

## INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.
2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.
3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again -- beginning below the first row and continuing on until complete.
4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.
5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

**Xerox University Microfilms**

300 North Zeeb Road  
Ann Arbor, Michigan 48106

74-8370

DASH, Joseph Francis, 1932-  
STORE CHOICE: AN INVESTIGATION OF THE  
CHARACTERISTICS OF CONSUMERS WHO BOUGHT  
AUDIO EQUIPMENT FROM A SPECIALTY RETAILER  
VERSUS A DEPARTMENT STORE.

The City University of New York, Ph.D., 1974  
Business Administration

University Microfilms, A XEROX Company, Ann Arbor, Michigan

© 1973

JOSEPH FRANCIS DASH

ALL RIGHTS RESERVED

STORE CHOICE: AN INVESTIGATION OF THE  
CHARACTERISTICS OF CONSUMERS WHO BOUGHT  
AUDIO EQUIPMENT FROM A SPECIALTY RETAILER  
VERSUS A DEPARTMENT STORE

BY

JOSEPH FRANCIS DASH

A dissertation submitted to the  
Graduate Faculty in Business in  
partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy,  
The City University of New York

1974

This manuscript has been read and accepted for the Graduate Faculty in Business Administration in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

11/23/73  
date

Conrad Berenson  
Professor Conrad Berenson  
Chairman of Examining Committee

10/23/73  
date

Sidney I. Lirtzman  
Professor Sidney I. Lirtzman  
Executive Officer

Professor John Czepiel

Professor David Rachman

Professor Lloyd Rosenberg

Professor Leon Schiffman

Supervisory Committee

The City University of New York

## ABSTRACT

### STORE CHOICE: AN INVESTIGATION OF THE CHARACTERISTICS OF CONSUMERS WHO BOUGHT AUDIO EQUIPMENT FROM A SPECIALTY RETAILER VERSUS A DEPARTMENT STORE

by

Joseph Francis Dash

Adviser: Professor Conrad Berenson

The objective of the research was to study the impact of a group of behavioral variables on consumers' store choice decision relating to the purchase of audio equipment. An extensive literature research dealing with store patronage studies and the behavioral variables manipulated in the field study determined that few studies or experiments have been undertaken which deal with the issue of consumer psychological typology and store choice. Studies linking buyer behavior and store choice have been generally devoted to innovation diffusion issues, non-durable products, products involving high purchase experience, brand loyalty, and store image research. Several consumer researchers were quoted to the effect that deeper research in the area of buyer behavior and store choice is needed.

The field study was based on a paradigm consisting of six groups of independent behavioral variables (consumer psychological predispositions and demographic characteristics) impacting on the decision to purchase audio equipment in either a specialty store or in a department store. The independent variables used in the field study were (1) perceived risk, (2) generalized and specific self-confidence, (3) opinion leadership, (4) information seeking, and exposure to media, (5) product knowledge, importance and experience, and (6) demographic characteristics. A series of 13 hypotheses were postulated which reflected these independent variables and their impact on the consumer's store choice for the purchase of audio equipment.

In order to test the hypotheses, the cooperation of two retailing chains was secured. One met the study requirements of a specialty audio retailer, and the other met the requirements of a department store retailer. Each chain had stores located near each other in downtown San Francisco and San Jose, California, allowing for pairs of stores to be studied in two cities approximately 50 miles from each study location. A total of 772 printed questionnaires (in combination with follow-up WATS line interviewing of laggards) were sent to the audio equipment buyers at the four stores and 421 (55 percent) were usable for the study data base.

A multiple stepwise linear discriminant analysis was run on a 70 percent/30 percent data base split in order to eliminate bias. The regression program chose six independent variables as predictors of respondent store choice and on the basis of their relative importance as predictor variables, the first six variables accounted for 36 percent of the relative importance of all predictor variables. The multiple correlation coefficient  $R^2$  equalled 54 percent.

Based on the key six predictor variables, a profile of the specialty store buyer emerged. The buyer is characterized as being highly educated, not an avid reader of mass media magazines, highly interested in shopping in an audio store with knowledgeable salesmen, less interested in the store's guarantee and warranty policies, has high interest in price deals, and is highly knowledgeable about audio products.

The discriminant model was able to correctly classify 78 percent of the specialty store and department store buyers in the 70 percent subsample (the sample from which the discriminant model is derived) and 74 percent of the specialty store and department store buyers in the 30 percent verification subsample on the basis of computed point scores for each respondent--an output from the discriminant analysis. On the basis of the study results, the discriminant analysis should be considered a successful application of this technique in this study.

Each of the key independent behavioral variables was tested in line with a priori hypotheses relating to the impact of the independent variables on the consumer's decision to purchase in the specialty store or department store. Only respondent's income level and occupational experience were not significantly related to the respondent's store choice.

## ACKNOWLEDGMENTS

The writer is indebted to many individuals who aided in the planning and preparation of this dissertation. Mr. Tom Anderson, Vice President/General Manager, and Mr. Ted Bennett, Vice President/Marketing, Pacific Stereo, made available needed customer lists. Of equal importance was the assistance provided by The Emporium. Special thanks are extended to Mr. Ardith Rivel, Vice President, Columbia Records, for his encouragement and advice, and to Dr. Tom Doerfler, Arthur D. Little, Inc., for his invaluable aid in processing the field study data. Dr. Larry Isaacson provided the inspiration for the study of the retailing area.

Special thanks are extended to Mrs. Margaret S. Martin and Mrs. Wilma Williams for their expert typing of various dissertation drafts.

Deep gratitude and appreciation is extended to my principal mentors--Professors Conrad Berenson and Leon Schiffman. They contributed so much through every stage of this dissertation. Also, the advice and counsel provided by Professors David Rachman and Lloyd Rosenberg was invaluable.

Finally, special thanks to others--my dear friends, Professors Elmer Waters and Martin Dworkin. To Elmer, my gratitude for his advice and encouragement; and to Marty, my appreciation for always being an unwavering example of academic excellence.

## TABLE OF CONTENTS

Chapter		Page
I	Introduction . . . . .	1
II	Literature Review . . . . .	13
III	Research Model and Field Study Review . . . . .	70
IV	Research Findings and Analysis . . . . .	92
V	Summary, Conclusions and Recommendations . . . . .	148
APPENDIX I	. . . . .	162
APPENDIX II	. . . . .	166
BIBLIOGRAPHY	. . . . .	167

## LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Rank Order of Information Sources Used to Decide on Shopping in A Retail Outlet . . . . .	58
2	Age Distribution of Regular Department Store Customers . . . . .	69
3	The Perceived Risk Matrix . . . . .	82
4	The Generalized Self-Confidence Matrix . . . . .	84
5	Data Base . . . . .	93
6	Description of Independent Variables Used in Multiple Discriminant Analysis . . . . .	98
7	Discriminant Weights and Importance Values (70 Percent Sub-Sample) . . . . .	101
8	Point Score Distribution (70 Percent Sub-Sample) . . . . .	107
9	Classification of Pacific Stereo and Emporium Buyers by Multiple Discriminant Analysis (70 Percent Sub-Sample) . . . . .	109
10	Point Score Distribution (30 Percent Sub-Sample) . . . . .	111
11	Classification of Pacific Stereo and Emporium Buyers by Multiple Discriminant Analysis (30 Percent Sub-Sample) . . . . .	113
12	The Relationship Between Multiple Discriminant Analysis Sample Split and Classification Procedures . . . . .	115
13	The Relationship Between Store Choice and Respondents' Perceived Risk . . . . .	116

<u>Table</u>		<u>Page</u>
14	The Relationship Between Store Choice and Respondents' Generalized Self-Confidence . . . . .	118
15	The Relationship Between Store Choice and Respondents' Specific Audio Equipment Self-Confidence . . . . .	120
16	The Relationship Between Store Choice and Respondents' Opinion Leadership Level . . . . .	123
17	The Relationship Between Store Choice and Respondents' Exposure to Audio Equipment Special Interest Magazines . . . . .	125
18	The Relationship Between Store Choice and Respondents' Level of Pre-purchasing Information Seeking . . . . .	127
19	Pre-purchase Store Shopping Behavior . . .	129
20	Pre-purchase Information Seeking from Product Brochures and Catalogues . .	131
21	The Relationship Between Store Choice and the Importance of Selecting A Store Which Has Knowledgeable Audio Equipment Salesmen . .	133
22	The Relationship Between Store Choice and Respondents' Knowledge of Audio Equipment . . . . .	136
23	The Relationship Between Store Choice and Respondents' Perceived Importance of Audio Equipment . .	138
24	The Relationship Between Store Choice and Respondents' Experience with Audio Equipment . . . . .	140
25	Income Ranges of Respondents . . . . .	142

<u>Table</u>		<u>Page</u>
26	The Relationship Between Store Choice and Respondents' Income Level . . . . .	143
27	The Relationship Between Store Choice and Respondents' Education Level . . . . .	145
28	The Relationship Between Store Choice and Respondents' Number of Years of Experience in Their Occupation . . . . .	146
29	Summary of Research Findings-- Research Hypotheses . . . . .	152
30	Age Distribution of Respondents . . . . .	155

## LIST OF FIGURES

Figure		Page
1	Store Choice Model . . . . .	19
2	Determinants of External Search . . . . .	52
3	Usage of Information Channels in the Purchase Decision Process . . . . .	55
4	The Research Flow Chart . . . . .	71
5	Map of California . . . . .	76
6	Classification of Buyers by Discriminant Analysis (70 Percent Sub-Sample) . . . . .	108
7	Classification of Buyers by Discriminant Analysis (30 Percent Sub-Sample) . . . . .	112

## CHAPTER I

### INTRODUCTION

In the study of consumers and their approach to retail outlets, store choice is of paramount importance to the retailer, particularly since so many types of stores exist that sell the same kinds of merchandise. In effect, a consumer's decision to select a specific store is very much like the profit line of an income statement. The retailer, by obtaining the consumer's patronage, has accomplished his primary goal relative to consumers. To make a purchase, the consumer must have decided to visit the store, and must have found, at least at the moment of purchase, a suitable item. With the purchase, the retailer's ability to make a profit on the item is his operational problem. Nevertheless, with the purchase, the retailer's battle for consumer patronage has been won. Thus, consumer store selection processes are a retailer's strategic point for the study of consumer behavior, and it is for this reason that retailers and manufacturers have poured large amounts of research money into studying store characteristics and store image concepts. It is equally important and fascinating, however, to gain

empirical insight into how differing consumer characteristics play a role in store selection processes. This is the beginning point for the following research study whose basic thesis is that a consumer's behavioral characteristics will account, in part, for his store choice, when faced with different retailing institutions offering the same type of merchandise or products.

#### STUDY RATIONALE

Today four types of retail establishments selling the same product are found--the discount store, the department store, the small single store independent retailer, and the rapidly emerging specialty variety store.<sup>1</sup> This retailing evolution has been periodically noted in the literature--particularly the trend toward greater specialization in the retailing organization.<sup>2</sup>

---

<sup>1</sup>Operationally defined as the retail store that only features a very narrow range of product types in extremely wide brand or style assortment. These stores are in evidence as cheese stores, full-line phonograph record stores, audio component (high fidelity), and carpet stores.

<sup>2</sup>See, for example, H. Robert Dodge and Herbert H. Summer, "Choosing Between Retail Stores," Journal of Retailing, Vol. 45 (Fall, 1969), p. 11; and Rollie Tillman, "Rise of the Conglomerant," Harvard Business Review, Vol. 49 (November-December, 1971), pp. 44-51.

Yet, an extensive review of published sources indicates a dearth of insight into buyer behavior or buyer characteristics in relation to the specialty retailing environment. Although the principal appeals of the specialty retail merchandiser (vast assortment and sales personnel expertise) are apparent, the consumer behavior literature lacks any depth in examining the issue of whether these specialty retail establishments attract different groups of buyers and, if so, how these buyers differ from other consumers.

Studies which do examine buyer behavior in the retail store have been generally devoted to (1) innovation diffusion problems (new products or services); (2) non-durables (usually food products); (3) products involving high purchase experience (food shopping in supermarkets, drugs cosmetics, etc.); (4) brand loyalty or brand choice; (5) store image;<sup>3</sup> (6) stochastic models of consumer buying behavior;<sup>4</sup>

---

<sup>3</sup>Stuart V. Rich, Shopping Behavior of Department Store Customers, (Boston: Division of Research, Graduate School of Business, Harvard University, 1963; F. E. Brown and George Fisk, "Department Stores and Discount Houses: Who Dies Next?" Journal of Retailing, Vol. 41 (Fall, 1965) pp. 15-27.

<sup>4</sup>Even in the model building area, researchers have "almost exclusively concentrated on brand or product purchase decisions...store decisions and purchase size decisions, for example, although clearly important and interrelated, have been largely ignored." (David A. Aaker and J. Morgan Jones, "Modeling Store Choice Behavior," Journal of Marketing Research, (February, 1971) Vol. 8, No. 1, p. 38.

and (7) consumer personality and attitudes.<sup>5</sup> In fact, Engel, Kollat and Blackwell have concluded in their analysis of published studies pertaining to relationships between purchasing processes and major categories of variables that there has been "very limited" research on purchase intentions and consumer characteristics versus store characteristics.<sup>6</sup> The literature search for this study supports their conclusion, which remains valid today.

The general retailing literature was also examined. Although a rich research tradition prevails in this field, the published studies tend to polarize in the direction of site selection,<sup>7</sup> central place theory<sup>8</sup> (spatial aspects

---

<sup>5</sup>Harold H. Kassarian, "Personality and Consumer Behavior: A Review," Journal of Marketing Research, Vol. 8 (November, 1971), pp. 409-418; and George S. Day, Buyer Attitudes and Brand Choice Behavior (New York: The Free Press, 1970).

<sup>6</sup>James F. Engel, David T. Kollat and Roger D. Blackwell, Consumer Behavior (New York: Holt, Rinehart and Winston, Inc., 1968), p. 450; also David T. Kollat, James F. Engel and Roger D. Blackwell, "Current Problems in Consumer Behavior Research," Journal of Marketing Research, Vol. 7 (August, 1970), pp. 327-332.

<sup>7</sup>Richard L. Nelson, The Selection of Retail Locations (New York: F.W. Dodge Corporation, 1958); and William Applebaum, et al., Guide to Store Location Research (Reading, Massachusetts: Addison Wesley Publishing Company, 1968).

<sup>8</sup>Brian Berry, "Retail Location and Consumer Behavior," (Philadelphia: Proceedings of the Regional Science Association, 1962), pp. 65-106.

of retail and service businesses), and the economics of retailing.<sup>9</sup> Virtually all of the examined studies concerned with consumer retail buying behavior contain little or no empirical data on behavioral characteristics, and those that do, concern shopping center or food store retailing.<sup>10</sup> Most important, however, is the fact that these studies do not attempt to test or manipulate behavioral science hypotheses.

Neither the popular marketing literature, the marketing trade publications, nor government documents yield any further studies or provide further assistance.

This study was thus viewed as an opportunity to fill a wide gap in the consumer behavior and retailing literature through the development and testing of theoretically-based hypotheses concerned with consumer characteristics and their implications for specialty retailing. Finally, since the literature search failed to uncover any meaningful studies which focus on the specialty retailer and buyer characteristics, this study will focus on this area.

---

<sup>9</sup> Douglas J. Dalrymple and Donald L. Thompson, Retailing: An Economic View (New York: The Free Press, 1969).

<sup>10</sup> For example, see D.L. Huff, "Ecological Characteristics of Consumer Behavior." Proceedings of the Regional Science Association, Philadelphia, Pennsylvania (1961), pp. 19-28; and H.R. Dodge and H.H. Summer, op.cit., p. 11.

## STUDY OBJECTIVES

The objective of this study was to examine the impact of the following group of variables:<sup>11</sup>

1. perceived risk
2. self-confidence
3. opinion leadership
4. information seeking
5. exposure to information
6. product knowledge, importance, experience, and
7. demographic characteristics

on consumer decision to purchase audio equipment in a specialty retail establishment.

## QUESTIONS TO BE EXAMINED

The following issues will be explored in this study:

1. Does the consumer who decides to purchase in the specialty audio store have a different level of perceived risk than the consumer who decides to shop for the same product in a department store?
2. Does the consumer who decides to purchase in the specialty audio store have greater generalized self-confidence than non-shoppers?

---

<sup>11</sup>This study is focusing on these variables because the consumer behavior literature has demonstrated that they play an important role in consumer buying predispositions and behavior and, further, have never been manipulated in a specialty retail store study.

3. Where does the purchaser get his knowledge about the specialty store?

4. Is the customer searching for a store which has product knowledgeable salesmen?

5. Are consumers who have a high level of specific product knowledge more or less likely to purchase in a specialty audio store? Does product importance (saliency) play a meaningful role in the search for retailing expertise?

6. Is there a difference in educational achievement between specialty and department store purchasers?

#### SCOPE OF STUDY

This study focused on audio high fidelity retailing, and the cooperation of the Pacific Stereo subsidiary of the Columbia Broadcasting System, Inc. (CBS) was secured. This chain of 35 stores, all located in California and Illinois, fits the concept of a specialty retailing unit.<sup>12</sup> All of the Pacific Stereo stores carry most of the major domestic and foreign brands in every audio component product category (i.e., tuners, amplifiers, receivers, speakers, record players and changers, tape players and earphones). The average sale range in these stores is \$150-200. This study exclusively examined consumer behavior relative to the

---

<sup>12</sup>After this study commenced, Pacific Stereo expanded into the Chicago, Illinois area and opened five stores.

purchase of audio products. These stores only carry high fidelity equipment--no audio-visual or television sets are sold.

The individual units in the chain are located in communities of varying sizes in the San Francisco Bay and Peninsula region, and the Greater Los Angeles and Chicago areas. Two Pacific Stereo stores were studied--one in downtown San Francisco, and one in downtown San Jose, California. Both of these cities have competition suitable for selection of two department stores for comparison testing purposes.

The respondent group surveyed consisted of all purchasers of equipment covering the two month period during December 1972 and January 1973. The data base was obtained from cash and credit sales receipt records, and was limited to consumers whose audio equipment purchases equalled a minimum of \$100. (A two month period was chosen for the purposes of generating enough qualified purchasers and to insure adequate respondent recall). A sample unit was rejected if the purchase did not consist of one or more of the following products: tuners, amplifiers, receivers, compacts, consoles, speaker(s), record players or changers, tape players or earphones. Audio accessories purchases (needles, tape head cleaners, etc.) disqualified a respondent because of low purchase values. Respondents who made a purchase for the purpose of presenting a gift were also eliminated. This procedure yielded qualified respondents for the data base.

The survey group of respondents purchasing audio equipment in a department store came from customers of The Emporium stores located in San Francisco and San Jose. The Emporium department store chain is part of the California based Broadway-Hale group. The Emporium fits the department store classification. Both of these stores are located near the Pacific Stereo stores. All audio equipment purchasers during the same two month period as the Pacific Stereo customers were surveyed. The same purchase level of a \$100 minimum was used. The names of the respondents were also secured from store cash and credit sales records.

The data base was generated from responses to a mailed questionnaire which offered an expensive gift in return for the respondent's cooperation. Follow-up WATS line telephone interviews were also utilized.

This research design imposed study limitations. The results are not representative of all consumers because of the limitation imposed by geographical and product restrictions. Nevertheless, it is believed that the results of this study will allow for further insight into consumer purchasing behavior--particularly behavior relative to high cost, high risk consumer durables.

### STUDY IMPORTANCE

The goal of this research study has been to add to the existing state of knowledge with regard to consumer purchasing behavior as follows:

1. Examination of the differences in consumer purchasing behavior relative to a specialty retailing establishment compared to consumer purchasing behavior relative to a department store. The findings of this study will, hopefully, contribute to the marketing and consumer behavior literature.

2. This study will add more theoretically based data to the retailing literature because of the focus on consumer buying behavior in relation to durable high cost products.

3. Several independent variables used in this study (perceived risk and self confidence, for example) have never been studied in a specialty retailing environment and, therefore, this work extends the range of the use and examination of these variables under varying conditions. Variable replication is an important goal in consumer behavior research (see Kollat, Engel and Blackwell's comment on this point)<sup>13</sup> and in this regard this study, hopefully, will make a contribution to a consumer behavior research replication tradition.

---

<sup>13</sup>Kollat, Engel and Blackwell, op.cit., p. 329.

4. In terms of the retailer and manufacturer facing the consumer, the results of this study allow for a more accurate matching of the firms' promotional mix and the consumers' information needs. In this context, this study presented a problem-solving opportunity, the results of which may make a contribution to a business firm's rate of return on investment through increased promotional efficiency and help to establish appropriate measures of performance and efficiency.

5. It is believed that the findings of this study may have practical implications for specialty retailing site selection strategy: a topic of much concern to retailers who face rising space costs and while at the same time desire to find an opportunity for competitive differential advantage.

#### ORGANIZATION OF THE DISSERTATION

Chapter II presents a review of the pertinent literature concerning consumer behavior and store choice as well as the key independent behavioral variables used in the research study.

Chapter III is concerned with a description of the research model employed in the field study. This chapter also encompasses the research hypotheses, definition and measurement of the variables, and a description of the general data analysis approach.

Chapter IV presents the findings and analyses of the field study.

Chapter V contains the summary, conclusions and recommendations evolving from the preceding chapter.

## CHAPTER II

### LITERATURE REVIEW

This chapter is devoted to a review of the literature dealing with the major subject matter of this dissertation. The literature review will be organized around two key topics which are the central issues in the research study: (1) store patronage, and (2) consumer behavioral variables (the independent variables) examined in the research study.

This review serves as a foundation for the research design and the analysis of the research findings which are examined in Chapters III and IV. The literature review of consumer store patronage studies is considered first.

#### Store Patronage

In Chapter I it was pointed out that published sources do not yield many studies relating to the issue of the impact of consumer behavioral variables on consumer's store patronage. Indeed, Engel and his co-authors point out that no research has been carried out in order to determine the relationship between "consumer characteristics,

store characteristics, and outcomes"; moreover, they note that "like many other areas of consumer behavior, research in purchasing processes has concentrated on a few relations and ignored many of the others".<sup>1</sup> More recent workers in the field of retail segmentation have also noted this situation by asserting that

Most of the progress in market segmentation research has been produced from studies concerned with individual products, specific brands or various types of advertising media ... but generally, the pace of retail store market segmentation has tended to be both somewhat slower and somewhat less sophisticated than in these other areas.<sup>2</sup>

Indeed, a review of retail segmentation literature would cause one to conclude that retail store "image" studies have occupied the most attention in store patronage research.

Martineau, in one of the most widely referenced works dealing with the store image concept introduces the concept of a retail store "personality".<sup>3</sup> He suggests that

<sup>1</sup>James F. Engel, David T. Kollat and Roger D. Blackwell, Consumer Behavior (New York: Holt, Rinehart and Winston, Inc., 1968), pp. 449-450.

<sup>2</sup>Daniel J. Sweeney and Richard C. Reizenstein, "Developing Retail Market Segmentation Strategy for A Women's Specialty Store Using Multiple Discriminant Analysis." Presented to the Fall Educators Conference, American Marketing Association, Houston, August, 1972.

<sup>3</sup>Pierre Martineau, "The Personality of The Retail Store," Harvard Business Review, Vol. 36, No. 1 (January-February 1958), pp. 47-55. Also, see Pierre Martineau, Motivation in Advertising: Motives That Make People Buy (New York: McGraw Hill Book Company, Inc., 1957).

there is a "force operative in the determination of a store's customer body besides the obvious functional factors of location, price ranges and merchandising offerings and this force is the store's personality or image".<sup>4</sup> He attributes an aura of psychological attributes to the retail store and asserts that the shopper will seek out the store whose image is most congruent with the customer's own self-image. He suggests also, that the most potent factor in the store's image mix is the consumer's perception of the "character of the sales personnel".<sup>5</sup> No actual research data on this issue was included in Martineau's article. This dissertation deals, in part, with consumer store choice and perception of sales force expertise.

Further developing the store image theme, Arons studied television viewing and its influence on store image.<sup>6</sup> His study, mainly using female respondents, concluded that frequency of shopping in a particular store is associated with the consumer's perception of that store's image. He also presents 18 characteristics which enter into a consumer's image of a retail store.<sup>7</sup>

<sup>4</sup>Ibid., p. 47

<sup>5</sup>Ibid., p. 52.

<sup>6</sup>Leon Arons, "Does Television Viewing Influence Store Image and Shopping Frequency?" Journal of Retailing, Vol. 37, No. 3 (Fall, 1961) pp. 1-13.

<sup>7</sup>Ibid., p. 10.

One of the most ambitious research projects in the store image field was conducted by Rich and deals with the shopping behavior of 4,500 women in New York and Cleveland, with particular emphasis on their concern for department store services.<sup>8</sup> (Rich's project coincided in time with the competitive growth threat of the discount store vis-a-vis the traditional department store--thus his body of work compares and contrasts both of these retail institutions). These authors are able to discern three broad types of retail stores: high fashion appeal retailers, price appeal retailers, and broad appeal retailers. They concluded that high fashion stores had the strongest image with consumers, discount stores had the strongest price appeal image, and department stores had a strong image of reliability, breadth of merchandise and services. (A similar study conducted today would likely find that discount stores had usurped these department store appeals and that some department stores had adopted discount store strategies.)

---

<sup>8</sup>Stuart V. Rich, Shopping Behavior of Department Store Customers (Boston: Division of Research, Graduate School of Business, Harvard University, 1963); also, Stuart V. Rich and Bernard Portis, "Clues for Action from Shoppers Preferences," Harvard Business Review, Vol. 41, No. 2 (March-April, 1963); Stuart V. Rich and Bernard Portis, "The Imagines of Department Stores," Journal of Marketing, Vol. 28 (April, 1964), pp. 10-15.

It should be noted that sales clerk services ranked first in importance among various store services rated by the consumer respondents. In a follow-up article based on the original study data base, Rich and Jain tested the usefulness of social class and consumer life cycle status in understanding consumer store patronage behavior during changing socio-economic conditions.<sup>9</sup> Coincident in time with the Rich and Jain study, Rachman and Kemp were surveying consumers in Boston, using a mailed questionnaire to determine why consumers shop in discount stores. It is interesting to note that 43 percent of the respondents indicated that "wide assortment of goods" was one of the key reasons given for shopping in the discount house.<sup>10</sup> Analysis of their data relative to the effect of interpersonal influences on the female respondents indicated that across low, medium and high economic classes, women showed no significant differences relative to the influence of friends on their shopping behavior. Husbands appeared to influence their wives slightly more than friends among the middle and upper class women.

---

<sup>9</sup>Stuart V. Rich and Subhash C. Jain, "Social Class and Life Cycle as Predictors of Shopping Behavior," Journal of Marketing Research, Vol. 5 (February, 1968) pp. 41-49.

<sup>10</sup>David J. Rachman and Linda J. Kemp, "Profile of the Boston Discount House Customers," Journal of Retailing, Vol. 39, No. 2 (Summer, 1963), p. 7.

An earlier contribution to the concept of consumer life cycle and socio-economic class as a retail segmentation concept was the work of Rachman and Levin on blue collar workers. They pointed the way for retailers and researchers to carefully examine key sub-groups within larger consumer segments for segmentation opportunities, i.e., suburban blue collar workers as a subset of the general suburban community.<sup>11</sup>

Also, coincident with the Rich studies, H. Lawrence Isaacson was conducting a major research study on store choice, at the Harvard Business School under the direction of Raymond Bauer.<sup>12</sup> His study, culminating in a dissertation (and later published in part by the NRMA) sought to probe on a broad front, "why" and "how" women shop for clothing in various retail institutions present in the same town. The four types of stores chosen were: a discount store, a "basement" store, an "upstairs" store, and a "neighborhood" store. One of Isaacson's contributions was his presentation of a sequential store choice model, shown in Figure 1. Some of his other findings dealing with his manipulation of psychological variables and their impact on store choice will be discussed in the next section.

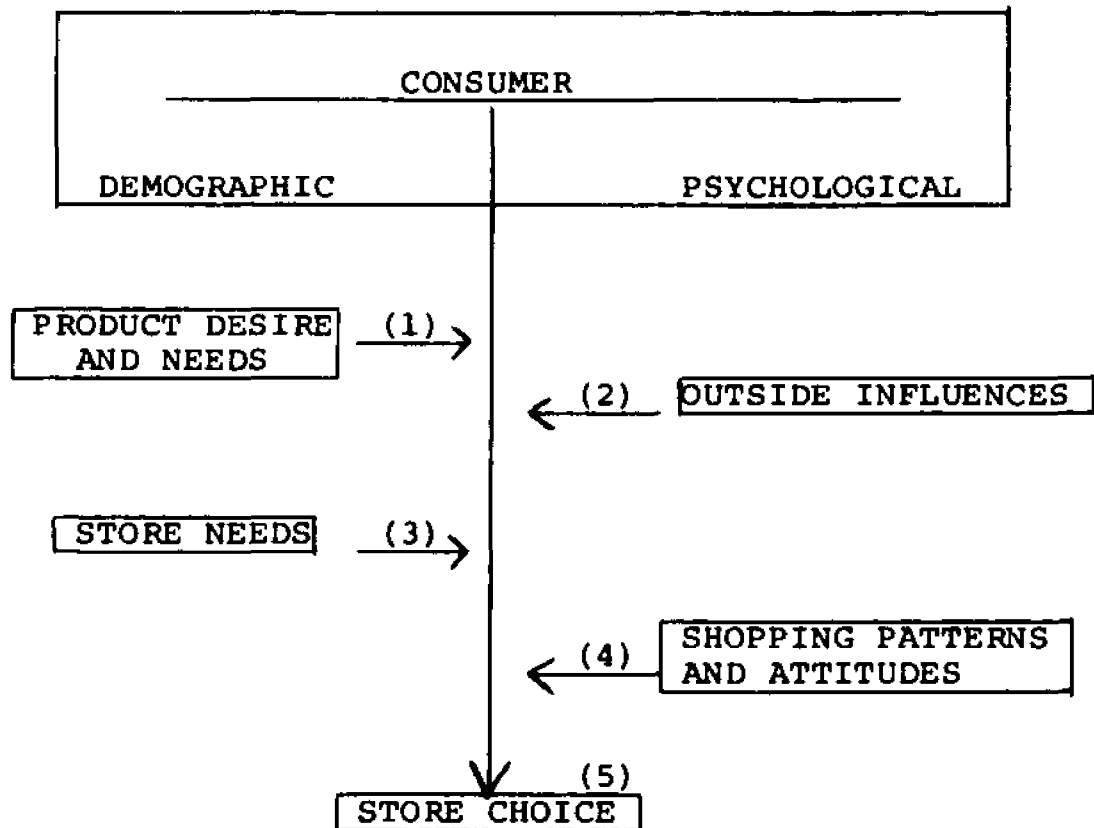
---

<sup>11</sup>David J. Rachman and Marvin Levin, "Blue Collar Workers Shape Suburban Markets," Journal of Retailing, Vol. 42, No. 4 (Winter, 1966-67) pp. 5-13 and 53.

<sup>12</sup>H. Lawrence Isaacson, Store Choice (Cambridge: a doctoral thesis, Graduate School of Business Administration, Harvard University, 1964).

Figure 1

## STORE CHOICE MODEL



SOURCE: H. Lawrence Isaacson, Store Choice  
 (Cambridge: Graduate School of Business  
 Administration, Harvard University, 1964).  
 A doctoral thesis.

Along with the Rich and Isaacson studies, the Wharton School Studies in Retailing, headed by George Fisk, constitutes an important body of work in the area of store image and store patronage. Fisk notes in an article drawing on these studies that, "image research can identify a store's actual and potential customers".<sup>13</sup> Six determinants of store image are presented along with a conceptual model required to measure the influence of store image on the consumer's store choice behavior. The six determinants cited are:<sup>14</sup>

1. location convenience
2. merchandise suitability
3. value for price
4. sales effort and store services
5. congeniality of store
6. post transaction satisfaction

Fisk notes that future workers in this area might find it difficult to determine the relative importance of, or interaction between, these determinant variables. In some later research with 30 middle class housewives, Fisk and Brown<sup>15</sup> reported that high merchandise quality and honest advertising were the most important department store image characteristics. Although knowledgeable sales clerks were not cited by respondents, availability of clerks was

<sup>13</sup>George Fisk, "A Conceptual Model for Studying Customer Image," Journal of Retailing, Vol. 37, No. 4 (Winter, 1961-62), pp. 1-16.

<sup>14</sup>Ibid., p. 13.

<sup>15</sup>F. E. Brown and George Fisk, "Department Stores and Discount Houses: Who Dies Next?" Journal of Retailing, Vol. 41, No. 3 (Fall 1965), pp. 15-27.

an important issue with the respondents. In this article the authors introduced the patronage theory of minimum risk-maximum benefit which was conceptualized as consumer patronage behavior, which enables the consumer to minimize three shopping constraints, listed as follows:

1. limited shopping time
2. limited physical energy
3. limited funds

The consumer weighs these constraints against the store image to determine if patronage at the store(s) will maximize shopping or buying benefits. The authors, unfortunately, do not operationalize any of the intervening variables which could be used to test the theory.

Further research on the impact of social class and/or family life cycle on consumers' perception of department store image was reported by Lazer and Wyckham.<sup>16</sup> Male and female household heads were interviewed using semantic differential questions. They found that consumers in different social classes and in different family life cycle stages did have significantly different images of the test department store. Consumers in each social class perceived difference in merchandise suitability for

---

<sup>16</sup>William Lazer and Robert G. Wyckham, "Perceptual Segmentation of Department Store Markets," Journal of Retailing, Vol. 45, No. 2 (Summer, 1969) pp. 3-14.

each store, leading to the store's strategic need to mold the merchandise policies which are congruent with consumer store image expectations.

The Dodge and Summer store image study is particularly worth noting because of their utilization of the multiple discriminant analysis technique.<sup>17</sup> Their hypotheses stated that discriminating patronage was related to images projected by two different types of retailing institutions--specialty retailers and mass merchandisers. Based on a series of questions designed to collect data from students on: (1) purchase experience, (2) institutional preference (mass vs. specialty retail stores), and (3) socio-economic status, linear discriminant analysis was used to predict a respondent's ex post facto preference for one or the other type of retail institution. From their findings, they concluded that the inverse relationship found between the degree of shopping experience and preference for a specialty type institution

... clearly indicates the sizeable negative effect of experience ... if experience can be equated with learning, it must be concluded that the more the customer knows about retailers, in general, the less likely he or she is to shop in a specialty-type institution.<sup>18</sup>

---

<sup>17</sup>H. Robert Dodge and Harry H. Summer, "Choosing Between Retail Stores," Journal of Retailing, Vol. 45, No. 3 (Fall, 1969), pp. 11-21.

<sup>18</sup>Ibid., p. 20.

(This assertion does not apply to the issue of experience with the product purchased--an issue in this dissertation study). Personality was also "found to work against the specialty-type institution but to a much less extent than experience".<sup>19</sup> On the positive side, they found that socio-economic status contributed discriminate value to the function--the higher the respondent's socio-economic level, the more he tends toward a specialty retailer. The researchers then tried to determine if the images of the retail institutions discriminate between buyer groups when specific merchandise is considered. Bedroom furniture, refrigerators and television sets were chosen for this test. In this case, also, it was found that the function did not have any discriminating power among these items. Nevertheless, it should be noted that their findings could be heavily influenced by the fact that their "model" customers were college students who presumably have had limited experience in shopping for bedroom furniture, refrigerators and television sets.

In a research study closely akin to the thrust of this dissertation research, Sweeney and Reizenstein attempted to develop a segmentation strategy for a women's specialty apparel store, with emphasis on the store's

---

<sup>19</sup>Ibid., p. 20.

competitive position relative to a large downtown department store.<sup>20</sup> A mail questionnaire was used to obtain data on (1) relative importance of store attributes, (2) respondent's shopping patterns and habits, (3) respondent's demographics, and (4) identification of respondent's favorite store for women's apparel. Twenty variables were analyzed and subjected to stepwise multiple discriminant analysis. From this data a comparative profile of the specialty store customer was developed. The nine predictor variables, in order of importance, were as follows:<sup>21</sup>

1. Number of women's apparel purchases per month at favorite store
2. Total family income
3. Importance of proximity to home (for the favorite store)
4. Importance of knowledgeability of store personnel
5. Importance of proximity to other stores selling women's apparel
6. Number of stores shopped before last women's apparel purchase

---

<sup>20</sup>Sweeney and Reizenstein, op.cit., p. ii; also John W. Philpot, Richard C. Reizenstein and Daniel J. Sweeney, "Identifying Determinants of Store Patronage Using Factor Analysis." A paper presented at the Third Annual Conference of the Association for Consumer Research, Chicago, November 1972.

<sup>21</sup>Sweeney and Reizenstein, op.cit., pp. 8-9.

7. Importance of price relative to prices in other stores
8. Distance from home to favorite store
9. Importance of proximity of favorite store to other frequently patronized stores

The profile of the specialty store customer that emerges from their discriminant analysis was as follows:<sup>22</sup>

1. The specialty store customer tends to make fewer individual purchases of women's apparel at her favorite women's apparel store and to have a higher total family income than the department store customer.
2. The specialty store customer tends to place greater importance on the proximity of her favorite store to her home and on the knowledgeability of store personnel regarding style and fashion than the department store customer.
3. Proximity of the favorite store to other women's apparel stores tends to be less important to the specialty customer, and she therefore tends to visit fewer stores before making a purchase than does the department store customer.
4. The specialty store customer tends to live further away from her favorite retail store; she tends to place less importance on the proximity of her favorite store to other frequently patronized (non-women's apparel) stores, than does the department store customer.

In summary, they found that the customers of the particular specialty store appear to be relatively high income consumers who are willing to forego distance and price to

---

<sup>22</sup>Sweeney and Reizenstein, op.cit., pp. 12-13.

make comparatively infrequent shopping trips exclusively for women's apparel. Also, they tend to visit a limited number of stores selected on the basis of perceived locational convenience and sales clerk knowledgeability. These findings must be viewed as indicative, since the data base included only 68 usable responses.

A more recent study of retail store image was reported by Woodside and Bovino.<sup>23</sup> Their study was restricted to students and measured the general attitudes toward college bookstores at State College, Pennsylvania. The major finding of interest contradicts the data on consumer income versus attitude towards a store presented earlier by Collazzo.<sup>24</sup> He found that there is a significant difference in attitudes towards retail stores among high and low income groups. Woodside's findings suggest that consumers with high incomes may have a more favorable general attitude toward retail stores than low income groups<sup>25</sup> because the higher the income, the less important any particular purchase is to the consumer.

---

<sup>23</sup> Arch G. Woodside and J. Patrick Bovino, "Consumer Images of Retail Store Personalities," Marquette Business Review, Vol. 15, No. 4 (Winter, 1971), pp. 173-178.

<sup>24</sup> Charles J. Collazzo, Jr., "Effects of Income Upon Shopping Attitudes and Frustration," Journal of Retailing Vol. 42, (Spring, 1966), pp. 1-7.

<sup>25</sup> Woodside and Bovino, op.cit., p. 176.

One of the widest ranging and continuing studies on retail image has been presented by the Marketing Science Institute under the direction of Eleanor G. May.<sup>26</sup> Each of these papers is briefly summarized in its logical sequence (in contrast to actual publication date):

1. "Image Evaluation of a Department Store" - describes in detail the design and procedures of a pilot large scale image study of a "carriage-trade" department store.

2. "Selection and Clustering of Image Dimensions" - describes the specific image dimensions employed in the pilot image study and summarizes shoppers' views on the importance of various image attributes.

---

<sup>26</sup>Eleanor G. May, six preliminary research reports (and a bibliography "Images and Retailing") on consumers' images of department stores:

1) "Image Evaluation of a Department Store," March, 1971;

2) "Selection and Clustering of Image Dimensions," October, 1971;

3) "Psychographics in Department Store Imagry," October, 1971;

4) "Simulated Shopping Trips in Retail Image Research," October, 1971;

5) "Department Store Images--Basic Findings," March, 1972; and

6) "Store-to-Store and Department-to-Department Image Comparisons," March, 1972.

Marketing Science Institute, Cambridge, Massachusetts.

3. "Psychographics in Department Store Imagry" - presents the results of the study's data on consumers' psychological and emotional reactions to shopping. A review of the psychographic literature is also included.

4. "Simulated Shopping Trips in Retail Image Research" - describes the use of simulation as an element in image studies and compares store preferences in the simulated trips with actual shopping behavior.

5. "Department Store Images--Basic Findings" - reviews and summarizes all of the major findings of the previous four papers.

6. "Store-to-Store and Department-to-Department Image Comparisons" - analyzes the conditions under which consumers' ratings of stores are the aggregate of department ratings and where department ratings dominate store ratings.

This body of work, published as an integrated series, is a valuable contribution to researchers and operating retail store executives.

The conceptual papers by Kunkel and Berry<sup>27</sup> are one of the few attempts in the literature to theorize on an operational definition of "image" within the structure

---

<sup>27</sup>John H. Kunkel and Leonard L. Berry, "A Behavioral Conception of Retail Image," Journal of Marketing, Vol. 32, No. 4 (October, 1968) pp. 21-27.

of a behavioral "model of man". These authors attempt to outline the empirical referents of retail store image and the procedures for establishing, maintaining or changing the store image. Of interest is their definition of retail store image within a behavioral context:<sup>28</sup>

Discriminative stimuli for an action's expected reinforcement ... specifically, retail store image is the total conceptualized or expected reinforcement that a person associates with shopping at a particular store.

The authors concluded from their data gathered from 350 charge account customers (a biased sample!) residing in Phoenix, Arizona, that retail store image consisted of 12 components as follows:<sup>29</sup>

1. price of merchandise
2. quality of merchandise
3. assortment of merchandise
4. fashion of merchandise (sic.)
5. sales personnel
6. location convenience
7. other convenience factors
8. services
9. sales promotions
10. advertising
11. store atmosphere
12. reputation on adjustments

Unfortunately, the authors do not present any data on the relative importance of each of these image components.

Another way of segmenting consumers relative to store patronage is through measurement of consumer attitudes

---

<sup>28</sup>Ibid., p. 22.

<sup>29</sup>Ibid., p. 26.

towards competing retail institutions. The Cox<sup>30</sup> study of 300 housewives is unique because of its use of the AIO profile (Attitudes, Opinions and Interests) developed by Tigert and Wells.<sup>31</sup> A "high end" discount store offering a full line of merchandise located in close proximity to a suitable department store were compared. The housewives were analyzed as members of 11 different demographic categories and by their responses to 31 different attitudinal questions and categories. Cox's results indicate that "with respect to demographic variables, the most useful two categories were age and income".<sup>32</sup> Moreover, whenever age appeared to be statistically significant, the product discussed by the housewives had utilitarian overtones. In contrast, when income had statistical significance, the products generally had fashion overtones. Most of the attitudinal questions did not achieve a very high level of segmentation significance. The author concludes that it is "obvious that more study must be given to develop relevant attitudinal segmentation".<sup>33</sup>

---

<sup>30</sup>Howard B. Cox, "A Study of the Influence of Consumer Characteristics Upon Buying Behavior in Competing Retail Establishments." Presented at the Annual Meeting, American Marketing Association, Minneapolis, August, 1971.

<sup>31</sup>F. M. Bass, Edgar Pessemier and Douglas Tigert, "A Taxonomy of Magazine Readership Applied to Problems in Marketing Strategy and Media Selections," Journal of Business (July, 1969) pp. 337-363; William D. Wells, "Segmentation by Attitude Types," Marketing and the New Sciences of Planning, Robert L. King, ed. (Chicago: American Marketing Association, 1968) pp. 124-126.

<sup>32</sup>Cox, op.cit., p. 9.

<sup>33</sup>Cox, op. cit., p. 10.

Although not especially relevant to this dissertation, it should be noted that an extensive study of the shopping behavior of 500 female heads of households in nine national markets was sponsored by the Westinghouse Broadcasting Company and summarized in Women's Wear Daily.<sup>34</sup> This study also concentrates exclusively on shopping behavior relative to 94 individual department stores. The study covers eight major categories: (1) general shopping behavior, (2) shopping attitudes, (3) consumer behavior at specific stores, (4) consumer attitudes toward specific stores, (5) demographic data, (6) psychographic data, (7) media behavior, and (8) advertising behavior.

In addition to the Isaacson store patronage model cited earlier, the model described by Engel et al. is considered.<sup>35</sup> Their model consists of four groups of variables:

1. evaluative criteria
2. perceived characteristics of stores
3. comparison processes
4. acceptable or unacceptable stores

Based on their review of the literature, they conclude that

Consumers do not go through this process before each store visit ... if past experiences with a store have been satisfactory, the store is

---

<sup>34</sup>Earl Dash, "Reports on the Retail Information Bank," Women's Wear Daily, February 1, 8, 16 and March 3, 1972.

<sup>35</sup>Engel, Kollat and Blackwell, op.cit., p. 451.

revisited without reevaluation ... indeed the majority of store visits that consumers make are probably not preceded by store choice processes ... considerable research is needed in this area.<sup>36</sup>

A major weakness in the Engel store choice model stems from its lack of specificity within the operational process identified as "comparison processes". Also, the authors do not designate the impact of shopper typology which would bring into play various shopper behavioral and attitudinal variables.

The evaluative criteria in the Engel model:

(1) location, (2) product assortment, (3) price, (4) advertising and promotion, (5) store personnel, and (6) store services, represent the consumer's desires or expectations regarding various aspects of the retail store. However, the authors do not link or designate the important and underlying impact of the shopper's psychological profile which influences the consumer's store choice. These psychological factors probably influence, directly or indirectly, these evaluative criteria.

#### Summary: Store Patronage Literature

Relative to the previous store image and retail segmentation studies, it can be concluded that these studies tend to focus almost entirely on the images of specific

---

<sup>36</sup> Ibid.

retail stores as perceived by the consumer and on the differences in store images across consumer groups. Most of the consumers studied tend to be primarily females and/or students. Little attention has been given to the relative importance of store image to the consumer's store choice decision. No attempt has been made either to establish a consistent set of evaluative criteria. With few exceptions, noted in this review, studies which attempt to relate store image to consumer demographics give no indication of the relative strength of the observed relationships. Most of the studies cited dealing with alternative store choice use stores with widely differing product lines and appeals and thus, the stores often cannot be considered directly competitive. Lastly, few retail patronage studies utilize multivariate analytical tools.

The next section is devoted to an examination of the key literature dealing with the independent variables specified in the dissertation study paradigm.

#### INDEPENDENT VARIABLES MANIPULATED IN DISSERTATION RESEARCH STUDY

##### Perceived Risk

The "perceived risk" concept has been the subject of much research since the concept was introduced by Bauer in 1960.<sup>37</sup> The Bauer concept was anticipated by

<sup>37</sup> Raymond Bauer, "Consumer Behavior as Risk Taking," in R.S. Hancock, ed., Dynamic Marketing for a Changing World (Chicago: Proceedings of the Summer Conference of the American Marketing Association, 1960), pp. 389-398.

Wroe Alderson who characterized consumers as problem solvers and defined a "problem" as "... an issue involving uncertainty as to the course of action to pursue in an operating situation ... to solve a problem is to reduce uncertainty to the point where a course of action can be adopted with some confidence".<sup>38</sup> Nevertheless, it was Bauer who applied this problem solving concept to buyer behavior. Bauer pointed out in his paper that it is the consumer's "perception" of the risk--not just "risk" which is operative because individuals "respond to what they perceive, and not necessarily to what is".<sup>39</sup>

Since Bauer's paper, this variable has been extensively studied by members of the Harvard Business School staff, and their Perceived Research Group. Out of this group, a series of studies was published under the editorship of Donald Cox.<sup>40</sup> One of the members of this group,

---

<sup>38</sup>Wroe Alderson, Marketing Behavior and Executive Action (Homewood, Illinois: Richard D. Irwin, Inc., 1957), p. 167.

<sup>39</sup>Bauer, op. cit., p. 395.

<sup>40</sup>Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967).

Scott M. Cunningham,<sup>41</sup> developed a systematic measure of perceived risk. He identified two measurement components of perceived risk--uncertainty and consequences.<sup>42</sup> Cunningham operationalized these two components by asking respondents two questions with a four point scale:<sup>43</sup>

Uncertainty

Would you say that you are: very certain; usually certain; sometimes certain; or almost never certain that a brand of (some product category) you haven't tried will work as well as your present brand?

Consequences

We all know that not all products work as well as others. Compared to other products, would you say that there is: a great deal of danger; some danger; not much danger; or no danger in trying a brand (some product category) you have never tried before?

A weight is established for each response in each component question and respondent's level of perceived risk (high, medium or low) is determined by multiplying the weights corresponding to the responses chosen in each question.<sup>44</sup>

---

<sup>41</sup>Scott M. Cunningham, "Perceived Risk as a Factor in Informal Communication," in Donald F. Cox (ed.), op. cit., pp. 265-287.

<sup>42</sup>Ibid., pp. 266-267.

<sup>43</sup>Ibid.

<sup>44</sup>Scott M. Cunningham, "The Dimensions of Perceived Risk," in Donald F. Cox (ed.), op. cit., pp. 84-85.

Since Cunningham published his measurement methodology for perceived risk, other authors<sup>45</sup> have suggested variations on Cunningham's basic measurement theme; nevertheless, they also usually include some way of measuring the uncertainty and consequences dimension of the variable. More recently, Dean, Engel and Talarzyk<sup>46</sup> present an extension of Cunningham's operationalization of perceived risk with "RISC"--a dual concept incorporating similarity and chance perception in trying a new brand. The "RISC" measure used by these authors involved asking subjects to indicate whether they believe the brands within a product class are "very", "quite", "not too", or "not at all" similar. They were also asked to rate the "chance" they were taking in trying a new brand.<sup>47</sup> The "RISC" score is obtained by summing values assigned to each answer for each component, on a four point scale.<sup>48</sup>

---

<sup>45</sup>For example, Charles W. King and John O. Summers, "Technology, Innovation and Consumer Decision-Making," in Reed Moyer (ed.), Changing Marketing Systems (Proceedings of the Winter Conference of the American Marketing Association, 1967), p. 68; Thomas S. Robertson, "The Effect of the Informal Group Upon Innovative Behavior," in Robert L. King (ed.), Marketing and the New Science of Planning (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1968), p. 337.

<sup>46</sup>Michael L. Dean, James F. Engel and W. Wayne Talarzyk, "The Influence of Package Copy Claims on Consumer Product Evaluations," Journal of Marketing, Vol. 36, No. 2 (April, 1972), pp. 34-39.

<sup>47</sup>Ibid., p. 36.

<sup>48</sup>Ibid.

A recent experiment by Arch G. Woodside<sup>49</sup> attempts to determine whether consumers, acting as a group are more willing to choose riskier and potentially more beneficial products after group discussion than before discussion. The same question was examined relative to consumers acting as individuals. A total of 56 housewives were involved in the experiment. In both cases, consumers did "shift in risk" after group discussion. Woodside suggests that the "risky shift" he observed may be a form of risk reduction strategy often found in social psychology studies.<sup>50</sup>

The area of risk reduction strategy as evidenced by consumers has been the subject of considerable research. Much of the research in this particular area of perceived risk has involved new product adoption and/or diffusion of innovation studies. For example, Cunningham<sup>51</sup> found that for two risky product categories studied (headache remedies and fabric softeners), respondents who were high in perceived risk were more likely to reduce risk through product conversation than those who were low in perceived risk. Bauer<sup>52</sup> proposed that brand loyalty might be a consumer's strategy

<sup>49</sup> Arch G. Woodside, "Informal Group Influence on Risk Taking," Journal of Marketing Research, Vol. 9, No. 2, (May, 1972), pp. 223-225.

<sup>50</sup> Ibid., p. 225.

<sup>51</sup> Scott M. Cunningham, "Perceived Risk as a Factor in Informal Communication," op. cit., pp. 271-272.

<sup>52</sup> Bauer, op.cit., p. 390.

for risk reduction and Arndt,<sup>53</sup> in his study of the acceptance of a new coffee brand, reported that subjects with high levels of perceived risk were more brand loyal.

Roselius's<sup>54</sup> study on risk reduction strategy cites 11 different methods that consumers prefer for reducing buyers' risk associated with various types of loss. When a buyer perceives a purchase risk, Roselius indicates that there are four basic strategies for risk resolution:<sup>55</sup>

1. Consumer could reduce perceived risk by either decreasing the probability that the purchase will fail, or by reducing the severity of real or imagined loss suffered if the purchase does fail.
2. Consumer could shift from one type of perceived loss to one for which he has more tolerance.
3. Consumer could postpone the purchase in which case he would be shifting from one general risk type to another.
4. Consumer could make the purchase and absorb the unresolved risk.

The 11 risk reduction methods identified in the study were as follows:<sup>56</sup>

1. endorsements
2. brand loyalty
3. major brand image

---

<sup>53</sup>Johan Arndt, "Role of Product-Related Conversations in the Diffusion of A New Product," Journal of Marketing Research, Vol. 4, No. 3 (August, 1967), pp. 291-295.

<sup>54</sup>Ted Roselius, "Consumer Rankings of Risk Reduction Methods," Journal of Marketing, Vol. 35, No. 1, (January, 1971), pp. 56-61.

<sup>55</sup>Ibid., p. 56.

<sup>56</sup>Ibid., pp. 57-58.

4. private testing
5. store image
6. free sample
7. money-back guarantees
8. government testing
9. shopping
10. buy expensive products
11. word-of-mouth

Roselius suggests that sellers should "determine the kind of risk perceived by his customers and then create a mix of relievers suited for his combination of buyer types";<sup>57</sup> a very desirable action, but one that would be very costly for large stores with many products and many customers.

#### Opinion Leadership

This variable pertains to the flow of information and is informal and interpersonal in nature. Informal communication is in part concerned with the identification and measurement of the communication impact of individuals referred to as "opinion leaders". Katz and Lazarsfeld,<sup>58</sup> in their study of opinion leadership, suggest that these type of people provide the following function: "... opinion leaders--serve informal rather than formal groups, face-to-face rather than more extensive groups. They guide opinion and its changes rather than lead directly in action."

---

<sup>57</sup>Ibid., p. 61.

<sup>58</sup>Elihu Katz and Paul F. Lazarsfeld, Personal Influence (New York: The Free Press, 1955), p. 138.

Robertson points out that "opinion leadership is a relative concept, and the opinion leader may not be much more influential than his followers".<sup>59</sup>

The usual measurement methods employed to identify opinion leaders are:<sup>60</sup>

1. Sociometric technique - respondent identification of those individuals he would consult for information or advice on a product or service.
2. Key informant technique - expert non-group member respondent identifies members of a social system who are considered opinion leaders.
3. Self-designating technique - respondent evaluates his own opinion leadership qualities and/or the extent of his leadership.

Most studies cite the use of the self-designating method because of the usual difficulty in interviewing an entire social system. This technique is subject to bias because the individual may perceive this attribute as a positive personal characteristic and thus over-emphasize his own position as an opinion leader.

One might expect this trait to be a rare quality in any formal society; however, some studies tend to refute this assumption. For example, Silk indicates that 47.5 percent of his respondents identified themselves as opinion

---

<sup>59</sup>Thomas S. Robertson, Innovative Behavior and Communication (New York: Holt, Rinehart and Winston, Inc., 1971), p. 175.

<sup>60</sup>Everett M. Rogers, Diffusion of Innovation (New York: The Free Press, 1962), pp. 228-229.

leaders.<sup>61</sup> In another study, King and Summers<sup>62</sup> found that self-designated opinion leaders constituted about 90 percent of their almost 1,000 respondents.

Of key concern in this dissertation study is the opinion leader's influence on others. Several field research projects are reviewed next. The study conducted by John Myers<sup>63</sup> was designed to measure the nature of the influence of opinion leaders. Fifteen groups of women living in a university community were interviewed initially to determine their propensity to influence others. The self-designating technique was used, and the subject product was a new freeze-dried food. His findings indicate that the opinions of the non-group members shifted towards the opinion leader. In the non-opinion leader groups, the opinion of the non-opinion leaders shifted in the opposite direction.<sup>64</sup> These results suggest that opinion leaders are capable of altering group

---

<sup>61</sup>Alvin J. Silk, "Overlap Among Self-Designated Opinion Leaders: A Study of Selected Dental Products and Services," Journal of Marketing Research, Vol. 3, No. 3 (August, 1966) pp. 255-265.

<sup>62</sup>Charles W. King and John O. Summers, "Overlap of Opinion Leadership Across Consumer Products," Journal of Marketing Research, Vol. 7, No. 1 (February, 1970), pp. 43-50.

<sup>63</sup>John G. Meyers, "Patterns of Interpersonal Influence in the Adoption of New Products," Raymond M. Haas (ed.) Science, Technology and Marketing (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1966) pp. 750-757.

<sup>64</sup>Ibid., p. 756.

members' opinions in the direction of the opinion leaders, while non-opinion leaders who attempt to be opinion leaders may repulse the people they are trying to influence. Stafford's study<sup>65</sup> appears to substantiate these findings. In this study of the impact of group influence on purchasing behavior he found that opinion leaders possessed high brand loyalty and other group members were likely to prefer the same brands, and to develop similar loyalties.<sup>66</sup>

Joseph Mancuso<sup>67</sup> reported an interesting study designed to test the feasibility of creating opinion leaders among socially influential high school students. Mancuso formed panels from these influentials for the purpose of rating new rock-and-roll phonograph records. The members of the panel were asked to freely discuss their record choices with friends. These panel members would not normally have been classified as opinion leaders for this product category. The results indicate that in cities where the panel members

---

<sup>65</sup>James E. Stafford, "A Sociometric Analysis of Group Influences on Consumer Brand Preferences," in Peter D. Bennett (ed.), Marketing and Economic Developments (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1965), pp. 459-460.

<sup>66</sup>Ibid., p. 460.

<sup>67</sup>Joseph R. Mancuso, "Why Not Create Opinion Leaders for New Product Introductions?" Journal of Marketing, Vol. 33, No. 3 (July, 1969), pp. 20-26.

lived some records showed significantly increased sales whereas in cities where they did not live, no such increased sales were recorded.<sup>68</sup>

Another important issue relative to the opinion leadership trait, once this trait has been identified in an individual, is the inventory of other traits or characteristics possessed by the opinion leader. Most studies classify opinion leaders among three major categories: (1) demographic, (2) social and attitudinal, and (3) topic or product orientation. An excellent review of this topic is presented by Robertson.<sup>69</sup> A recent study by Summers<sup>70</sup> using the self-designating technique with a random sample of 1,000 housewives profiled women's clothing fashion opinion leaders. Of interest were the findings that fashion opinion leaders tended to be more highly concentrated among those segments of the samples which (1) were younger, (2) had more education, (3) had higher incomes, and (4) had higher occupational status.<sup>71</sup> These findings are consistent with the findings reported by Katz and Lazarsfeld. Also, total magazine

---

<sup>68</sup>Ibid., p. 22.

<sup>69</sup>Robertson, op. cit., pp. 175-180.

<sup>70</sup>Summers, op. cit., pp. 178-185.

<sup>71</sup>Ibid., p. 180.

readership was strongly related to the fashion opinion leadership trait, whereas radio listening, television viewing and book readership had no apparent effect in determining opinion leadership.<sup>72</sup>

Another recent study, reported by Myers and Robertson<sup>73</sup> with opinion leaders, attempted to relate opinion leadership to other consumer behavior traits such as perceived knowledge about the subject and the amount of interest in the subject. The study was conducted with 400 members of a consumer buying panel established by a Los Angeles marketing research organization. Generally, correlations were moderate to high relative to interest in the household furnishings subject, and high relative to knowledge about cosmetics and personal care.<sup>74</sup> Finally, Darden and Reynolds conducted a study to determine if there are relatively stable predictors of male clothing fashion opinion leaders.<sup>75</sup> They found that fashion interest and fashion venturesomeness were relatively context free predictors of male fashion leadership, while generalized self-confidence, cognitive style,

---

<sup>72</sup>Ibid., p. 181.

<sup>73</sup>James H. Myers and Thomas S. Robertson, "Dimensions of Opinion Leadership," Journal of Marketing Research, Vol. 9, No. 1 (February, 1972), pp. 41-46.

<sup>74</sup>Ibid., pp. 42-43.

<sup>75</sup>William R. Darden and Fred Reynolds, "Predicting Opinion Leadership for Men's Apparel Fashions," Journal of Marketing Research, Vol. 9, No. 3 (August, 1972), pp. 324-328.

relative popularity and color consciousness were limited in their predictive ability.<sup>76</sup>

### Generalized and Specific Self-Confidence

This psychological variable is defined according to Bauer as an "enduring personality trait which refers to a person's perception of his ability to perform a wide range of judgement tasks with which he is confronted".<sup>77</sup> Jeffrey A. Barach, a student of Bauer's, has defined this variable differently, as a "measure of the confidence a person has in himself and his risk handling ability".<sup>78</sup> This variable has been most closely associated with studies dealing with persuasibility of consumers. For example, the relation of self-confidence to persuasibility has been investigated by social science researchers, who report that male subjects were more easily persuaded if they were low in self-confidence.<sup>79</sup> This had not been the case with female

---

<sup>76</sup>Ibid., pp. 326-327.

<sup>77</sup>Raymond A. Bauer, "Self-Confidence and Persuasibility: One More Time," Journal of Marketing Research, Vol. 7, No. 2 (May, 1970), p. 256.

<sup>78</sup>Jeffrey A. Barach, "Advertising Effectiveness and Risk in the Consumer Decision Process," Journal of Marketing Research, Vol. 6, No. 3 (August, 1969), p. 315.

<sup>79</sup>Irving L. Janis and Carl I. Hovland, "An Overview of Persuasibility Research," in C.I. Hovland and I.L. Janis (eds.), Personality and Persuasibility (New Haven: Yale University Press, 1959), pp. 1-28.

subjects. However, Cox and Bauer<sup>80</sup> reported the relationship among women between generalized and specific self-confidence and persuasibility when judging nylon stockings. Barach<sup>81</sup> noted that, like the Cox and Bauer findings, a curvilinear relationship between generalized self-confidence and persuasibility could be demonstrated in a study using female respondents, and in all five product groups (shampoo, margarine, household wraps, instant coffee and regular coffee) studied.

Bell studied consumer purchasing patterns of automobiles in order to also analyze the relationship between a consumer's specific self-confidence and persuasibility.<sup>82</sup> He reported no strong association between respondents' specific self-confidence and their persuasibility in buying their new automobile. These findings applied to both males and females. One would expect this finding in many product contexts, since it seems reasonable to assume that

<sup>80</sup>Cox and Bauer, "Self-Confidence and Persuasibility in Women," in D.F. Cox (ed.), op.cit., pp. 394-410.

<sup>81</sup>Jeffrey A. Barach, "Self-Confidence and Reactions to Television Commercials," in D.F. Cox (ed.), op.cit., pp. 428-441.

<sup>82</sup>Gerald D. Bell, "Self-Confidence, Persuasibility, and Cognitive Dissonance Among Automobile Buyers," in D.F. Cox (ed.), op.cit., pp. 442-468.

if an individual has a great deal of experience or knowledge about a particular product, he would be less susceptible to an advertising message or a salesman's influence.

The hypotheses of a curvilinear relationship has been questioned by Schuchman and Perry<sup>83</sup> who suggest that more and stronger evidence should be marshalled in marketing studies in order to confirm the linear relationship between self-confidence and persuasibility reported by many social psychologists. The debate on this issue is still being waged in the literature.

In other studies, generalized self-confidence has been linked to consumer's opinion leadership traits. Summer's<sup>84</sup> analysis of the characteristics of women's clothing fashion opinion leaders found a significant relationship between opinion leadership and self-confidence. Moreover, he suggests that "self confidence may be a characteristic of opinion leadership in all topic contexts and not just in fashion (specific self-confidence); it may be that in order to advise others an individual must first have confidence in himself and his ideas".<sup>85</sup> Reynolds and

---

<sup>83</sup>Abe Schuchman and Michael Perry, "Self-Confidence and Persuasibility in Marketing: A Reappraisal," Journal of Marketing Research, Vol. 6, No. 2 (May, 1969), pp. 146-154.

<sup>84</sup>John O. Summers, "The Identity of Women's Clothing Fashion Opinion Leaders," Journal of Marketing Research, Vol. 7, No. 2 (May, 1970), pp. 178-185.

<sup>85</sup>Ibid., p. 181.

Darden's<sup>86</sup> study of the transfer of information about women's clothing fashions also confirmed the finding of a significant relationship between general self-confidence and opinion leadership.

The above cited studies are indicative of the scope of research usually associated with the generalized self-confidence variable: namely, they involve investigations involving female subjects and non-durable products. Very little is found in the literature involving the generalized self-confidence variable and store choice.

The notable exceptions to this finding are now discussed. Isaacson's<sup>87</sup> store choice investigation involved the manipulation of five psychological variables:

1. gregariousness
2. dominance
3. non-conformity
4. organization
5. self-confidence

He found that women who exhibited high generalized self-confidence scores preferred to shop for clothing at discount stores; whereas women with low generalized self-confidence scores preferred to shop for clothing at neighborhood stores. Isaacson concluded that people high in self-confidence

---

<sup>86</sup>Fred D. Reynolds and William R. Darden, "Mutually Adoptive Effects of Interpersonal Communication," Journal of Marketing Research, Vol. 8, No. 4 (November, 1971) pp. 449-454.

<sup>87</sup>Isaacson, op.cit., pp. 85-89.

"should not need the reassurance of personal service, and known dependence on easy return policies or a reputation for high quality and reliability".<sup>88</sup> His overall conclusion regarding the usefulness of psychological variables and consumer store choice mechanisms are rather guarded because of a firm empirical understanding of how they operate. Since this is the case, he asserts that "it may be dangerous ... to act on these factors, especially while relatively potent first order factors are still available".<sup>89</sup>

May's report, "Psychographics in Department Store Imagry,"<sup>90</sup> also points to self-confidence as one of the critical psychographic dimensions dealing with retail store segmentation analysis.

#### Information Seeking and Exposure to Mass Media

When the consumer recognizes that he has a purchase problem (buying a product, choosing the retail store from which to buy a product, buying a replacement product, etc.) the consumer may (or may not) seek information, or sources of information in order to resolve the problem. This kind of consumer behavior has been called "external search" for information. The term "external search" as elucidated by Engel et al. refers to

<sup>88</sup> Isaacson, op.cit., p. 86.

<sup>89</sup> Ibid., p. 87.

... the processes and activities whereby the consumer uses various sources of information, including mass media, personal sources, and marketer-dominated sources (advertisements, dealer visits, and so on) to learn about the number of alternative solutions to the perceived problem, the characteristics and attributes of these alternatives and their relative desirability.<sup>91</sup>

Of course, the consumer does not always engage in "external search" before each purchase. Routinely purchased products have probably involved past searches and solutions, and the outcomes have probably been remembered by the consumer.<sup>92</sup>

Researchers have also pointed out that one of the determinants of pre-purchase search behavior is the "cost" of the search to the consumer. Researchers have also noted that one of the determinants of pre-purchase search behavior is the "cost" of the search to the consumer and the consumer's a priori perception of the likely value of the search in solving his purchase problem.<sup>93</sup> These search costs may include time costs, travel costs, psychological costs (i.e., frustration), and so forth.<sup>94</sup> The variables that affect consumers' perceptions of the cost and value of

<sup>91</sup>Engel, Kollat and Blackwell, op.cit., p. 378.

<sup>92</sup>George Katona, Psychological Analyses of Economic Behavior (New York: McGraw Hill, Inc., 1951) p. 47.

<sup>93</sup>Louis P. Bucklin, "Retail Strategy and the Classification of Consumer Goods," Journal of Marketing, Vol. 27 (January, 1963), pp. 50-54; and George J. Stigler, "The Economics of Information," Journal of Political Economy, Vol. 69 (June, 1961), pp. 213-225.

<sup>94</sup>Wesley C. Bender, "Consumer Purchase Costs: Do Retailers Recognize Them?" Journal of Retailing, Vol. 40 (Spring, 1964), pp. 1-8.

search have been outlined by Engel et al.<sup>95</sup> and are shown in Figure 2.

Generally the two major classes of information sources utilized by consumers are impersonal and interpersonal. The impersonal sources are composed of information or messages which reach the receiver from mass media, specialized publications catering to consumers' special interests,<sup>96</sup> (high fidelity, tennis, boating magazines, etc.), neutral advisory magazines, e.g., Consumers Reports and manufacturers' catalogues. These sources are "impersonal" because they do not involve direct communication between individuals. The interpersonal sources of information derive from direct communication between individuals. The interpersonal source is either a "formal"--a professional or commercial influence, or "informal"--such as word-of-mouth advertising. The key characteristic of the "informal" source is that it is not a commercial or selling information source. It is apparent from a review of the marketing

---

<sup>95</sup>Engel, Kollat and Blackwell, op. cit., p. 382.

<sup>96</sup>The role and influence of "special interest" magazines has yet to be thoroughly researched; thus their real influence on consumers has yet to be empirically tested. Nevertheless, the magazine industry and their advertisers have apparently decided that these magazines are an excellent way of communicating to special interest consumers and we are now witnessing an ever-increasing proliferation of these magazines and newspapers.

Figure 2

## DETERMINANTS OF EXTERNAL SEARCH

- I. Determinants of Perceived Value of External Search
  - A. Amount of stored information
    - 1. Length of experience
    - 2. Breadth of experience
  - B. Appropriateness of stored information
    - 1. Satisfaction with past purchases
    - 2. Interpurchase time
    - 3. Changes in the mix of alternatives
  - C. Ability to recall stored information
    - 1. Problem similarity
    - 2. Interpurchase time
  - D. Perceived risk
    - 1. Financial risk--price
    - 2. Financial risk--length of commitment
    - 3. Social risk
    - 4. Psychological risk
    - 5. Number of decisions required
    - 6. Appropriateness of risk-reducing strategies
  
- II. Determinants of Perceived Cost of External Search
  - A. Decision Delay
  - B. Time
  - C. Money
  - D. Psychological
  
- III. Determinants Affecting Both Value and Cost of External Search
  - A. Motives
  - B. Response traits
  - C. Family role structure
  - D. Economic and demographic characteristics

SOURCE: James F. Engel, David T. Kollat and Roger D. Blackwell, Consumer Behavior (New York: Holt, Rinehart and Winston, Inc., 1968) p. 382.

literature, that the largest body of reports dealing with communications flow is connected with wide ranging studies and field experiments on the diffusion of innovation. (A very extensive review of the literature on this area can be found in Schiffman's unpublished doctoral dissertation.)<sup>97</sup>

Many studies in the literature point to the common consumer behavior of seeking product information from friends, relatives, and neighbors. For example, Katona and Mueller<sup>98</sup> reported that

The source of information most frequently consulted by durable goods buyers were friends and relatives ... more than 50 percent of all buyers turned for advice to acquaintances and in most instances also looked at durable goods owned by them. Even more striking is the finding that a third of durable goods buyers bought a brand or model that they had seen at someone else's house, often the house of relatives.

One of the key concepts to flow out of these studies has been the two step information flow hypothesis advanced by

---

<sup>97</sup>Leon G. Schiffman, Communication and Experience: The Acceptance of A New Food Product by Elderly Consumers Living in Geriatric Housing. (Unpublished doctoral dissertation, The City University of New York, 1971).

<sup>98</sup>George Katona and Eva Mueller, "A Study of Purchasing Decisions," in Lincoln H. Clark (ed.) Consumer Behavior: The Dynamics of Consumer Reaction (New York: New York University Press, 1955), p. 45.

Lazarsfeld<sup>99</sup> and co-workers and Katz and Lazarsfeld.<sup>100</sup> In essence, the two step flow hypothesis accounts for the tendency for ideas (or information) to flow from the mass media to people designated "opinion leaders" and hence from the opinion leaders to less active consumers in the population. Relative to opinion leadership and special interest magazines, Corey<sup>101</sup> studied opinion leadership in automotive topics and reported that "opinion leaders will read media directly related to their consumer topics more often than non-leaders".<sup>102</sup> Also, both Summers<sup>103</sup> and Reynolds and Darden<sup>104</sup> found a significant relationship between women's fashion leadership and high exposure to fashion magazines.

Consumers can also obtain information about products and retail establishments from "marketer-dominated" sources.

---

<sup>99</sup>Paul F. Lazarsfeld, Bernard R. Berelson and Hazel Gaudlet, The Peoples Choice (New York: Columbia University Press, 1948).

<sup>100</sup>Ibid.

<sup>101</sup>Lawrence G. Corey, "People Who Claim to Be Opinion Leaders: Identifying Their Characteristics by Self-Report," Journal of Marketing, Vol. 35, No. 4, (October, 1971), pp. 48-53.

<sup>102</sup>Ibid., p. 51.

<sup>103</sup>Summers, op.cit., pp. 178-185.

<sup>104</sup>Reynolds and Darden, op.cit., pp. 449-454.

Visits to retail stores, manufacturer and retailer product advertisements and discussions with retail store personnel are the major "marketer-dominated" information sources.

Engel et al.,<sup>105</sup> in their review of the literature dealing with consumer use of advertisements to learn about product attributes conclude that the findings are not conclusive. This conclusion is also reinforced by Robertson's summary on the usage of information channels for three consumer product categories (Figure 3).<sup>106</sup> The data relates to specific purchases just made of a food, clothing or appliance product. From this data he concludes that

Advertising is not a convenient information-seeking form; the consumer usually does not search through magazines for product information ... in contrast, interpersonal communication is mentioned increasingly as we move from first to additional to most important source of information.<sup>107</sup>

Shopping in retail stores and product related conversations with store personnel are the other key product and retail store image sources of information. Based on some of the findings noted below, the intensity of this type of information seeking seems to vary considerably from

---

<sup>105</sup>Engel, Kollat and Blackwell, op.cit., p. 397.

<sup>106</sup>Robertson, op.cit., p. 156.

<sup>107</sup>Ibid., p. 155.

Figure 3

USAGE OF INFORMATION CHANNELS IN THE PURCHASE DECISION PROCESS

Channels	Small Appliances			Clothing			F o o d		
	First	Else	Most Important	First	Else	Most Important	First	Else	Most Important
Marketer-Controlled									
Advertising	48	23	8	35	27	16	45	25	19
Salesmen	1	1	1	4	1	6	0	0	0
Sales Promotion*	9	7	9	19	14	32	26	16	27
Nonmarketer Controlled									
Personal Influence									
Friends, neighbors relatives**	23	41	53	27	29	33	16	19	29
Immediate family	8	7	11	2	4	0	12	12	21
Professional advice	6	8	13	0	0	0	1	0	0
Editorial and news material***	1	0	1	6	6	6	0	0	1
No Mentions	4	13	4	7	19	7	0	28	3
Total (N=99)	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: Three questions were asked: "Could you tell me how this product came to your attention for the very first time?" "How else did you hear about this product before you bought it?" "Which one of these ways was your most important source of information on your decision to buy this product?"

\*Includes sampling, displays, in-store shopping, packaging.

\*\*Includes actual discussions as well as noticing the item, or trying the item, e.g., in the home of a friend.

\*\*\*Includes Consumer Reports.

SOURCE: Thomas S. Robertson, Innovative Behavior and Communication (New York: Holt, Rinehart and Winston, Inc., 1971), p. 156.

study to study. For example, Katona and Mueller<sup>108</sup> indicated that of those consumers purchasing major durable goods, 47 percent visited only the store in which the item was purchased, but 41 percent visited more than one store before the purchase. This is contrasted with Udell's finding<sup>109</sup> that 60 percent of his respondent base shopped only in the store where the purchase was made. Enis and Paul<sup>110</sup> developed data on number of stores shopped before purchase of a television set and before purchase of men's shirts. Relative to the television set purchase, 61 percent visited more than one store, while for the shirt purchase 63.5 percent visited only one store for the purchase. These findings are probably related to the cost of the product. Of further interest is their data on the rank order of information sources or cues relied upon by respondents in making a decision to shop in a particular retail outlet. The data is summarized in Table 1. The low rank order of "friends

---

<sup>108</sup>Katona and Mueller, op.cit., pp. 45-46.

<sup>109</sup>Jon G. Udell, "Prepurchase Behavior of Buyers of Small Electrical Appliances," Journal of Marketing, Vol. 30 (October, 1966), pp. 5-56.

<sup>110</sup>Ben M. Enis and Gordon W. Paul, "Store Loyalty As A Basis for Market Segmentation," Journal of Retailing, Vol. 46, No. 3 (Fall, 1970), pp. 42-56.

TABLE 1

RANK ORDER OF INFORMATION SOURCES USED TO  
DECIDE ON SHOPPING IN A RETAIL OUTLET

<u>Information Source</u>	<u>Men's Shirt</u>	<u>Television Set</u>
Previous Experience	1	2
Window Display	3	4
Suggestion of Friends	2	5
Newspaper Advertisements	4	1
Radio/TV Advertisements	5	3
"Consumers' Reports" or Other Services	6	6

SOURCE: Ben M. Enis and Gordon W. Paul, "Store Loyalty as A Basis for Market Segmentation," Journal of Retailing, Vol. 46, No. 3 (Fall 1970), p. 46.

advice" on the store to shop for the television set is surprising and perhaps can be explained by the consumer's unwillingness to place heavy reliance on the advice of friends when a large monetary investment for a complex quasi-technical product investment is involved.

The recent Newman and Staelin<sup>111</sup> study of new automobile and major appliance pre-purchase information seeking attempts to develop complex indices of out-of-store and in-store information seeking. The scores from which the indices were constructed were based on buyers' reports of types of information sought or received, types of sources used, and the number of retail stores visited. The data was generated from 653 households which had bought one or more of the products in 1967 or 1968 and the respondents were all adults. Their data indicates that many buyers engaged in little information seeking. In fact, 49 percent of the respondents had visited only one retail outlet.<sup>112</sup> (Unfortunately, they do not separate the data into information seeking for automobile and appliance purchasing). Nevertheless, their overall finding seems to be consistent with the observation made by the same authors in their study of purchase decision time

---

<sup>111</sup>Joseph W. Newman and Richard Staelin, "Pre-purchase Information Seeking for New Cars and Major Household Appliances," Journal of Marketing Research, Vol. 9, No. 3 (August, 1972), pp. 249-257.

<sup>112</sup>Ibid., p. 250.

on the same two products.<sup>113</sup> They found that half of the buyers of new cars and major appliances had purchase decision times of a week or two.<sup>114</sup> Finally, their findings relative to the correlation between education and information seeking will be discussed in the final section in this chapter dealing with demographic variables.

The next variables to be considered are those clustered under the general heading of product oriented variables: product knowledge, product importance and product experience.

#### Product Knowledge

No pertinent studies or experiments were uncovered in the literature which impact on the issue of retail store patronage and product knowledge. Nevertheless, for this dissertation field study, this variable can be operationalized by asking respondents questions and rating the answers. From these answers, a "knowledge score" can be generated for each respondent.

---

<sup>113</sup>Joseph W. Newman and Richard Staelin, "Multivariate Analysis of Differences in Buyer Decision Time," Journal of Marketing Research, Vol. 8, No. 2 (May, 1971), pp. 192-198.

<sup>114</sup>Ibid., p. 193.

### Product Importance

There are virtually no studies in the literature relating to product importance (saliency) and the issue of store patronage. Several studies do appear in the marketing literature, however, which related product "interest"<sup>115</sup> to other variables manipulated in this dissertation study and they are now reviewed.

The area in the marketing literature which appears to have received the most attention relates to the overlap between interest in products and opinion leadership. In Silk's<sup>116</sup> early study, opinion leadership for five dental products and services was measured. He did not obtain statistically significant evidence of overlap of opinion leadership and interest across the product lines, although some evidence for this trend was generated. Subsequent researchers have disagreed about whether opinion leadership is generalized (e.g., related to interest across unrelated or related products or services).

---

<sup>115</sup>For the purposes of this review, product importance and product interest are assumed to be interchangeable behavioral concepts.

<sup>116</sup>Alvin Silk, "Overlap Among Self-Designated Opinion Leaders: A Study of Dental Products," Journal of Marketing Research, Vol. 2 (August, 1966), pp. 255-260.

The King and Summers<sup>117</sup> study set out to test anew the issue of whether "opinion leaders tend to overlap more or less across certain combinations of topic areas instead of other combinations of topic areas".<sup>118</sup> Although they do not measure product interest directly, they infer it via the apparent similarity or dissimilarity of the product categories studied. The product categories examined were (1) packaged food products, (2) women's clothing fashions, (3) household cleansers and detergents, (4) cosmetics and personal grooming aids, (5) large appliances, and (6) small appliances. Their findings and conclusions were that high opinion leadership overlap exists across all the combinations of product categories studied and that "opinion leadership overlap is highest between product categories which involve similar interests".<sup>119</sup>

The Montgomery and Silk<sup>120</sup> study presents a more direct investigation of the hypothesis that opinion

---

<sup>117</sup>Charles W. King and John O. Summers, "Overlap of Opinion Leadership Across Consumer Product Categories," Journal of Marketing Research, Vol. 7, No. 1 (February, 1970), pp. 43-50.

<sup>118</sup>Ibid., p. 43.

<sup>119</sup>Ibid., p. 49.

<sup>120</sup>David B. Montgomery and Alvin J. Silk, "Clusters of Consumer Interests and Opinion Leaders Spheres of Influence," Journal of Marketing Research, Vol. 8, No. 3, (August, 1971), pp. 317-321.

leadership overlaps where interest overlaps. Self-designated female opinion leaders were generated from a MRCA National Consumer Panel and the study examined 16 categories of consumer spending. Their findings supported the overlap hypothesis. The magnitude of association in opinion leadership between pairs of areas was shown to co-vary with the degree of intercorrelation between interest in the same areas.<sup>121</sup> Nevertheless, these findings should be considered tentative because interest and opinion leadership were measured by a single and similarly worded question which was repeated for each of the 16 topic areas.

#### Product Experience

There is a dearth of information in the marketing literature pertaining to product experience and retail store patronage. Granbois has noted that "scant attention has been paid to the questions of how and to what extent information feedback from past experience influences family decisions".<sup>122</sup> Of course, all consumer purchase

---

<sup>121</sup>Ibid., p. 318.

<sup>122</sup>Donald H. Granbois, "The Role of Communication in the Family Decision-Making Process," in Stephen A. Greyser (ed.), Toward Scientific Marketing (Chicago: Proceedings of the Winter Conference of the American Marketing Association, 1963), p. 200.

experience should be considered an internal source of communication and Nicosia includes internal search in his model of consumer behavior as follows:<sup>123</sup>

The consumer consciously or unconsciously retrieves information from his social psychological field that seems to him to concern the advertised brand, the product, the firm that manufactures and/or sells the product, its competitors, and so forth.<sup>124</sup>

To the above can be added the thought expressed by Engel, Kollat and Blackwell relative to the consumer's relevant experience and the need for external sources of information:<sup>125</sup>

The amount of stored information is a function of both the length and breadth of experience. The greater the length of time that brands comprising the generic product have been purchased the lower the propensity to search. Similarly, the greater the number of brands of the generic product that have been purchased, the lower the propensity to search.

Regarding store patronage, it might be supposed that a combination of experience and interpersonal and impersonal information sources are "processed" by the consumer prior to making a store patronage decision. This assertion has yet to be tested empirically.

---

<sup>123</sup> Francesco M. Nicosia, Consumer Decision Processes (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1966), p. 174.

<sup>124</sup> To Nicosia's listing should also be added -- "retail establishment".

<sup>125</sup> Engel, Kollat and Blackwell, op.cit., p. 382.

The Newman and Staelin study tested the relationship between buying experience and pre-purchase information seeking. They found that in pre-purchase search for a new automobile or major household appliances, buying experience had a heavy influence on search once a buyer had bought at least two items of a product in the last ten years.<sup>126</sup> This finding was more apparent with purchase of appliances and this tendency, although less marked, was also present with automobiles. These findings contradict an earlier study,<sup>127</sup> which found no significant relationship between information search effort and automobile buying experience.

#### Demographic Attributes

The marketing literature does not yield many significant studies which relate specific consumer demographic characteristics with why consumers choose a particular retail establishment.

Regarding pre-purchase search, Katona and Mueller found that some demographic variables affect search intensity.<sup>128</sup> Their findings indicate that search intensity will likely be greater if (1) the consumer is in the middle

---

<sup>126</sup>Newman and Staelin, op.cit., p. 255.

<sup>127</sup>Peter D. Bennett and Robert M. Mandell, "Pre-purchase Information Seeking Behavior of New Car Purchases: The Learning Hypothesis," Journal of Marketing Research, Vol. 6, No. 4 (November, 1969), pp. 430-433.

<sup>128</sup>Katona and Mueller, op.cit., pp. 80-87.

income category--\$5,000-7,500 per annum, (2) the consumer is under 35 years old, (3) the consumer has some college education, and (4) the consumer is a white collar worker.

Newman and Staelin studied the relationship between pre-purchase information seeking on major appliances and new automobiles and respondent's education, family size, and city size of residence.<sup>129</sup> They reported that the advanced college degree respondents reported about the same amount of information seeking as the group with less than high school education. This tendency was greater for consumers buying automobiles.<sup>130</sup> Relative to family size, they found, contrary to their hypothesized view, that search would be greater for families with children, that young unmarried persons had the highest information-seeking scores. Finally, they reported a direct significant relationship between automobile information seeking and city size of residence but not for major appliances. Of course, the subjects may have decided that information seeking for automobiles might yield a better "pay-off" in the form of lower purchase prices than similar behavior before purchasing a major appliance.

---

<sup>129</sup>Newman and Staelin, op.cit., pp. 254-257.

<sup>130</sup>Ibid., p. 254.

Feldman's study of the relationship between external and internal sources of information and the selection of a family physician found that as the age of the respondent advanced, the relative importance of the information sources changed.<sup>131</sup> For example, when the median age of the respondent was 28.1 years old, relatives were the preferred information source; however, when the median age shifts to 39.2 years old, the respondent's own judgement is the preferred source.<sup>132</sup>

The Westinghouse Broadcasting Company Study<sup>133</sup> mentioned earlier recently developed demographic data on department store customers for Retail Information Bank (RIB) studies. Their data indicates that almost half of the regular customers at department stores such as Macy's, Gimbel's, Abraham and Strauss, Marshall Field and Company, etc., are over 50 years of age, while for the customers at national chains such as Sears, Marcor, Penney's, etc. the over 50 year old group drops to 35 percent of their regular customers. Discount store regular customers over 50 years old constitute 38 percent. This data is based on responses of female heads of households.

<sup>131</sup>Sidney P. Feldman, "Some Dyadic Relationships Associated with Consumer Choice," in Raymond M. Haas (ed.), op.cit., p. 774.

<sup>132</sup>Ibid.

<sup>133</sup>Dash, (February 16, 1972), op.cit.

In one particular market, the age distribution of the regular customers was revealed and is shown in Table 2. It indicates that the age groups captured by each type of store differs considerably. Finally, for an amusing but incisive commentary on the effect of a store's merchandising and marketing policies directed toward a particular age group, Lois Gould's article on Bloomingdale's New York City department store is of considerable interest.<sup>134</sup>

### Conclusion

In this chapter the marketing and related literature pertaining to store patronage and the key independent variables used in the dissertation field study (to be described later) has been reviewed. This review supports the view that considerably more research is required in order to uncover further knowledge concerning why consumers choose a particular retail establishment. This need is particularly great in the area of the impact of consumer behavioral variables on the consumer store choice decision.

The next chapter presents the research model and field study design.

---

<sup>134</sup>Lois Gould, "Confessions of A Bloomingdale's Addict," New York Magazine (March 5, 1973) pp. 56-60.

TABLE 2

AGE DISTRIBUTION OF REGULAR DEPARTMENT  
STORE CUSTOMERS

Age Distribution	Traditional Department Store %	National Chain %	Large Specialty Store %
18-34	27.5	32.7	24.0
35-49	29.5	35.1	26.2
50+	43.0	32.2	49.8
	100.0	100.0	100.0

SOURCE: Earl Dash, "Reports on the Retail Information Bank," Women's Wear Daily (February 16, 1972).

## CHAPTER III

### RESEARCH MODEL AND FIELD STUDY DESIGN

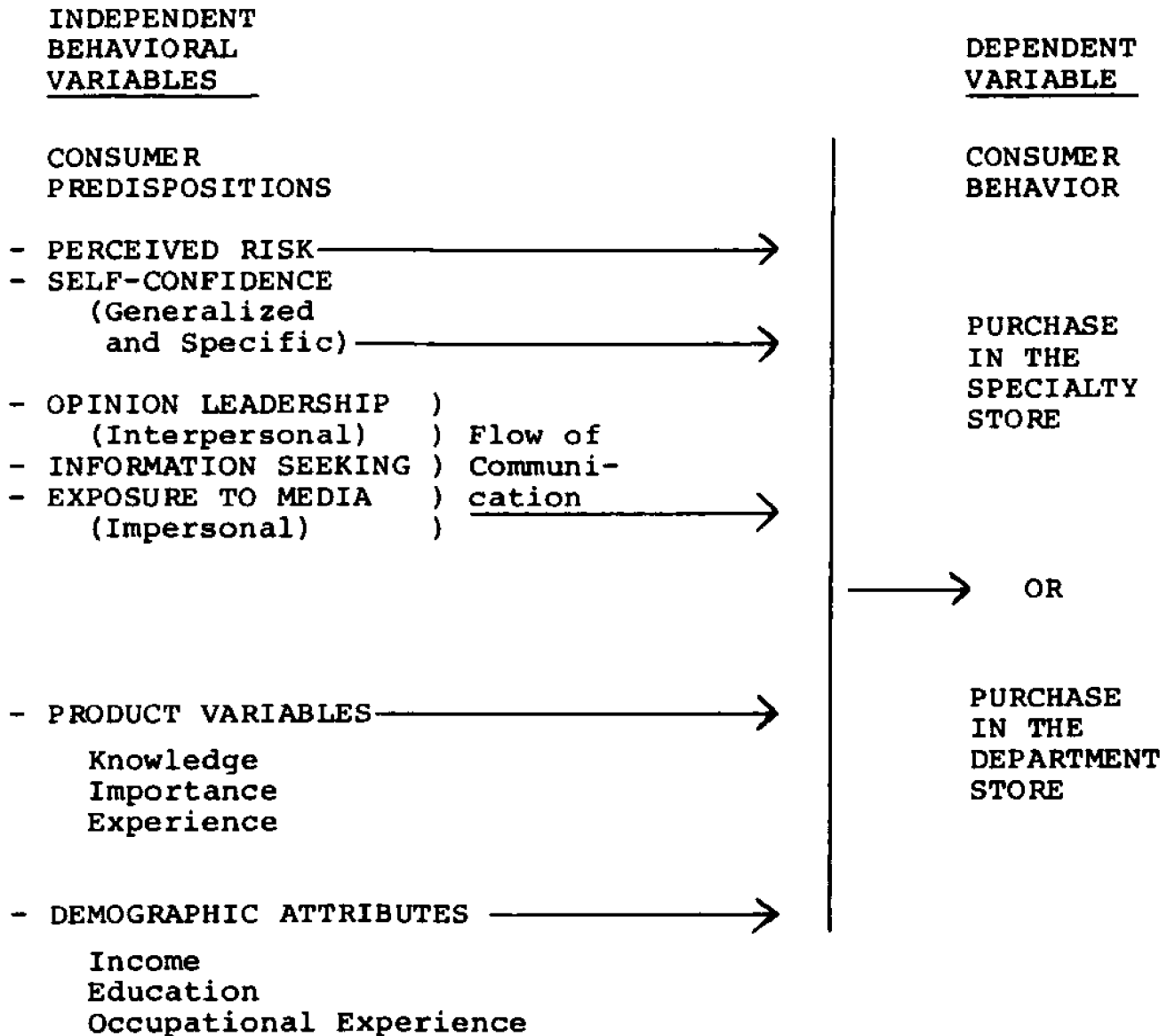
This chapter examines the following facets of the field survey: (1) the research model, (2) research hypotheses, (3) field study design and procedures, (4) definition and measurement of variables, and (5) data analysis approach.

#### Research Model (Study Flow Chart)

Preliminary to the consideration of the proposed research hypotheses, a simple study flow chart is depicted in Figure 4 which shows the major relationships studied. In store purchasing is the dependent variable (on the right side of the study flow chart) under examination in this study and it has two values--purchase in the specialty store (Pacific Stereo) or purchase in the department store (The Emporium). The independent behavioral variables (on the left side of the study flow chart) consist of consumer predispositions which impact on the choice of store. The independent variables are:

Figure 4

## THE RESEARCH FLOW CHART



1. perceived risk
2. generalized and specific product self-confidence
3. opinion leadership
4. information seeking
5. exposure to media
6. product related variables: product knowledge, product importance, and product experience
7. demographic attributes: income, education, and occupational experience

## HYPOTHESES

### Perceived Risk Hypothesis

1. Perceived risk will be lower for those purchasing in a specialty store than for those purchasing in a department store.

### Self-Confidence Hypothesis

2. Generalized self-confidence will be higher for those purchasing in a specialty store than for those purchasing in a department store.

3. Specific product self-confidence will be higher for those purchasing in a specialty store than for those purchasing in a department store.

#### Opinion Leadership Hypothesis

4. Opinion leadership will be greater for those purchasing in a specialty store, than those purchasing in a department store.

#### Exposure to Information Hypotheses

5. Those purchasing in a specialty store will have greater exposure to audio equipment special interest magazines than those purchasing in a department store.

6. Those purchasing in a specialty store will seek more pre-purchase information than those purchasing in a department store.

7. Those purchasing in a specialty store will consider the store's sales force product expertise a more important store choice determinant than those purchasing in a department store.

#### Product Variable Hypotheses

8. Those purchasing in a specialty store will exhibit more actual product knowledge than those purchasing in a department store.

9. Perceived product importance will be higher for those purchasing in a specialty store and lower for those purchasing in a department store.

10. Those purchasing in a specialty store will have more actual product experience than those purchasing in a department store.

### Demographic Hypotheses

11. Those purchasing in a specialty store will have a higher income level, more formal education, and more occupational experience than those purchasing in a department store.

### Field Study Design and Procedures

The methodology employed to test the validity of the hypothesis is the subject of this section wherein the following topics in relation to the field study are described: selection and description of respondent groups, field survey procedures, and pilot study.

### Selection and Description of Respondent Groups

The study focuses on audio equipment retailing and the cooperation of the Pacific Stereo subsidiary of the Columbia Broadcasting System, Inc. (CBS) was secured. (The author is an executive with the CBS group responsible for managing Pacific Stereo). This 35 store chain was chosen because all of their stores meet the criteria of a specialty retailing unit. All of their stores carry most of the major domestic and foreign brands in every audio equipment product category. The average sale in these stores is \$150-200. No audio-visual or television sets are sold by Pacific Stereo. The stores are located primarily in California, in communities of varying sizes in the San Francisco Bay and Peninsula region and the Greater Los Angeles area. It was

decided to choose two different Pacific Stereo stores-- the downtown San Francisco and the San Jose stores. Two geographic locations were chosen approximately 50 miles apart (see Figure 5--a map of the region) in order to increase the size of the respondent groups, and to determine if regionality differences were significant in the results of the experiment.

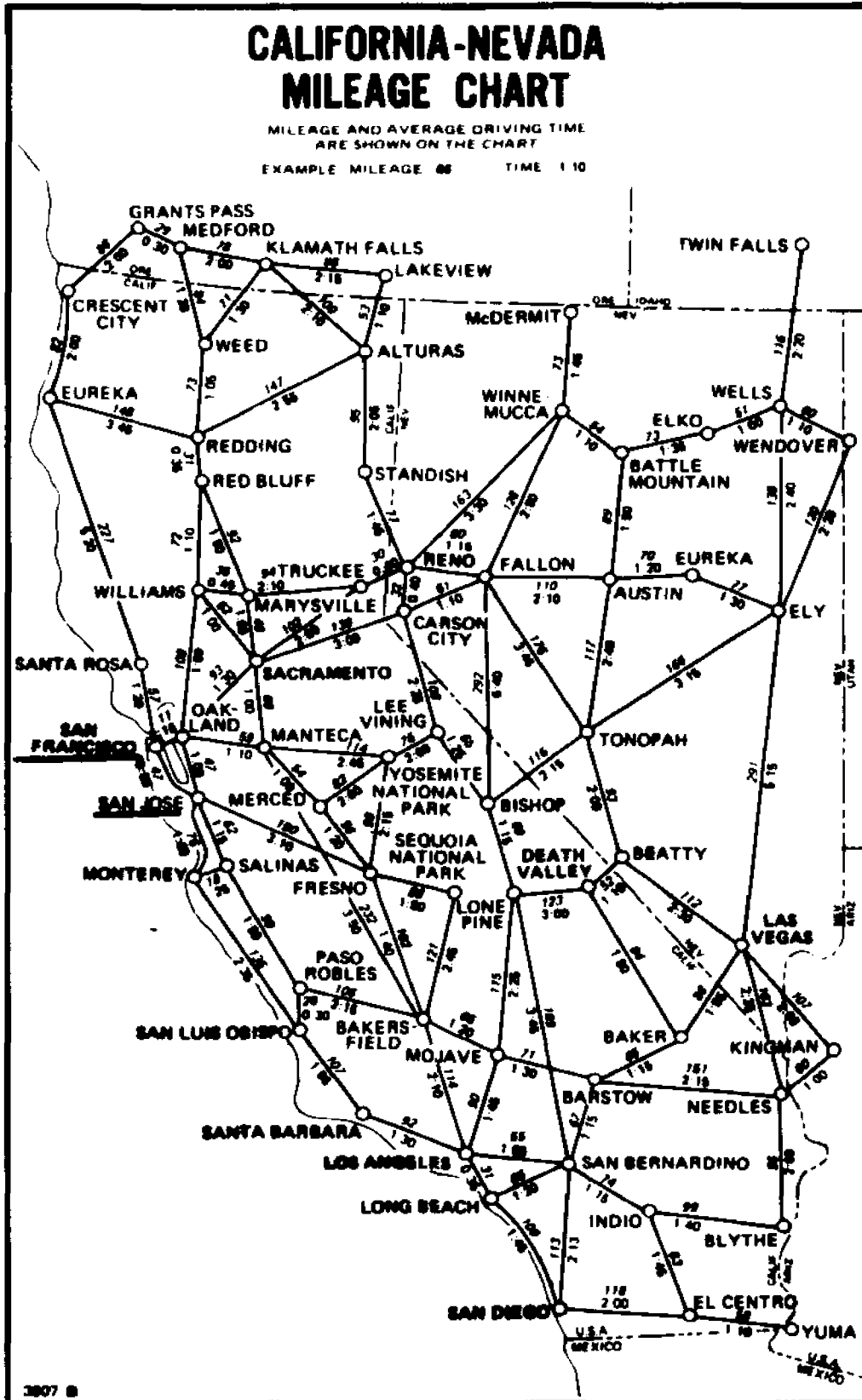
The Emporium, part of the Broadway-Hale group, was selected as the "control" audio retailer. The Emporium was chosen because all of the stores in this chain fit the criteria of a department store. (Cooperation was secured because of long standing supplier-customer relationships between The Emporium and CBS). They have audio equipment departments and have stores in the same location as the Pacific Stereo stores. Of importance also, in the choice of these two retailing chains, is the fact that both chains have customer purchase records for cash as well as credit purchases.

#### Field Study Procedures

By the end of January 1973, Pacific Stereo and The Emporium were able to turn over the list of customers. The number of potential respondents supplied according to the selection procedure described earlier was as follows:

Figure 5

MAP OF CALIFORNIA



Pacific Stereo - San Francisco	232
San Jose	236
The Emporium - San Francisco	147
San Jose	<u>157</u>
Total number of potential respondents	772

During the first two weeks of February, questionnaires were sent to all customers listed. After questionnaires were returned, respondents who purchased the products for gifts were eliminated (gift question was included in questionnaire) because of the need to measure data from respondents who had deeper personal involvement with the purchased product. This procedure was deemed critical in order to prevent inaccurate responses to the risk reduction questions. The same reasoning dictated the decision to use only respondents who had made purchases of \$100 or more.

After two weeks had expired, approximately 40 percent of all questionnaires sent had been returned. In order to ensure a return rate of at least 50 percent, and to ensure reduction of respondent "self-selection" bias, WATS lines were employed to contact respondents who had not returned their questionnaires. Supervised telephone interviewers were used to administer the questionnaire until the 50 percent respondent completion level had been reached for all four stores. An attempt was made to reach all laggards at least once by WATS line. The high rate of

completed interviews is attributable to the physical design of the questionnaire, the tone of the introductory letter, and the unusually high retail value of the free gift.

### Pilot Study

Prior to the initiation of the field study a pilot study was undertaken to test the viability of the questionnaire. The pilot study was completed by administering the questionnaire to audio equipment buyers at two New York City stores whose profiles closely resembled Pacific Stereo and The Emporium. A total of 25 consumers were interviewed. As a result of the interviews, the language of several questions was altered. The most important change centered around the use of the term "high fidelity". It was found that pilot study respondents, (particularly those who purchased equipment in the department store) were more conversant with the term "stereo" as a description of audio equipment. In other words, they used "stereo" as a descriptive term for audio equipment, regardless of quality or price level. (In retrospect, this was not surprising since the term "high fidelity" first entered the audio buyers' vernacular in the 1950's when monaural was the only system extant).

### Field Questionnaire

In addition to the issue of proper question construction, the strategy for the design of the questionnaire was based on the need to obtain a high respondent return with all questions answered. Therefore, the decision was made to: (1) design an easily completed questionnaire, (2) disassociate survey from any particular "big business" with establishment connections, (3) use the lure of an expensive gift in exchange for cooperation--a gift with specific connection to the stated purpose of the survey and connected to the respondent's recent audio equipment purchase, and (4) use of a motivating, plausible and persuasive introductory letter with the questionnaire.

The results of this strategic planning is the questionnaire, reproduced in its entirety in Appendix I.

Because the respondents were recent purchasers of audio equipment, the offer of an LP disc with a real retail value of \$3-4 was appropriate. Indeed, it was believed that the uniqueness of this offer would ensure high respondent motivation to complete and return the questionnaire. The survey was sponsored by a fictitious marketing research firm with a prestigious Fifth Avenue address. The questionnaire was mailed to respondents without any identification with a particular "big business" entity. The respondents were provided with a self-addressed postage

prepaid envelope. The questionnaire art was provided by a professional designer and was printed on good quality paper.

### Definition and Measurement of Variables

In this section each of the variables is operationally defined.

1. In Store Purchasing - the dependent variable has two values--a purchase in Pacific Stereo, the specialty store, or a purchase in The Emporium, the department store. Measurement was validated through purchase records from both stores, which identified the customer's name, address and expenditure. Questionnaires were then sent to these individuals.

2. Perceived Risk - two questions (12 and 14) were used to measure the two dimensions of risk:

#### a. Uncertainty Risk

12. Purchasing any kind of audio equipment is, to many people, complicated by the many brands and conflicting performance claims stated by each manufacturer. Before your recent audio equipment purchase, how certain were you that your particular choice would prove to be satisfactory? (Check one)

I was very certain \_\_\_\_\_

I was not certain \_\_\_\_\_

I was somewhat certain \_\_\_\_\_

b. Consequences Risk

14. How serious would it be for you if the audio equipment you recently bought proved to give unsatisfactory performance. (Check one)

It would be very serious \_\_\_\_\_  
 It would be somewhat serious \_\_\_\_\_  
 It would be annoying but not serious \_\_\_\_\_

Each respondent's score for these two risk dimensions was determined by assigning numerical values to each of the three scale points according to the Cunningham matrix discussed in Chapter II. Table 3 illustrates the scoring method matrix and the scoring of risk levels, using the above two questions. Using this method allows the respondent's risk level to be categorized into high, medium, or low perceived risk.

3. Generalized Self-Confidence - was measured by questions 15 and 17:

15. Do you ever feel bothered about what other people think of you? (Check one) Yes \_\_\_\_\_ No \_\_\_\_\_

If your answer was YES, how often do you feel bothered? (Check one)

Very often\_\_ Fairly often\_\_ Sometimes\_\_ Almost never\_\_

17. Excluding audio equipment how do you feel about your abilities in general? (Check one)

Very confident \_\_\_\_\_ Sometimes confident \_\_\_\_\_  
 Usually confident \_\_\_\_\_ Almost never confident \_\_\_\_\_

TABLE 3

## THE PERCEIVED RISK MATRIX

<u>Certainty Scale (Weight)</u>		<u>Consequences Scale (Weight)</u> (Seriousness)		
		<u>Not Serious</u> (3)	<u>Somewhat Serious</u> (2)	<u>Very Serious</u> (1)
Very Certain	(3)	9	6	3
Somewhat Certain	(2)	6 <sup>a</sup>	4	2
Not Certain	(1)	3	2	1

<sup>a</sup>Read: 2x3=6

Scoring of Risk Levels

	<u>Certainty</u>	<u>Seriousness</u>	<u>Matrix Value</u>
<u>Low Perceived Risk</u>	Very	Not	9
	Very	Somewhat	6
	Somewhat	Not	6
<u>Medium Perceived Risk</u>	Somewhat	Somewhat	4
	Very	Very	3
	Not	Not	3
<u>High Perceived Risk</u>	Not	Somewhat	2
	Somewhat	Very	2
	Not	Very	1

SOURCE: Adapted from Scott M. Cunningham, "The Major Dimensions of Perceived Risk," in D. F. Cox (ed.) Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967) p. 85.

The questions are adaptations of the technique used by Cunningham to measure the same variable in his study of headache remedies.<sup>1</sup> Each respondent's score for the two dimensions of generalized self-confidence was determined by assigning numerical values to each of the four scale points. A matrix scoring index, adapted from the concept of the perceived risk scoring matrix is used and is illustrated in Table 4. This method allows the respondent's generalized self-confidence level to be categorized into high, medium or low scores.

4. Specific Product Self-Confidence - Two questions, 3 and 4, were used to determine respondent's level of audio products (specific product) self-confidence:

3. Just before your recent purchase of some audio equipment, how would you have rated your ability to judge the quality of audio equipment?

Little ability      1 2 3 4 5 6      Considerable ability

4. Just before your recent purchase of some audio equipment how confident were you in your ability to make a good choice when you recently purchased some audio equipment?

Little confidence                      1 2 3 4 5 6                      Considerable confidence

---

<sup>1</sup>Scott M. Cunningham, "Perceived Risk in Informal Communications," in Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), p. 286.

TABLE 4

## THE GENERALIZED SELF-CONFIDENCE MATRIX

Bothered (Weight)		Confidence in General Abilities (Weight)			
		Confident			
		Never (1)	Sometimes (2)	Usually (3)	Very (4)
Very often	(1)	1	2	3	4
Fairly often	(2)	2	4	6	8
Sometimes	(3)	3 <sup>a</sup>	6	9	12
Almost never	(4)	4	8	12	16

<sup>a</sup>Read: 3x1=3

Scoring of Generalized Self-Confidence Levels

	Bothered	Abilities	Matrix Value
<u>Low</u> <u>Generalized</u> <u>Self-</u> <u>Confidence</u>	Very often	Never confident	1
	Very often	Sometimes confident	2
	Fairly often	Never confident	2
	Sometimes	Never confident	3
	Very often	Usually confident	3
	Very often	Very confident	4
	Fairly often	Sometimes confident	4
	Almost never	Never confident	4
<u>Medium</u> <u>Generalized</u> <u>Self-</u> <u>Confidence</u>	Fairly often	Usually confident	6
	Sometimes	Sometimes confident	6
	Fairly often	Very confident	8
	Almost never	Sometimes confident	8
	Sometimes	Usually confident	9
<u>High</u> <u>Generalized</u> <u>Self-</u> <u>Confidence</u>	Sometimes	Very confident	12
	Almost never	Usually confident	12
	Almost never	Very confident	16

SOURCE: Adapted from Scott M. Cunningham, "The Major Dimensions of Perceived Risk," in D. F. Cox (ed.) Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967) p. 85.

The questions were derived from similar measures of the same variable used by Bell.<sup>2</sup> The scaling intervals allow for placing respondents into high, medium and low levels of audio products self-confidence. By adding the scores for both questions, high specific product self-confidence is designated for 9-12 scores, 5-8 medium, and 1-4 low.

5. Opinion Leadership - Questions 6 and 13 are used to operationalize this interpersonal variable and were adapted from the Katz and Lazarsfeld measure:<sup>3</sup>

6. Have you recently been asked your advice or opinion about buying any audio products or specific audio product brands? (Check one) Yes  No

13. Compared with most other people you know, how likely are you to be asked for your ideas or your advice about audio products or brands? (Check one)

I am less likely   
I am as likely

I am more likely

The method used for determining respondent's opinion leadership traits is the self-designating technique. This technique is most often used when questionnaire or interviewing brevity is needed and/or an entire social system cannot be surveyed. In this instance, both issues

---

<sup>2</sup>Gerald D. Bell, "Self-Confidence and Persuasion in Car Buying," Journal of Marketing Research, Vol.4 (February, 1967), p. 47.

<sup>3</sup>Elihu Katz and Paul F. Lazarsfeld, Personal Influence (New York: The Free Press, 1955), p. 346.

dictated the choice. Scoring methodology consisted of an index combining both questions. In question 6, a "yes" receives a score of one and "no" a zero score. This score is then added together with the indicated scale in question 13. Respondents are rated high in opinion leadership if the score is 4, medium for a 2-3 score, and low for a score of one.

6. Information Seeking - this variable is operationalized with questions 5, 7 and 9:

5. Before your recent audio equipment purchase, did you seek any advice from friends or neighbors about audio equipment? (Check one) Yes \_\_\_ No \_\_\_  
If your answer was YES, how much time did you spend seeking this advice?

Little time    1    2    3    4    5    6    Considerable time

7. Before your recent audio equipment purchase, did you shop in any stores for this equipment before deciding on your purchase? (Check one) Yes \_\_\_ No \_\_\_  
If your answer was YES, how many stores did you shop in?

1 store\_\_ 2 stores\_\_ 3 stores\_\_ 4 stores\_\_  
More than 4 stores\_\_

9. Before your recent audio equipment purchase, did you seek any information from equipment manufacturers catalogs or brochures? (Check one) Yes \_\_\_ No \_\_\_

The construction of these questions to measure the information seeking variable closely follows the approach taken by two authors who recently described their measurement

of this variable.<sup>4</sup> An index of information seeking is derived from a scoring of the three questions according to the scales indicated in the questions. The scores for the three questions are added to form the index. A respondent is rated high for a 9-12 score, medium for a 5-8 score, and low in information seeking for a 0-4 score.

7. Exposure to Specialty Audio Magazines - This impersonal variable is operationalized with question 11-c,e,f:

11. Do you ever read any of the magazines listed below?  
 (Check one) Yes \_\_\_\_\_ No \_\_\_\_\_  
 If your answer was YES, how often do you look through or read the following magazines? (Check as many magazines as necessary).

	<u>Very Often</u>	<u>Some- times</u>	<u>Almost Never</u>	<u>Never</u>
a. Sunset	_____	_____	_____	_____
b. Rolling Stone	_____	_____	_____	_____
c. High Fidelity	_____	_____	_____	_____
d. Playboy	_____	_____	_____	_____
e. Audio	_____	_____	_____	_____
f. Stereo Review	_____	_____	_____	_____
g. Time	_____	_____	_____	_____
h. Coast Magazine	_____	_____	_____	_____

---

<sup>4</sup> Joseph W. Newman and Richard Staelin, "Multivariate Analysis of Differences in Buyer Decision Time," Journal of Marketing Research, Vol. 8, No. 2 (May, 1971), pp. 192-198, and Fred D. Reynolds and William R. Darden, "Mutually Adoptive Effects of Interpersonal Communication," Journal of Marketing Research, Vol. 8, No. 4 (November, 1971) p. 453.

Respondents are asked to indicate the degree to which they read three audio specialized media magazines. An index is constructed from adding the indicated scores. This results in respondents being categorized into high (9-12 scores), medium (5-8 scores), and low (0-4) levels of exposure to specialty media sources.

8. The Product Variables - audio product importance, audio product experience, and audio product knowledge were operationalized as follows:

a. Importance of audio products for the respondent was determined by asking question 1:

1. Compared to other things or subjects that interest you, how important to you is your audio equipment?

Little importance    1 2 3 4 5 6    Considerable importance

A score of 1-2 is low, 3-4 medium, and 5-6 a high level of audio products importance to the respondent.

b. Experience with audio products was measured by questions 2 and 10:

2. In general, how much experience have you had in shopping for audio equipment? (Don't consider record or tape buying as part of your experience.)

Little experience    1 2 3 4 5 6    Considerable experience

10. Approximately how many times prior to your last purchase had you actually purchased an audio product in a store? (Exclude records or tape buys and mail order purchases). (Check one)

Once   Twice   Three Times   Four Times   More than Four Times   None

The product experience index is determined by adding the scores for both questions. A respondent's 1-4 score is low, 5-8 is medium, and 9-11 is high for the experience variable.

c. Knowledge pertaining to audio products is measured by asking the respondent to answer question 23-a, b, c:

23. Please try to the best of your ability to answer without asking anyone or trying to locate the answer to the following three questions?

- a. Define the term "FM" \_\_\_\_\_
- b. Define the term "RMS Rating" \_\_\_\_\_
- c. Define the term "Woofers" \_\_\_\_\_

9. Demographic Attributes measured consisted of sex, age, dwelling type, income, educational level, number of years in present occupation, and birth order. The first three variables were answered directly on the gift certificate. (See Appendix I). The last four variables were measured by the following questions:

18. Please check the box which most closely indicates the total annual household income. (If you are a student include your parents' income). (Check one).

Less than \$3,000 per year \_\_\_ \$10,000-19,999 per year \_\_\_  
 \$3,000-9,999 per year \_\_\_ \$20,000 or over per year \_\_\_

19. Please check the box which indicates the highest level of school education you have so far achieved. (Check one)

Completed grade school	___	Completed or attended college	___
Graduated from high school	___	Completed or attended graduate school	___

20. What is your present occupation? (If student-- write student). \_\_\_\_\_
21. For how many years have you been engaged in your present occupation? (If student do not answer this question). (Check one).

Less than one year      \_\_\_\_\_      6-10 years      \_\_\_\_\_  
 1-5 years                      \_\_\_\_\_      Over 10 years      \_\_\_\_\_

With the exception of birth order, responses to questions 18, 19 and 21 are categorized into high, medium and low levels.

10. Other Variables - another variable measured is the respondent's perception of the importance of the audio equipment salesman's expertise. This was measured as part of a group of other questions as follows:

16. Thinking back about your decision to make your recent audio equipment purchase, which of the following factors were important in your selection of the retail store where you finally made the purchase? (Please circle the number on the 1-6 scale which comes closest to reflecting your answer as in Part 1).
- a. Very convenient store location  
     No importance      1 2 3 4 5 6      Very important
- b. Best prices and/or "deals"  
     No importance      1 2 3 4 5 6      Very important
- c. Guarantee/warranty policies  
     No importance      1 2 3 4 5 6      Very important
- d. Better and more knowledgeable salesmen  
     No importance      1 2 3 4 5 6      Very important
- e. Large number of different brands and/or models to choose from  
     No importance      1 2 3 4 5 6      Very important

## DATA ANALYSIS

The data from the returned questionnaires were transferred to IBM cards and tabulated. Multivariate analysis techniques were first applied to the data base in order to determine if store regionality played a role in discriminating the Pacific Stereo buyer from The Emporium buyer. A decision rule was set based on this finding relative to the chi square analysis. The findings and the results of the statistical tests will be the subject of the next chapter.

## CHAPTER IV

### RESEARCH FINDINGS AND ANALYSIS

This chapter is devoted to a presentation of the field study research findings. The topics to be discussed are:

1. questionnaire response
2. the multiple stepwise linear regression procedure and findings
3. impact and significance of the consumer behavior variables on the store choice

#### Questionnaire Responses

Table 5 summarizes the questionnaire data base for the survey. From the 772 questionnaires mailed to the Pacific Stereo and The Emporium audio equipment buyers, 421 usable responses were obtained--a response rate of 55 percent. A minimum of 50 percent response was considered sufficient for this study. WATS line follow-up interviews with tardy respondents were undertaken. After the minimum 50 percent response level was reached, the field survey was terminated in order to proceed with the data analysis. (An attempt was made to reach all laggards at least once by telephone).

TABLE 5

## DATA BASE

<u>Respondents</u>	<u>Usable Questionnaires*</u>	<u>% Response</u>
<u>Pacific Stereo</u>		
San Francisco	134	58
San Jose	<u>129</u>	<u>50</u>
Sub-total	263	56
<u>The Emporium</u>		
San Francisco	79	54
San Jose	<u>79</u>	<u>50</u>
Sub-total	158	52
Grand Total	421	

\*Includes questionnaires returned by mail and questionnaires completed by telephone interviewing.

### Multiple Stepwise Linear Regression Analysis

The underlying reason for the use of the multiple stepwise linear technique in the analysis of the field survey data was to determine the extent to which the consumer behavioral variables depicted in the study paradigm are able to predict whether the consumer will purchase audio equipment in a specialty store or in a department store.

It should be noted that an extensive literature review on retail segmentation research and multivariate analyses has been presented in the Sweeney and Reizenstein paper (discussed in Chapter II) wherein they note that "retail segmentation studies have made only sparing use of multivariate analytical tools".<sup>1</sup> The literature review undertaken for this dissertation supports this view.

An initial pilot regression analysis was run, and the correlation analysis indicated that city location of the Pacific Stereo and The Emporium stores and respondent's choice was not correlated. Also, from the pilot regression analysis, correlation coefficients for location and all other variables in the model were obtained and the data indicated that:

---

<sup>1</sup>Daniel J. Sweeney and Richard C. Reizenstein, "Developing Retail Market Segmentation Strategy for A Women's Specialty Store Using Multiple Discriminant Analysis," presented to the Fall Educators Conference, American Marketing Association, Houston, August, 1972, p.2.

1. Store location is uncorrelated with respondent's store choice. The actual correlation coefficient was - 0.02.

2. Location was not correlated with any of the key independent variables.

Therefore, it was decided to combine the data from all of the Pacific Stereo respondents from San Francisco and San Jose and compare these responses with the data from the combined Emporium responses in the same cities for both the multiple regression and chi-square analysis.

The key objective in the use of multiple discriminant analysis is to produce a linear function that will distinguish between two or more groups. Among the equations that can be used to express relationships between more than two independent variables, the most widely used are linear equations of the form

$$y = a + bx_1 + cx_2 + dx_3 + \dots$$

where  $y$  is the variable to be predicted while  $x_1, x_2, x_3, \dots$  are the known variables on which the prediction is to be based.<sup>2</sup> A key stipulation in this type of statistical analyses is that the explanatory or predictor variables  $x_1, x_2, \dots, x_n$  must be uncorrelated.

---

<sup>2</sup>John E. Freund and Frank J. Williams, Modern Business Statistics (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958), p. 304.

The first step in the discriminant analysis is the estimation of the coefficients of the following linear discriminant function:

$$y = a + bx_1 + cx_2 + dx_3 + \dots$$

where  $x_1 \dots x_n$  represent the independent variables while  $a, b, c, d$  represent the discriminant regression coefficients or weights to be applied to the independent variables; and  $y = \begin{matrix} (0) \\ (1) \end{matrix}$  where zero is the score for the Emporium respondent and one is the score for the Pacific Stereo respondent. The derived model is then used to compute a prospective buyer's point score  $y$ , and based on the point score, the researcher is able to predict Pacific Stereo and Emporium audio equipment buyers. A critical value of  $y$  is determined as a basis for classifying respondents into one group or the other.

Regression theory also enables the researcher to determine the relative importance of the independent variables, e.g., the relative contribution each independent variable makes to the value of each respondent's  $y$  score and hence his classification into one group or the other.

<sup>3</sup>For an example of the application of this regression theory, see Thomas S. Robertson and John D. Kennedy, "Prediction of Consumer Innovators: Application of Multiple Discriminant Analysis," Journal of Marketing Research, Vol. 5 (February, 1968), p. 66.

The input data for the analysis consisted of the respondent scores on each of the 45 characteristics (independent variables), and a dummy dependent variable "one" if a Pacific Stereo buyer and "zero" if an Emporium buyer. The independent variables are listed in Table 6. A data base of 396 respondents was chosen (421 less 25 respondents with incomplete data). The sample of 396 respondents was then randomly split into two groups. The first group contained 70 percent (278) of the respondents and the remaining 30 percent, 118 respondents. The discriminant analysis was then performed, using the 70 percent sample in order to reduce bias in model verification, which "can occur in multiple discriminant analysis if the discriminant function is applied to the same sample data used to estimate the function".<sup>4</sup> A multiple stepwise linear regression program (which standardized the data) was then used to generate discriminant function weights (regression coefficients), t values, the coefficient of multiple correlation, pair-wise correlation coefficients among all the variables, and importance values for the variables contributing to the best

---

<sup>4</sup>Robertson and Kennedy, op.cit., p. 68. Also see Donald G. Morrison, "On the Interpretation of Discriminant Analyses," Journal of Marketing Research, Vol. 6, No. 2, (May, 1969), pp. 156-163.

TABLE 6

DESCRIPTION OF INDEPENDENT VARIABLES USED  
IN MULTIPLE DISCRIMINANT ANALYSIS

<u>Variable Number</u>	<u>Score Level</u>	<u>Description of Variable</u>
1	High	Specific product self-confidence
2	Medium	Specific product self-confidence
3	Low	Specific product self-confidence
4	High	Opinion leadership
5	Medium	Opinion leadership
6	Low	Opinion leadership
7*	High	Trade media exposure
8*	Low	Trade media exposure
9	High	Mass media exposure
10	Low	Mass media exposure
11	High	Information seeking
12	Low	Information seeking
13	High	Knowledge
14	Low	Knowledge
15	High	Importance
16	Low	Importance
17	High	Experience
18	Low	Experience
19	N/A	Sex
20	N/A	Age
21	High	Education
22	Medium	Education
23	Low	Education

\*See Appendix II for methodology used to develop "dummy" quantitative variables for all variables shown above which omit Medium score levels.

Table 6 (continued)

<u>Variable Number</u>	<u>Score Level</u>	<u>Description of Variable</u>
24	High	Income
25	Medium	Income
26	Low	Income
27	High	Dwelling type
28	Low	Dwelling type
29	N/A	Store location
30	High	Perceived risk
31	Medium	Perceived risk
32	Low	Perceived risk
33	High	General self-confidence
34	Medium	General self-confidence
35	Low	General self-confidence
36	High	Sales force expertise
37	Low	Sales force expertise
38	High	Location convenience
39	Low	Location convenience
40	High	Best price/deal
41	Low	Best price/deal
42	High	Guarantee policy
43	Low	Guarantee policy
44	High	Product variety
45	Low	Product variety

fit for the regression model, and F test values. At the end of each step the program measured the "goodness of fit" by performing an F test. When the F test statistic exceeded the predetermined level of 1.2, the addition of independent variables continued.

### Discriminant Analysis Results

The output of the regression analysis is summarized in Table 7 which shows the 21 variables which combined to yield the best discrimination of buyers, the corresponding discriminant weights (coefficient), t values, and the relative importance of the predictor variables (from the beta coefficients). The regression program terminated the analysis of the input variables when the addition (or deletion) of a variable did not significantly contribute to improvement of the discrimination and the goodness of fit of the data to the regression equation.

Based on ranking the predictor variables according to their relative importance to the discrimination, Table 7 shows that each of the 21 variables makes a small contribution to the discrimination of Pacific Stereo buyers and Emporium buyers. When considering the input of all 21 variables, the square of the multiple correlation coefficient ( $R^2$ ), which indicates the proportion of the variance of the dependent variable that is accounted for by the predictor

TABLE 7

DISCRIMINANT WEIGHTS AND IMPORTANCE VALUES  
(70 PERCENT SUB-SAMPLE)

<u>Rank of Predictor Variables</u>	<u>Discriminant Function Coefficient (Weight)</u>	<u>t Value</u>	<u>Relative Importance (from Beta Coeff.)</u>
Low education	-0.1871	-3.2847	7.18
High popular magazine exposure	-0.1854	-3.4757	6.7
High importance of salesmen's expertise	0.1371	2.6345	6.1
High importance of guarantee/warranty policy	-0.1466	-2.4373	5.5
Low importance of price deals	-0.2255	-2.7127	5.3
High audio equipment knowledge	0.1255	2.2336	5.3
Female gender	0.1445	2.5343	5.2
Low importance of audio equipment	-0.1671	-2.3150	5.1
Low knowledge of audio equipment	-0.1150	-2.0722	5.1
High perceived risk	-0.1141	-2.5044	5.1

Table 7 (continued)

<u>Rank of Predictor Variables</u>	<u>Discriminant Function</u>	<u>t Value</u>	<u>Relative Importance (from Beta Coeff.)</u>
High importance of audio equipment	0.1109	2.2980	5.0%
High importance of brand variety	0.1106	2.0975	5.0
Low opinion leadership	-0.0981	-1.9933	4.4
Low information seeking	-0.0956	-2.0040	4.3
Low importance of salesmen's expertise	-0.1107	-1.7832	4.2
Low store location convenience	0.0865	1.7400	3.8
Low importance of guarantee/warranty policy	-0.1657	-1.5499	3.7
High store location convenience	-0.1189	-1.6599	3.6
Low importance of brand variety	0.0854	1.2796	3.0

Table 7 (continued)

<u>Rank of Predictor Variables</u>	<u>Discriminant Function Coefficient (Weight)</u>	<u>t Value</u>	<u>Relative Importance (from Beta Coeff.)</u>
Medium generalized self-confidence	0.0639	1.4628	2.8%
High audio equipment experience	0.0991	1.3374	<u>2.7</u>
			100%

Computed F value = 14.5 (d.f., 21,256)

Tabular F value = 1.95 (p = .01; d.f., 21,256)

Multiple correlation coefficient ( $R^2$ ) = 0.54

variables was 54 percent. Also, from Table 7 a profile of the Pacific Stereo buyer compared to the Emporium buyer emerges. If the first six predictor variables, which account for 36 percent of the relative importance of all 21 predictor variables are considered, the Pacific Stereo buyer is:

1. better educated (than Emporium respondent)
2. not an avid reader of mass media magazines containing Pacific Stereo advertisements
3. highly interested in an audio store with knowledgeable salesmen
4. less interested in the store's guarantee/warranty policies
5. highly interested in best prices or deals
6. highly knowledgeable about audio products

This profile is directly inferred from the signs of the discriminant function coefficients. In four of the first six variables (education, mass media magazine exposure, importance of salesmen's expertise, importance of price deals), the variable coefficient signs are negative which indicates a tendency for the consumer not to buy in Pacific Stereo--the specialty store. Therefore, in the case of education, a consumer with a low educational achievement (high school education or less) would tend to be an Emporium department store buyer. In the instance of the respondent placing high importance in the audio salesman's

expertise, the coefficient is positive, which indicates directly that the respondent would tend to be a specialty store buyer (Pacific Stereo) relative to that predictor variable. Later in this chapter it will be seen that most of the variables were significant in a statistical sense when tested against store choice.

In examining some of the other interesting predictor variables, Table 7 shows that respondents with high perceived risk would tend to be department store (Emporium) audio equipment buyers and would be low in opinion leadership and information seeking traits. Regarding importance (saliency) of the product to the two different store buyers, the specialty store buyer places much greater importance on audio equipment than the department store buyer.

Another key output which measures the discriminatory capability of the model is provided by the set of scores computed from the derived model. Previously it was noted that dummy dependent variables were assigned for model derivation. Actual Pacific Stereo respondents were coded as "1" and Emporium buyers were coded as "0". The regression program computes an estimated score for each Pacific Stereo or Emporium respondent. From this output, the respondent's actual store choice can be compared to his predicted store choice. Thus, actual Pacific Stereo buyers should have predicted scores close to 1.0 and actual Emporium buyers should have predicted scores close to zero. A perfect model

would yield only two scores--one and zero--and respondents would always be correctly classified into one or the other group. In practice, however, this is never the case and researchers always describe prediction overlap, i.e., misclassification of respondents. The higher the percentage of correct classification, the more meaningful is the predictive classification procedure. In this analysis a judgement decision led to all scores less than 0.4 classified as Emporium buyers, and all scores of 0.6 or greater are classified as Pacific Stereo buyers. The non-predictive score range is, therefore, between 0.4 and 0.59. Table 8 shows the score ranges for the 70 percent subsample used in model derivation and Figure 6 is a plot of this data. The plot clearly shows a clustering of scores around 1.0 for the Pacific Stereo buyers and a clustering around zero for Emporium buyers. The shaded zone of overlap which represents respondents not classified is shown to be small. This aspect is quantitatively summarized in Table 9 which shows that of the 171 respondents (in the 70 percent sample) who actually bought audio equipment at Pacific Stereo, 84 percent were correctly classified on the basis of their discriminant point scores, and 69 percent of those who bought audio equipment in The Emporium were correctly classified. Only 4 percent of the Pacific Stereo buyers were misclassified, while 15 percent of the Emporium buyers were misclassified. In

TABLE 8

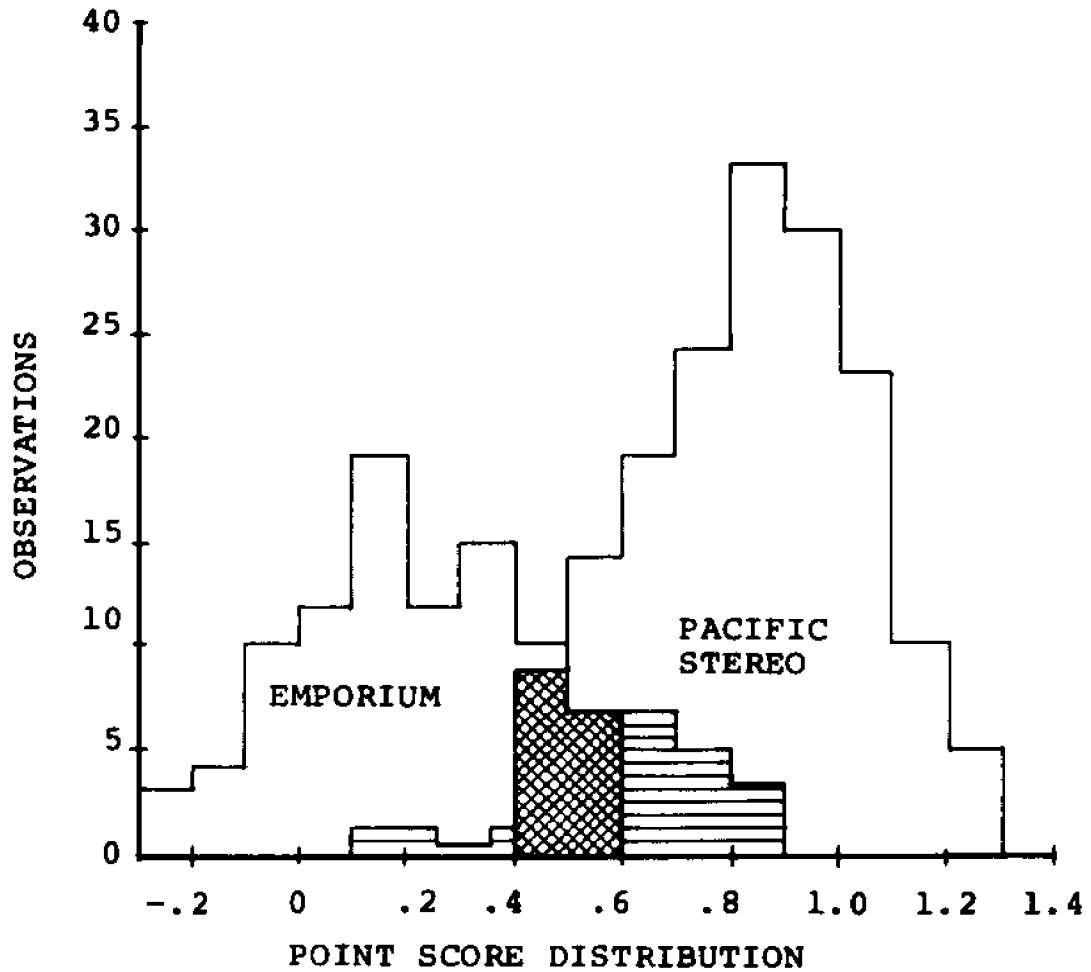
POINT SCORE DISTRIBUTION  
(70 PERCENT SUB-SAMPLE)

<u>Score Range</u>	<u>Pacific Stereo</u>	<u>The Emporium</u>
$\geq 1.2$	5	0
1.1 - 1.19	10	1
1.0 - 1.09	24	0
0.9 - 0.99	30	0
0.8 - 0.89	33	3
0.7 - 0.79	24	5
0.6 - 0.69	18	7
<u>0.5 - 0.59 *</u>	<u>14</u>	<u>7</u>
<u>0.4 - 0.49</u>	<u>8</u>	<u>10</u>
0.3 - 0.39	2	15
0.2 - 0.29	1	12
0.1 - 0.19	2	18
0 - 0.09	0	12
-0.1 - 0	0	10
-0.2 - 0.09	0	4
$\leftarrow - 0.2$	<u>0</u>	<u>3</u>
Totals	171	107

\*Non-predictive range

Figure 6

CLASSIFICATION OF BUYERS  
BY DISCRIMINANT ANALYSIS  
(70 PERCENT SUB-SAMPLE)



Buyers



Not classified



Misclassified

TABLE 9

CLASSIFICATION OF PACIFIC STEREO AND EMPORIUM  
BUYERS BY MULTIPLE DISCRIMINANT ANALYSIS  
(70 PERCENT SUB-SAMPLE)

Store	<u>Correctly Classified</u> No./%	<u>Mis- Classified</u> No./%	<u>Not Classified</u> No./%	<u>Total</u> %
Pacific Stereo	144/84	5/ 4	22/12	171
The Emporium	<u>74/69</u>	<u>16/15</u>	<u>17/16</u>	<u>107</u>
Totals	218/78	21/ 8	39/14	278 (100)

total, 78 percent of all respondents were correctly classified, 8 percent were misclassified, and 14 percent could not be classified.

Discussed earlier was the issue of bias if all of the data is used to derive the discriminant function. The discriminant function derived from the 70 percent split was then applied to the remaining 30 percent of the data. The results of this analysis is shown on the point score distributions in Table 10 and Figure 7. The extent of overlap (Figure 7) is somewhat greater than in Figure 6. Nevertheless, the classification data in Table 11 indicates that the percentage of respondents correctly classified in the 30 percent subsample for each store and in total is very close to the 70 percent sample. Of the 79 respondents who actually bought audio equipment at the Pacific Stereo, 78 percent were correctly classified on the basis of their discriminant point scores, and 67 percent of those who bought audio equipment in The Emporium were correctly classified. In this sample only 8 percent of the Pacific Stereo buyers were misclassified. In total, 74 percent of all respondents in the 30 percent subsample were correctly classified, 11 percent were misclassified, and 15 percent were not classified. Therefore, it is concluded that the discriminant function does distinguish the Pacific Stereo buyer from The Emporium buyer.

TABLE 10

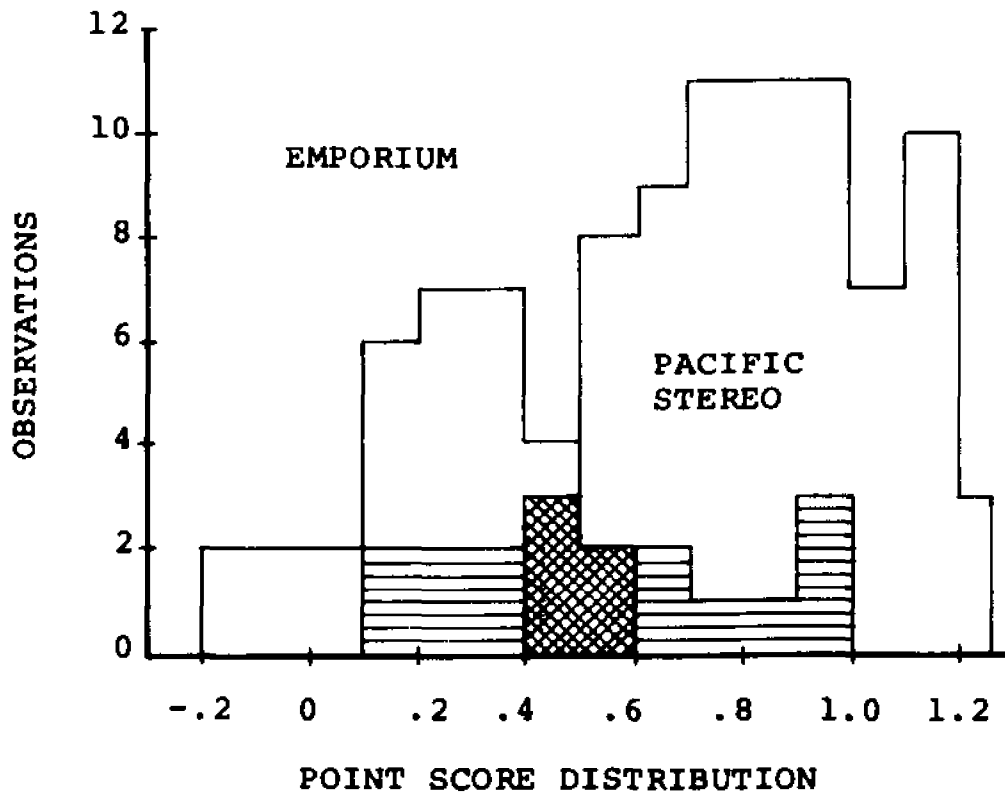
POINT SCORE DISTRIBUTION  
(30 PERCENT SUB-SAMPLE)

<u>Score Range</u>	<u>Pacific Stereo</u>	<u>The Emporium</u>
$\geq 1.2$	3	0
1.1 - 1.19	10	0
1.0 - 1.09	7	0
0.9 - 0.99	11	3
0.8 - 0.89	11	1
0.7 - 0.79	11	1
0.6 - 0.69	9	2
<u>0.5 - 0.59 *</u>	<u>8</u>	<u>2</u>
<u>0.4 - 0.49</u>	<u>3</u>	<u>4</u>
0.3 - 0.39	2	7
0.2 - 0.29	2	7
0.1 - 0.19	2	6
0 - 0.09	0	2
-0.1 - 0	0	2
-0.2 - 0.09	0	2
<u>&lt; - 0.2</u>	<u>0</u>	<u>0</u>
Totals	79	39

\*Non-predictive range

Figure 7

CLASSIFICATION OF BUYERS  
BY DISCRIMINANT ANALYSIS  
(30 PERCENT SUB-SAMPLE)



Buyers  
 Not classified  
 Misclassified

TABLE 11

CLASSIFICATION OF PACIFIC STEREO AND EMPORIUM  
BUYERS BY MULTIPLE DISCRIMINANT ANALYSIS  
(30 PERCENT SUB-SAMPLE)

Store	<u>Correctly Classified</u> No./%	<u>Mis- Classified</u> No./%	<u>Not Classified</u> No./%	<u>Total</u> %
Pacific Stereo	62/78	6/8	11/14	79
The Emporium	<u>26/67</u>	<u>7/18</u>	<u>6/15</u>	<u>39</u>
Totals	88/74	13/11	17/15	118 (100)

A chi-square test was run to determine if the classification method used in Tables 9 and 11 works equally well for both samples. The chi-square test (Table 12) thus tested the hypotheses that rows and columns are independent. Since the chi-square value can be expected to occur at least 50 percent of the time when the null hypothesis is true, the null hypothesis is not rejected.

### Research Hypotheses and the Research Findings

In this section the following related issues will be examined: (1) review of research evidence in relation to the study hypotheses proposed in Chapter III and, (2) review of the research evidence in relation to the store choice discriminant model.

### Perceived Risk

The following hypothesis was proposed:

Perceived risk will be lower for those purchasing in a specialty store (Pacific Stereo) than for those purchasing in a department store (The Emporium)

Table 13 shows the research evidence relating to the perceived risk hypothesis and indicates that 32 percent of the Pacific Stereo respondents, compared to 57 percent of The Emporium respondents, had high perceived risk scores. For low perceived risk levels, 23 percent of the Pacific Stereo buyers had low perceived risk scores compared to 12 percent for Emporium customers.

TABLE 12

THE RELATIONSHIP BETWEEN MULTIPLE  
DISCRIMINANT ANALYSIS SAMPLE SPLIT  
AND CLASSIFICATION PROCEDURES

Sample Split	Classification Procedure			Total
	<u>Correctly Classified</u>	<u>Mis- Classified</u>	<u>Not Classified</u>	
70 percent sample	218	21	39	278
30 percent sample	<u>88</u>	<u>13</u>	<u>17</u>	<u>118</u>
Totals	306	34	56	396

$x^2 = 1.35$   
 $p = 50\%$   
 $df. = 2$

TABLE 13

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' PERCEIVED RISK

<u>Level of Perceived Risk</u>	<u>Pacific Stereo No./%</u>	<u>The Emporium No./%</u>	<u>Total</u>
High	83/32	90/57	173
Medium	120/45	49/31	169
Low	60/23	18/12	78
Totals	263/100	157/100	420

$x^2 = 27.8$   
 $p = < 0.1\%$   
 d.f. = 2

The direction of the data indicates that Pacific Stereo respondents were lower in perceived risk than Emporium respondents, which supports the hypothesis. The chi-square results suggest a significant relationship between store choice and respondent's perceived risk level. With this evidence, the hypothesis is accepted.

The discriminant analysis indicates, also, that respondents with high perceived risk tend to be Emporium buyers, which also supports the perceived risk hypothesis.

#### Generalized Self-Confidence

The following hypothesis was proposed:

Generalized self-confidence will be higher for those purchasing in a specialty store (Pacific Stereo) than for those purchasing in a department store (The Emporium).

Table 14 shows the research evidence relating to the generalized self-confidence hypothesis. The data indicates that 55 percent of the Pacific Stereo respondents compared to 45 percent of The Emporium respondents had scored high on the level of generalized self-confidence. Also 5 percent of the Pacific Stereo respondents compared to 12 percent of The Emporium respondents had low scores.

The direction of the data indicates that Pacific Stereo respondents exhibited higher generalized self-confidence compared to Emporium respondents, and this supports the hypothesis. The chi-square results suggest a significant relationship between store choice and respondent's level of generalized self-confidence. Therefore the hypothesis is accepted.

TABLE 14

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' GENERALIZED SELF-CONFIDENCE

<u>Level of Generalized Self-Confidence</u>	<u>Pacific Stereo</u>	<u>The Emporium</u>	<u>Totals</u>
	<u>No./%</u>	<u>No./%</u>	
High	141/55	72/45	213
Medium	106/40	68/43	174
Low	<u>13/5</u>	<u>18/12</u>	<u>31</u>
Totals	260/100	158/100	418

$\chi^2 = 7.0$   
 $p = 3\%$   
 $d.f. = 2$

The discriminant analysis study indicated that generalized self-confidence is a low order predictor variable. Thus, there is an inconsistency between the research evidence and chi-square results compared to the discriminant analysis. In part, this can be explained by the fact that chi-square and discriminant analysis techniques perform different statistical analyses. Moreover, chi-square deals with an isolated independent variable and its relationship to the dependent variable. In contrast, discriminant analysis techniques are operative in situations (including this study) where independent variables can have co-variance properties. In this instance, co-variance effects could be suppressing the predictive nature of the single generalized self-confidence variable.

#### Specific Product Self-Confidence

The proposed hypothesis deals with the respondent's self-confidence relative to purchasing audio equipment and was formulated as follows:

Specific product self-confidence will be higher for those purchasing in a specialty store (Pacific Stereo) than for those purchasing in a department store (The Emporium).

The research findings in Table 15 indicate that 44 percent of the Pacific Stereo respondents, compared to 13 percent of The Emporium respondents had high specific

TABLE 15

THE RELATIONSHIP BETWEEN STORE CHOICE AND RESPONDENTS'  
SPECIFIC AUDIO EQUIPMENT SELF-CONFIDENCE

<u>Level of Specific Product Self-Confidence</u>	<u>Pacific Stereo</u>	<u>The Emporium</u>	<u>Totals</u>
	<u>No./%</u>	<u>No./%</u>	
High	115/ 44	20/ 13	135
Medium	110/ 42	80/ 51	190
Low	37/ 14	57/ 36	94
Totals	262/100	157/100	419

$\chi^2 = 52.9$   
 $p = < 0.1\%$   
 $d.f. = 2$

product self-confidence scores. Also, 14 percent of the Pacific Stereo respondents, compared to 36 percent of The Emporium respondents, had low scores for this variable.

The direction of the data supports the hypothesis that Pacific Stereo buyers would exhibit higher specific product self-confidence than The Emporium buyers. The chi-square results suggest a significant relationship between store choice and the independent variable; thus, the hypothesis is accepted. The discriminant analysis at the cut-off step of 21 variables did not single out this variable as an important predictor of store choice. If all of the 45 independent variables had been allowed to enter the regression analysis, this variable would have exhibited a very low level of discriminating importance.

It should be noted that the findings of high generalized self-confidence and high specific product self-confidence among Pacific Stereo buyers is consistent with other research findings. Bell's study of self-confidence and persuasibility among automobile buyers indicates that "the higher one's general self-confidence the higher is his specific self-confidence".<sup>7</sup>

---

<sup>7</sup>Gerald D. Bell, "Self-Confidence and Persuasion in Car Buying," Journal of Marketing Research, Vol. 4, No. 1 (February, 1967), p. 46.

### Opinion Leadership

The proposed hypothesis was formulated as follows:

Opinion leadership will be greater for those purchasing in a specialty store (Pacific Stereo) than for those purchasing in a department store (The Emporium).

The data for the measurement of this variable is given in Table 16 and shows that 61 percent of the Pacific Stereo respondents, compared to 17 percent of The Emporium respondents, scored high on the measurement of opinion leadership. Measurement of low level of opinion leadership indicates that the percentage of Emporium respondents who had low scores was almost two and one-half times greater than Pacific Stereo buyers--73 percent versus 31 percent respectively. The direction of this data clearly supports the hypothesis, as does the chi-square test, which shows a significant relationship between store choice and the level of respondent's opinion leadership. Therefore, the hypothesis is accepted.

The discriminant analysis indicated that the opinion leadership trait was a relatively unimportant variable in predicting Pacific Stereo buyers. Nevertheless, the discriminant analysis shows that respondents with low opinion leadership would tend to be Emporium buyers. This is in agreement with the results depicted in Table 16.

TABLE 16

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' OPINION LEADERSHIP LEVEL

<u>Level of Opinion Leadership</u>	Pacific Stereo	The Emporium	Totals
	<u>No./%</u>	<u>No./%</u>	<u>      </u>
High	159/ 61	27/ 17	186
Medium	22/ 8	16/ 10	38
Low	81/ 31	115/ 73	196
Totals	262/100	158/100	420

$x^2 = 79.8$   
 $p = < 0.1\%$   
 $d.f. = 2$

None of the studies cited in the Chapter II review of the literature deal with retail store choice in relation to the consumer's level of opinion leadership traits. However, it should be noted that several studies do characterize the consumer's behavioral trait mix in relation to innovativeness and high opinion leadership has been found to be present with a low level of perceived risk--a trait mixture present in the Pacific Stereo buyer. For example, Arndt's study of the acceptance of a new brand of coffee by young housewives shows this trait mixture.<sup>8</sup> Perhaps a suggested link emerges if shopping in a specialty store is considered innovative behavior.

#### Exposure to Audio Equipment Special Interest Magazines

This hypothesis was formulated as follows:

Those purchasing in a specialty store (Pacific Stereo) will have greater exposure to audio equipment special interest magazines than those purchasing in a department store (The Emporium).

The research findings in Table 17 indicate that 13 percent of the Pacific Stereo buyers, compared to 2 percent of The Emporium buyers, had high scores for this variable.

---

<sup>8</sup>Johan Arndt, "Profiling Consumer Innovators," in Johan Arndt (ed.), Insights Into Consumer Behavior (Boston: Allyn and Bacon, Inc., 1968), p. 79.

TABLE 17

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' EXPOSURE TO AUDIO EQUIPMENT  
SPECIAL INTEREST MAGAZINES

Level of Magazine Exposure	Pacific Stereo	The Emporium	Totals
	<u>No./%</u>	<u>No./%</u>	<u>        </u>
High	33/ 13	3/ 2	36
Medium	70/ 27	23/ 15	93
Low	<u>160/ 60</u>	<u>132/ 83</u>	<u>292</u>
Totals	263/100	158/100	421

$\chi^2 = 26.9$   
 $p = < 0.1\%$   
 d.f. = 2

Also, 60 percent of the Pacific Stereo respondents had low scores compared to 83 percent of The Emporium respondents.

The direction of the data establishes that Pacific Stereo buyers had greater exposure to audio equipment special interest magazines than Emporium respondents. This is supported by the chi-square test which indicates a significant relationship between this variable and store choice; therefore the hypothesis is accepted. The discriminant analysis did not single out this variable as a predictor variable. The reason for this was discussed earlier regarding a similar result with the specific product self-confidence variable.

#### Information Seeking

This hypothesis was formulated as follows:

Those purchasing in a specialty store (Pacific Stereo) will seek more pre-purchase information than those purchasing in a department store (The Emporium).

Reference to Table 18 indicates that 29 percent of the Pacific Stereo respondents and 13 percent of The Emporium respondents had high level scores on the pre-purchase information seeking variable. The data for low level scores show that 29 percent of the Pacific Stereo respondents and 65 percent of The Emporium respondents had low level scores. The data is in the direction of the hypothesis, and is also supported by the chi-square results, which indicate a significant relationship between store choice and respondent's level of pre-purchasing information seeking. The hypothesis, therefore, is accepted.

TABLE 18

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' LEVEL OF PRE-PURCHASING  
INFORMATION SEEKING

<u>Level of Pre-Purchasing Information Seeking</u>	<u>Pacific Stereo</u>	<u>The Emporium</u>	<u>Totals</u>
	<u>No./%</u>	<u>No./%</u>	
High	77/ 29	20/ 13	97
Medium	111/ 42	35/ 22	146
Low	75/ 29	103/ 65	178
Totals	263/100	158/100	421

$\chi^2 = 54.7$   
 $p = < 0.1\%$   
 $d.f. = 2$

The discriminant analysis results indicated that information seeking is a predictor variable of relatively low importance. Nevertheless, the discriminant function coefficient is negative--suggesting that an Emporium respondent would likely exhibit a lower level of pre-purchase information seeking compared to Pacific Stereo buyers. This agrees with the study findings.

A recently published study on pre-purchase information seeking for major household appliances (consumer durable) demonstrated that consumers' pre-purchasing information seeking increased with cost.<sup>9</sup> This finding agrees with part of the data in Table 18 which demonstrates that approximately 70 percent of the Pacific Stereo respondents engaged in medium to high level information seeking on a costly consumer durable. Emporium respondents only evidenced approximately 35 percent high to medium level of information seeking behavior and this may be linked to the "importance" of the product to them.

The data in Table 19 shows that the Pacific Stereo respondents were heavy pre-purchase shoppers compared to The Emporium respondents. Only 7 percent of the Pacific Stereo respondents shopped in only one store, compared to

---

<sup>9</sup>Joseph W. Newman and Richard Staelin, "Pre-purchase Information Seeking for New Cars and Major Household Appliances," Journal of Marketing Research, Vol. 9, No. 3, (August, 1972), pp. 249-257.

TABLE 19

PRE-PURCHASE STORE SHOPPING  
BEHAVIOR

<u>Number of Stores Shopped</u>	Pacific Stereo	The Emporium
	<u>No./%</u>	<u>No./%</u>
One store	18/ 7	33/ 21
Two stores	45/ 17	18/ 12
Three stores	62/ 23	13/ 8
Four stores	39/ 15	10/ 6
> Four stores	57/ 22	13/ 8
N/A	<u>42/ 16</u>	<u>71/ 45</u>
Totals	263/100	158/100

21 percent of The Emporium respondents. The percentage of Pacific Stereo respondents who shopped in three, four, or more stores was almost three times the percentage of Emporium respondents in each case. Other studies<sup>10</sup> on pre-purchase shopping, notably the Katona and Mueller study of consumer purchasing decisions, indicate that the majority of consumers do not typically visit more than one retail outlet and "consumers differ considerably in the number of stores that they visit".<sup>11</sup>

The Pacific Stereo buyer also evidenced a high degree of audio equipment brochure and catalogue searching compared to the low information seeking in catalogues by The Emporium respondents (Table 20). This may be further evidence of the greater "importance" of the product to Pacific Stereo buyers in comparison to Emporium buyers.

#### Sales Force Expertise

This hypothesis was formulated as follows:

---

<sup>10</sup>George Katona and Eva Mueller, "A Study of Purchasing Decisions," in Lincoln H. Clark (ed.) Consumer Behavior: The Dynamics of Consumer Reaction (New York: New York University Press, 1955), pp. 45-46.

<sup>11</sup>James F. Engel, David T. Kollat and Roger D. Blackwell, Consumer Behavior (New York: Holt, Rinehart and Winston, Inc., 1968), p. 399.

TABLE 20

PRE-PURCHASE INFORMATION SEEKING  
FROM PRODUCT BROCHURES AND  
CATALOGUES

<u>Indication of Information Seeking</u>	<u>Pacific Stereo Respondents</u> <u>No./%</u>	<u>The Emporium Respondents</u> <u>No./%</u>
Yes	159/ 61	41/ 26
No	103/ 39	117/ 74
N/A	1/ -	-
Totals	263/100	158/100

Those purchasing in a specialty store (Pacific Stereo) will consider the store's sales force product expertise a more important store choice determinant than those purchasing in a department store (The Emporium).

Table 21 indicates that 57 percent of the Pacific Stereo respondents in contrast to 18 percent of The Emporium respondents exhibited a high level score. Further, 17 percent of the Pacific Stereo respondents, compared to 37 percent of The Emporium respondents, received low scores for the variable. The direction of the data parallels the hypothesis, and this is also indicated by the significant chi-square test which indicates that a relationship exists between the variable and store choice. Thus, the hypothesis is accepted.

The discriminant analysis reveals that the store's sales force expertise is an important predictor variable. The data also indicates that Pacific Stereo buyers would tend to highly value the store's sales force audio products expertise. Thus, acceptance of the hypothesis is given more weight.

These results are suggestive of the possibility that Pacific Stereo respondents utilize the store's sales force expertise as a risk reduction device and, hence, exhibit lower perceived risk than Emporium buyers. Settle's study on consumers' preference for information sources on product indicated that in the case of a complex product

TABLE 21

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
THE IMPORTANCE OF SELECTING A STORE  
WHICH HAS KNOWLEDGEABLE AUDIO  
EQUIPMENT SALESMEN

<u>Level of Importance of Salesmens' Audio Expertise</u>	<u>Pacific Stereo</u>	<u>The Emporium</u>	<u>Totals</u>
	<u>No./%</u>	<u>No./%</u>	
High	148/ 57	28/ 18	176
Medium	69/ 26	70/ 45	139
Low	44/ 17	57/ 37	101
Totals	261/100	155/100	416

$x^2 = 60.5$   
 $p = < 0.1\%$   
 $d.f. = 2$

(a stereo tuner was used in his study as an example of a complex product), "the consumer will receive more assurance from consensus information provided by an expert than from other sources".<sup>12</sup> A Pacific Stereo salesman would be likely to be viewed as an "expert" by the consumer. Also, the Roselius study<sup>13</sup> of consumer preferences for risk reduction strategies indicated that consumers use "store image" (partially defined as the consumer's perception of the store's dependability) cues as a major risk relieving factor. Although these findings do not explicitly cover the store's sales force expertise as a risk relieving device, it might be hypothesized that in-store sales force expertise might be part of the "store image" concept as perceived by the consumer.

The next three hypotheses deal with product knowledge, product importance, and product experience.

---

<sup>12</sup>Robert B. Settle, "Attribution Theory and Acceptance of Information," Journal of Marketing Research, Vol. 9, (February, 1972), p. 85.

<sup>13</sup>Ted Roselius, "Consumer Rankings of Risk Reduction Methods," Journal of Marketing, Vol. 35, No. 1, (January, 1971), pp. 58-59.

### Product Knowledge

This hypothesis was formulated as follows:

Those purchasing in a specialty store (Pacific Stereo) will exhibit more actual product knowledge than those purchasing in a department store (The Emporium).

Table 22 indicates that 49 percent of the Pacific Stereo respondents, compared to 10 percent of The Emporium respondents, received high scores for the product knowledge variable. Also, the data indicates that 21 percent of the Pacific Stereo buyers versus 63 percent of The Emporium buyers received low scores for the variable. This data compares well with the above hypothesis, which is given further support from the chi-square test, which indicates a significant relationship between product knowledge and store choice. Therefore, the hypothesis is accepted. It could be suggested that the type of knowledgeable consumer attracted to Pacific Stereo would seek out a retail store environment in which he would feel more comfortable, i.e., a store with highly knowledgeable (peer group?) salesmen. The ages of the Pacific Stereo salesmen and store managers closely parallel the age classification of their customers.

### Product Importance

The hypothesis concerning this variable was proposed as follows:

TABLE 22

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' KNOWLEDGE OF AUDIO EQUIPMENT

Level of Knowledge	Pacific Stereo No./%	The Emporium No./%	Totals
High	128/ 49	16/ 10	144
Medium	78/ 30	42/ 27	120
Low	57/ 21	98/ 63	155
Totals	263/100	156/100	419

$\chi^2 = 87.1$   
 $p = <0.1\%$   
 $d.f. = 2$

Perceived product importance will be higher for those purchasing in a specialty store (Pacific Stereo) and lower for those purchasing in a department store (The Emporium).

Table 23 shows that 67 percent of the Pacific Stereo respondents, compared to 26 percent of The Emporium respondents, scored high on this variable. Also, 3 percent of the Pacific Stereo respondents, in contrast to 31 percent of The Emporium respondents, had low level scores for perceived product importance. The data supports the hypothesis and, furthermore, the chi-square test indicates a significant relationship between perceived product importance and store choice. Therefore, the hypothesis is accepted. Intuitively one would tend to predict a priori that a Pacific Stereo patron would also be highly knowledgeable about audio equipment, because audio equipment is important to the customer. This combination of a higher level product knowledge and product importance, compared to The Emporium buyer, is supported by the data in Tables 22 and 23.

The discriminant analysis indicates that a high level of product importance demonstrated by a respondent would be indicative of a Pacific Stereo buyer, and a low level of product importance would be characteristic of an Emporium respondent. This is in agreement with the hypothesis.

TABLE 23

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' PERCEIVED IMPORTANCE  
OF AUDIO EQUIPMENT

<u>Level of Importance</u>	<u>Pacific Stereo No./%</u>	<u>The Emporium No./%</u>	<u>Totals</u>
High	175/ 67	41/ 26	216
Medium	78/ 30	68/ 43	146
Low	9/ 3	48/ 31	57
Totals	262/100	157/100	419

$x^2 = 89.6$   
 $p = < 0.1\%$   
 $d.f. = 2$

### Product Experience

This last of the "product oriented" hypotheses was proposed as follows:

Those purchasing in a specialty store (Pacific Stereo) will have more actual product experience than those purchasing in a department store (The Emporium).

Table 24 shows that 17 percent of the Pacific Stereo respondents, compared to 4 percent of The Emporium respondents, had high level scores for the product experience variable. Also, 42 percent of the Pacific Stereo, compared to 71 percent of The Emporium, respondents had low experience level scores. The data trend supports the hypothesis. Moreover, the chi-square result indicates that a significant relationship exists between store choice and respondent's product experience. Therefore, the hypothesis is accepted.

The discriminant analysis determined that a high level of audio equipment experience was the least important predictor variable. Nevertheless, the positive coefficient value indicates that Pacific Stereo respondents would have a tendency towards more audio equipment experience than Emporium buyers.

TABLE 24

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' EXPERIENCE  
WITH AUDIO EQUIPMENT

<u>Level of Experience</u>	<u>Pacific Stereo No./%</u>	<u>The Emporium No./%</u>	<u>Totals</u>
High	44/ 17	7/ 4	51
Medium	108/ 41	39/ 25	147
Low	<u>109/ 42</u>	<u>112/ 71</u>	<u>221</u>
Totals	261/100	158/100	419

$\chi^2 = 36.1$   
 $p = < 0.1\%$   
 $d.f. = 2$

The next three variables concern demographic characteristics.

### Income

The hypothesis for this variable was proposed as follows:

Those purchasing in a specialty store (Pacific Stereo) will have a higher income level than those purchasing in a department store (The Emporium).

The income ranges of the respondents are summarized in Table 25 and the data indicates that the income ranges for both the Pacific Stereo and Emporium respondents are nearly the same. Table 26 reveals that 20 percent of the Pacific Stereo respondents, compared to 14 percent of The Emporium respondents, had high level scores for the income variable. Also, 33 percent of the Pacific Stereo respondents, in contrast to 37 percent of The Emporium respondents, had low level income scores. Finally, the chi-square result shows no significant relationship between income and store choice. As expected, income was not a predictor variable in the discriminant analysis. Based on these findings, the hypothesis is rejected.

TABLE 25

## INCOME RANGES OF RESPONDENTS

<u>Income Ranges (Yearly)</u>	<u>Pacific Stereo No./8</u>	<u>The Emporium No./8</u>
Less than \$3,000	13/ 5	12/ 8
\$3,000 - 9,999	73/ 28	45/ 28
10,000 - 19,999	123/ 47	76/ 48
20,000 or over	51/ 19	22/ 14
N/A	3/ 1	3/ 2
Totals	263/100	158/100

TABLE 26

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' INCOME LEVEL

<u>Level of Income</u>	<u>Pacific Stereo No./%</u>	<u>The Emporium No./%</u>	<u>Totals</u>
High	51/ 20	22/ 14	73
Medium	123/ 47	76/ 49	199
Low	86/ 33	57/ 37	143
Totals	260/100	155/100	415

$x^2 = 2.1$   
 $p = 35\%$   
 $d.f. = 2$

### Education

This second demographic related hypothesis was proposed as follows:

Those purchasing in a specialty store (Pacific Stereo) will have more formal education than those purchasing in a department store (The Emporium).

Table 27 indicates that 20 percent of the Pacific Stereo respondents, compared to 12 percent of The Emporium respondents, had high level scores for the education variable. Also, 13 percent of the Pacific Stereo respondents, compared to 54 percent of The Emporium respondents, had low level education scores. The chi-square results suggest a relationship between store choice and education. Therefore, the hypothesis is accepted.

### Occupational Experience

This last demographic variable had an associated hypothesis as follows:

Those purchasing in a specialty store (Pacific Stereo) will have more occupational experience than those purchasing in a department store (The Emporium).

Table 28 indicates that 18 percent of the Pacific Stereo respondents, compared to 29 percent of The Emporium respondents, had high level scores on this variable. Also 63 percent of the Pacific Stereo respondents, compared to 43 percent of The Emporium, had low level scores. The data

TABLE 27

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' EDUCATION LEVEL

<u>Level of Education</u>	<u>Pacific Stereo No./%</u>	<u>The Emporium No./%</u>	<u>Totals</u>
High	52/ 20	18/ 12	70
Medium	170/ 67	53/ 34	223
Low	<u>32/ 13</u>	<u>84/ 54</u>	<u>116</u>
Totals	254/100	155/100	409

$\chi^2 = 81.9$   
 $p = < 0.1\%$   
d.f. = 2

TABLE 28

THE RELATIONSHIP BETWEEN STORE CHOICE AND  
RESPONDENTS' NUMBER OF YEARS OF  
EXPERIENCE IN THEIR OCCUPATION

<u>Level of Occupation Experience</u>	Pacific Stereo	The Emporium	Totals
	<u>No./%</u>	<u>No./%</u>	<u>      </u>
High	39/ 18	38/ 29	77
Medium	40/ 19	37/ 28	77
Low	<u>132/ 63</u>	<u>57/ 43</u>	<u>189</u>
Totals	211/100	132/100	343

$\chi^2 = 51.2$   
 $p = < 0.1\%$   
 d.f. = 2

direction does not support the hypothesis, albeit, the chi-square results indicate that there is a relationship between the variable and store choice. Based on the evidence, the hypothesis is rejected.

The next, and final, chapter will present the summary, conclusions, and recommendations.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this chapter the research findings presented in this dissertation will be summarized and the implications of these findings, together with recommendations concerning future research, will be presented.

#### Summary

The objective of the research described in this dissertation was to study the impact of a group of behavioral variables on consumers' store choice decision relating to the purchase of audio equipment. An extensive literature research dealing with store patronage studies and the behavioral variables manipulated in the field study determined that few studies or experiments have been undertaken which deal with the issue of consumer psychological typology and store choice. Mentioned in Chapter I is the fact that studies linking buyer behavior and store choice have been generally devoted to innovation diffusion issues, non-durable products, products involving high purchase experience, brand loyalty, and store image research. Several consumer researchers were quoted to the effect that deeper research in the area of buyer behavior and store choice is needed.

The field study was based on a paradigm (Chapter III) consisting of six groups of independent behavioral variables (consumer psychological predispositions and demographic characteristics) impacting on the decision to purchase audio equipment in either a specialty store or in a department store. The independent variables used in the field study were: (1) perceived risk, (2) generalized and specific self-confidence, (3) opinion leadership, (4) information seeking, and exposure to media, (5) product knowledge, importance and experience, and (6) demographic characteristics. A series of 13 hypotheses (Chapter III) were postulated which reflected these independent variables and their impact on the consumer's store choice for the purchase of audio equipment.

In order to test the hypotheses, the cooperation of two retailing chains--Pacific Stereo and The Emporium--were secured. The former met the study requirements of a specialty audio retailer, and the latter met the requirements of a department store retailer. Each chain had stores located near each other in downtown San Francisco and San Jose, California, thereby allowing for pairs of stores to be studied in two cities approximately 50 miles from each study location. Both chains supplied lists of cash and credit buyers who purchased audio equipment valued at \$100 or over during December 1972 and January 1973. Those who purchased the equipment for gift giving were screened out of the study.

A total of 772 printed questionnaires (in combination with follow-up WATS line interviewing of laggards) were sent to the audio equipment buyers at the four stores, and 421 (55 percent) were usable for the study data base.

### Summary of Research Findings

A pilot multiple step-wise discriminant analysis revealed that the specific store locations were not statistically significant factors in respondent store selection behavior. Thereafter respondents from both Pacific Stereo stores and respondents from both Emporium stores were combined for all further statistical and analytical manipulations.

The discriminant analysis was run on a 70 percent/30 percent data base split in order to eliminate bias. The regression program chose 21 of the 45 input independent variables as predictors of respondent store choice. On the basis of their relative importance as predictor variables, the first six variables accounted for 36 percent of the relative importance of all 21 predictor variables. The multiple correlation coefficient  $R^2$  equalled 54 percent.

Based on the key six predictor variables, a profile of the Pacific Stereo buyer emerged. He is characterized as being highly educated, not an avid reader of mass media magazines, highly interested in shopping in an audio store

with knowledgeable salesmen, less interested in the store's guarantee and warranty policies, has high interest in price deals, and is highly knowledgeable about audio products.

The discriminant model was able to classify 78 percent of the Pacific Stereo and Emporium buyers in the 70 percent subsample (the sample from which the discriminant model is derived) and 74 percent of the Pacific Stereo and Emporium buyers in the 30 percent verification subsample on the basis of computed point scores for each respondent--an output from the discriminant analysis. On the basis of the study results, the discriminant analysis should be considered a successful application of this technique in this study.

In turning to the study paradigm, each of the key independent behavioral variables was tested in line with a priori hypotheses relating to the impact of the independent variables on the consumer's decision to purchase in the specialty store (Pacific Stereo) or the department store (The Emporium).

The results of the hypothesized relationships between each of the independent variables and store choice is summarized in Table 29, which shows that 11 of the hypotheses were accepted and two were rejected.

TABLE 29

SUMMARY OF RESEARCH FINDINGS  
- RESEARCH HYPOTHESES -

Hypothesis	Accepted	Rejected	Significance Level
Perceived risk	X		< .001
Generalized self-confidence	X		.03
Specific product self-confidence	X		< .001
Opinion leadership	X		< .001
Exposure to special interest magazines	X		< .001
Information seeking (pre-purchase)	X		< .001
Importance of salesmens product expertise	X		< .001
Product knowledge	X		< .001
Product importance	X		< .001
Product experience	X		< .001
Income level		X	n.s.*
Educational level	X		< .001
Occupational experience		X	< .001

\*n.s. (not significant)

## Conclusions

One of the unexpected findings in the study evidenced itself in the multiple discriminant analysis. The relative difference in importance of each of the predictor variables was small, e.g., no variable contributed a great deal by itself to the discrimination between Pacific Stereo and Emporium buyers. For example, the relative importance of the first predictor variable to the discrimination was 7.1 percent, and the sixth predictor variable had a relative importance of 5.3 percent, while the last predictor variable had a relative importance value of 2.7 percent. Other marketing studies which have used multiple discriminant analysis usually indicate a large "concentration" of relative importance in a few of the variables. It would appear that in this dissertation study the wide spread of importance over many variables results, in part, from the fact that each of the general paradigm variables plays a definite, albeit small, role in the consumer's choice of either Pacific Stereo or The Emporium. This is reflected in the analysis of the data and the results of the chi-square tests which indicate that most of the independent variables proposed for the study paradigm plays a statistically significant role in store choice. Nevertheless, since the derived regression model correctly classified approximately 70-80 percent of the Pacific Stereo and Emporium buyers, it should be

concluded that the application of the discriminant analysis technique was successful. Moreover, in comparison to other studies using the technique, this dissertation study utilized a substantial respondent data base consisting of almost 425 usable respondent questionnaires. In contrast, Sweeney and Reizenstein<sup>1</sup> used only 68 respondents, and the Robertson and Kennedy<sup>2</sup> study using the multiple discriminant analysis technique employed only 100 respondents.

Another unexpected finding was that respondent's income level did not have a significant relationship to store choice. The explanation for this finding on income level and store choice may be seen in Table 25, which reveals that the income ranges for both respondent groups is virtually the same. Also unexpected was the finding that the data on years of occupational experience did not support the hypothesis. In part, this may be explained in Table 30 which shows the age ranges of the Pacific Stereo and Emporium respondents. The data indicates that almost 70 percent of the Pacific Stereo

---

<sup>1</sup>Daniel J. Sweeney and Richard C. Reizenstein, "Developing Retail Market Segmentation Strategy for A Women's Specialty Store Using Multiple Discriminant Analyses." Presented to the Fall Educators Conference, the American Marketing Association, Houston, Texas, August 1972.

<sup>2</sup>Thomas S. Robertson and John D. Kennedy, "Prediction of Consumer Innovators: Application of Multiple Discriminant Analysis," Journal of Marketing Research, Vol. 5, No. 1, (February, 1968), p. 66.

TABLE 30

AGE DISTRIBUTION OF  
RESPONDENTS

<u>Age Ranges (Years)</u>	<u>Pacific Stereo</u>	<u>The Emporium</u>
	<u>No./%</u>	<u>No./%</u>
10 - 19	30/ 11	14/ 9
20 - 29	143/ 55	55/ 35
30 - 39	55/ 20	60/ 38
40 - 49	16/ 6	19/ 12
50 and over	12/ 5	9/ 5
N/A	7/ 3	1/ 1
	<hr/>	<hr/>
Totals	263/100	158/100

respondents cluster in the 10-29 years age range. Age and occupational experience are usually associated and, since The Emporium respondents are an older group (almost 75 percent cluster in the 20-40 years age group), in retrospect it is not surprising to find that in contrast to the hypothesis, The Emporium respondents tend to have more years of occupational experience.

Finally, the most important conclusion which emerged from the data described in the preceding chapter is that each of the two types of retail establishments described in the field study--the specialty store (Pacific Stereo) and the department store (The Emporium)--attract some special segments of the total consumer market. The implications of these findings and recommendations for further research are discussed next.

### Recommendations

The results of this study suggest efficiency and profit improvement opportunities for retail stores who possess characteristics similar to the specialty and department stores used in this field study. To achieve success, the management of each store or chain must define the consumer segments it wishes to appeal to, and decide the extent to which it can effect sales programs which will attract members of the target segment. For example, in this study

it was determined that the specialty store customer is highly knowledgeable about the subject product and is attracted to the store because of the sales force expertise relative to the subject product. From this insight, the retailer can adjust his advertising strategy in order to strengthen the store's image of product expertise. In order to back up this image of sales personnel expertise, the store management should consider developing in-store training programs for audio salesmen in order to motivate the salesman to acquire and maintain product knowledge. The store's merchandising manager should also be induced to develop timely and informative product information bulletins for the salesmen in order to assist the salesmen in acquiring product knowledge. In the area of audio products, this is almost a necessity because of the plethora of brands and product lines within brands which are constantly being introduced. Moreover, this kind of program can orient the salesmen towards selling products which are more profitable to the store (and the salesmen).

Relative to further research, it is recommended that the findings described in the dissertation be replicated. Audio products retailing should be studied in different regions of the country to ensure that the data are not a regional artifact. Also, other products should be chosen for study. Consumer durables such as appliances or high fashion products should be the object of similar studies in

order to determine if the findings are generalized across many types of consumer products. Lastly, in this vein these studies should be designed to determine if the results obtained in this study occur across different price points within a single product category (i.e., portable appliances priced at \$20, \$60 and \$100).

A recent study by Bettman<sup>3</sup> presents a theoretical model and measurement system for the components of perceived risk--"handled risk" and "inherent risk". Bettman's model for the components of perceived risk are applied to grocery store products. It would be interesting to test his model using the proposed perceived risk components as independent variables in the study paradigm used in this dissertation.

Also, it was pointed out in Chapter II that few studies were found in the literature which explore the relationship between the consumer's store choice and the importance (product saliency) the specific product has for the consumer. Further research in this area is needed in order to determine whether a generalized relationship exists between how a consumer ranks the importance of products and the way he chooses a store to purchase these products.

---

<sup>3</sup>James R. Bettman, "Perceived Risk and Its Components: A Model and Empirical Test," Journal of Marketing Research, Vol. 10, No. 2 (May, 1973), pp. 184-190.

It is evident from the findings in this study that for audio products retail sales expertise is highly important to the specialty store patron. Is the consumer willing to trade-off some factors in the retailer's "image mix" for in-store product expertise? For example, store location convenience is to some consumers an important feature, and plays a role in their store choice. Today retailers are competing for good store sites and the cost for these sites is escalating as retailers compete for fewer good sites, and real estate prices soar. We can witness today many examples of retailer marketing mix trade-offs. Steep discounting and poor or inconvenient location<sup>4</sup> is a common combination or moderate discounting plus extensive inventories of many styles and brands with poor store location<sup>5</sup> is another common combination. Likewise, a study designed to determine if consumers are willing to trade store site convenience for retailer product expertise would be of value to retailers and marketing management, particularly if the trade-off can be balanced in favor of the retailer's margin. Further on this theme, the data, along with the store choice concepts and consumer profiling methodology developed in this dissertation study, could be of value to retail store managements

---

<sup>4</sup>Food warehouse in Long Island City, New York.

<sup>5</sup>Barney's or Syms, men's clothing retailers; the Stereo Warehouse chain in California.

in their area research which includes measurement of the composition of consumer groups within markets. Area research is of particular importance in retail store site selection strategies.

Finally, it was noted in Chapter IV that Pacific Stereo respondents had a behavioral trait combination of high opinion leadership and low perceived risk. This trait mixture has been noted in the literature in connection with innovative behavior.<sup>6</sup> This suggests the opportunity to determine if a link exists between shopping in specialty stores and general innovative behavior.

---

<sup>6</sup>Johan Arndt, "Profiling Consumer Innovators," in Johan Arndt (ed.), Insights Into Consumer Behavior (Boston: Allyn and Bacon, Inc., 1968), p. 79.

## APPENDIX

# JOSEPH F. DASH & ASSOCIATES

MARKETING RESEARCH CONSULTANTS

680 FIFTH AVENUE • NEW YORK, N.Y. 10019 • TELEPHONE 212 246-4036

Dear Music Enthusiast:

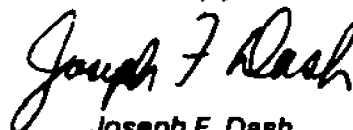
We need your assistance in filling out this questionnaire for us. It should take no longer than 10 minutes to complete. In return for your cooperation in **completing every question**, we will send you a valuable gift. The gift is an **advanced** copy of a new Columbia 12" LP record—and you can choose the musical category you wish. Just fill out the Gift Certificate below and mail back the questionnaire and this page immediately. No return postage is necessary.

Now a few words about this survey. We have been hired by a group of leading stereo equipment and record retailers. These companies want to find out how music enthusiasts, like yourself, make decisions on buying stereo and high fidelity equipment.

If you're wondering what good, if any, will come from all of this, after running a similar survey, one of the West Coast's leading stereo retailers extended their warranty period from two to three years. Similarly, we hope to learn more from you so as to advise our clients as to how to satisfy more consumer needs and desires.

Don't worry about your name appearing on mailing lists—no such rip-off will occur! Thanks.

Sincerely yours,



Joseph F. Dash  
Research Director

<b>GIFT CERTIFICATE</b>	<b>GIFT CERTIFICATE</b>				1- 2-
	Name _____	Age _____	3- Female <input type="checkbox"/> 5-1	4- Male <input type="checkbox"/> -2	
	Address _____	City _____	State _____	Zip _____	
	My recent audio equipment purchase was for a gift. (Check One):				
	Yes <input type="checkbox"/> 5-1				
	No <input type="checkbox"/> -2				
	Dwelling type. (Check One):				
	Apartment .....	<input type="checkbox"/> 7-1	One family or multiple family house	<input type="checkbox"/> -3	
	Dormitory .....	<input type="checkbox"/> -2	Other .....	<input type="checkbox"/> -4	
	I wish my FREE Columbia Records LP to be from the following music category:				
Rock <input type="checkbox"/> 5-1	Jazz <input type="checkbox"/> -3	Easy listening vocal	<input type="checkbox"/> -5		
Shows <input type="checkbox"/> -2	Country West <input type="checkbox"/> -4	Classical	<input type="checkbox"/> -6		

## SURVEY AMONG MUSIC ENTHUSIASTS

### Part I: Audio Equipment Interest and Experience

This first series of questions is for the purpose of determining your interest in, and experience with audio equipment. Remember, these questions refer to your recent purchase of an audio equipment product (Audio equipment means stereos, Hi Fi products, speakers and radios.)

You can answer the first five questions by circling **one** number on the 1 to 6 scale indicated. By circling 1 or 6, your answer agrees exactly with the phrase at either end of the scale. By circling 2, 3, 4, or 5 your answer indicates the **degree** to which your answer comes close to agreeing with the phrase at either end of the scale.

- 1 Compared to other things or subjects that interest you, how important to you is your audio equipment?  
 Little Importance 1 2 3 4 5 6 Considerable Importance <sup>9-</sup>
  
- 2 In general, how much experience have you had in shopping for audio equipment? (Don't consider record or tape buying as part of your experience)  
 Little Experience 1 2 3 4 5 6 Considerable Experience <sup>10-</sup>
  
- 3 Just before your recent purchase of some audio equipment, how would you have rated your ability to judge the quality of audio equipment?  
 Little Ability 1 2 3 4 5 6 Considerable Ability <sup>11-</sup>
  
- 4 Just before your recent purchase of some audio equipment how confident were you in your ability to make a good choice when you recently purchased some audio equipment?  
 Little Confidence 1 2 3 4 5 6 Considerable Confidence <sup>12-</sup>
  
- 5 Before your recent audio equipment purchase, did you seek any advice from friends or neighbors about audio equipment? (Check One) Yes  <sup>13-1</sup> No  <sup>-2</sup>  
 If your answer was YES, how much time did you spend seeking this advice?  
 Little Time 1 2 3 4 5 6 Considerable Time <sup>14-</sup>
  
- 6 Have you recently been asked your advice or opinion about buying any audio products or specific audio product brands? (Check One).  
 Yes  <sup>15-1</sup> No  <sup>-2</sup>
  
- 7 Before your recent audio equipment purchase, did you shop in any stores for this equipment before deciding on your purchase? (Check One) Yes  <sup>16-1</sup> No  <sup>-2</sup> If your answer was YES, how many stores did you shop in? (Check One).  
 1 store  <sup>17-1</sup> 2 stores  <sup>-2</sup> 3 stores  <sup>-3</sup> 4 stores  <sup>-4</sup> More than 4 stores  <sup>-5</sup>
  
- 8 If you shopped, which store or stores did you shop in for this equipment before you decided on the store for your most recent audio equipment purchase? Please list as many store names that you can recall.  


---



---
  
- 9 Before your recent audio equipment purchase, did you seek any information from equipment manufacturers catalogs or brochures? (Check One).  
 Yes  <sup>20-1</sup> No  <sup>-2</sup>
  
- 10 Approximately how many times prior to your last purchase had you actually purchased an audio product in a store? (Exclude records or tape buys and mail order purchases.) (Check One).  
 Once  <sup>21-1</sup> Twice  <sup>-2</sup> Three Times  <sup>-3</sup> Four Times  <sup>-4</sup> More Than Four Times  <sup>-5</sup> None  <sup>-6</sup>

11. Do you ever read any of the magazines listed below? (Check One). Yes  22-1 No  -2  
 If your answer was YES, how often do you look through or read the following magazines? (Check as many magazines as necessary.)

	Very Often	Sometimes	Almost Never	Never
(a) Sunset .....	<input type="checkbox"/> 23-4	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1
(b) Rolling Stone .....	<input type="checkbox"/> 24-4	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1
(c) High Fidelity .....	<input type="checkbox"/> 25-4	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1
(d) Playboy .....	<input type="checkbox"/> 26-4	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1
(e) Audio .....	<input type="checkbox"/> 27-4	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1
(f) Stereo Review .....	<input type="checkbox"/> 28-4	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1
(g) Time .....	<input type="checkbox"/> 29-4	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1
(h) Coast Magazine .....	<input type="checkbox"/> 30-4	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1

**Part II: Personal Opinions**

In this series of questions, your personal opinions about audio equipment and your purchasing experiences with this equipment are of interest.

12. Purchasing any kind of audio equipment is, to many people, complicated by the many brands and conflicting performance claims stated by each manufacturer. Before your recent audio equipment purchase, how certain were you that your particular choice would prove to be satisfactory? (Check One).  
 I was very certain  31-3 I was somewhat certain  -2 I was not certain  -1
13. Compared with most other people you know, how likely are you to be asked for your ideas or your advice about audio products or brands? (Check One)  
 I am less likely  32-1 I am as likely  -2 I am more likely  -3
14. How serious would it be for you if the audio equipment you recently bought proved to give unsatisfactory performance? (Check One).  
 It would be very serious  33-1 It would be somewhat serious  -2  
 It would be annoying but not serious  -3
15. Do you ever feel bothered about what other people think of you? (Check One). Yes  34-1 No  -2  
 If your answer was YES, how often do you feel bothered? (Check One).  
 Very often  35-1 Fairly often  -2 Sometimes  -3 Almost never  -4
16. Thinking back about your decision to make your recent audio equipment purchase, which of the following factors were important in your selection of the retail store where you finally made the purchase? (Please circle the number on the 1-6 scale which comes closest to reflecting your answer as in Part I).
- |   |               |   |   |   |   |   |   |                |     |
|---|---------------|---|---|---|---|---|---|----------------|-----|
| (a) Very convenient store location.....                                 | No Importance | 1 | 2 | 3 | 4 | 5 | 6 | Very Important | 36- |
| (b) Best Prices and/or "Deals".....                                     | No Importance | 1 | 2 | 3 | 4 | 5 | 6 | Very Important | 37- |
| (c) Guarantee/Warranty policies.....                                    | No Importance | 1 | 2 | 3 | 4 | 5 | 6 | Very Important | 38- |
| (d) Better and more knowledgeable salesmen .....                        | No Importance | 1 | 2 | 3 | 4 | 5 | 6 | Very Important | 39- |
| (e) Large number of different brands and/or models to choose from ..... | No Importance | 1 | 2 | 3 | 4 | 5 | 6 | Very Important | 40- |
17. Excluding audio equipment how do you feel about your abilities in general? (Check One).  
 Very confident  41-4 Usually confident  -3 Sometimes confident  -2 Almost never confident  -1

**Part III: General Information**

This final series of questions is for the purpose of classifying your responses in relation to income, education and occupational experience.

18. Please check the box which most closely indicates the total annual household income (if you are a student include your parents' income.) (Check One).

Less than \$3,000 per year .....  42-1      \$10,000-\$19,999 per year .....  -3  
 \$3,000-\$9,999 per year .....  -2      \$20,000 or over per year .....  -4

19. Please check the box which indicates the highest level of school education you have so far achieved. (Check One).

Completed grade school .....  43-1      Completed or attended college .....  -3  
 Graduated from high school .....  -2      Completed or attended graduate school ..  -4

20. What is your present occupation? (If Student—write student).

\_\_\_\_\_ 44-  
 \_\_\_\_\_ 45-

21. For how many years have you been engaged in your present occupation? (If student do not answer this question.) (Check One).

Less than one year .....  46-1      6-10 years .....  -3  
 1-5 years .....  -2      Over 10 years .....  -4

22. Within your family what birth position do you hold? (Check One).

The only child  47-1    First born  -2    Born second but not last  -3  
 Born third or later, but not last  -4    Born last  -5

23. Please try to the best of your ability to answer without asking anyone or trying to locate the answer to the following three questions:

(a) Define the Term "FM" \_\_\_\_\_ 48-1

\_\_\_\_\_ -2

(b) Define the term "RMS Rating" \_\_\_\_\_ -3

\_\_\_\_\_ -4

(c) Define the term "Woofar" \_\_\_\_\_ -5

\_\_\_\_\_ -6

-9

49      50      51

MANY THANKS!!!

## APPENDIX II

### METHOD OF COMPUTER CODING INDEPENDENT VARIABLES FOR MULTIPLE STEPWISE LINEAR REGRESSION ANALYSIS

For example, "exposure to audio equipment special interest magazines" is one of the 45 independent variables used in the multiple stepwise linear regression analysis. This variable for each respondent had three possible score levels--high, medium, and low. These are quantitative scores and for computer use must be defined as "dummy" quantitative variables, such that each respondent is classified in one and only one level category. (Also, the 45 variables at all three score levels could not be used with the computer program because of technical limitations). The method used for defining the "dummy" variables was as follows:

$$\begin{aligned} \text{Let } x_7 \text{ represent "high"; } x_7 &= \begin{pmatrix} 1 \text{ if "high"} \\ 0 \text{ otherwise} \end{pmatrix} \\ x_8 \text{ represent "low"; } x_8 &= \begin{pmatrix} 1 \text{ if "low"} \\ 0 \text{ otherwise} \end{pmatrix} \end{aligned}$$

Thus all three levels (high, medium and low) for the variable are defined uniquely for computer computations.

## BIBLIOGRAPHY

## BIBLIOGRAPHY

### Books

Alderson, Wroe, Dynamic Marketing Behavior (Homewood, Illinois: Richard D. Irwin, Inc., 1965).

\_\_\_\_\_, Marketing Behavior and Executive Action, (Homewood, Illinois: Richard D. Irwin, Inc., 1957).

Applebaum, William, et al., Guide to Store Location Research (Reading, Massachusetts: Addison Wesley Publishing Company, 1968).

Arndt, Johan, "Perceived Risk, Sociometric Integration, and Word of Mouth in the Adoption of A New Food Product," in Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 289-316.

\_\_\_\_\_, "Profiling Consumer Innovators," in Johan Arndt (ed.), Insights Into Consumer Behavior (Boston: Allyn and Bacon, Inc., 1968), pp. 71-84.

\_\_\_\_\_, "Testing the 'Two Step Flow of Communication' Hypothesis," in Johan Arndt (ed.), Insights Into Consumer Behavior (Boston: Allyn and Bacon, Inc., 1968), pp. 189-202.

\_\_\_\_\_, "Word of Mouth Advertising and Informal Communication," in Donald F. Cox (ed.) Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 188-239.

Barach, Jeffrey A., "Self-Confidence and Reactions to Television Commercials," in Donald F. Cox (ed.) Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 428-441.

- Bell, Gerald D., "Self Confidence, Persuasibility, and Cognitive Dissonance Among Automobile Buyers," in Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 447-448.
- Cox, Donald F., "Risk Handling in Consumer Behavior: An Intensive Study of Two Cases," in Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 34-81.
- \_\_\_\_\_ and Raymond Bauer, "Self Confidence and Persuasibility in Women," in Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 394-410.
- Cunningham, Scott M., "The Major Dimensions of Perceived Risk," in Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 82-108.
- \_\_\_\_\_, "Perceived Risk and Brand Loyalty," in Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 507-523.
- \_\_\_\_\_, "Perceived Risk as A Factor in Informal Communication," in Donald F. Cox (ed.), Risk Taking and Information Handling in Consumer Behavior (Boston: Division of Research, Graduate School of Business, Harvard University, 1967), pp. 265-287.
- Dalrymple, Douglas J. and Donald L. Thompson, Retailing: An Economic View (New York: The Free Press, 1969).
- Day, George S., Buyer Attitudes and Brand Choice Behavior (New York: The Free Press, 1970).
- Engel, James F., David T. Kollat and Roger D. Blackwell, Consumer Behavior (New York: Holt, Rinehart and Winston, Inc., 1968).

- Freund, John E. and Frank J. Williams, Modern Business Statistics (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958).
- Howard, John A. and Jagdish N. Sheth, The Theory of Buyer Behavior (New York: John Wiley and Sons, Inc., 1969).
- Isaacson, H. Lawrence, Store Choice (Cambridge: a doctoral dissertation, Graduate School of Business Administration, Harvard University, 1964).
- Janis, Irving L. and Carl I. Hovland, "An Overview of Persuasibility Research," in Carl I. Hovland and Irving L. Janis (eds.), Personality and Persuasibility (New Haven: Yale University Press, 1959) pp. 1-28.
- Katona, George, Psychological Analyses of Economic Behavior (New York: McGraw Hill, Inc., 1959), p. 47.
- \_\_\_\_\_ and Eva Mueller, "A Study of Purchasing Decisions," in Lincoln H. Clark (ed.), Consumer Behavior: The Dynamics of Consumer Reaction (New York: New York University Press, 1955), pp. 45-46.
- Katz, Elihu and Paul F. Lazarsfeld, Personal Influence (New York: The Free Press, 1955).
- Kotler, Philip, Marketing Management (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967).
- Lazarsfeld, Paul F., Bernard R. Berelson and Hazel Gaudlet, The Peoples Choice (New York: Columbia University Press, 1948).
- Martineau, Pierre, Motivation in Advertising: Motives that Make People Buy (New York: McGraw-Hill, 1957).
- May, Eleanor G., six preliminary research reports [and a bibliography "Images and Retailing"] on consumers' images of department stores (Cambridge: Marketing Science Institute)
1. "Image Evaluation of A Department Store," March, 1971.
  2. "Selection and Clustering of Image Dimensions," October, 1971.
  3. "Psychographics in Department Store Imagry," October, 1971.
  4. "Simulated Shopping Trips in Retail Image Research," October, 1971.

5. "Department Store Images--Basic Findings,"  
March, 1972.
6. "Store-to-Store and Department-to-Department  
Image Comparisons," March, 1972.

Nicosia, Francesco M., Consumer Decision Processes  
(Englewood Cliffs, New Jersey: Prentice-Hall, Inc.,  
1970).

Rachman, David J., Retail Management Strategy (Englewood  
Cliffs, New Jersey: Prentice-Hall, Inc., 1970).

Rich, Stuart V., Shopping Behavior of Department Store  
Customers (Boston: Division of Research, Graduate  
School of Business, Harvard University, 1963).

Robertson, Thomas S., Innovative Behavior and Communication  
(New York: Holt, Rinehart and Winston, Inc., 1971).

Rogers, Everett M., Diffusion of Innovation (New York:  
The Free Press, 1962), pp. 228-229.

Schiffman, Leon G., Communication and Experience: The  
Acceptance of A New Food Product by Elderly Consumers  
Living in Geriatric Housing (New York: unpublished  
doctoral dissertation, The City University of New York,  
1971).

Sheth, Jagdish N., "Perceived Risk and Diffusion of  
Innovations," in Johan Arndt (ed.), Insights Into  
Consumer Behavior (Boston: Allyn and Bacon, Inc., 1968),  
pp. 173-188.

#### Periodicals

Aaker, David A. and J. Morgan Jones, "Modeling Store Choice  
Behavior," Journal of Marketing Research, Vol. 8  
No. 1 (February, 1971), p. 38.

Arndt, Johan, "Role of Product Related Conversations in  
the Diffusion of A New Product," Journal of Marketing  
Research, Vol. 4, No. 3 (August, 1967), pp. 291-295.

Arons, Leon, "Does Television Viewing Influence Store  
Image and Shopping Frequency?" Journal of Retailing  
Vol. 37, No. 3 (Fall, 1961) pp. 1-13.

- Barach, Jeffrey A., "Advertising Effectiveness and Risk in The Consumer Decision Process," Journal of Marketing Research, Vol. 6, No. 3 (August, 1969) pp. 315-317.
- Bass, F.M., Edgar Pessemier and Douglas Tigert, "A Taxonomy of Magazine Readership Applied to Problems in Marketing Strategy and Media Selections," Journal of Business (July, 1969) pp. 337-363.
- Bauer, Raymond A., "Self Confidence and Persuasibility: One More Time," Journal of Marketing Research, Vol. 7, No. 2 (May, 1970), p. 266.
- Bell, Gerald D., "Self Confidence and Persuasion in Car Buying," Journal of Marketing Research, Vol. 4 (February, 1967), p. 46.
- Bender, Wesley C., "Consumer Purchase Costs--Do Retailers Recognize Them?" Journal of Retailing (Spring, 1964) pp. 1-8.
- Bennett, Peter D. and Robert M. Mandell, "Prepurchase Information Seeking Behavior of New Car Purchases--The Learning Hypothesis," Journal of Marketing Research, Vol. 6, No. 4, (November, 1969), pp. 430-433.
- Bettman, James R., "Perceived Risk and Its Components: A Model and Empirical Test," Journal of Marketing Research, Vol. 10 (May, 1973), pp. 184-190.
- Brown, F.E. and George Fisk, "Department Stores and Discount Houses: Who Dies Next?" Journal of Retailing, Vol. 41, (Fall, 1965) pp. 15-27.
- Brunner, J.A. and G.A. Brunner, "Are Voluntarily Unlisted Telephone Subscribers Really Different?" Journal of Marketing Research, Vol. 8 (February, 1971), p. 121.
- Bucklin, Louis P., "Retail Strategy and the Classification of Consumer Goods," Journal of Marketing, Vol. 27, (January, 1963), pp. 50-54.
- Collazzo, Charles J., Jr., "Effects of Income Upon Shopping Attitudes and Frustration," Journal of Retailing, Vol. 42, (Spring, 1966), pp. 1-7.
- Corey, Lawrence G., "People Who Claim to Be Opinion Leaders: Identifying Their Characteristics by Self-Report," Journal of Marketing, Vol. 35, No. 4 (October, 1971) pp. 48-53.

- Cox, Donald F. and Raymond A. Bauer, "Self Confidence and Persuasibility in Women," Public Opinion Quarterly, Vol. 28 (Fall, 1964), pp. 453-466.
- Darden, William R. and Fred Reynolds, "Predicting Opinion Leadership for Men's Apparel Fashions," Journal of Marketing Research, Vol. 9, No. 3 (August, 1972), pp. 324-328.
- Dash, Earl, "Reports on the Retail Information Bank," reprints of five articles appearing in Women's Wear Daily during 1972 reporting on the Westinghouse Broadcasting Company study of female household heads and their department store buying behavior.
- Dean, Michael L., James F. Engel and W. Wayne Talarzyk, "The Influence of Package Copy Claims on Consumer Product Evaluations," Journal of Marketing, vol. 36, No. 2 (April, 1972), pp. 34-39.
- Dodge, H. Robert and Henry H. Summer, "Choosing Between Retail Stores," Journal of Retailing, Vol. 45, (Fall, 1969).
- Enis, Ben J. and Gordon W. Paul, "Store Loyalty As A Basis for Market Segmentation," Journal of Retailing, Vol. 46, No. 3 (Fall, 1970), pp. 42-56.
- Feldman, Sidney P., "Some Dyadic Relationships Associated with Consumer Choice," in Raymond M. Haas (ed.), Science, Technology and Marketing (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1966), p. 774.
- Fisk, George, "A Conceptual Model for Studying Customer Image," Journal of Retailing, Vol. 37, No. 4, (Winter 1961-1962), pp. 1-8, 54.
- Kassarjian, Harold H., "Personality and Consumer Behavior: A Review," Journal of Marketing Research, Vol. 8 (November, 1971), pp. 409-418.
- Katz, Elihu, "The Two-Step Flow of Communication: An Up-to-Date Report on An Hypothesis," Public Opinion Quarterly, Vol. 21, No. 1 (Spring, 1957), pp. 61-78.
- King, Charles W. and John O. Summers, "Overlap of Opinion Leadership Across Consumer Product Categories," Journal of Marketing Research, Vol. 7 (February, 1970), pp. 43-50.

- Kollat, David T., James F. Engel and Roger D. Blackwell, "Current Problems in Consumer Behavior Research," Journal of Marketing Research, Vol. 7 (August, 1970), pp. 327-332.
- Kunkel, John H. and Leonard L. Berry, "A Behavioral Conception of Retail Image," Journal of Marketing, Vol. 42, No. 4, (October, 1968), pp. 21-27.
- Lazer, William and W. E. Bell, "The Communications Process and Innovation," Journal of Advertising Research, Vol. 6 (September, 1966) pp. 4-5.
- Lazer, William and Robert G. Wyckham, "Perceptual Segmentation of Department Store Markets," Journal of Retailing, Vol. 45, No. 2 (Summer, 1969) pp. 3-14.
- Mancuso, Joseph R., "Why Not Create Opinion Leaders for New Product Introductions?" Journal of Marketing, Vol. 33, No. 3 (July, 1969), pp. 20-26.
- Martineau, Pierre, "The Personality of the Retail Store," Harvard Business Review, Vol. 36, No. 1 (January-February, 1958), pp. 47-55.
- Montgomery, David B. and Alvin J. Silk, "Clusters of Consumer Interests and Opinion Leaders' Spheres of Influence," Journal of Marketing Research, Vol. 8 (August, 1971), p. 318.
- Morrison, Donald G., "On the Interpretation of Discriminant Analyses," Journal of Marketing Research, Vol. 6, No. 2, (May, 1969), pp. 156-163.
- Myers, James H. and Thomas S. Robertson, "Dimensions of Opinion Leadership," Journal of Marketing Research, Vol. 9, No. 1 (February, 1972), pp. 41-46.
- Newman, Joseph W. and Richard Staelin, "Multivariate Analysis of Differences in Buyer Decision Time," Journal of Marketing Research, Vol. 8, No. 2 (May, 1971), pp. 192-198.
- \_\_\_\_\_, "Pre-purchase Information Seeking for New Cars and Major Household Appliances," Journal of Marketing Research, Vol. 9, No. 3 (August, 1972), pp. 249-257.
- Rachman, David J. and Marvin Levin, "Blue Collar Workers Shape Suburban Markets," Journal of Retailing, Vol. 42, No. 4 (Winter 1966-67), pp. 5-13, 53.

- Rachman, David J. and Linda J. Kemp, "Profile of the Boston Discount House Customers," Journal of Retailing, Vol. 39, No. 2 (Summer, 1963), p. 7.
- Reynolds, Fred D. and William R. Darden, "Mutually Adoptive Effects of Interpersonal Communication," Journal of Marketing Research, Vol. 8, No. 4, (November, 1971), pp. 449-454.
- Rich, Stuart V. and Subhash C. Jain, "Social Class and Life Cycle as Predictors of Shopping Behavior," Journal of Marketing Research, Vol. 5 (February, 1968), pp. 41-49.
- Rich, Stuart V. and Bernard Portis, "Clues for Action from Shoppers Preferences," Harvard Business Review, Vol. 41, No. 2 (March-April, 1963).
- \_\_\_\_\_, "The Imagines of Department Stores," Journal of Marketing, Vol. 28 (April, 1964), pp. 10-15.
- Robertson, Thomas S. and John D. Kennedy, "Prediction of Consumer Innovators: Application of Multiple Discriminant Analysis," Journal of Marketing Research, Vol. 5, (February, 1968), p. 66.
- Robertson, Thomas S. and James H. Myers, "Personality Correlates of Opinion Leadership and Innovative Buying Behavior," Journal of Marketing Research, Vol. 6, No. 2, (May, 1969), pp. 164-168.
- Roselius, Ted, "Consumer Rankings of Risk Reduction Methods," Journal of Marketing, Vol. 6, No. 2 (May, 1969), pp. 56-61.
- Schiffman, Leon G., "Perceived Risk in New Product Trial by Elderly Consumers," Journal of Marketing Research, Vol. 9 (February, 1972), pp. 106-108.
- Schuchman, Abe and Michael Perry, "Self-Confidence and Persuasibility in Marketing: A Reappraisal," Journal of Marketing Research, Vol. 6, No. 2 (May, 1969), pp. 146-154.
- Settle, Robert B., "Attribution Theory and Acceptance of Information," Journal of Marketing Research, Vol. 9 (February, 1972), p. 85.
- Silk, Alvin J., "Overlap Among Self-Designated Opinion Leaders: A Study of Selected Dental Products and Services," Journal of Marketing Research, Vol. 3, No. 3, (August, 1966), pp. 255-265.

- Stafford, James E., "A Sociometric Analysis of Group Influences on Consumer Brand Preferences," in Peter D. Bennett (ed.), Marketing and Economic Developments, (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1965), pp. 459-460.
- Stigler, George J., "The Economics of Information," Journal of Political Economy, Vol. 69 (June, 1961), pp. 213-225.
- Summers, John O., "The Identity of Women's Clothing Fashion Opinion Leaders," Journal of Marketing Research, Vol. 7, No. 2 (May, 1970), pp. 178-185.
- Sweeney, Daniel J. and Richard C. Reizenstein, "Developing Retail Market Segmentation Strategy for a Women's Specialty Store Using Multiple Discriminant Analysis," presented to the Fall Educators Conference, The American Marketing Association, Houston (August, 1972).
- Tillman, Rollie, "Rise of the Conglomerant," Harvard Business Review, Vol. 49, (November-December, 1971), pp. 44-51.
- Udell, Jon G., "Prepurchase Behavior of Buyers of Small Electrical Appliances," Journal of Marketing, Vol. 30 (October, 1966), pp. 50-56.
- Woodside, Arch G., "Informal Group Influence on Risk Taking," Journal of Marketing Research, Vol. 9, No. 2, (May, 1972), pp. 223-225.
- \_\_\_\_\_ and J. Patrick Bovino, "Consumer Images of Retail Store Personalities," Marquette Business Review, Vol. 15, No. 4, (Winter, 1971), pp. 173-178.

### Proceedings

- Allvine, Fred C., "Diffusion of A Competitive Innovation," in Robert L. King (ed.), Marketing and the New Science of Planning (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1968), pp. 341-351.
- Arndt, Johan, "Perceived Risk, Sociometric Integration, and Word of Mouth in the Adoption of A New Food Product," in Raymond M. Haas (ed.), Science, Technology and Marketing (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1966), pp. 644-648.

- Bauer, Raymond A., "Consumer Behavior as Risk Taking," in R.S. Hancock (ed.), Dynamic Marketing for A Changing World (Chicago: Proceedings of the Summer Conference of the American Marketing Association, 1960), pp. 389-398.
- Bell, William, "Consumer Innovators: A Unique Market for Newness," in Stephen A. Greyser (ed.), Toward Scientific Marketing (Chicago: Proceedings of the Winter Conference of the American Marketing Association, 1963), pp. 85-95.
- Berry, Brian, "Retail Location and Consumer Behavior," (Philadelphia: Proceedings of the Regional Science Association, 1962), pp. 65-106.
- Cox, Donald F., "The Audience as Communicators," in Stephen A. Greyser (ed.), Toward Scientific Marketing (Chicago: Proceedings of the Winter Conference of the American Marketing Association, 1963), pp. 58-72.
- Cox, Howard B., "A Study of the Influence of Consumer Characteristics Upon Buying Behavior in Competing Retail Establishments," in Fred C. Allvine (ed.), Relevance in Marketing: Problems, Research, Action (Minneapolis: Proceedings of the Fall Conference of the American Marketing Association, 1971), pp. 423-427.
- Cunningham, Scott M., "Perceived Risk as A Factor in Product-Oriented Word-of-Mouth Behavior: A First Step," in L. George Smith (ed.), Reflections on Progress in Marketing (Chicago: Proceedings of the Winter Conference of the American Marketing Association, 1964), pp. 229-238.
- \_\_\_\_\_, "Perceived Risk as A Factor in The Diffusion of New Product Information," in Raymond M. Haas, (ed.), Science, Technology and Marketing (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1966), pp. 698-721.
- Granbois, Donald H., "The Role of Communication in the Family Decision Process," in Stephen A. Greyser (ed.), Toward Scientific Marketing (Chicago: Proceedings of the Winter Conference of the American Marketing Association, 1963), pp. 44-57.
- Huff, David L., "Ecological Characteristics of Consumer Behavior," (Philadelphia: Proceedings of the Regional Science Association, 1961), pp. 19-28.

- King, Charles W. and John O. Summers, "Technology, Innovation and Consumer Decision-making," in Reed Moyer (ed.), Changing Marketing Systems (Chicago: Proceedings of the Winter Conference of the American Marketing Association, 1967), p. 68.
- Meyers, John G., "Patterns of Interpersonal Influence in The Adoption of New Products," in Raymond M. Haas, (ed.), Science, Technology and Marketing (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1966), pp. 750-757.
- Robertson, Thomas S., "The Effect of the Informal Group Upon Innovative Behavior," in Robert L. King (ed.), Marketing and The New Science of Planning (Chicago: Proceedings of the Fall Conference of the American Marketing Association, 1968), p. 337.
- Wells, William D., "Segmentation by Attitude Types," in Robert L. King (ed.), Marketing and The New Sciences of Planning (Chicago: American Marketing Association, 1968), pp. 124-126.