of Consumer Research, 10 September, 197-208.
- Norusis, Marija J. (1986), The SPSS Guide To Data Analysis. Chicago: SPSS Inc.
- Nunnally, Jum C., Jr. (1967), Psychometric Theory. New York: McGraw-Hill Book Company.
- _____ (1970), Introduction To Psychological Measurement. New York: McGraw-Hill Book Company.
- Olshavsky, Richard (1979), "Task Complexity and Contingent Processing In Decision Making: A Replication and Extension," Organizational Behavior and Human Performance, 24, 300-16.
- Oxenfeldt, Alfred R. (1974), "Developing a Favorable Price - Quality Image," Journal of Retailing, 50 (Winter), 8-14+.
- Park, C. Whan, Easwar S. Iyer, and Daniel C. Smith (1989), "The Effects of Situational Factors on In-Store Grocery Shopping Behavior: The Role of Store Environment and Time Available for Shopping," Journal of Consumer Research, 15, (March), 422-33.
- Pessemier, Edgar A. (1980), "Store Image and Positioning," Journal of Retailing, 56 (Spring), 94-106.

- Peter, J. Paul (1979), "Reliability: A Review of Psychometric Basics and Recent Marketing Practices," Journal of Marketing Research, XVI (February), 6-17.
- _____ (1981), "Construct Validity: A Review of Basic Issues and Basic Marketing Practices," Journal of Marketing Research, XVIII (May), 133-45.
- Peterson, Robert A. (1981), "An Exploratory Investigation of Mediating Factors in Retail Store Image Responses," in Advances In Consumer Research, Vol 8, Kent B. Monroe, ed. Ann Arbor, MI: Association for Consumer Research, 662-4.
- _____ and Roger A. Kerin (1981), "The Quality of Self-Report Data: Review and Synthesis," in Review of Marketing 1981, Ben Enis and K.I. Roering, eds. Chicago: American Marketing Association, 5-20.
- _____ and _____ (1983), "Store Image Measurement in Patronage Research: Fact and Artifact," in Patronage Behavior and Retail Management, William R. Darden and Robert F. Lusch, eds. New York: North-Holland, 293-306.
- Prasad, V. (1972), "Correlates of Multistore Food Shopping Behavior," Journal of Retailing, 48 (Summer), 74-81.
- Progressive Grocer (1980), "Annual Report of the Grocery Industry," (April), 45-145.
- _____ (1990), "Annual Report of the Grocery Industry," (Mid-April), 8-59.
- _____ (1991), "Annual Report of the Grocery Industry," (Mid-April), 7-62.
- _____ (1992), "Annual Report of the Grocery Industry," (April, Part Two), 4-66.
- _____ (1993), "Annual Report of the Grocery Industry," (April), 43-107.
- Rao, Akshay R. and Kent B. Monroe (1989), "The Effect of Price, Brand Name, and Store Name on Buyers' Perceptions of Product Quality: An Integrative Review," Journal of Marketing Research, 26 (August), 351-7.
- Reilly, Michael D. (1982), "Working Wives and Convenience Consumption," Journal of Consumer Research, 8 (March), 407-18.
- Reinhardt, Paul G. (1973), "A Theory of Household Grocery Inventory Holdings," Kyklos, Vol. 26, 497-511.

- Roberts, A.O. (1969), "A Revised Look at Selected Determinants of Consumer Spatial Behavior," in Proceedings, Thirteenth Annual Conference, Association of Canadian Schools of Business, (Summer), cited in; Tauber, Edward M., (1972) "Why Do People Shop?" Journal of Marketing, 36, (October), 46-9.
- Roberts, Mary Lou and L. H. Wortzel (1979), "New Life-Style, Determinants of Women's Food Shopping Behavior," Journal of Marketing, 43 (Summer), 28-39.
- Rosenbloom, Bert (1981), "Congruence of Consumer Store Choice Evaluative Criteria," in Retail Patronage Theory, 1981 Workshop Proceedings, Robert F. Lusch and William R. Darden, eds. Norman: Center for Economic and Management Research, U. of Oklahoma, 82-5.
- Rosenthal, Robert and Ralph L. Rosnow (1984), Essentials of Behavioral Research: Methods and Data Analysis. New York: McGraw-Hill Book Company.
- Samli, A. Coskun (1968), "Segmentation and Carving a Niche In The Market Place," Journal of Retailing, 44 (Summer), 35-49.
- Sawyer, Alan G. and Dwayne Ball (1981), "Statistical Power and Effect Size in Marketing Research," Journal of Marketing Research, 18 (August), 275-90.
- Schaninger, Charles M. and Chris T. Allen (1981), "Wife's Occupational Status As a Consumer Behavior Construct," Journal of Consumer Research, 8 (September), 189-96.
- Schlosberg, Jeremy (1986), "The Demographics of Convenience," American Demographics, (October), 36-42.
- Sheth, Jagdish N. (1974), "A Field Study of Attitude Structure and The Attitude-Behavior Relationship," in Models of Buyer Behavior, Jagdish N. Sheth, ed. New York: Harper & Row 242-68.
- _____ (1983), "An Integrative Theory of Patronage Preference and Behavior," in Patronage Behavior and Retail Management, William R. Darden and Robert F. Lusch, eds. New York: North-Holland, 9-28.
- Sinkula, Jagdish M. (1984), "A Look at Some Shopping Orientations In Single Parent Households," in 1984 AMA Educators' Proceedings, Russell W. Belk, et al., eds, 22-5.
- Slama, Mark E. and Armen Tashchian (1985), "Selected Socioeconomic and Demographic Characteristics Associated with Purchasing Involvement," Journal of Marketing, 49 (Winter), 72-82.
- Smith, Wendell R. (1956), "Product Differentiation and Market Segmentation As Alternative Marketing Strategies," Journal of Marketing, 20 (July), 3-8.

Sommer, Robert, John Herrick and Ted R. Sommer (1981), "The Behavioral Ecology of Supermarkets and Farmers' Markets," Journal of Environmental Psychology, 1, 13-19.

Spiggle, Susan and Murphy A. Sewall (1987). "A Choice Sets Model of Retail Selection," Journal of Marketing, 51 (April), 97-111.

Stampfl, Ronald W. and Elizabeth C. Hirschman (1980), Competitive Structure In Retail Markets: The Department Store Perspective. Chicago: American Marketing Association.

_____ and _____ (1981), Theory In Retailing: Traditional and Nontraditional Sources. Chicago: American Marketing Association.

Stanley, Thomas J. and Murphy A. Sewell (1978), "Image Inputs To A Probabilistic Model: Predicting Retail Potential," Journal of Marketing, 42 (July), 48-53.

Stark, Jerrold L. (1973), "The Effect of Price and Brand Cues on Perceived Quality of Selected Products By Housewives of Various Socio-economic Groups," unpublished dissertation, The Graduate School, University of Missouri-Columbia, Columbia, Missouri.

Stephenson, P. Ronald (1969), "Identifying Determinants of Retail Patronage," Journal of Marketing, 33 (July), 57-61.

_____ and Ronald P. Willett (1969), "Analysis of Consumers' Retail Patronage Strategies," in Marketing Involvement In Society and The Economy, Chicago: American Marketing Association, cited in; Robert A. Westbrook and William C. Black (1985), "A Motivation-Based Shopper Typology," Journal of Retailing, 61 (Spring), 78-103.

Stevens, James (1986), Applied Multivariate Statistics For The Social Sciences. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., Publishers.

_____ (1990), Intermediate Statistics A Modern Approach. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., Publishers.

_____ (1992), Applied Multivariate Statistics For The Social Sciences, Second Edition. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc., Publishers.

Stone, Gregory P. (1954), "City Shoppers and Urban Identification: Observation on the Social Psychology of City Life," American Journal of Sociology, 60 (July), 36-45.

Stone, Robert N. (1984), "The Marketing Characteristics of Involvement," in Advances In Consumer Research, Vol. 11, Thomas J. Kinnear ed. Provo, UT: Association For Consumer Research, 210-15.

- Strober, Myra H. and Charles B. Weinberg (1980), "Strategies Used By Working and Nonworking Wives to Reduce Time Pressures," Journal of Consumer Research, 6 (March), 338-47.
- Tauber, Edward M. (1972), "Why Do People Shop?" Journal of Marketing, 36 (October), 46-9.
- Thompson, Bruce (1986), "The Place Of Qualitative Research In Contemporary Social Science," in Advances In Social Science Methodology, Bruce Thompson, ed. Greenwich, CN: JAI Press, 1-42.
- Tigert, Douglas J. (1983), "Pushing the Hot Buttons For a Successful Retailing Strategy," in Patronage Behavior and Retail Management, William R. Darden and Robert F. Lusch, eds. New York: North-Holland, p. 89-113.
- _____ and Stephen Arnold (1981), "Comparative Analysis of Determinants of Patronage," in Retail Patronage Theory 1981 Workshop Proceedings, Robert F. Lusch and William R. Darden, eds. Norman: University of Oklahoma, 118-24.
- _____ and Sylvia Ma (1978), "In Search of a Supermarket Strategy," Paper presented at 9th Annual Attitude Research Conference, AMA, Tarpen Springs, Florida, March.
- Tull, Donald S. and Del I. Hawkins (1976), Marketing Research: Measurement and Method, New York: MacMillan.
- _____ and _____ (1987), Marketing Research: Measurement and Method, Fourth Edition. New York: MacMillan.
- Velicer, Wayne F., Andrew C. Peacock, and Douglas N. Jackson (1982), "A Comparison Of Component And Factor Patterns: A Monte Carlo Approach," Multivariate Behavioral Research, 17, 371-388.
- Westbrook, Robert A. and William C. Black (1985), "A Motivation-Based Shopper Typology," Journal of Retailing, 61 (Spring), 78-103.
- Willenborg, John F. and Daniel L. Sherrell (1978), "Spatial and Behavioral Determinants of Perceived Convenience Preference and Patronage - A Food Store Model," Proceedings, Southern Marketing Association, 139-42.
- Williams, Robert, John J. Painter, and Herbert R. Nichols (1978), "A Policy-Oriented Typology of Grocery Shoppers," Journal of Retailing, 54 (Spring), 27-42.
- Wright, Peter (1974), "The Harassed Decision Maker: Time Pressures, Distractions and The Use of Evidence," Journal of Applied Psychology, (October), 555-61.

- Wu, Bob T.W. and Susan M. Petroschius (1987), "The Halo Effect In Store Image Measurement," Journal of the Academy of Marketing Science, 15 (Fall), 44-51.
- Zaichkowsky, Judith L. (1985), "Measuring The Involvement Construct," Journal of Consumer Research, 12 (December), 341-52.
- Zaltman, Gerald and Philip C. Burger (1975), Marketing Research: Fundamentals and Dynamics. Hinsdale, IL: The Dryden Press.
- Zimmer, Mary R. and Linda L. Golden (1988), "Impressions of Retail Stores: A Content Analysis of Consumer Images," Journal of Retailing, 64 (Fall), 265-94.

APPENDIX

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
R. B. PAMPLIN COLLEGE OF BUSINESS
MARKETING DEPARTMENT
BLACKSBURG, VA 24061-0236**

JANUARY 1994

Dear Resident:

I am conducting a survey of the grocery shopping habits of households as part of my work at Virginia Tech. The purpose of this letter is to explain the nature of the survey and ask for your help.

The survey consists of a questionnaire that you complete on your own. There are statements which you are asked to indicate whether you agree or disagree with and some fill-in-the-blank questions. The questionnaire will be delivered to your home sometime during JANUARY or FEBRUARY 1994.

WE WILL DELIVER THE QUESTIONNAIRE TO YOUR HOME AND ARRANGE A TIME TO RETURN AND COLLECT IT. The questionnaire should be completed by the person in your household who has the primary responsibility for grocery shopping. The questionnaire asks for opinions and attitudes on several aspects of grocery shopping.

Since you are taking some of your time to complete the questionnaire you will be offered either a VIRGINIA LOTTERY TICKET or a DOLLAR (your choice) FOR A COMPLETED QUESTIONNAIRE. You will be given the LOTTERY TICKET or DOLLAR when the questionnaire is collected.

Your participation in the survey will be voluntary so you may decide at any point that you do not wish to participate. The information asked for will be kept anonymous so your identity will not be revealed. If you have any questions about the survey you may phone me, Marshall D. Dowdy, at 231-6949 (day) or 953-2281 (evening). You may also refer any questions about the survey to Dr. Janet Johnson, Chairman of the Institutional Review Board for Research, at Virginia Tech. Her office phone number is 231-9359. Your participation in the survey will be greatly appreciated. Your input will assist in giving a variety of managers and teachers greater insight into how people shop for groceries.

I am being assisted in this survey by ALICE JAMES and MIKE WILSON. One of us will deliver the questionnaire to you and ask for your participation. We will arrange a convenient time to return to collect the questionnaire. Upon collection we will check to see that the questionnaire has been completed, and give you (your choice) either a DOLLAR or a VIRGINIA LOTTERY ticket.

Thank you in advance for your cooperation.

Sincerely,

Marshall D. Dowdy

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
R. B. PAMPLIN COLLEGE OF BUSINESS
MARKETING DEPARTMENT
BLACKSBURG, VA 24061-0236**

March 1994

Dear Grocery Shopper;

I am conducting a survey of the grocery shopping habits of households as part of my work at Virginia Tech. The purpose of this letter is to explain the nature of the survey and ask for your help.

The survey consists of a questionnaire that you complete on your own. There are statements which you are asked to indicate whether you agree or disagree with and some fill-in-the-blank questions. The questionnaire will be distributed during MARCH 1994.

I WILL DELIVER THE QUESTIONNAIRE TO YOUR OFFICE AND ARRANGE A TIME TO RETURN AND COLLECT IT. The questionnaire should be completed by the person in your household who has the primary responsibility for grocery shopping. The questionnaire asks for opinions and attitudes on several aspects of grocery shopping.

Since you are taking some of your time to complete the questionnaire you will be offered either a VIRGINIA LOTTERY TICKET or a DOLLAR (your choice) FOR A COMPLETED QUESTIONNAIRE. You will be given the LOTTERY TICKET or DOLLAR when the questionnaire is collected.

Your participation in the survey will be greatly appreciated. Your input will assist in giving a variety of managers and teachers greater insight into how people shop for groceries. Your participation will be voluntary so you may decide at any point that you do not wish to participate. The information asked for will be kept anonymous so your identity will not be revealed. If you have any questions about the survey you may phone me, Marshall D. Dowdy, at 231-6949 (day) or 953-2281 (evening). You may also refer any questions about the survey to Dr. Janet Johnson, Chairman of the Institutional Review Board for Research, at Virginia Tech. Her office phone number is 231-9359.

I will deliver the questionnaire to you and arrange a convenient time for me to return to collect it. Upon collection I will check to see that the questionnaire has been completed and give you (your choice) either a DOLLAR or a VIRGINIA LOTTERY ticket.

Thank you in advance for your cooperation.

Sincerely,

Marshall D. Dowdy

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
R. B. PAMPLIN COLLEGE OF BUSINESS
MARKETING DEPARTMENT
BLACKSBURG, VA 24061-0236

SURVEY on GROCERY SHOPPING

This survey consists of a questionnaire that you complete on your own. The QUESTIONNAIRE should be completed by the MEMBER OF THE HOUSEHOLD WHO HAS THE PRIMARY RESPONSIBILITY FOR GROCERY SHOPPING. The survey is about how YOU and THE MEMBERS OF YOUR HOUSEHOLD do your grocery shopping and what you like and do not like about grocery shopping.

In appreciation for the time you take to complete the questionnaire you will be given your choice of either a VIRGINIA LOTTERY TICKET or a DOLLAR when we return at the AGREED UPON TIME to collect the COMPLETED QUESTIONNAIRE.

Your participation in the survey is voluntary so you may decide at any point that you do not wish to participate. The information you give will be anonymous so your identity will not be revealed. If you have any questions about the survey you may phone me, Marshall D. Dowdy, at 703-231-6949 (day) or 703-953-2281 (evening). You may also refer any questions about the survey to Dr. Janet Johnson, Chairman of the Institutional Review Board for Research, at Virginia Tech. Her office phone number is 703-231-9359. Your responses will assist in giving a variety of managers and teachers greater insight into how people shop for groceries.

Since the questionnaire asks about your opinion and attitude on several aspects of grocery shopping you should READ THE FOLLOWING definitions before you start.

Your PRIMARY SUPERMARKET is the supermarket where the member of the household responsible for grocery shopping spends the majority of the household grocery budget. Kroger, Food Lion, Winn-Dixie, Wades, Harris-Teeter and similar stores are supermarkets.

Your PRIMARY CONVENIENCE STORE is the convenience store that YOUR HOUSEHOLD MEMBERS go to most often. The questions about the use of the convenience store refer to YOUR ENTIRE HOUSEHOLD and specifically to the member who goes to the convenience store most often. Seven-Eleven, Speedway, Handy Mart, Getty Mart and similar stores are convenience stores.

Your MAJOR GROCERY SHOPPING TRIP is the routine grocery shopping trip during which you purchase a quantity of grocery products that is large enough to last a week or more. The MAJOR grocery shopping trip could also be described as the trip during which you ROUTINELY purchase the grocery products which are used over an extended period of time such as salt, pepper, sugar, paper products, and laundry supplies. The number of items and the cost of the groceries purchased during a MAJOR trip will be large compared to the number and cost of the items purchased during FILL-IN trips.

A FILL-IN grocery shopping trip is a shopping trip made between Major grocery shopping trips. It could be a planned or unplanned event. Fill-in trips are made for a variety of reasons such as; to purchase grocery products for immediate needs, to purchase grocery products on a frequent basis to assure freshness or to limit household inventory levels, to purchase products that were forgotten during a MAJOR grocery shopping trip, or to purchase grocery products which you have run out of. The nature of the trip is to acquire a limited number of products which are needed prior to the next MAJOR grocery shopping trip.

PLEASE be sure to ANSWER ALL QUESTIONS.

PLEASE TURN THE PAGE

This questionnaire consists of statements and fill-in-the-blank questions. For the statements you should either "agree or disagree" or indicate that an item is "Important or Not Important". Please circle the number that best represents the degree to which you agree with the statement. For example, if you "strongly disagree" with a statement or feel an item is "Not Important" you would circle "1". If you "strongly agree" with a statement or feel an item is "Very Important" you would circle "7". You may circle the numbers between 1 and 7 to show how strong your feelings are in either direction. There are no right or wrong answers, so please give your or your household members' true evaluation as requested.

I. In this section you should indicate HOW IMPORTANT each of these items is to you in SELECTING A SUPERMARKET in which you would shop.

	Not Important	Very Important
All prices labeled	1 2 3 4 5 6 7	
Cleanliness	1 2 3 4 5 6 7	
Friendly and accurate clerks	1 2 3 4 5 6 7	
Freshness date marked on products.....	1 2 3 4 5 6 7	
Good quality of produce.....	1 2 3 4 5 6 7	
Unit pricing signs on shelves	1 2 3 4 5 6 7	
Convenient store location	1 2 3 4 5 6 7	
High quality store brands	1 2 3 4 5 6 7	
Frequent sales or specials	1 2 3 4 5 6 7	
Easy to find the items you want	1 2 3 4 5 6 7	

II. These statements relate to your GENERAL ATTITUDE about grocery shopping.

	Strongly Disagree	Strongly Agree
A person can save a lot of money by shopping around for bargains	1 2 3 4 5 6 7	
I shop a lot for store specials	1 2 3 4 5 6 7	
For certain favorite brands I buy the item without making price comparisons.....	1 2 3 4 5 6 7	
Shopping different stores for grocery bargains is a good use of my time	1 2 3 4 5 6 7	
Everyday-low-prices are more attractive to me than weekly specials	1 2 3 4 5 6 7	
Shopping at a supermarket with everyday-low-prices means I do not have to shop different stores to find bargains and specials	1 2 3 4 5 6 7	
If you can trust your primary supermarket to have fair prices you don't have to shop different stores for bargains and specials.....	1 2 3 4 5 6 7	
If you can trust your primary supermarket to have quality products you don't have to shop different stores for bargains and specials	1 2 3 4 5 6 7	

PLEASE CONTINUE

III. This section is about YOUR PLANNING AND BUDGETING activities for grocery shopping.

	Strongly Disagree						Strongly Agree
Before going grocery shopping I prepare a shopping list.....	1	2	3	4	5	6	7
I try to redeem coupons to reduce the price I pay for groceries	1	2	3	4	5	6	7
I budget a certain amount to spend on groceries each week.....	1	2	3	4	5	6	7
Knowing where things are located in my primary supermarket helps me remember items that I need during my shopping trips.....	1	2	3	4	5	6	7
I get the weekly supermarket advertising sheets in the mail.....	1	2	3	4	5	6	7
I use the weekly supermarket advertising sheets when planning my grocery shopping.....	1	2	3	4	5	6	7
Television advertisements by supermarkets remind me of items I need when I am planning my grocery shopping	1	2	3	4	5	6	7
I use the newspaper advertisements by supermarkets when planning my grocery shopping	1	2	3	4	5	6	7
During my MAJOR grocery shopping trips I ALWAYS PLAN to buy enough bread, snacks, milk, and other beverages to last until my next MAJOR grocery shopping trip	1	2	3	4	5	6	7

IV. These statements concern your PERCEPTIONS OF YOUR PRIMARY SUPERMARKET - the SUPERMARKET where you spend the greatest proportion of your grocery dollars.

	Strongly Disagree						Strongly Agree
My primary supermarket offers SOME products at low prices everyday	1	2	3	4	5	6	7
My primary supermarket has a good assortment of products	1	2	3	4	5	6	7
My primary supermarket has a good assortment of national brand names	1	2	3	4	5	6	7
My primary supermarket has a good assortment of store brands	1	2	3	4	5	6	7
If I need fill-in items between major grocery shopping trips my primary supermarket is the place I usually go to.....	1	2	3	4	5	6	7
I can trust my primary supermarket to treat me fairly with the prices they charge.....	1	2	3	4	5	6	7
I can trust my primary supermarket to have quality products.....	1	2	3	4	5	6	7
The people who work at my primary supermarket would make an extra effort to accommodate me if I asked	1	2	3	4	5	6	7
When I am shopping at my primary supermarket I usually see other shoppers who I know	1	2	3	4	5	6	7
Seeing the people who work at my primary supermarket is part of my normal routine.....	1	2	3	4	5	6	7

PLEASE TURN THE PAGE

V. These statements refer to YOUR ATTITUDE toward SUPERMARKETS IN GENERAL.

	Strongly Disagree						Strongly Agree
Generally speaking, supermarkets are all the same	1	2	3	4	5	6	7
Most supermarkets offer SOME products at everyday-low-prices.....	1	2	3	4	5	6	7
ANY supermarket is a good place to go when I need just a couple items between major grocery shopping trips	1	2	3	4	5	6	7
Generally speaking, supermarkets do a good job.....	1	2	3	4	5	6	7

VI. These questions relate to YOUR shopping at SUPERMARKETS. PLEASE FILL IN THE BLANKS.

* How often do you or a member of your household go to a supermarket ? (Pick ONE period only)

___ Weekly, How many times ? ___

___ Monthly, How many times ? ___

___ Other, Please explain _____

* Name your primary supermarket - - the supermarket at which you do the greatest portion of your grocery shopping _____.

* How often do you make a MAJOR grocery shopping trip ? (Pick ONE period only)

___ Weekly, How many times ? ___

___ Monthly, How many times ? ___

___ Other, Please explain _____

___ I do not make MAJOR grocery shopping trips, instead I _____

* Name any second supermarket (In addition to your primary supermarket) that you ROUTINELY go to when you make MAJOR GROCERY SHOPPING trips _____.

* Name any third supermarket that you ROUTINELY go to when you make MAJOR GROCERY SHOPPING trips _____.

* Name ALL OTHER sources (other than supermarkets) where you buy grocery products when you are in a hurry or that you use just once in a while

* What percent of your grocery purchases are made at your PRIMARY supermarket ? _____

* Name ALL supermarkets that you REFUSE to shop in

* Please state why you REFUSE to shop at EACH of these stores

* When you need grocery items BETWEEN MAJOR grocery shopping trips what store do you or the household member you send USUALLY go to ? _____ (NAME the STORE)

PLEASE CONTINUE

VII. The next statements are about YOUR GROCERY SHOPPING BEHAVIORS, ATTITUDES, INTERESTS, and OPINIONS. The statements are about your general behavior when shopping and are not related to any specific store.

	Strongly Disagree						Strongly Agree
I use unit prices when I shop (the per ounce or per pound price given on the shelf tag).....	1	2	3	4	5	6	7
I plan menus	1	2	3	4	5	6	7
Grocery shopping is an important task	1	2	3	4	5	6	7
I like to cook	1	2	3	4	5	6	7
I use recipes when I cook	1	2	3	4	5	6	7
I use price information more today than in the past.....	1	2	3	4	5	6	7
I wish my refrigerator had more storage space.....	1	2	3	4	5	6	7
My space at home for storing groceries is too small	1	2	3	4	5	6	7
I use nutritional labeling information in making my product choices.....	1	2	3	4	5	6	7
I buy national (name) brands more than I buy store brands	1	2	3	4	5	6	7
Brand name implies quality	1	2	3	4	5	6	7
I like to try new brands	1	2	3	4	5	6	7
Store brands are about as good as national brands	1	2	3	4	5	6	7
I often buy prepared foods at the supermarket to save time	1	2	3	4	5	6	7
I use a lot of frozen dinners and entrees	1	2	3	4	5	6	7
I like to shop for groceries	1	2	3	4	5	6	7
I make price comparisons in the grocery store almost automatically, without thinking about it	1	2	3	4	5	6	7
When I am making my MAJOR GROCERY SHOPPING trips I am usually pressed for time.....	1	2	3	4	5	6	7
The members of my household often eat their meals on their own.....	1	2	3	4	5	6	7
There are always some grocery items that I will have to go buy BETWEEN my MAJOR grocery shopping TRIPS.....	1	2	3	4	5	6	7
When I have to shop for groceries between major shopping trips it disrupts my routine	1	2	3	4	5	6	7
Shopping for grocery items between my major shopping trips is part of my normal routine.....	1	2	3	4	5	6	7
When I need to buy grocery items between major shopping trips I am usually pressed for time	1	2	3	4	5	6	7
When I need grocery items between major shopping trips I USUALLY ask another family member to go get them	1	2	3	4	5	6	7

PLEASE TURN THE PAGE

VIII. The following questions relate to your HOUSEHOLD MEMBER'S patronage of CONVENIENCE STORES.

PLEASE consider ALL HOUSEHOLD MEMBER'S behavior when answering these questions. YOU should ASK the household member who goes to the convenience store most often to respond to ALL questions about convenience stores.

*** How often does a member of your household buy gasoline at a convenience store ? (Check one period and fill in the number of times)**

Weekly, How many times ? _____ Quarterly, How many times ? _____

Monthly, How many times ? _____ Yearly, How many times ? _____

Household members do not buy gasoline at convenience stores (skip the next question).

*** What else does the member buy when purchasing gasoline (please list all the items bought even if they are only bought sometime or indicate none)**

*** When members of your household buy gasoline do they USUALLY (Complete only ONE line)**

Buy some dollar amount ? How much ? _____

Buy a number of gallons ? How much ? _____

Fill the tank ?

Other. Please explain _____

*** How often does a member of your household go to a convenience store to purchase something when NOT BUYING GASOLINE ? (Check one period and fill in the number of times)**

Weekly, How many times ? _____ Quarterly, How many times ? _____

Monthly, How many times ? _____ Yearly, How many times ? _____

Household members only go to a convenience store when buying gasoline (skip the next question)

Household members NEVER go to convenience stores (skip the next question).

*** Please list ALL the items, other than gasoline, that your household members ROUTINELY BUY at a convenience store. Be sure to consider ALL members of your HOUSEHOLD and list ALL items even if they are only bought sometime.**

PLEASE CONTINUE

IX. These statements refer to your HOUSEHOLD MEMBERS' ATTITUDE TOWARD CONVENIENCE STORES AS A GROUP. Please CONSIDER ALL HOUSEHOLD MEMBER'S opinions when responding to these statements.

	Strongly Disagree							Strongly Agree
Generally speaking, convenience stores are all the same	1	2	3	4	5	6	7	
Convenience stores charge higher prices than supermarkets.....	1	2	3	4	5	6	7	
The prices for SOME ITEMS at convenience stores are about the same as supermarket prices	1	2	3	4	5	6	7	
ANY convenience store is a good source when my household members need milk, bread, or drinks between major grocery shopping trips	1	2	3	4	5	6	7	
Some members of my household think a convenience store is a good place to buy certain items when you want to SAVE TIME.....	1	2	3	4	5	6	7	
There are certain items (other than gasoline) that my household members will ROUTINELY buy at a convenience store.....	1	2	3	4	5	6	7	

X. These statements concern your HOUSEHOLD MEMBERS' perceptions of your HOUSEHOLD'S PRIMARY CONVENIENCE STORE.

* Which household MEMBER patronizes a convenience store most often ? _____

* Name the convenience store your household members patronize most often _____
 This is your household's PRIMARY convenience store. If your household does not have a PRIMARY convenience store check here ____ then answer the questions about convenience stores in general.

You should consider THE HOUSEHOLD MEMBER who patronizes the CONVENIENCE STORE MOST OFTEN when responding to the following statements.

	Strongly Disagree							Strongly Agree
Our primary convenience store has reasonable prices on SOME OF THE PRODUCTS sold there.....	1	2	3	4	5	6	7	
Our primary convenience store has a good assortment of products.....	1	2	3	4	5	6	7	
Our primary convenience store has a good assortment of brand name items	1	2	3	4	5	6	7	
If my household needs fill-in items between MAJOR supermarket trips some members routinely go to our primary convenience store.....	1	2	3	4	5	6	7	
The people who work at our primary convenience store usually know what my household member wants when the member walks in.....	1	2	3	4	5	6	7	
The people who work at our primary convenience store would make an extra effort to accommodate my household member if asked	1	2	3	4	5	6	7	
My household member(s) usually see shoppers they know when shopping at our primary convenience store	1	2	3	4	5	6	7	
Seeing the people who work at our primary convenience store is part of the normal routine for some of my household members.....	1	2	3	4	5	6	7	

PLEASE TURN THE PAGE

XI. The final section consists of demographic questions about you and your household members. Please respond to the questions about yourself and your household members as requested.

* What is your gender ? Female Male

* Please check the category which corresponds to YOUR age:

under 21 21-25 26-35 36-45 46-55 56-65 over 65

* How many adults live in your household ? _____

* How many children live in your household ? _____

* Please check the category that corresponds to YOUR occupation:

<input type="checkbox"/> Professional	<input type="checkbox"/> Semi-Professional
<input type="checkbox"/> Owner, manager	<input type="checkbox"/> Store or office worker
<input type="checkbox"/> Personal service worker	<input type="checkbox"/> Skilled worker
<input type="checkbox"/> Unskilled worker	<input type="checkbox"/> Student
<input type="checkbox"/> Retired	<input type="checkbox"/> Other (please list) _____

* What is YOUR highest education achievement ?

<input type="checkbox"/> Less than high school	<input type="checkbox"/> Some college
<input type="checkbox"/> High school graduate	<input type="checkbox"/> College graduate
<input type="checkbox"/> Community college or trade school	<input type="checkbox"/> Graduate degree

* Please complete the following regarding ALL OTHER ADULTS in your household:

Gender	Age	Occupation	Relationship to you	Education Level
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

(Please continue on the back if necessary)

* IF YOU RENT, how much is your monthly rent ? _____

* IF YOU ARE BUYING YOUR (OR OWN) HOME, what is its approximate market value _____

* Please indicate the category that corresponds to TOTAL HOUSEHOLD Income.

<input type="checkbox"/> under \$10,000	<input type="checkbox"/> \$30,000 - 34,999	<input type="checkbox"/> \$55,000 - 59,999
<input type="checkbox"/> \$10,000 - 14,999	<input type="checkbox"/> \$34,999 - 39,999	<input type="checkbox"/> \$60,000 - 64,999
<input type="checkbox"/> \$15,000 - 19,999	<input type="checkbox"/> \$40,000 - 44,999	<input type="checkbox"/> \$65,000 - 69,999
<input type="checkbox"/> \$20,000 - 24,999	<input type="checkbox"/> \$45,000 - 49,999	<input type="checkbox"/> \$70,000 - 74,999
<input type="checkbox"/> \$25,000 - 29,999	<input type="checkbox"/> \$50,000 - 54,999	<input type="checkbox"/> \$75,000 & above

* What type of structure do you live in ? (Check one)

Mobile Home Apartment Townhouse Duplex House Other

Please check your answers for any missed questions. YOUR PARTICIPATION IS APPRECIATED !

VITA

MARSHALL DEAN DOWDY
750 Tall Oaks Drive
Apartment 2900-H
Blacksburg, Virginia 24060
703-953-2281

EDUCATION

Doctor of Philosophy. Virginia Polytechnic Institute and State University, Blacksburg, Virginia. Major Marketing, minors Finance and Organizational Behavior. August 1994.

Master of Science, Business Administration. Virginia Commonwealth University, Richmond, Virginia. Emphasis in Economics. June 1969.

Bachelor of Science. Virginia Commonwealth University, Richmond, Virginia. Major Retailing. June 1962.

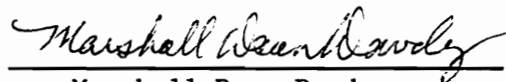
RESEARCH and TEACHING INTERESTS

Research: Marketing strategy and retail strategy.

Teaching Interests: Marketing strategy and marketing management, retail strategy and retail management.

ACADEMIC EXPERIENCE

- 1985 - 1990 Instructor of Marketing, full and part time, Virginia Polytechnic Institute.
- 1980 - 1985 Academic Officer, Landing Force Training Command, Atlantic, Little Creek, U. S. Marine Corps, Norfolk, Virginia.
- 1977 - 1980 Instructor of Marketing, Virginia Polytechnic Institute.
- 1969 - 1974 Instructor of Retailing, Virginia Commonwealth University.



Marshall Dean Dowdy
Date of birth: Dec 17, 1939