## INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality $6^{\prime \prime} \times 9^{\prime \prime}$ black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

The effect of brand mix, merchandise requirements, and supplier accessibility factors on the maintained markup of national and private apparel brands

Thomas, Jane Boyd, Ph.D.

The University of North Carolina at Greensboro, 1992

U•M•I
300 N. Zeeb Rd.
Ann Arbor, MI 48106
$\qquad$


THE EFFECT OF BRAND MIX, MERCHANDISE REQUIREMENTS, AND SUPPLIER ACCESSIBILITY FACTORS ON THE

MAINTAINED MARKUP OF NATIONAL AND
PRIVATE APPAREL BRANDS
by

## Jane Boyd Thomas

A Dissertation Submitted to the Faculty of the Graduate School at The University of North Carolina at Greensboro in Partial Fulfillment
of the Requirements for the Degree Doctor of Philosophy

Greensboro
1992

Approved by

## APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.


March 25,1992
Data_ of Acceptance by Committee
March 25, 1992
Date of Final oral Examination

## DEDICATION

This dissertation is dedicated to my husband, R. Christopher Thomas, who has inspired me to pursue my dreams and has provided support and encouragement during every stage of this doctoral process.

## ACKNOWLEDGMENTS

Appreciation is expressed to Dr. Nancy L. Cassill, Assistant Professor of Clothing and Textiles, for her insight, encouragement, and patience. As Chairmen of this dissertation committee, Dr. Cassill has served as a mentor and role model. Appreciation is also expressed to Dr. David Herr for his guidance and many hours of statistical consulting. The support and wisdom of my other committee members, Dr. Betty Feather, Dr. Martha McEnally, and Dr. Nick Williamson is gratefully acknowledged.

To the West family (Skipper, Pat, Debbie, Catherine, and Trisha), thank you for your warm hospitality. Your friendship has been a wonderful blessing. A personal thanks is also expressed to my graduate assistant, Nowelle Rowland and the Department of Clothing \& Textiles secretary, Valerie Payne.

My colleagues at Winthrop College, and Peggy Cannon and Erica Feemster, who served as typists, have been most helpful.

Finally, I thank my parents, Mr. and Mrs. Frank L. Boyd and my brother, Dr. F. Leslie Boyd Jr., who have encouraged me, believed in me, and supported me.

## TABLE OF CONTENTS

Page
APPROVAL PAGE ..... ii
DEDICATION ..... iii
ACKNOWLEDGEMENTS ..... iv
LIST OF TABLES ..... vii
LIST OF FIGURES ..... viii
CHAPTER
I. INTRODUCTION ..... 1
Purpose of the Study ..... 3
Significance of the Study ..... 3
Nominal Definitions ..... 6
Limitations of the Study ..... 7
II. REVIEW OF LITERATURE ..... 8
Conceptual Framework ..... 8
Brand Mix. ..... 13
Merchandise Requirements ..... 15
Supplier Accessibility ..... 21
Maintained Markup Percentage of National and Private Brands ..... 23
Summary ..... 26
III. RESEARCH METHODOLOGY ..... 28
Hypotheses ..... 28
Research Design ..... 28
Instrument Development ..... 29
Sample Selection ..... 32
Field Test. ..... 34
Data Collection. ..... 34
Response Rate and Useable Sample Size ..... 36
Data Analysis Procedures ..... 39
Preparing the Dependent and Independent Variables ..... 39
Refining the Data Set ..... 41
Procedures Used to Test Hypotheses ..... 43
Operational Definitions ..... 46
IV. PRESENTATION AND INTERPRETATION OF THE RESULTS ..... 49
Description of Respondents ..... 49
Maintained Markup Percentage of National and Private Brands ..... 54
Supplier Accessibility Factors ..... 55
Testing of Hypotheses ..... 58
Null Hypothesis 1 ..... 58
Null Hypothesis 2 ..... 65
Summary of the Results ..... 68
V. SUMMARY, CONCLUSIONS, LIMITATIONS, IMPLICATIONS, AND RECOMMENDATIONS ..... 71
Summary ..... 71
Conclusions ..... 75
Limitations of Findings ..... 77
Implications ..... 78
Recommendations ..... 80
BIBLIOGRAPHY ..... 86
APPENDIX A. Questionnaire ..... 92
APPENDIX B. Identification of Vendor Selection Criteria Items ..... 102
APPENDIX C. Field Test Evaluation Form. ..... 104
APPENDIX D. Sample Cover Letters ..... 107
APPENDIX E. Reasons for Declining to Participate ..... 111
APPENDIX F. Numerical Example of Calculating Maintained Markup Percentage ..... 113
APPENDIX G. Correlation Procedure Analysis ..... 115
APPENDIX H. Analyses for National Brands ..... 117
APPENDIX I. Analyses for Private Brands ..... 120

## LIST OF TABLES

Page
TABLE

1. Five Steps Used to Select the Sample. ..... 33
2. Timetable for Data Collection ..... 35
3. Six Steps Used to Determine the Useable Sample ..... 37
4. Formula for Maintained Markup Percentage ..... 40
5. Items Used to Test Hypotheses ..... 44
6. Demographic Characteristics of Respondents ..... 50
7. Merchandise Requirements ..... 52
8. Supplier Accessibility Factors ..... 56
9. Initial ANCOVA for National Brands ..... 59
10. ANCOVA for National Brands ..... 61
11. ANCOVA for Private Brands ..... 67

## LIST OF FIGURES

Page
FIGURE

1. Sheth's Theory of Merchandise Buying Behavior. ..... 9
2. Sheth \& Thomas Theory of National Brand Buying Behavior ..... 81
3. Sheth \& Thomas Theory of Private Brand Buyiny Behavior. ..... 82

Thomas, Jane Boyd, Ph.D. The Effect of Brand Mix, Merchandise Requirements, and Supplier Accessibility Factors on the Maintained Markup of National and Private Apparel Brands. (1992) Directed by Dr. Nancy L. Cassill. 122 pp.

The purpose of this research was to examine the effect of brand mix, merchandise requirements, and supplier accessibility factors on the maintained markup percentage of national and private apparel brands. Eighty-three national brand department store apparel buyers and 64 private brand department store apparel buyers representing 48 states comprised the sample.

Sheth's theory of Merchandise Buying Behavior (1981) was used as the conceptual framework for this study. The variable brand mix was added to Sheth's theory. Maintained markup percentage, the dependent variable, was also added to Sheth's theory and was used a summary variable for use in choice calculus.

Analysis of Covariance (ANCOVA) indicated that two merchandise requirements, type of merchandise and product positioning, and two supplier accessibility factors, Vendor Characteristics and Corporate Image, affected the variability in maintained markup percentage for the national brand.

For the private brand apparel buyers, none of the variables included in the ANCOVA model were siatistically significant. This suggests that factors which affect the variability in national and private apparel brand maintained markup percentage are different and that a different model exists for private apparel brands.

This study has expanded the limited empirical literature available on national and private apparel brands, provided empirical information
which confirms industry assumptions, and has identified and further refined factors which affect the maintained markup percentage of national and private apparel brands. Findings from this study will assist retail buyers and suppliers in the development of merchandise strategies for national and private apparel brands.

## CHAPTER I

INTRODUCTION

Retailers are competing in a marketplace characterized by maturity, overcapacity, intense price competition, and an essential sameness among stores (Wortzel, 1987). The role of the retailer is to profitably function as the consumer's purchasing agent (Risch, 1986). Since the retail buyer's job is to purchase, price, and sell merchandise for a profit (Bohlinger, 1990), buyers are often considered the key component in the success or failure of a retail firm (Fiorito \& Fairhurst, 1989; Ranchman, 1979).

One of the strategies which retailers have used to combat the problems of profitability and sameness among stores is to examine the mix of national and private brands ("Department stores: Finding a new niche", 1991; Flately, 1989; "Making a name at Penney's", 1991). National brand merchandise bears the name of the manufacturer, is demand pull-driven, and the manufacturing and marketing of the brand is controlled by the manufacturer (Flately, 1989, Kotler, 1988). Private brands are a store's own brand, are supply push-driven, and the manufacturing and marketing of the brand is controlled by the retailer (Flately, 1989). Private brands were developed to help retailers realize higher profit margins and to differentiate stores from their competitors ("PL: Winners and Sinners", 1990). Trade brands, also known as generics or no-name brands, and designer brands are two additional categories of apparel brands. This study will examine only national and private brands since these two brands
represent the highest percentage of goods offered across different store and product types ("PL: Winners and Sinners", 1990).

Maintained markup percentage, which represents the final markup obtained by a store for a product, is a common measure used by retail stores to determine the financial success of specific products (Kneider, 1986). It is unclear what affect the mix of national and private apparel brands has on maintained markup percentage. According to industry sources, in 1989 about one in every five apparel purchases was a private brand, contributing to an overall consumer expenditure of $\$ 22$ billion for private brand apparel (Ed Agvent, personal communication, August 8, 1991). Private brands have stopped growing in some apparel categories (Moin, 1991), and some retailers and retail consultants have questioned whether or not national and private brands help retailers earn desired profit margins ("Department stores finding a new niche", 1990). Many retailers, including Sears and Saks Fifth Avenue, have altered their brand mix of national and private brands in an effort to increase profit margins (Moin, 1991), while other retailers, such as J.C. Penney are making brand decisions by product category ("Making a name at J.C. Penney", 1991; Moin, 1991). Thus, retail stores are trying different brand mix strategies to increase maintained markup percentages for products.

In addition to brand mix, Sheth (1981) has theorized two constructs which impact retail buyer's purchase decisions, thus affecting maintained markup percentages: merchandise requirements and supplier accessibility factors. Merchandise requirements (MR) are the needs, motives, and purchase criteria used by the retail buyer in making merchandise decisions and are composed of interorganizational and intraorganizational
components. Supplier accessibility factors are the vendor options available to a retailer to satisfy merchandise requirements. No research exists which examines how brand mix, merchandise requirements, and supplier accessibility factors affect the maintained markup percentage of national and private apparel brands.

## Purpose of the Study

The purpose of this research was to determine how brand mix, merchandise requirements, and supplier accessibility factors affect the maintained markup percentage of national and private apparel brands. Two research questions were:

1. Which brand mix, merchandise requirements, and supplier accessibility factors will affect the maintained markup percentage of national apparel brands?
2. Which brand mix, merchandise requirements, and supplier accessibility factors will affect the maintained markup percentage of private apparel brands?

## Significance of the Study

This study is important for four reasons. First, this study builds on Sheth's model (1981) by adding brand mix and maintained markup. Brand mix is an important variable for apparel products and was added to Sheth's model and tested. Maintained markup was chosen as a summary variable to use in examining choice calculus. Second, inventory is the largest single asset for retailers (Buzzell \& Dew, 1980) and represents on average $30 \%$ of a retailer's assets (Standard \& Poor, 1991). Determining the factors which affect maintained markup percentages is paramount to retail success and survival (Buzzell \& Dew, 1980). Third, the volatile retail industry has experienced changes in retail and vendor relationships (John Wilcox, personal communication, June 24, 1991). In recent years retail firms have
used backward integration techniques becoming manufacturers of apparel products (e.g., private brands) while apparel manufacturers have used forward integration techniques and have opened retail stores. These changes have been influenced by the growth of discount and specialty stores and the decline of department stores. This study will provide a better understanding of today's retail industry and the relationship between retailers and suppliers as it impacts maintained markup percentage.

Finally, limited empirical research exists on the maintained markup percentage earned for department store apparel brands (Hathcote, 1989/1990) and on the profitability of retail stores (Munn 1961-1962; Shim \& Drake; 1991). Hathcote (1989/1990) examined the maintained markup percentage earned for domestic and imported apparel. While Munn (19611962) investigated the profitability of national and private brands, the focus of his research was food items. Shim and Drake (1991) explored the profitability of specialty apparel stores. The literature is inundated with numerous consumer studies focusing on consumers' preferences and perceptions of national and private apparel brands (Bahn, 1986; Baugh \& Davis, 1989; Cunningham, Hardy, \& Imperia, 1982; Davis, 1985; Eckman, Damhorst, \& Kudolph, 1990; Nevid, 1981). No research exists which examines how brand mix, merchandise requirements, and supplier accessibility factors affect the maintained markup percentage earned for national and private trands.

Results from this study will assist retail buyers, store management, product development managers, and vendors. Retail buyers can make knowledgeable apparel brand purchase decisions by knowing which brand mix,
merchandise requirements, and supplier accessibility factors affect maintained markup. Retail management can use brand mix and merchandise requirement information in merchandising national and private apparel brands to increase the maintained markup percentage earned. Product development managers will gain information on how to reposition brands. Vendors will gain useful information regarding the importance to retail buyers of specific marketing strategies.

## Nominal Definitions

Brand Mix--The combination of national and private brands stocked by a firm (Kotler \& Armstrong, 1991).

Department Store--A large scale retailing institution which sells a wide variety of goods where related products are grouped together for the purposes of promotion, service, and control (Ostrow \& Smith, 1985).

Interorganizational Merchandise Requirements--Represent differences between retail firms (Sheth, 1981).

Intraorganizational Merchandise Requirements--Represent differences in merchandise requirements from one product line to another within the same retail firm (Sheth, 1981).

Maintained Markup Percentage--Represents the final markup percentage obtained for a product and is calculated as the difference between the total retail value of the merchandise and total reductions (i.e., shortages and markdowns) minus the cost of merchandise sold divided by net sales (Kneider, 1986) (See Appendix $F$ for an example).

Merchandise Requirements (MR)--The characteristics of retail firms and merchandise which affect retail buying motives and needs (Sheth, 1981).

National Brand-A brand name or symbol, owned by the manufacturer, which is nationally recognized (Jarrow, Guerreiro, \& Judelle, 1987).

Private Brand--A brand name or symbol, owned by the retailer, which is sold exclusively by the store which owns the brand name (Jarrow, Guerreiro, \& Judelle, 1987).

Profitability--A firm's total gross earnings which represent the difference between sales revenue and expenses (Baumol \& Blinder, 1985).

Retail Buyer--The person responsible for planning, purchasing, and selling merchandise for a profit (Bohlinger, 1990).

Retail Industry--Firms which sell products to the ultimate consumer for the purpose of personal consumption (Kotler \& Armstrong, 1991). Supplier Accessibility (SA)--A set of choice options available to retailers to satisfy their merchandise requirements (Sheth, 1981). Vendor--The seller of products to the retail buyer (Bohlinger, 1990). Limitations of the Study

1. The survey was limited to the maintained markup percentage earned for national and private apparel brands.
2. Maintained markup percentage was determined from information provided by the buyer. Two recent purchase orders from the Spring/Summer 1991 season (i.e., one order for a national brand and one for an equivalent private brand) may not be representative of all national and private brand purchase orders.
3. Only department stores identified in Sheldon's Retail Directory were used in this study.
4. Two merchandise requirements (MR) from Sheth's theory which were not tested, management mentality and regulatory constraints, may impact maintained markup percentage.

## CHAPTER II

## REVIEW OF LITERATURE

A review of literature will be presented for the following: (1) conceptual framework, (2) product mix, (3) merchandise requirements, (4) supplier accessibility, and (5) maintained markup percentage for national and private apparel brands.

## Conceptual Framework

Sheth's Theory of Merchandise Buying Behavior (1981) was the conceptual framework for this study. For this study brand mix and maintained markup percentage were added to the model (Figure 1). Sheth's theory was selected because it succeeds in:

1. Demonstrating the complexity of merchandise buyer behavior;
2. Explaining buying specifically of the retail environment;
3. Depicting the most important explanatory variables in a systematic way; and
4. Unifying a wide variety of theories, concepts and empirical research.
(Adapted from Moriarty, 1983, p. 35)

Several other models of industrial buyer behavior exist (Bonoma, Zaltman, \& Johnson, 1977; Robinson, Farris, \& Wind, 1967; Sheth, 1973; Webster \& Wind, 1972) but only Sheth's Theory Of Merchandise Buyer Behavior succeeds in explaining buying behaviors as they relate specifically to the retail environment. Although similarities exist between retail buyers and industrial buyers (Fairhurst \& Fiorito, 1990), retail buying is a special case of industrial buying (Ettenson \& Wagner,

Figure 1
Sheth's Theory of Merchandise Buying Behavior


Sheth, J.N. (1981). "A Theory of Merchandise Buying Behavior," in R.W. Stampfl and E.C. Hirschman (Eds.) Iheories in Retailing, Chicago, IL.: American Marketing Association, 182.

Industrial behavior models are not suitable for the present study for three important reasons. First, industrial buying models relate to purchases for goods to be used in manufacturing, whereas retail buying deals with purchases for the final consumer (Hirschman \& Mazursky, 1982). Second, industrial buyer decisions are either joint or autonomous (Ettenson \& Wagner, 1986; Sheth, 1973) whereas the retail buying decision is usually autonomous. Third, "industrial buyers are responsible for controlling cost, retail buyers are responsible for both controlling costs and generating revenue through their purchases" (Wagner, Ettenson, \& Parrish, 1989, p.60).

Sheth's Theory of Merchandise Buying Behavior (1981) is a flow chart which describes the behavior of the retail buyer (Figure l). For this study, brand mix and maintained markup percentage were added to Sheth's theory and will be tested. The theory is divided into three major constructs: 1) merchandise requirements (MR), and 2) supplier accessibility (SA), and 3) brand mix. Maintained markup percentage is a summary variable for use in choice calculus. Choice calculus impacts the choice of the ideal and actual supplier/product choice. Arrows $(\rightarrow)$ from one box (variable) to another indicate that one variable leads to or affects another, such as merchandise requirements, supplier accessibility, and brand mix lead to choice calculus.

## Merchandise Requirements

Merchandise requirements (MR) represent the retailers needs, motives, and purchase criteria (Sheth, 1981) and can be either functional or nonfunctional. Functional merchandise requirements are buying decisions which reflect the needs and wants of customers at a specific
retail outlet. Nonfunctional merchandise requirements are those buying decisions not directly relating to the consumers' needs and wants. Sheth divided merchandise requirements into interorganizational and intraorganizational components.

Interorganizational requirements refer to differences between retail firms such as, retailer type, retailer size, retailer location, and management mentality. Sheth (1981) noted that management mentality is difficult to measure. Intraorganizational merchandise requirements refer to product differences within the same retail firm such as, type of merchandise, product positioning, regulatory constraints, and type of decision.

## Supplier Accessibility

Supplier accessibility (SA) relates to those options available to retailers to satisfy merchandise requirements. Since not all vendors are accessible to retailers, Sheth (1981) identified three factors which determine supplier accessibility: 1) competitive structure, 2) relative marketing effort, and 3) corporate image. These factors include items related to the competitive nature of supplier vendor relationships (i.e., services provided), the extent of marketing expertise and effort exerted by the vendor (i.e., product quality and price), and the image of the vendor's corporation (i.e., the reputation of the vendor and the product). Brand Mix

Brand mix refers to the percentage of national and private brands sold by the retailer (Kotler \& Armstrong, 1991). Current literature has noted that retailers are altering the percentage of national and private brands carried in an effort to determine the most "profitable" mix of
branded goods to stock ("Making a name at J.C. Penney", 1991; Moin, 1991). This recent concern over brand mix with apparel products indicated a need to include brand mix as it impacts choice calculus to Sheth's model (Sam1 i, 1989).

## Choice Calculus

Choice calculus "refers to the choice rules or heuristics practiced by different retailers as a way of matching their merchandise requirements and supplier accessibility" (Sheth, 1981, p.185). Maintained markup percentage is an input variable for matching brand mix, merchandise requirements, and supplier accessibility factors. Maintained markup percentage is a summary variable for use in choice calculus. Choice calculus impacts the choice of the ideal and actual supplier and product choice.

Ideal Supplier/Product Choice. The ideal supplier/product choice represents the best choice of a supplier or product from those accessible to the retail buyer to satisfy merchandise requirements (Sheth, 1981). Decisions made concerning the ideal supplier/product choice lead to decisions concerning the actual supplier/product choice.

Actual Supplier/Product Choice. The actual supplier/product choice is the actual choice of a supplier or product made by the buyer. Sheth noted that in the absence of other factors, the actual choice decision of a supplier or product should mirror the ideal. In reality, the actual choice of a supplier/product is impacted by ad hoc situational factors which cannot be anticipated or modeled. Four categories of ad hoc situational factors are (1) business climate, (2) company's financial position, (3) business negotiations, and (4) market disturbance. These ad
hoc situational factors "intervene in the supplier/product selection process and motivate the retailer to select another supplier/product which is not the ideal choice" (Sheth, 1981, p.186).

## Brand Mix

Brand mix refers to the combination of brands (i.e., national or private) stocked by a firm. Brand mix is an important variable for retail buyers to consider because having appropriate goods and services to sell is a function of retail buying (Samli, 1989). Samli (1989) suggested four objectives for the retailer's product mix (i.e., the combination of all goods and services sold by the firm) which can be modified to describe effective management of the brand mix. These four objectives were (1) providing a highly desirable brand mix, (2) adjusting the mix to changing consumer needs, (3) maintaining an internal consistency, and (4) taking into consideration external variables (Samli, 1989). Retail buyers have been trying to achieve the first of Samli's (1989) objectives by providing consumers with the national brands which they desire and by providing quality and value oriented private brands.

Brand names are a method of product differentiation which manufacturers and retailers use to position their product(s) against those of a competing firm. A brand name is a unique trademark or symbol which identifies the manufacturer of the product (Kotler, 1988). There are four classifications of apparel brand names: national, private, trade, and designer. Brand name is an important component to consider when examining the profitability of goods sold by the retail firm. Previous research (Bahn, 1986; Davis, 1985; Eckman, Damhourst, \& Kudolph, 1990; Jacoby, 01 son, \& Haddock, 1971) indicates that brand name, whether national or
private, is one of the cues which consumers use when making purchase decisions.

Historically, national brands were less important for apparel because maintaining a high brand identity was viewed by manufacturers as too difficult (Wortzel, 1987). Forty to fifty years ago, retailers relied heavily on private brands because there were few national brands available and because manufacturers at that time did not have the resources or knowledge to effectively market their brands on a national level. When manufacturers discovered that consumers would purchase apparel that had a visible brand name, a new apparel era began.

In the late 1970's, the intense distribution of national brands, the growth of off-price retailing, and the need for a differential advantage led to renewed interest in private branding among apparel retail firms. Private branding was viewed as a vehicle which allowed retailers to compete more profitably and to offer the customer an exclusive brand (Ettenson \& Wagner, 1986; Kurt Salmon Associates, 1988; "Van Buren-Carr: Private label geared to specialty stores", 1987).

For a while, this strategy of using private brands appeared to be successful; department stores such as Dayton Hudson and Macy's had private brand programs which flourished. For example, one-third of all men's dress shirts sold in 1989 at Dayton Hudson were in its Woodard private brand (Abend, 1989). Macy's private brand Charter Club, which is targeted to career women, has been profitable enough to warrant the opening of specialty stores which exclusively sell this brand.

Brand mix varies by product and store type as documented in trade publications, such as Stores. For example, a private brand missy cotton
sweater might represent only five percent of the sweater category at a discount store, but as much as forty percent at a department store (Kurt Salmon Associates, 1988). A study conducted by Kurt Salmon Associates ("PL: Winners and Sinners", 1990) found that between 1988 and 1989 changes in the percentage of national and private apparel brands sold were most dramatic in the area of store type.

The goal of most department stores is to have between $20 \%$ to $25 \%$ of its total sales from private brand merchandise and $75 \%$ to $80 \%$ from national brands (Salmon \& Cmar, 1987, Standard \& Poors, 1991). To be successful, the firm must handle national brands to "validate" its offerings to the consumer and private brands to provide exclusivity and to set the firm apart from competitors (Muse \& Hartung, 1973). According to Frank Doroff, Chief Executive Officer (CEO) of Federated/Allied Merchandise Services (Gill, 1990), the percentage of national brands versus private brands stocked should never be $50 / 50$, since the value of private brands is to supplement, not replace, national brands and to offer distinction and margin.

## Merchandise Requirements

## Interorganizational Merchandise Requirements

Interorganizational factors are variables which help to explain differences between retail firms such as retailer type, size, and location, and management mentality.

Retailer type. In the United States there are over 6,000 retail firms which sell apparel. These firms are categorized by a combination of variables such as type of merchandise, amount of service offered, and price points. The problem is that the literature categorizes retail firms
in many different ways (Fiorito and Fairhurst, 1989; Hirschman, 1978; King \& Ring, 1980; Mayer, Morris, \& Gee; 1971). One of the more current and common typologies, used in empirical literature (Fiorito \& Fairhurst, 1989), textbooks (Kotler, 1988), and trade publications (Stores, 1990) divides retail firms into six main types: (1) department, (2) specialty, (3) discount, (4) off-price, (5) mass-merchandise, and (6) mail-order. Of these six store types, department stores, in terms of number, represent the largest type of retail firm (U.S. Department of Commerce, 1991) and have the largest share of the apparel market (24.2\%) (Kurt Salmon Associates, 1990). Department store sales were $\$ 178$ billion in 1990 and are estimated to be $\$ 189$ billion in 1991. Department stores are best described as a retail firm which carries several product lines, with each line operated as a separate department (Kotler, 1988). According to one industry source (Sheldon's Retail Directory, 1991) there are approximately 1485 department stores in the United States.

A second typology used to classify retailer type is chain store. According to Sheldon's Retail Directory (1991), a retail firm is considered to be a chain if it has five or more units. Department, specialty, discount, mass-merchandise, and off-price stores may also be categorized as a chain store. Chain stores provide the retailer with the opportunity to reach more customers vis-a-vis more retail outlets, while providing the consumer the opportunity to purchase goods from the same retailer, but at numerous locations.

Retailer size. Sheth (1981) defined retailer size as either "big or small" while the key variables used by the U.S. Census to define retail size are sales volume, number of stores, and number of employees.

In a retail buyer survey developed by Fairhurst and Fiorito (1990) retailer size was defined by the number of employees and the square footage of selling space in a store or department.

Retailer size does have an impact on maintained markup percentage, since larger stores (i.e., higher sales volume) have a greater opportunity to gain more favorable trade terms with vendors, to stock more products, and to satisfy more customers than do smaller stores (Munn 1962-1963). According to John Wilcox (personal communication, June 24, 1991) the more profitable departments in a store are allocated larger percentages of the store's selling space. In department stores, women's apparel typically represents the greatest proportion of sales (50\%) (Standard \& Poor, 1991) and hence is allocated the largest amount of selling space.

Retailer location. Sheth (1981) defined retailer location as being either national, regional, or local. Fiorito and Fairhurst (1989) divided store location into five areas: (1) central business district, (2) free standing, (3) strip center, (4) major shopping mall, and (5) regional mall and other. In a cliche' often cited by retail developers, the three most important aspects of store site selection are "location, location, and location" because location can either positively or negatively impact profits. Hise, Kelly, Gamble, and McDonald (1983) determined that store location, number of stores, and product offerings were factors which affect the performance of individual chain store units. Shim and Drake (1991) found that store location was the second most important variable associated with positive store profits. The literature is void however of studies which examine the impact of a store's location on the maintained markup percentage earned for different products or brands.

## Intraorganizational Factors

Intraorganizational factors are differences within the same retail firm such as type of merchandise, product positioning, and type of decision (Sheth, 1981).

Type of merchandise. Sheth's Theory (1981) defines type of merchandise as either dry goods (i.e., apparel) or brown goods (i.e., non-apparel). Type of merchandise has been operationalized in more specific terms by researchers (Flately, 1989; Hathcote, 1989/1990) to include specific items of apparel, such as shirts or dresses.

Flately (1989) found that women's knit shirts and men's dress shirts were good candidates for private label programs because they are not high fashion items and are in somewhat constant demand. In a more recent study ("PL: Winners and Sinners", 1990), private label women's sportswear (which included blouses, shirts, slacks, skirts, and sweaters) showed greater increases in percentage dollar purchases than did nonsportswear items (dresses only).

In examining the maintained markup percentage earned for two equal quality garments (i.e., a domestic and an imported product), Hathcote (1989/1990) defined type of merchandise in terms of specific apparel categories within a retail firm. In her instrument, six categories of apparel were listed for which an apparel buyer might be purchasing: (1) coats and jackets, (2) dresses, (3) shirts and blouses, (4) sweaters, (5) slacks, and (6) suits. These six apparel categories are used by Standard Industrial Classification codes (SIC) and represent both sportswear and non-sportswear apparel classifications.

Product positioning. Product positioning refers to national versus private brands (Sheth, 1981). However, in traditional marketing texts, product positioning is defined as "the act of establishing a viable competitive positioning of the firm and its offer in each target market" (Kotler, 1988, p.280). Product positioning is important because it helps to communicate the products' place in the total marketplace (Kotler, 1988). Retail firms with a high degree of market orientation (Shim \& Drake, 1991) and which are successful in positioning their products, are typically associated with the highest profitability (Narver \& Slater, 1990). The inclusion of product positioning as a merchandise requirement in Sheth's model is valid since the strategic role of national and private brands is to establish a brand mix which has a competitive advantage (Sam1 i, 1989).

One way to operationalize product positioning is by describing the strategic role of the product as being either high or low profit. Wortzel (1987) explained a retailer's strategic positioning opportunities as the relationship between type of merchandise and gross margin (i.e, the difference between net sales and total cost of goods sold). He was able to strategically place products and retail firms in a matrix which identified strategies and opportunities for what he termed as today's mature marketplace. Other research on product positioning has focused on store image (King \& Ring, 1980; Walters \& Knee, 1989), theme buying (Gill, 1990), and promotion ("Do private brands measure up", 1991; Muse \& Hartung, 1973).

Type of decision. Assel (1981) identified three classes of buying decisions: new task, modified rebuy, and straight rebuy. New task buying
activities are buying decisions which require the largest amount of information and have the greatest amount of risk. An example of a new task would be the purchase of a product which has not been previously purchased. Modified rebuy is the purchase of an item which has been purchased in the past, but not recently or on a regular basis. Modified rebuy decisions require less information search and are associated with less risk than new task buying situations. Straight repurchase buying activities involve the purchase of an item which is purchased frequently and regularly. Fairhurst and Fiorito (1990) operationalized these three types of buying decisions by asking respondents to estimate the typical proportion of buying activities in each category.

No research exists which examines the affect that type of decision has on the maintained markup percentage earned for national and private apparel brands. Fairhurst and Fiorito (1990) found that apparel retail buyers were most frequently involved in straight rebuy decisions and less frequently involved in modified rebuy decisions. Modified rebuy was one of the variables found by Fairhurst and Fiorito (1990) which positively affect gross margin return on inventory investment (GMROI). The search for information with modified rebuy tasks relates to product trends, consumer wants, and vendors and is an essential component in purchasing apparel which has a relatively short life cycle. Francis and Brown (1985) found that apparel buyers classified a higher proportion of their purchases as new task as compared to straight rebuy. Stone and Cassill (1990) found that men's wear buyers when compared with women's wear buyers classified twice as many of their buying decisions as straight rebuy. One possible explanation for this finding is that product life cycles for
women's apparel products change more frequently than men's thus require more information gathering (modified rebuy) for making purchase decisions.

## Supplier Accessibility

Supplier accessibility refers to the "evoked set of choice options open to the retailer to satisfy his merchandise requirements" (Sheth, 1981, p.184). "These choice options represent the vendors that would be selected to satisfy the buyer's merchandise requirements (Fairhurst \& Fiorito, 1990; p. 90)." Sheth identified three distinct but related factors which are likely to account for supplier accessibility to a given retail establishment: 1) competitive structure, 2) relative marketing effort, and 3) corporate image.

Competitive structure refers to the competitive environment of the supplier industry and is explained by distribution policies of the vendor and the extent of services provided by the vendor. Relative marketing effort refers to the extent of marketing activities by the vendor on items related to the product and service. Corporate image refers to the positive or negative image of the vendor and is determined by the vendor's product and the vendor's personal characteristics. These three factors which account for supplier accessibility have collectively rather than individually been examined by previous researchers. For example, in a study which tested a portion of Sheth's model, Fairhurst and Fiorito (1990) identified the importance of Sheth's three supplier accessibility factors plus five additional factors: 1) inventory procurement, 2) suitability of product, 3) vendor characteristics, 4) selling strategy, and 5) importance of the client.

For retail buyers, one of the most important variables in making merchandise decisions is supplier accessibility since "successful retail buying depends on the ability to select vendors who meet the needs and wants of the firm and its customers" (Wagner, Ettenson, \& Parrish, 1989, p.58). The competitive nature of today's retail industry has made stores more bottom-line oriented and retail buyers are gravitating toward more reliable suppliers (Standard \& Poor, 1991). Berens (1971-1972) noted that the first step in selecting a vendor was to determine what decision criteria are relevant in a given supplier selection situation. According to Davidson and Doody (1966), there are seven factors which retailers should consider when selecting a supplier: merchandise suitability, prices, terms, delivery dates, vendor distribution policies (i.e., exclusive, selective, or intensive), promotional assistance, and reliability.

Wagner, Ettenson, and Parrish (1989) examined vendor selection and added the criteria of reputation, quality, markup, origin, product fashionability, and selling history to their study. Using department store buyers in four product categories they found that vendor selection decisions were dominated by three criteria: selling history, markup, and delivery. A high markup potential was even suggested by Wagner, et al. (1989) to be more important than price in vendor selection. Berens (1971-1972) found that in men's fashion apparel markup was the third most important criterion when selecting a vendor.

Shim and Kotsiopulos (1991) reported that in a list of 24 vendor selection criteria items that potential markup ranked 8 th while price ranked 15 th. Items which relate to the vendors corporate image, such as, quality of the
merchandise, were ranked most important when selecting a vendor (Shim \& Kotsiopulos, 1991).

Hirschman (1981) noted that brand name is one of the most often cited product variables used to determine both merchandise salability and vendor selection. In her study, Hirschman found (in order or frequency) that department and chain store buyers used manufacturer's reputation, brand name, price, manufacturer size, selling history, quality of merchandise, innovativeness, and marketing when selecting a vendor. Department stores were found to use price and innovativeness most, while chain stores used quality, manufacturer size, selling and history, and marketability the most (Hirschman, 1981). In a comparison study of appliance and apparel buyers, Francis and Brown (1986) noted that both groups of buyers felt product quality was the most important criterion in vendor selection, followed by steady supply availability for appliance buyers and delivery for apparel buyers. In his model of Industrial Buyer Behavior, Sheth (1973) described how delivery and quality impact vendor selection for industrial buyers.

## Maintained Markup Percentage of National and Private Brands

Maintained markup percentage, a commonly used ratio by retail buyers (Anthony \& Jolly, 1991), is used to help explain the net revenues earned by a product and the performance of the retail buyer. Maintained markup percentage is the final markup percentage obtained for a product and is calculated as the difference between the total retail value of the merchandise and reductions (i.e., shortages and markdowns) minus the cost of merchandise sold divided by net sales (Kneider, 1986; Hathcote, 1989/1990) .

In 1985, Gifford and Stearns surveyed retail executives from Sheldon's Retail Directory and professors of retailing and marketing who were members of the American Collegiate Retailing Association (ACRA). The purpose of this study was to identify which financial ratios were important for determining corporate health and vitality. Results from the study provided a comprehensive list of 136 different financial ratios used by both groups, with 40 measures of profitability identified. Maintained markup ranked 15th in Gifford and Stearn's study. These researchers rationalized that the reason maintained markup did not receive a higher rank ordering was because it is a measure of product performance rather than firm performance.

Porter (1980) explained three generic competitive strategies used by firms to help them achieve market dominance and profitability: (1) overall cost leadership, (2) differentiation, and (3) focus. Overall cost leadership focuses on a low cost theme where a retail firm practices an "every day low cost" format. Differentiation involves "differentiating the product or service, thus creating something that is perceived industrywide as being unique" (Porter, 1980, p. 37). According to Porter (1980), one approach to differentiation is brand image. The third generic strategy, focus, aims to target a particular group, segment of the product line, or geographic market. According to Porter (1980), these three generic strategies can be used independently or in combination to assist firms in outperforming competitors.

The maintained markup percentage earned for apparel brands has been studied by retail firms, but this is proprietary information (William Davidson, personal communication, July 8, 1991).

An industry assumption is that private brands have a higher profit margin due to the shortening of the distribution channel and higher initial markups; however, no published research documents this fact ("Do private brands measure up?", 1991).

Although various techniques for measuring retail profitability have been reported in the literature (Curhan, Salmon, \& Buzzell, 1983; Ellis, 1990; Miller, 1981; Risch, 1986; Serpkenci, 1984/1985; Thompson \& Strickland, 1989), the literature is void of discussions related specifically to the maintained markup percentage of apparel brands. For example, a recent industry study (Standard \& Poor, 1991) estimated that the initial markup (i.e, the difference between the original retail price and the cost) on national brand apparel is between $50 \%-60 \%$ versus private brands which have an initial markup of between $65 \%-75 \%$. These figures however only represent the initial markup and do not indicate the maintained markup percentage earned for national and private apparel.

Hathcote (1989/1990) examined the maintained markup percentage earned for both domestic and imported apparel items. Her study identified differences in maintained markup for different types of merchandise and country of origin. Fairhurst and Fiorito (1990), in examining the impact of financial performance on retail buyer's decisions, used gross margin return on inventory investment (GMROI) as a measure of profitability. They found that type of merchandise (i.e., junior apparel), two personal attributes of the buyer (i.e., job experience and training), and type of buying decision (i.e., modified rebuy) were major influences on the financial performance of apparel buyers.

The maintained markup percentage earned for both national and private apparel brands is an area of interest for the retail firm. National brands provide the retailer with known products which consumers desire, but typically at a lower markup. Private brand programs provide retailers with the opportunity to capture portions of the market when business is sluggish or when the competition is fierce and vulnerable (Hershlang, 1983) and to achieve more control over and higher profit margins (Anthony \& Jolly; 1991; Flately, 1989). Anthony and Jolly (1991) found that the type of brands (i.e., national or private) to stock is a question of profit and assortment which is influenced by upper management's anticipation of the margins which can be earned.

## Summary

The volatile nature of the retail industry and uncertain economic conditions have led to a more focused analysis of profits and the factors which contribute to profitability, such as maintained markup percentage. At the store level, retailers are examining which brand mix, brands, and vendors contribute the most to the store's financial success. Brand mix, merchandise requirements, such as store size, and supplier accessibility criteria, such as product quality, are items which the literature has cited as impacting profitability.

The continued debate over the importance and usage of national and private apparel brands has led to the need for investigation of factors which affect maintained markup. The maintained markup percentage earned for a brand is an important financial ratio to examine because of its direct effect on profitability. Knowledge of the affect of brand mix, merchandise requirements, and supplier accessibility factors on the
maintained markup of national and private apparel brands should benefit retailers in making brand decisions.

## CHAPTER III

RESEARCH METHODOLOGY

Presented in this chapter are (1) hypotheses, (2) research design including instrument development, sample selection, and the field test, (3) data collection, (4) data analysis procedures, and (5) operational definitions.

## Hypotheses

Based on the preceding review of literature, the following null and alternative hypotheses were formulated.

H01: Brand mix, merchandise requirements, and supplier accessibility factors will not affect the maintained markup percentage for women's national apparel brands.

HA1: At least one of brand mix, merchandise requirements, and supplier accessibility factors will affect the maintained markup percentage for women's national apparel brands.

H02: Brand mix, merchandise requirements, and supplier accessibility factors will not affect the maintained markup percentage for women's private apparel brands.

HA2: At least one of brand mix, merchandise requirements, and supplier accessibility factors will not affect the maintained markup percentage for women's private apparel brands.

## Research Design

The survey research method provides a descriptive and an analytical study. The descriptive study provides information on apparel attributes for national and private apparel brands and a current demographic profile of retail buyers. The analytical study examines brand mix, merchandise requirements (MR), supplier accessibility (SA) factors and their effect on the profitability of national and private apparel brands.

## Instrument Development

A self-administered questionnaire booklet, six pages in length, was developed consisting of four parts: (1) apparel attributes, (2) maintained markup percentage, (3) supplier accessibility, and (4) brand mix, merchandise requirements, and demographics (Appendix A).

Apparel attributes. Part I of the questionnaire was adapted from Hathcote $(1989 / 1990)$ and asked the respondent to select two recent purchase orders from the Spring/Summer 1991 season. Instructions indicated that one purchase order should be for a national brand and the other should be for an equivalent private brand. After selecting the purchase orders, the respondent was then asked to circle the apparel product category which the item(s) purchased represented and to keep the purchase orders selected and the apparel product category circled in mind when answering the survey.

The six questions in part I of the instrument related to three areas of apparel attributes for the apparel product category selected by the buyer: (1) quality of the apparel product category selected, (2) the percentage of national and private apparel brands purchased, and (3) the fashionability of national and private brands purchased. With the exception of question number 2 (interval level data), all questions in this section represented nominal level data.

Maintained markup. Part II of the questionnaire was adapted from Hathcote (1989/1990). This section contained 10 questions (Q14-18, Q20, Q22-Q25) which were used to calculate the maintained markup percentage earned for a national and private apparel brand (interval level data) and three questions (Q13, Q19, Q21) which were used for descriptive statistics
(nominal level data except for Q19 which was interval level data). Respondents were asked to select two purchase orders from the Spring/Summer 1991 season. Instructions in the questionnaire requested that one purchase order be for a national brand and one for an equivalent private brand from the apparel product category which the respondent indicated he or she purchased. The first question in this section (Q12) asked the respondent to circle the item(s) which described the positioning (i.e., strategic role) of the product which they had selected.

Supplier accessibility. Part III of the questionnaire represented 28 Vendor Selection Criteria (VSC) items which were used to measure the independent variable supplier accessibility. The first 26 items were developed by Fairhurst and Fiorito (1990). The last two items (Q27 \& Q28) were added based on comments made by Dr. Jack Gifford, Marketing Department Chair at Miami of Ohio University, who noted that consumer demand for a vendor (Q27) and markdown allowance (Q28) were two important VSC items which were not included in Fairhurst and Fiorito's (1990) instrument.

These 28 VSC items related to the importance of competitive structure ( $n=11$ ), relative marketing effort ( $n=8$ ), and corporate image ( $n=9$ ) in selecting a vendor (Appendix B). A Likert scale (1-3 rating) with 1 representing no importance to three representing very important was used (interval level data). A three point scale, as opposed to a five or seven point scale, was selected because it was perceived that retail buyers would respond more accurately to limited choices.

Brand mix, merchandise requirements, and demographics. Part IV of the questionnaire was adapted from Fairhurst and Fiorito (1990) and contained brand mix, merchandise requirements and demographic items. Brand mix (Q36) was measured as the percentage of sales revenues, based on total store sales, generated by the apparel product category for the Spring/Summer 1991 season and represents interval level data. Merchandise requirements were measured by retailer type, size, location (nominal level data), and type of decision (interval level data). The demographic section (nominal level data) contained questions pertaining to the buyer's gender, age, highest degree earned, years of retail buying experience, and years with the current firm.

The questionnaire was reviewed by four retail experts, two from academic institutions and two from retail firms. Dr. Jack Gifford at Miami University reviewed the questionnaire and made suggestions for additions to Part III and the clarification of items related to store size, number of employees, highest degree earned, and years of retail buying experience. Mrs. Fay Gibson, lecturer at UNC-Greensboro with 20 years combined experience in retail buying and store ownership, reviewed part II of the questionnaire and the calculations which were used to obtain maintained markup percentage. Mr. Byron Bergren, Senior Vice President of Stores and Merchandising for Belk Store Services, and Ms. Irene Scorupa, buyer of women's sportswear for Cato Corporation, each reviewed the entire questionnaire for clarity of wording and ease in answering questions.

## Sample Selection

The sample of 572 department stores and 1,332 women's sportswear buyers was selected from Sheldon's Retail Directory (1991). Sheldon's (1991) is a comprehensive directory of 4000 department and specialty retail firms in the United States and Puerto Rico. The directory lists by state the name of the firm, its address and telephone number, the name of the company president, top management, and the name of the buyer for each category of appare1, and other products purchased by the firm. Information for the directory is gathered from an annual national survey conducted by Phelon, Sheldon, \& Marsar, Incorporated.

Selection of the sample included five steps which were used to help identify a more homogeneous and manageable sample (Table 1). Step one involved eliminating all stores which did not sell apparel. Eliminated from the study were shoe, accessory, jewelry, fabric, furniture, housewear, and drug stores. Step two necessitated eliminating stores which did not sell women's apparel, which included: men's and children's specialty stores, maternity, bridal, and fur stores. In step three, seven criteria were used to eliminate stores. For example, stores which did not list the names of apparel buyers were eliminated from the sample. Step four involved eliminating specialty stores and step five eliminated stores which did not sell sportswear.

Table 1
Five Steps Used to Select the Sample
Number of buyers in Sheldon's Retail Directory ..... 4,000
Step 1: Eliminated non-apparel stores ..... - 1,075
Step 2: Eliminated stores not purchasing women's apparel ..... 2,925 ..... - 1,112
Step 3: Seven criteria used for eliminating stores
No buyers names listed ..... 7$\overline{1,813}$
Women's apparel not purchased (a) ..... 74
No buyer's located at store location listed (b) ..... 87
Leased department for women's apparel ..... 2
Manufacturing and buying services (c) ..... 5
Known to be out of business ..... 4
The Territory of Puerto Rico (d) ..... 15
Total number eliminated in step 3 ..... 194
Step 4: Eliminated specialty stores ..... - 1,0081,619
611Step 5: Eliminated department stores notpurchasing women's sportswear39
Note: These five steps resulted in a sample size of 572 stores and 1,332 women's sportswear buyers.
(a) The classification used for these stores was misleading; thus, these stores were not eliminated in step 2.
(b) These firms had centralized buying where one unit in the chain purchased for all other units or a portion of units.
(c) These firms were classified as stores, but were actually manufacturing firms owned by the retailer or resident buying offices.
(d) Puerto Rico was eliminated because of language barriers and the additional mailing costs which would be incurred.

## Field Test

The questionnaire was field tested with a convenience sample of six buyers from Belk Brothers Company (a department store chain). None of the buyers who participated in the field test were included in the final sample. The field test was conducted to ascertain: (l) clarity and readability of instructions and questions, (2) modifications needed in the format and other areas which could hinder completion of the questionnaire, and (3) the time necessary to complete the questionnaire.

Responses to Section II of the questionnaire, which contained questions used to calculate the maintained markup percentage earned for brands, was carefully examined for accuracy and ease in responding to help better ensure buyer cooperation. After completion of the questionnaire, respondents were asked to complete an evaluation of the instrument (Appendix C).

## Data Collection

Data were collected via a mail questionnaire sent to a sample of 572 department stores. A six page $61 / 2^{\prime \prime} \times 81 / 2^{\prime \prime}$ booklet format was used for the questionnaire and was sent with a cover letter and stamped return envelope. First class postage and a printed return address was provided on both the $9 \prime \prime \times 6^{\prime \prime}$ inside return envelope and the $9 \prime \prime \times 12$ " envelope addressed to the subject to insure proper handling and possible forwarding of the mailing piece. The seven week data collection process began September 5, 1991 and ended October 14, 1991 (Table 2).

Table 2
Timetable for Data Collection

Week 1--September 5, 1991, Sent out pre-notification letter
Week 3--September 16, 1991, Sent out cover letter, survey, and selfaddressed return envelope

Week 5--September 30, 1991, Sent out follow-up letter to nonrespondents and a second copy of the survey and a selfaddressed return envelope

Week 7--October 14, 1991, Followed up with either telephone calls, fax, or letters to stores which had requested either more information about the study or additional time to complete the study.

Since the Christmas selling season focus usually begins around October 30th, all contacts with stores were completed prior to October 15, 1991 to help ensure a higher response rate. The pre-notification letter (Appendix D) explained the study and requested cooperation and was mailed to General Merchandise Managers (GMM's) or owners/managers of department stores. A telephone and a fax number were included in the cover letter so that those having questions about the study or who do not want their buyers to participate in the study could contact the researcher. A cover letter explaining the study (Appendix D) and copies of the survey for all women's sportswear buyers were mailed to all stores except those notifying the researcher that they did not want to participate in the study. The GMM or store owner/manager was asked to give the survey to all women's sportswear buyers and to encourage their cooperation in completing the survey by the specified date. A self-addressed return postage envelope was included and the GMM was encouraged to have the buyers return the survey in the envelope provided. As an incentive for completing and
returning the survey, all cover letters and surveys indicated that a summary of the results would be sent to respondents who requested a copy of the results on their return envelope. An identification number was stamped on the bottom right corner of questionnaires before mailing to identify the returned questionnaire for follow-up purposes.

In week 5 a follow-up letter (Appendix D) and a second copy of the survey and return envelope were sent to stores who had not returned any completed questionnaires. In week 7 and during the entire data collection process, stores were contacted who had requested either additional information about the study or additional time to complete the survey. Stores which requested a summary of the results will be sent an executive summary in late Spring 1992.

## Response Rate and Useable Sample Size

Determining the response rate and the useable sample size involved a six-step process. These six steps were used to 1) eliminate stores which were not interested in participating, 2) remove nonuseable returned surveys, 3) ensure independent observations, and 4) guard against a varying sample size. Following the mailing of the 572 prenotification letters to Divisional Merchandise Managers and store owners, 67 stores ( $11.7 \%$ ) responded that they were unable to participate in this study. Appendix $E$ lists various reasons given by stores for declining to participate. The removal of these stores from the sample (step 1) resulted in an adjusted sample of 505 department stores and 1208 sportswear buyers which was used for mailing purposes (Table 3).

Table 3
Six Steps Used to Determine the Useable Sample


Returned surveys (step 2) were examined and respondents which provided incomplete information or omitted Part II of the survey (i.e., the maintained markup percentage section), were eliminated (step 3). This rate of response ( $13 \%$ useable return rate) is not unusual for research dealing with retail buyers (Fiorito \& Greenwood, 1986; Shim \& Drake, 1991; Shim \& Kotsiopulous, 1991). The returned useable sample ( $\mathrm{n}=159$ ) represented multiple store responses, leading the researcher to question whether or not multiple surveys from a single store represented independent observations. Steps four and five were used to help ensure that multiple observations from a single store represented independent observations.

In step four, one survey was randomly selected from those 25 stores which returned multiple useable surveys. Since step four resulted in the removal of 73 observations, a fifth step was used in an attempt to increase the useable number of samples. Step five involved randomily selecting one useable survey from each apparel product category for stores which returned multiple surveys. Initial examination of the sample derived in step five indicated missing values for some of the variables. Knowing that missing values would cause the sample size to vary each time a different statistical procedure was conducted, one final reduction was made to the sample. In step six two command files were created, one for national brands and one for private brands, and a missing value statement was used to remove observations which had missing values. These two overlapping command files represented national brands and private brands, resulting in a sample size of 83 for the national brand and 64 for the private brand. The 83 surveys used for the national brand did include the

64 surveys used for the private brand. Although this final procedure did remove 37 observations, it eliminated the problem of the varying sample size.

Data Analyses Procedures

## Preparing the Dependent and Independent Variables

Dependent variables. Each buyers' response to questions for the national brand in Part II were used to calculate maintained markup percentage, the dependent variable, (Table 4; Appendix F) for the 83 national brand responses (HO1). Questions related to the purchase, delivery, promotion, and selling of the national brand were used to determine the maintained markup percentage for national brands. Interval level data items which were used in the maintained markup percentage calculations were questions 14-18, 20, and 22-25. The maintained markup percentage calculated for national brands was designated as the dependent variable in further analyses. This same procedure was repeated to create the maintained markup percentage for the 64 private brand responses (HO2).

Independent variables. Three groups of independent variables were examined in the current study: brand mix, merchandise requirements, and supplier accessibility factors. Brand mix is the proportion of apparel product category revenues generated for national brands with the remaining percentage of apparel product category revenues due to private brands (Q35). Brand mix was operationalized as the percentage of national brand revenues generated for the apparel product category in the Spring/Summer 1991 season.

Table 4
Formula for Maintained Markup Percentage (a)

```
Maintained Markup Dollars (MM\$) = (RP - RED) - CMS
    \(R P=\) Total original retail value of merchandise \(=(Q 14 * Q 17)\)
```

    RED=Total Reductions including
        1) Shortages and damages at retail (Q18)
        2) Advertised Markdowns: (Original selling price (Q17)
        Advertised/promotional price (Q22) * number of items
        sold at advertised price (Q23)
    3) Markdowns: (Original selling price (Q17) - Markdown price (Q24) * Number of items sold at markdown price (Q25).

CMS=Cost of Merchandise Sold = NP * PP + FI
NP=Number of items purchased on the purchase order (Q14)
$\mathrm{PP}=$ Purchase price (Q15)
FI=Transportation/insurance cost (Q16)
Maintained Markup Percent= MM\$/NS
NS=Net Sales: (Q17*Q20) + (Q22*Q23) $+(Q 24 * Q 25)$

Source: Hathcote, J. M. (1990). Impact of apparel imports on retail profitability. (Doctoral dissertation, University of Tennessee, 1989). Dissertation Abstracts International, 51, 932A.
(a) See Appendix $F$ for a numerical example

Frequencies and means were computed for all variables. For the six merchandise requirements (i.e., retiailer type, Q27; retailer size, Q42; retailer location, Q30; type of merchandise, Part I; product positioning, Q12; and type of decision, Q32) only the variable product positioning was constructed after reviewing frequencies for this item. Product positioning (Q12) was operationalized as the strategic role of the national and private brands and had three levels: $0=$ no strategic role (i.e., no response to either item 4 or 5 ), $1=10 w$ profit (i.e., selected only item 4), and $2=$ high profit (i.e., selected only item 5).

To prepare the independent variable supplier accessibility (Q26), Principal Components Factor Analysis with Varimax Rotation was used to reduce the dimensionality of the 28 vendor selection criteria items (VSC). The objective of Principal Components Factor Analysis is to transform a set of interrelated items into a set of unrelated linear combinations of those variables (SAS Statistical Manual, 1988). A scree plot was used to help determine the number of factors which should be retained. Items that had factor loadings of above .50 and below .25 on all other factors were retained. Factor reliability scores using Cronbach's alpha coefficient were calculated and only those factors with alpha's higher than .50 were retained. Reliable factors were used as the refined independent variable supplier accessibility factors.

## Refining of the Data Set

A fundamental assumption of Analysis of Covariance (ANCOVA), the main analysis selected to test the two null hypotheses, is that the data points represent independent observations. If only one buyer's response per store were used to test the hypotheses, it would be reasonable to
assume that the data represented independent observations. However, in statistical analysis it is helpful to use as large a sample as possible. Therefore, the correlation between profitability for different apparel product categories within a store was tested to determine if profits earned for product $A$ were significantly correlated with (i.e., not independent of) profits earned for product B.

To conduct the correlation procedure, a special data set was created. This sample data set contained only one randomly selected observation for each of two apparel product categories in stores which had multiple responses. Stores which had multiple buyers who represented only one apparel product category were not included in this data set. For each store included in the data set, the maintained markup percentage of each apparel product category item for the national brand was calculated. This resulted in a data set of 16 pairs of maintained markup percentages for the national brand. The first member in each pair was called MMPNB1 (i.e., maintained markup percentage for the first national brand item) while the second member in each pair was identified as MMPNB2 (i.e., maintained markup percentage for the second national brand). The correlation between maintained markup percentage for each pair of observations within a store was calculated. Results for the national brand pair indicated that maintained markup percentages between pairs of national brand items in the same store were not correlated ( $\underline{R}=-.11$; $\mathrm{p}=.68$ ) (Appendix G).

The same procedure used for the national brand was used for the private brand and resulted in 13 pairs of maintained markup percentages which were identified as MMPPB1 and MMPPB2 (i.e., maintained markup
percentage for the first and second member of each private brand pair). Correlations for the pairs of private brand responses were larger than for the national brand ( $\underline{R}=.70$ ), and the $p$-value was small enough ( $p=.016$ ) to suggest that the null hypothesis (i.e., $H 0: \underline{R}=0$ ) should be rejected. Despite this evidence suggesting that maintained markup percentages between pairs of private brand items in the same store are correlated, the researcher believed that the data points represented independent observations and decided to use all of the private brand observations and to treat them as independent observations. Based on these results from the correlation analysis for national and private brands, it was determined that it is reasonable to assume that the maintained markup percentage of different apparel product categories within the same store represent statistically independent observations.

## Procedures Used to Test Hypotheses

The SAS General Linear Model (GLM) was selected as the procedure to use in testing the two null hypotheses. Analysis of Covariance (ANCOVA) was used to test the two hypotheses because both nominal level variables, such as retailer type and size, and interval level variables, such as type of decision and supplier accessibility factors, can be used together in this statistical procedure.

A three step process was used to test the hypotheses. First, an initial ANCOVA was computed which included the dependent variables national brand maintained markup percentage and private brand maintained markup percentage and the 13 independent variables (Table 5). If the overall ANCOVA for the model was significant at the . 05 level, Type III Sum of Squares, $E$-values and $\underline{p}$-values for each independent variable were examined. Independent variables which were statistically significant at the .05 level were retained and were used in step two.

Table 5
Items Used to Test Hypotheses

|  | Dependent Variable (a) | Independent Variables | Level (b) |
| :---: | :---: | :---: | :---: |
| H01: | Maintained Markup Percentage for the National Brand | Brand Mix (Q35) | Nominal |
|  |  | Merchandise Requirements |  |
|  |  | 1. Retailer Type (Q27) | Nominal |
|  |  | 2. Retailer Size (Q42) | Nominal |
|  |  | 3. Retailer Location (Q30) | Nominal |
|  |  | 4. Type of Merchandise (c) | Nominal |
|  |  | 5. Product Positioning (Q12) | Nominal |
|  |  | 6. Type of Decision (Q32) Supplier Accessibility | Interval (d) |
|  |  | Factors (Q26) (e) | Interval |
| H02: | Maintained Markup Percentage for the Private Brand | Brand Mix (Q35) <br> Merchandise Requirements | Nominal |
|  |  | Merchandise Requirements <br> 1. Retailer Type (Q27) | Nominal |
|  |  | 2. Retailer Size (Q42) | Nominal |
|  |  | 3. Retailer Location (Q30) | Nominal |
|  |  | 4. Type of Merchandise (c) | Nominal |
|  |  | 5. Product Positioning (Q12) | Nominal |
|  |  | 6. Type of Decision (Q32) I | nterval (d) |
|  |  | $\frac{\text { Supplier Accessibility }}{\text { Factors (Q26) (e) }}$ | Interval |

(a) The dependent variable represented interval level data. For an example of how maintained markup percentage was calculated see Table 4 or Appendix F.
(b) Level refers to level of the data (i.e., either nominal or interval).
(c) For Type of Merchandise see Part I instructions.
(d) Type of Decision had three items: new task, modified rebuy, and straight rebuy.
(e) Four Supplier Accessibility Factors were identified: Competitive Structure, Relative Marketing Effort, Vendor Characteristics, and Corporate Structure. See Table 8 which further explains these factors.

The second step involved another ANCOVA which included only those independent variables in the model which were statistically significant in step 1 and the calculation of Least Square Means and Estimates. Least Square Means were used to examine the mean difference in maintained markup percentage between the levels of the independent nominal level variables. An estimate statement was used to examine the estimated coefficient for each of the interval level variables. In step three, contrasts were used to further investigate the differences in maintained markup percentage which were observed as a result of the Least Square Means procedure.

## Operational Definitions

Advertising Allowance--Funds provided by the vendor for the purpose of promoting (i.e., advertising) an apparel item (Q19).

Advertised/Promotional Price--A reduction in the original retail price for the purpose of promoting the product (Q22).

Apparel Attributes--Six items which describe the apparel product category selected by the buyer (Q1-Q2, Q6-Q9).

Apparel Product Category--Four types of merchandise of women's sportswear apparel which a retail buyer may purchase: shirts or blouses, sweaters, slacks, and skirts (Part I instructions). These four categories are classified as sportswear and represent the merchandise requirement type of merchandise.

Basic/Staple Item--A product which the buyer purchases on a regular basis, usually regardless of the season (Q6, Q7).

Brand Mix--The proportion of sales revenues generated in an apparel product category during the Spring/Summer 1991 season for a national brand.

Classic--A particular style of apparel which continues to be accepted over a period of time ( $Q 8, \mathbf{Q 9}$ ).

Demographics--A description of the population of buyers including: gender, age, education, years of retail buying experience, and years buying for the current firm (Q37-Q41).

High Fashion--A prevailing style of apparel at a particular time which is purchased by a minority of people (Q8, Q9).

Fashion--A popular style at a particular time (Q8, Q9).

Maintained Markup Percentage--A measure of the performance of national and private apparel brands. Maintained markup percentage represents the difference between the total retail value of the merchandise and total reductions (i.e., shortages and markdowns) minus the cost of goods sold divided by net sales (see Table 4 and Appendix F).

Markdown Clearance Price--A reduction in the original retail selling price for the purpose of selling end of the season merchandise (Q24).

Mass Fashion--A style at a particular time which is purchased by the majority of people (Q8, Q9).

Modified Rebuy--The purchase of items purchased in the past but not on a recently or on a regular basis (Q32).

New/Fashion Item--A fashion apparel product which was new for the Spring/Summer 1991 season and is not purchased on a regular basis (Q6, Q7).

New Task--The purchase of items not previously purchased by (Q32).
Original Retail Price--The first retail price of an apparel item (Q17). Product Mix--Percentage of national brands sold in a specific apparel product category during the Spring/Summer 1991 season (Q35).

Product Positioning--The strategic role of national and private brands as measured by no defined strategic role, high profit, or low profit (Q12).

Purchase Price--The price or cost to the retail firm for an apparel item (Q15).

Retailer Location--Refers to the location orientation of the firm (international, national, regional, or local) (Q30).

Retailer Size--Annual sales volume of the firm (Q42).

Retailer Type--A classification of a retail firm and refers to whether or not a department store is a chain (Q27).

Sportswear--A classification of apparel products which includes shirts or blouses, sweaters, slacks, and skirts (Sheldon's Retail Directory, 1991) (Part I instructions).

Straight Rebuy--The purchase of an item which is purchased frequently and regularly (Q32).

Supplier Accessibility (SA)--The importance of 28 items in selecting a vendor (Q26, Appendix B).

Type of Decision--The proportion of buying activities which are new task, modified rebuy, and straight rebuy (Q32).

Iype of Merchandise--The apparel product category purchased by the retail buyer (See apparel product category).

## CHAPTER IV <br> PRESENTATION AND INTERPRETATION OF RESULTS

Presentation and interpretation of the results are given in this section under the following headings: (1) Description of Respondents, (2) Maintained Markup Percentage of National and Private Brands, (3) Supplier Accessibility Factors, (4) Testing of the Hypotheses, and (5) Summary of the Results.

## Description of Respondents

## Demographics

Frequencies and percentages related to the demographic characteristics of the sportswear buyers for this sample are given in Table 6. The demographic characteristics of this sample of national and private buyers is similar to the sample of apparel buyers studied by Shim and Kotsiopulos (1991).

National brand apparel buyers. Department store national brand sportswear buyers ( $n=83$ ) ranged in age from 24-76, representing 48 states in the United States. The majority of the respondents were female ( $65.1 \%$ ); the highest frequency of respondents were between $30-34$ years of age (25.6\%). Most of these buyers also indicated that they had completed a Bachelor's degree ( $70.4 \%$ ). The retail buying experience of the buyers was varied, with the largest percentage of buyers indicating that they had 6-10 years of retail buying experience (26.5\%). The highest percentage of these buyers (33.7\%) had 2-5 years buying experience in their current firm.

Table 6
Demographic Characteristics of Respondents

| Characteristic | National Brand <br> Frequency Percent | Private Brand <br> Frequency Percent |
| :--- | :---: | :---: |

Age

| Below 30 | 15 | 18.1 | 10 | 15.6 |
| :--- | ---: | ---: | ---: | ---: |
| $30-34$ | 20 | 24.6 | 17 | 26.6 |
| $35-39$ | 14 | 16.9 | 12 | 18.8 |
| $40-49$ | 16 | 19.3 | 12 | 18.8 |
| $50-$ over | 13 | 15.7 | 7 | 10.9 |
| Missing | $\underline{5}$ | $\frac{5}{83}$ | $1 \underline{6.0}$ | $\mathrm{n}=\frac{6}{64}$ |
|  |  | $\frac{9.3}{100.0}$ |  |  |

## Education

| High School diploma | 9 | 11.1 | 7 | 11.0 |
| :---: | :---: | :---: | :---: | :---: |
| Technical School or |  |  |  |  |
| Community College | 6 | 10.8 | 3 | 4.6 |
| Bachelors | 57 | 68.7 | 48 | 75.0 |
| Masters | 4 | 4.8 | 3 | 4.6 |
| Advanced degree | 2 | 2.4 | 1 | 1.6 |
| Other | 3 | 3.7 | 1 | 1.6 |
| Missing | 2 | 2.4 | 1 | 1.6 |
|  | $n=83$ | 100.0 | $n=\overline{64}$ | 100.0 |
| Years of buying experience |  |  |  |  |
| Less 2 years | 8 | 9.6 | 3 | 4.7 |
| 2-5 years | 13 | 15.7 | 10 | 15:6 |
| 6-10 years | 22 | 26.5 | 20 | 31.3 |
| 11-15 years | 21 | 25.3 | 17 | 26.6 |
| over 16 years | $\frac{19}{83}$ | $\underline{22.9}$ | $\underline{14}$ | $\underline{21.8}$ |
|  | $n=83$ | 100.0 | $n=\overline{64}$ | 100.0 |
| Years buying for$\qquad$ |  |  |  |  |
| Less 2 years | 17 | 20.5 | 12 | 18.8 |
| 2-5 years | 28 | 33.7 | 25 | 39.1 |
| 6-10 years | 18 | 21.7 | 15 | 23.4 |
| 11-15 years | 8 | 9.6 | 5 | 7.8 |
| over 16 years | 12 | 14.5 | 7 | 10.9 |
|  | $n=\frac{12}{83}$ | 100.0 | $n=\overline{64}$ | 100.0 |

Private brand apparel buyers. Private brand sportswear buyers ( $n=64$ ) were predominately female ( $71.9 \%$ ). Most of these buyers were also between 30-34 years old (29.4\%). A large percentage of these buyers (76.2\%) indicated that they had earned a Bachelor's degree. The retail buying experience of these buyers varied, with the highest percentage having 6-10 years of retail buying experience (31.3\%). Buying experience with the current firm also varied, with the highest percentage of buyers indicating 2-5 years of experience with their current firm (39.1\%). Brand Mix

Most of the gross revenues generated in the apparel product category for the Spring/Summer 1991 season were from national brands rather than private brands with the mean response being higher for national brands than private brands. In the national brand file, the mean brand mix was 73 for the national brand and 25 for the private brand. Results were similar for the private brand file, where the mean brand mix was 63 for the national brand and 33 for the private brand. These finding are similar to industry studies ("PL: Winners and Sinners", 1990; Standard \& Poor, 1991) and empirical literature (Salmon \& Cmar, 1987) which reported that the goal of most department stores is to have between $75 \%$ to $80 \%$ of its total sales from national brands and $20 \%$ to $25 \%$ from private brands. Merchandise Requirements

National brand apparel buyers. Thirty-two percent of the buyers purchased for department stores that had annual sales of between \$1-10 million (Table 7). Over half of the buyers (51.8\%) indicated that the type of retailer they purchased for was a chain. The mean number of stores in a chain operation was 67.

Table 7
Merchandise Requirements

| Variable | National Brand <br> Frequency Percent | Private Brand <br> Frequency Percent |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Retailer Size |  |  |  |  |
| Under $\$ 250,000$ | 3 | 3.6 | 1 | 1.6 |
| $\$ 251,000-\$ 500,000$ | 8 | 9.6 | 4 | 6.3 |
| $\$ 501,000-1 \mathrm{million}$ | 15 | 18.1 | 9 | 14.0 |
| $\$ 1 \mathrm{million}-\$ 10 \mathrm{million}$ | 27 | 32.5 | 21 | 32.8 |
| $\$ 10-\$ 50 \mathrm{million}$ | 14 | 16.9 | $\underline{13}$ | 20.3 |
| Over $\$ 50 \mathrm{million}$ | $\underline{16}$ | $\underline{19.3}$ | $\underline{16}$ | $\underline{25.0}$ |
|  | $\mathrm{n}=83$ | 100.0 | $\mathrm{n}=64$ | 100.0 |
| Retailer Type |  |  |  |  |
| Chain | 43 | 51.8 | 33 | 51.6 |
| Single Store | $\underline{40}$ | $\underline{48.2}$ | $\underline{31}$ | $\underline{48.4}$ |
|  | $\mathrm{n}=83$ | 100.0 | $\mathrm{n}=64$ | 100.0 |

Retailer Location

| International |  | 0 | 0.0 | 0 | 0.0 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| National | 6 | 7.2 | 5 | 7.8 |  |
| Regional | 43 | 51.8 | 38 | 59.4 |  |
| Local | $\underline{34}$ | $\underline{41.0}$ | $\underline{31}$ | $\underline{32.8}$ |  |
|  | $n=83$ | 100.0 | $\mathrm{n}=64$ | 100.0 |  |

Type of Merchandise

| Shirts or Blouses | 34 | 41.0 | 28 | 43.8 |
| :--- | ---: | ---: | ---: | ---: |
| Sweaters | 12 | 14.5 | 10 | 15.6 |
| Slacks | 22 | 26.5 | 16 | 25.0 |
| Skirts | $\underline{15}$ | $\underline{18.0}$ | $\underline{10}$ | 15.6 |
|  | $n=83$ | 100.0 | $n=64$ | 100.0 |

Product Positioning
No Strategic Role
Low Profit
42
50.6
$25 \quad 39.1$
High Profit
18
21.7
34.7

23
27.7
$\mathrm{n}=83 \quad 100.0$
$\mathrm{n}=64 \quad 100.0$

## Type of Decision(a)

(a) Type of decision represented interval level data and contained three items: New Task, Modified Rebuy, and Straight Rebuy.

Most of the buyers considered their store's location to be regional (51.4\%) or local (41\%) with no international stores being represented.

The highest percentage of national brand sportswear buyers purchased shirts or blouses (41\%), while slacks or pants were the second most purchased type of merchandise (26.5\%). For the merchandise requirement product positioning, over half of the buyers reported no strategic role (50.6\%) which was followed by high profit and then $10 w$ profit. The majority of the purchase decisions made by national brand buyers were new task (mean percentage $=45.4$ ) followed by straight rebuy (mean percentage $=31.73$ ) and moderate rebuy (mean percentage $=22.22$ ). As suggested by Fairhurst \& Fiorito (1990), the mean response was probably highest for new task purchase decisions because a large percentage (68\%) of national brand buyers described their merchandise as new fashion.

Private brand apparel buyers. Merchandise requirements for the private brand buyers were similar to the requirements of the national brand buyer, with a third indicating that the store's annual sales volume was $\$ 1-10$ million. In addition, most of the buyers purchased for chain stores (51.6\%) . The mean number of stores in a chain was 76 stores, and a relatively high percentage (59.4\%) of respondents classified their location as regional. Shirts were purchased most frequently (43.8\%) followed by slacks (25\%).

Over half of the private brand buyers (56.3\%) positioned their private brand as a high profit, a finding that differed from the national brand. This finding supports the industry assumption that one of the reasons for purchasing private brands is in order to achieve higher profit margins ("PL: Winners and Sinners", 1990).

Mean scores indicated that the type of decision made most often by private brand buyers was new task (mean percentage $=48$ ) followed by straight rebuy (mean percentage $=28$ ) and modified rebuy (mean percentage $=23$ ). Although $64.1 \%$ of the respondents described their private brands as representing basic or staple merchandise, perhaps the mean score for private brand decisions was highest for new task because buyers are more involved in product development and sourcing decisions for private brands than they are for national brands.

Maintained Markup Percentage of National and Private Apparel Brands
The maintained markup percentage earned was calculated for each buyer's national and private brand. The mean maintained markup percentage was 56.5 for the national brand and 66.7 for the private brand. The higher maintained markup for the private brand is consistent with industry sources, which claim that one reason retailers stock private brands is for the purpose of achieving higher profit margins ("Do private brands measure up?", 1991).

The maintained markup percentages ranged from minus $100 \%$ to $275 \%$. Unusually large percentages, (i.e., greater then 100\%) occurred in situations where the vendor had paid all transportation costs, no goods were damaged during transit, and/or a large proportion of the goods were sold at full retail. Lower than normal maintained markup percentages (i.e., less then zero \%) occurred when the retailer incurred an unusually high cost of goods sold, if only a small proportion of the goods purchased were sold, or if the majority of the goods sold were at dramatically marked down prices. These findings of extreme maintained markup values are not unusual in the retail industry, and can be explained by
differences between specific products (i.e., shirts or skirts), the relationship between vendors and retailers, and current economic conditions. Porter's (1981) categories of three generic competitive strategies may also be used to better explain the observed differences in maintained markup percentage. Firms having extremely low maintained markup percentages possibly were operating on a overall cost leadership strategy, while those firms with unusually high maintained markup percentages were operating on a differentiation or focus strategy.

## Supplier Accessibility Factors

Principal Components Factor Analysis with Varimax Rotation was used on the 28 Vendor Selection Criteria items. Factor loadings, the percent of variance explained by each factor, and Cronbach's alpha coefficient for resultant factors are listed in Table 8. The 28 Vendor Selection Criteria items yielded four factors, including 10 of the 28 items. These four factors were used as the refined supplier accessibility factors in subsequent analyses.

Factor one was labeled Competitive Structure. Two variables were retained with factor loadings of .70 and .74. Competitive Structure is based on issues related to price and takes into account the importance of the markdown allowance and promotional assistance offered by the vendor. The two criteria which were identified in the Competitive Structure factor are important because special allowances should be considered by the retailer when selecting a vendor (Davidson \& Doody, 1966).

Table 8
Supplier Accessibility Factors

(a) Cronbach, L. J. (1951, September). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.

Factor two, Relative Marketing Effort, was composed of three Vendor Selection Criteria items with factor loadings between . 63 and .80 . Relative Marketing Effort describes the importance of the marketing efforts made by vendors in relation to minimum order requirements, packaging, and product variety.

Factor three, Vendor Characteristics, was composed of three items with factor loadings between . 64 and .77. Vendor Characteristics describes the importance of information related to personal characteristics of the vendor as well as the characteristics of the product's quality. Retaining the item product quality in factor three supports the findings of Wagner, Ettenson, and Parrish (1989) who identified product quality as one of the criterion used by retail buyers when selecting a vendor.

Factor four, Corporate Image, was composed of two items with factor loadings of .70 and .76. Corporate Image describes the importance of the reputation of the product and the vendor. When selecting a vendor, buyers will often judge the reputation of the firm by its products and sales personnel. The supplier's image is important to the buyer because of the important position the vendor and his products play in helping to make the store and the buyer a success. Previous researchers (Davidson \& Dooly, 1966; Wagner, Ettenson, \& Parrish, 1989) have found that the reputation of the vendor is an important criterion buyers use when selecting a supplier. The reputation of the product is also important because the buyer may make purchase decisions based on the reputation of the vendor's brand name products.

Three of the factors which were identified were consistent with the three supplier accessibility factors defined in Sheth's model: Competitive Structure, Relative Marketing Effort, and Corporate Image. The factor Vendor Characteristics, supports the findings of Fairhurst and Fiorito (1990) who identified this factor in their study of Sheth's model.

Testing of the Hypotheses

## Null Hypothesis 1

Brand mix, merchandise requirements, and supplier accessibility factors will not affect the maintained markup percentage for women's national apparel brands.

Analysis of Covariance (ANCOVA) was used to examine the effect of brand mix, merchandise requirements, and supplier accessibility factors on maintained markup percentage for national brands. The model used to test hypothesis one was stated as national brand maintained markup percentage $=$ retailer size, retailer type, retailer location, type of merchandise, product positioning, new task, modified rebuy, straight rebuy, Competitive Structure, Relative Marketing Effort, Vendor Characteristics, and Corporate Image (See Table 5 for information on the level of data which these variables represented). Type III sums of squares, which adjust each independent variable for all other independent variables, were used to identify variables which significantly contributed to the variability in maintained markup percentage for national brands.

The initial ANCOVA model explained $38 \%$ of the total sample variability in maintained markup percentage (Table 9). The full model for the initial ANCOVA explained a significant amount of the variability in maintained markup percentage ( $\mathrm{p}=.0341$ ).

Table 9
Initial Analysis of Covariance for Mational Brands
Dependent Variable: Maintained Markup Percentage for National Brand

|  | DF | Sum of <br> Squares | Mean <br> Square | F Value | Pr > F |
| :--- | :---: | ---: | :---: | :---: | :---: |
| Model | 21 | 69665.160157 | 3317.388579 | 1.84 | 0.0337 |
| Error | 61 | 109924.569186 | 1802.042118 |  |  |
| Corrected Total | 82 | 179589.729343 |  |  |  |

R-Square
0.387913

| Source | DF | Type 155 | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Retailer Size | 5 | 11259.083536 | 2251.816707 | 1.25 | 0.2974 |
| Retailer Type | 1 | 94.655330 | 94.655330 | 0.05 | 0.8195 |
| Retailer Location | 2 | 3634.131361 | 1817.065681 | 1.01 | 0.3708 |
| Type of Merchandise | 3 | 6879.849701 | 2293.283234 | 1.27 | 0.2918 |
| Product Positioning | 2 | 10669.674133 | 5334.837067 | 2.96 | 0.0593 |
| New Task | 1 | 868.065254 | 868.065254 | 0.48 | 0.4903 |
| Hodified Rebuy | 1 | 60.142832 | 60.142832 | 0.03 | 0.8556 |
| Straight Rebury | 1 | 223.193515 | 223.193515 | 0.12 | 0.7261 |
| Competitive Structure | 1 | 740.000297 | 740.000297 | 0.41 | 0.5240 |
| Relative Marketing Effort | 1 | 1370.114299 | 1370.114299 | 0.76 | 0.3867 |
| Vendor Characteristics | 1 | 15352.992378 | 15352.992378 | 8.52 | 0.0049 |
| Corporate Image | 1 | 18253.492385 | 18253.492385 | 10.13 | 0.0023 |
| Brand Mix | 1 | 259.765136 | 259.765136 | 0.14 | 0.7055 |
| Source | DF | Type 111 SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| Retailer Size | 5 | 5269.649269 | 1053.929854 | 0.58 | 0.7114 |
| Retailer Type | 1 | 89.137622 | 89.137622 | 0.05 | 0.8247 |
| Retailer Location | 2 | 508.470438 | 254.235219 | 0.14 | 0.8687 |
| Type of Merchandise | 3 | 15680.142903 | 5226.714301 | 2.90 | 0.0421 |
| Product Positioning | 2 | 13966.013011 | 6983.006505 | 3.88 | 0.0260 |
| New Task | 1 | 343.212544 | 343.212544 | 0.19 | 0.6641 |
| Modified Rebuy | 1 | 65.160589 | 65.160589 | 0.04 | 0.8498 |
| Straight Rebury | 1 | 227.587495 | 227.587495 | 0.13 | 0.7235 |
| Competitive Structure | 1 | 1233.378862 | 1233.378862 | 0.68 | 0.4113 |
| Relative Marketing Effort | 1 | 22.589842 | 22.589842 | 0.01 | 0.9112 |
| Vendor Characteristics | 1 | 9950.255759 | 9950.255759 | 5.52 | 0.0220 |
| Corporate Image | 1 | 18343.442255 | 18343.442255 | 10.18 | 0.0022 |
| Brand Mix | 1 | 259.765136 | 259.765136 | 0.14 | 0.7055 |

Since the full model was statistically significant, Type III Sums of Squares for each variable were investigated to determine if they significantly contributed to the variability in maintained markup percentage for national brands. Four variables, type of merchandise ( $\mathrm{p}=0.0421$ ), product positioning ( $\mathrm{p}=0.0260$ ), Vendor Characteristics ( $\mathrm{p}=0.0220$ ), and Corporate Image ( $\mathrm{p}=0.0022$ ) were found to significantly contribute to the variability in maintained markup percentage. These four variables were two nominal level merchandise requirements (i.e., type of merchandise and product positioning) and two interval level supplier accessibility factors (i.e., Vendor Characteristics and Corporate Image).

The four variables which were identified in the initial ANCOVA (i.e., type of merchandise, product positioning, Vendor Characteristics, and Corporate Image) were used in a second ANCOVA to determine whether they (in the absence of the other brand mix, merchandise requirements, and supplier accessibility factors) significantly contributed to the variability in maintained markup percentage. The second ANCOVA using these four variables explained $34 \%$ of the total sample variability in maintained markup percentage (Table 10; Appendix H). The full model for the second ANCOVA explained a significant amount of the variability in maintained markup percentage ( $\mathrm{p}=0.0001$ ). Type III Sums of Squares indicated that all four variables in this second ANCOVA significantly contributed to the variability in maintained markup percentage.

Table 10
Analysis of Covariance for National Brands

| National Brand Maintained Markup Percentage = Type of Merchandise, Product Positioning, Vendor Characteristics, and Coporate Image |  |  |  |
| :---: | :---: | :---: | :---: |
| $\mathrm{R}^{2}=0.344$ | $=5.63$ | $\mathrm{Pr}>\mathrm{F}$ | 0.0001 |
| Variable | LSMean | Std Err | $\underline{\operatorname{Pr}>\|F\|}$ |
| Type of Merchandise |  |  | 0.0238 |
| Shirts | 59.31 | 7.33 |  |
| Sweaters | 79.13 | 11.66 |  |
| Slacks | 35.25 | 8.67 |  |
| Skirts | 63.05 | 10.39 |  |
| Product Positioning |  |  | 0.0016 |
| No Strategic Role | 54.07 | 6.56 |  |
| Low Profit | 39.06 | 9.46 |  |
| High Profit | 84.43 | 8.63 |  |


| Variable | Estimate | Std Err | Pr >\|TI |
| :--- | :---: | ---: | :---: |
| Vendor Characteristics | -7.55 | 2.74 | 0.0074 |
| Corporate Image | -12.19 | 3.35 | 0.0005 |
| Contrasts For |  |  |  |
| Tops vs. Bottoms | 40.13 | 19.27 | 0.0408 |
| High vs. Low Profit | 45.37 | 12.71 | 0.0006 |

The small $p$-value ( $p=.0001$ ) for the full model in the second ANCOVA indicated evidence against the null hypothesis in favor of the alternative hypothesis. Based on the small p-value obtained for the second ANCOVA, null hypothesis one was rejected. This suggests that some of the variables included in brand mix, merchandise requirements, and supplier accessibility factors do affect the maintained markup percentage of women's national apparel brands. Additional analyses using Least Square Means and Contrasts were conducted to examine the difference in the means for type of merchandise and product positioning. Estimates were generated to examine the estimated coefficient of vendor characteristics and corporate image. The following is a discussion of these findings.

Type of merchandise. The small $p$-value ( $p=0.0238$ ) for the Type III Sums of Squares for type of merchandise suggests that type of merchandise does significantly contribute to the variability in mairtained markup percentage. Least Square Means (Table 10) indicated that all four types of merchandise levels were statistically different and that the highest adjusted mean maintained markup percentage was for sweaters (79.13), while the lowest adjusted mean was for slacks (33.25). One possible explanation for this observed difference in sweaters and slacks is that the sales volume for slacks may have been lower in the Spring/Summer season, forcing buyers to take higher markdowns on slacks, thereby reducing the maintained markup percentage. This is not unusual, since the margins earned for apparel products do vary by season and because customers may purchase more shorts and skirts than slacks in the warmer spring and summer seasons. The high maintained markup percentage for sweaters supports the findings of Hathcothe (1989/1990), who
identified sweaters as having the highest maintained markup percentage in women's apparel because most sweaters are imported.

The most interesting Contrast $(\underline{p}=.0408)$ contrasted tops and bottoms (i.e., shirts and sweaters versus slacks and skirts). The difference in maintained markup percentage for tops and bottoms was 40.13, indicating that national brand tops have a 40.13 higher maintained markup percentage than do bottoms. This difference may be attributed to consumers' purchasing more tops than bottoms, causing more tops to be sold than bottoms and reducing the amount of unsold or marked down merchandise for tops as compared to bottoms.

Product positioning. Product positioning was the second merchandise requirement found to significantly affect the maintained markup percentage for national brands ( $\mathrm{p}=0.0016$ ). The three levels of product positioning were investigated using Least Square Means. It was not surprising that the highest adjusted mean maintained markup percentage was for high profit (84.43), while the lowest was for low profit (39.05).

The Contrast between high and low profit indicated that the mean maintained markup percentage for national brands positioned as high profit was 45.37 points higher than that of products positioned as low profit. Previous researchers (Bahn, 1986; Davis, 1985) determined that brand identity was one reason for consumers' product choices. This means that buyers can position national brands for high profit because consumers are often willing to pay more for national brand products, which have status and less risk. These results are consistent with the findings of previous researchers (Shim \& Drake, 1991; Narver \& Slater, 1990) who reported that retail firms which are successful in positioning their products tend to have the highest profitability.

Vendor Characteristics. The supplier accessibility factor Vendor Characteristics did affect the maintained markup percentage of national brands ( $\mathrm{p}=.0074$ ). The estimated coefficient for Vendor Characteristics (-7.55) indicated that as the importance of information related to a vendors personal characteristics and characteristics of the product's quality increased, maintained markup percentage decreased. Although this finding is unusual and refutes the findings of Wagner, Ettenson, \& Parrish (1989), who found that markup potential was one of the most important criterion used by buyers, certain buying circumstances and the literature provide support for this negative relationship. Perhaps this negative relationship is indicating that the retailer who is selling national brands places more importance on the characteristics of the vendor than on margins. These buyers want to have a vendor who will supply the national brands sought by consumers despite the potential short term loss in maintained markup percentage. This rationale is supported by previous researchers (Francis \& Brown, 1986; Hirschman, 1981; Shim and Kotsiopulos, 1991) who found that apparel buyers placed the most importance on product quality. Buyers may also place a high value on their own personal judgement and the recommendation of others and are consequently willing to risk a possible short-term decrease in maintained markup percentage when they are confident about the characteristics of the vendor.

Corporate Image. A second supplier accessibility factor, Corporate Image, also significantly affected ( $\mathrm{p}=.0005$ ) the maintained markup percentage for national brands. The estimated coefficient for Corporate Image was negative (-12.19), and indicated that as the importance of the reputation of the product and vendor increased, maintained markup
percentage decreased. This seemingly unusual negative relationship is supported by the findings of previous researchers and the operations of department stores. First, this finding confirms earlier studies (Hirschman, 1981; Shim \& Kotsiopulos, 1991; Standard \& Poor, 1991; Wagner, Ettenson, \& Parrish, 1989) which found that the reputation of the product and the vendor rank higher than markup when selecting a vendor. Second, the retail buyer may have to accept a lower maintained markup percentage for certain national brands due to competitive forces. For example, if several stores in a market area are stocking the same national brand, the maintained markup percentage earned for the national brand may be lower than desired due to price competition.

Third, because the national brand is controlled by the supplier, buyers who desire to purchase a certain national brand must accept the terms of sale and distribution set by the supplier. Due to their market dominance and demand for their brand name, popular national brands will often offer fewer price incentives, markdown allowances, promotional assistance, and transportation assistance. This means that despite the importance of corporate image, national brands may earn a lower maintained markup because of the increase in reduction expenses and cost of goods sold.

## Null Hypothesis ?

Brand mix, merchandise requirements, and supplier accessibility factors will not affect the maintained markup percentage for women's private apparel brands.

Analysis of Covariance (ANCOVA) was also used to test hypothesis two. The model used to test hypothesis two was stated as private brand
maintained markup percentage $=$ retailer size, retailer type, retailer location, type of merchandise, product positioning, new task, modified rebuy, straight rebuy, Competitive Structure, Relative Marketing Effort, Vendor Characteristics, and Corporate Image (See Table 5 for information on the level of data which these variables represented).

The ANCOVA model explained $33.5 \%$ of the total sample variability in maintained markup percentage (Table 11). The full model for the ANCOVA did not, however, explain a significant amount of the variability in maintained markup percentage ( $\mathrm{p}=.4714$ ). Because the full model was not statistically significant, Type III Sums of Squares were not examined.

Based on the large p-value obtained for the full ANCOVA model, the researcher failed to reject null hypothesis two. This suggests that brand mix, merchandise requirements, and supplier accessibility factors do not affect the maintained markup percentage for women's private apparel brands.

Table 11
Analysis of Covariance for Private Brands
Dependent Variable: Maintained Markup Percentage for Private Brand

| Source | DF | Sum of Squares | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Model | 21 | 128601.51055 | 6123.88145 | 1.01 | 0.4714 |
| Error | 42 | 254312.88607 | 6055.06872 |  |  |
| Corrected Total | 63 | 382914.39662 |  |  |  |


| R-Square |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.335849 |  |  |  |  |  |
| Source | DF | Type 1 SS | Mean Square | $F$ Value | $\mathrm{Pr}>\mathrm{F}$ |
| Retailer Size | 5 | 42116.044963 | 8423.208993 | 1.39 | 0.2472 |
| Retailer Type | 1 | 1009.964976 | 1009.964976 | 0.17 | 0.6850 |
| Retailer Location | 2 | 2871.256123 | 1435.628062 | 0.24 | 0.7900 |
| Type of Merchandise | 3 | 24600.871444 | 8200.290481 | 1.35 | 0.2698 |
| Product Positioning | 2 | 17123.297430 | 8561.648715 | 1.41 | 0.2545 |
| New Task | 1 | 3352.270761 | 3352.270761 | 0.55 | 0.4610 |
| Modified Rebuy | 1 | 224.486255 | 224.486255 | 0.04 | 0.8482 |
| Straight Rebuy | 1 | 133.192956 | 133.192956 | 0.02 | 0.8828 |
| Competitive Structure | 1 | 1753.133774 | 1753.133774 | 0.29 | 0.5934 |
| Relative Marketing Effort | 1 | 16364.160472 | 16364.160472 | 2.70 | 0.1077 |
| Vendor Characteristics | 1 | 16819.361303 | 16819.361303 | 2.78 | 0.1030 |
| Corporate Image | 1 | 496.058482 | 496.058482 | 0.08 | 0.7761 |
| Brand Mix | 1 | 1737.411608 | 1737.411608 | 0.29 | 0.5950 |
| Source | DF | Type 111 SS | Mean Square | F Value | Pr > F |
| Retailer Size | 5 | 44420.888955 | 8884.177791 | 1.47 | 0.2209 |
| Retailer Type | 1 | 4684.878435 | 4684.878435 | 0.77 | 0.3841 |
| Retailer Location | 2 | 4857.248244 | 2428.624122 | 0.40 | 0.6721 |
| Type of Merchandise | 3 | 31194.397054 | 10398. 132351 | 1.72 | 0.1780 |
| Product Positioning | 2 | 1480.786398 | 740.393199 | 0.12 | 0.8852 |
| New Task | 1 | 1253.776094 | 1253.776094 | 0.21 | 0.6514 |
| Modified Rebuy | 1 | 1796.109167 | 1796.109167 | 0.30 | 0.5889 |
| Straight Rebuy | 1 | 1134.908139 | 1134.908139 | 0.19 | 0.6673 |
| Competitive Structure | 1 | 140.594377 | 140.594377 | 0.02 | 0.8796 |
| Relative Marketing Effort | 1 | 16618.363067 | 16618.363067 | 2.74 | 0.1050 |
| Vendor Characteristics | 1 | 14516.235796 | 14516.235796 | 2.40 | 0.1290 |
| Corporate Image | 1 | 949.260671 | 949.260671 | 0.16 | 0.6942 |
| Brand Mix | 1 | 1737.411608 | 1737.411608 | 0.29 | 0.5950 |

## Summary of the Results

Results from the testing of the two hypotheses lead the researcher to reject null hypothesis one and to fail to reject null hypothesis two. Results indicated that some of the merchandise requirements and supplier accessibility factors do affect maintained markup percentage for women's national brand sportswear, but do not affect the maintained markup percentage for private brand sportswear. The independent variable, brand mix, which was added to Sheth's model and was tested, did not significantly affect the maintained markup percentage for national or private brands. Further refinement of brand mix is needed to clarify and measure its effect on maintained markup percentage. Additional investigation of hypothesis two is needed to further explore the effect of merchandise requirements and supplier accessibility factors on private brand maintained markup percentage.

Findings for the national brand indicated that two intraorganizational merchandise requirements, type of merchandise and product positioning, significantly affected maintained markup percentage. This suggests that product differences within the same retail firm (i.e., intraorganizational merchandise requirements) may have a stronger influence on national brand maintained markup percentage than differences between retail firms (i.e., interorganizational merchandise requirements). Significant differences in the adjusted mean maintained markup percentage were found for all four types of sportswear and the three levels of product positioning. These findings suggest that the maintained markup percentage earned for national brands varies by the type of merchandise, with sweaters earning the highest margin, and that product positioning
also affects maintained markup percentage, with products positioned as high profit earning the highest margin.

Four supplier accessibility factors were identified: Competitive Structure, Relative Marketing Effort, Vendor Characteristics, and Corporate Image. The first, second, and fourth factors identified were the same supplier accessibility factors identified in Sheth's model. The factor Vendor Characteristics, although not identified in Sheth's model, was previously identified by Fairhurst and Fiorito (1990) as a supplier accessibility factor. Two of the four supplier accessibility factors, Vendor Characteristics and Corporate Image, significantly affected the maintained markup percentage for the national brand. For both of these supplier accessibility factors a negative Estimate of the coefficient was identified. This suggests that national brand buyers may place more importance on factors related to Corporate Image and Vendor Characteristics than on maintained markup percentage. Perhaps this is due to intrabrand competition.

Results from this study helped to further refine Sheth's model. First, the addition of maintained markup percentage as a summary variable for use in choice calculus added to existing knowledge and provided support for examining maintained markup percentage when investigating the merchandise requirements and supplier accessibility factors used by retailers when making product decisions. Second, the variable brand mix was added to Sheth's model and tested. Although brand mix was not significant, the addition of this variable to the model provides a possible framework for generating future research on the effect of brand mix on choice decisions. Third, although a model explaining the
variability in private brand maintained markup percentage was not identified, information on private brands obtained from this study can be used as the foundation for future research.

## CHAPTER V

## SUMMARY, CONCLUSIONS, LIMITATIONS, IMPLICATIONS, AND RECOMMENDATIONS


#### Abstract

Summary The purpose of the current study was to determine how brand mix, merchandise requirements, and supplier accessibility factors affect the maintained markup percentage of national and private apparel brands. Sheth's Theory of Merchandise Buying Behavior (1981), the conceptual model used in this study, proposed that merchandise requirements and supplier accessibility factors impact the choice decisions made by retail buyers. Merchandise requirements represent the retailers' needs, motives, and purchase criteria, while supplier accessibility factors refer to the supplier options available to the buyer to satisfy merchandise requirements. Both merchandise requirements and supplier accessibility factors impact the choice rules (i.e., choice calculus) used by the buyer.

Maintained markup percentage was added to Sheth's model as a summary variable for use in matching merchandise requirements and supplier accessibility factors. Maintained markup percentage, a commonly used ratio by retail buyers (Anthony \& Jolly, 1991), provides information on the final markup percentage obtained for products and information on buyer performance. Brand mix, the percentage of national and private brands sold, was also added to Sheth's model because adjustments in the mix of national and private brands offered is one of the strategies used by retailers to help alleviate the problems of product sameness between stores and to increase margins ("Department stores: Finding a new niche",


1991; Flately, 1988; "Making a name at J.C. Penney", 1991).
The questionnaire was sent to 572 department stores and 1332 women's sportswear buyers selected from Sheldon's Retail Directory (1991). Sheldon's, a comprehensive directory of over 4000 store names, lists the names of executives, upper management, buyers, and the products purchased by specific buyers. Information for the directory is gathered from an annual survey conducted by Phelon, Sheldon, and Marsar, Incorporated.

A six page questionnaire was developed and mailed. Useable questionnaires were returned from $13 \%$ of the sample. Further refinements were made to the sample of returned surveys, resulting in the creation of two command files, one for national brands ( $n=83$ ) and one for private brands ( $n=64$ ). These two command files did represent overlapping buyers' responses, since all buyers reporting information used in calculating private brand maintained markup percentage also reported information for national brand maintained markup percentage.

Development of the Dependent and Independent Variables
Dependent variable. The dependent variable, maintained markup percentage, was calculated for each national and private brand. Maintained markup percentage was calculated as the difference between the total retail value of the merchandise and total reductions (i.e., shortages and markdowns) less the cost of goods sold divided by net sales. Due to differences in amount of reductions taken and the presence or absence of vendor assistance with transportation expenses, maintained markup percentage varied from less than zero percent to over 100 percent. The mean maintained markup percentage was higher for private brands (66.7) than national brands (56.5).

Independent variables. Only one of the merchandise requirements, product positioning, was created. Three levels of product positioning were defined: no strategic role, low profit, and high profit. These three levels of product positioning were used to help explain the strategic role of the product in the merchandise mix offered by the retailer.

Principal Components Factor Analysis with Varimax Rotation was used to reduce the dimensionality of the 28 Vendor Selection Criteria items measuring supplier accessibility. Factor analysis yielded four reliable factors which were labeled: Competitive Structure, Relative Marketing Effort, Vendor Characteristics, and Corporate Image. These four variables were used as the refined independent variables.

## Testing of the Hypotheses

National brand apparel buyers. Analysis of Covariance (ANCOVA) was used to examine the effect of brand mix, merchandise requirements, and supplier accessibility factors on maintained markup percentage. Four factors were identified which significantly contributed to the variability in maintained markup percentage: type of merchandise, product positioning, Vendor Characteristics, and Corporate Image. A second ANCOVA using these four variables was generated, all of which influenced the variability in maintained markup percentage for the national brand. Contrasts were developed and significant differences in maintained markup percentage for type of merchandise and product positioning were identified. The Estimate of the coefficient for Vendor Characteristics and Corporate Image indicated that a negative relationship exists between these two factors and maintained markup percentage. The null hypothesis (\#1) was rejected.

Private brand apparel buyers. Analysis of Covariance (ANCOVA) was also used to examine the effect of brand mix, merchandise requirements, and supplier accessibility factors on maintained markup percentage for the private brand. The ANCOVA was not significant; thus, null hypothesis (\#2) was not rejected.

## Conceptual Framework

Findings from this study both refute and confirm the portion of Sheth's model, which was tested and used as the conceptual framework for this study. Sheth's model indicated that two types of merchandise requirements (i.e., interorganizational and intraorganizational) and supplier accessibility factors impact choice decision. In the current study, brand mix and maintained markup percentage were added to Sheth's model and tested. The addition of brand mix to Sheth's model, although not statistically significant, did provide insight for future research on variables which potentially might affect maintained markup percentage. Maintained markup percentage was added as a summary variable for use in choice calculus. Results from this study indicated that national brand maintained markup percentage is affected by merchandise requirements and supplier accessibility factors.

For the national brand, only intraorganizational merchandise requirements (i.e., type of merchandise and product positioning) affected maintained markup percentage. This means that merchandise differences within a retail store appear to have a greater effect on maintained markup percentage than do differences between retail stores.

The current study also confirmed Sheth's theory by identifying four supplier accessibility factors. Three of the factors identified confirmed

Sheth's model: Competitive Structure, Relative Marketing Effort, and Corporate Image. The fourth factor identified, Vendor Characteristics, supports the findings of Fairhurst and Fiorito (1990). Two of the four factors identified affected national brand maintained markup percentage (i.e., Vendor Characteristics, and Corporate Image).

## Conclusions

This study has expanded the limited literature available on national and private apparel brands, provided empirical information which confirms industry assumptions, and has identified and further refined factors which affect the maintained markup percentage of national apparel brands. Sheth's Theory of Merchandise Buying Behavior (1981), which was used as the conceptual model for this study, was expanded to included brand mix and merchandise requirements. Although brand mix was not found to be statistically significant in affecting maintained markup percentage, the addition of maintained markup percentage as a summary variable for use in choice calculus was identified.

This study expanded the limited empirical research which exists on maintained markup percentage (Hathcote, 1989/1990) and provided information on variables which affect maintained markup percentage for national apparel brands. Findings from this study empirically confirmed the industry assumption that private brands earn higher margins than do national brands ("Do private brands measure up?", 1991; Gill, 1990). This study also provided information on the maintained markup percentage achieved for national and private brands, which builds on previous industry research which reported only the initial markup percentage for national and private brands (Standard \& Poor, 1991).

The data indicated merchandise requirements and supplier accessibility factors which influence the maintained markup percentage for national apparel brands and that perhaps a different set of variables affects private brands. For the national brand, variability in maintained markup percentage was affected by type of merchandise, product positioning, Vendor Characteristics, and Corporate Image. Variability in maintained markup percentage for the private brand was not affected by merchandise requirements nor by supplier accessibility factors. This suggests that the variables which affect private brand maintained markup percentage may be different than those which affect the national brand maintained markup percentage.

Further investigation of private brand maintained markup percentage is suggested due to the limited empirical research available on private brands. This suggestion is based on the fact that from this study it appears that differences do exist between the maintained markup percentage of national and private brands and the variables which affect maintained markup percentage. Future research might focus on the examination of variables not studied in the current research which might affect private brand maintained markup percentage.

The development of the four supplier accessibility factors confirmed three of the supplier accessibility factors identified in Sheth's model (i.e., Competitive Structure, Relative Marketing Effort, and Corporate Image) and added the supplier accessibility factor Vendor Characteristics to the model. National brand maintained markup percentage was affected by two of the supplier accessibility factors, Vendor Characteristics and Corporate Image.

In summary, variables from Sheth's theory (1981) were useful in explaining the maintained markup percentage earned for national apparel brands, but not for private apparel brands. At least one factor from each of Sheth's major constructs --- merchandise requirements and supplier accessibility factors-- was significant for the national brand. Although the results are somewhat limited, the information gained from this study provides useful information for the refinement and development of national brand merchandising strategies in department stores. The current study has also provided the foundation for additional research in private brands by helping to identify variables which could be used in a model for examining private brand maintained markup percentage.

Limitations of the Findings

1. Maintained markup percentage, the financial ratio selected as the dependent variable of interest, is not a measure of product or store profitability. Maintained markup percentage does impact profits earned for a product because the only difference between maintained markup percentage and gross margin, a ratio which is included on financial statements, is that gross margin, unlike maintained markup precentage, includes cash discounts and employee discounts.
2. Findings of the maintained markup percentage earned may be biased because buyers were allowed to select the purchase orders for reporting information in the survey. Buyers may have selected purchase orders which represented exceptionally good examples of their efforts in selecting and selling merchandise.
3. Generalization of the results is somewhat limited because the current study only examined department stores' women's sportswear brands.

## Implications

The volatile nature of the department store industry and uncertain economic conditions have led retailers to consider a more focused analysis of the brands which they carry. The continued debate over the importance and usage of national and private apparel brands has caused retailers to investigate factors which affect maintained markup percentage. Findings from the current study indicate that different factors affect national and private brand maintained markup percentage. Brand mix, merchandise requirements, and supplier accessibility factors are constructs cited in the literature (Samli, 1989; Sheth, 1981) that impact merchandise decisions.

The addition of brand mix and maintained markup percentage to Sheth's model (1981) helped to further refine Sheth's model. The variable brand mix did not affect maintained markup percentage. Further refinement of brand mix is needed because the mix of national and private brands carried is important in retail apparel brand decisions. The dependent variable, maintained markup percentage, which was added to Sheth's model as a summary variable for use in choice calculus, was identified.

Determining the specific merchandise requirements and supplier accessibility factors which affect maintained markup percentage is a concern of retailers because inventory is the single largest asset of the retailer (Buzzell \& Dew, 1980). Results from this study provided information which suggests that purchases of national and private apparel brands are different. Specific merchandise requirements and supplier accessibility factors which affect maintained markup percentage were, however, only identified for the national brand.

Type of merchandise affected the maintained markup percentage for national apparel brands, with the highest maintained markup percentage achieved in sweaters. This suggests that maintained markup varies by type of product, and that buyers should be aware of the types of merchandise which have the highest maintained markup percentage when developing their buying plans.

The merchandise requirement product positioning significantly influenced the variability in maintained markup percentage for only the national brand. This finding has implications for retail buyers who are trying to determine how to strategically position their products, and suggests that a high profit role for national brands does affect maintained markup percentage.

Results from this study also provided a better understanding of the relationship between retailers and suppliers. Two supplier accessibility factors were identified which affected national brand maintained markup percentage-- Vendor Characteristics and Corporate Image. Research findings indicated that as the importance of these two factors increased, maintained markup decreased. This suggests that national brand buyers place a higher importance on establishing relationships with vendors than on earning higher margins.

In conclusion, this study provides information which can be used by department store retailers in developing national brand women's sportswear programs. Further research is needed, however, to provide information which can be used in the development of private brand women's sportswear programs. Information identifying merchandise requirements and supplier accessibility factors which affect national brand maintained markup percentage should aid retail buyers in the development of national apparel
brands, helping them to potentially yield higher maintained markup percentages.

## Recommendations

Findings from this study indicated areas where future research could be extended. Further refinement of Sheth's model (1981) is needed because there appears to be a different set of variables which affect national and private brand maintained markup percentage. Examples of a refined model for national and private brands are provided in Figures 2 and 3. For the national brand model (Figure 2) and the private brand model (Figure 3) the addition of the merchandise requirement management mentality, which was included in Sheth's model but was not tested in the current study, is suggested. Issues related to management mentality (i.e., whether or not a firm is financially or management driven) may help to better explain the variablity in national and private brand maintained markup percentage. Further refinement of the variable brand mix, which although added to Sheth's model and tested was found to not be significant, is also suggested.

Further examination of hypothesis two is suggested, and preliminary analysis beyond the ANCOVA used to test hypothesis two has been conducted by the researcher. In this preliminary analysis four variables which were approaching significance in the initial ANCOVA model were identified: retail size, type of merchandise, Relative Marketing Effort, and Vendor Characteristics. These four variables were used in a second ANVOVA, and results from this ANCOVA indicated that retailer size, type of merchandise, Relative Marketing Effort and Vendor Characteristics may influence the variability in private brand maintained markup percentage (Appendix I).

Figure 2
Sheth and Thomas Theory of National Brand Buying Behavior


Adapted from:
Sheth, J.N. (1981). "A Theory of Merchandise Buying Behavior," in R.W. Stampfl and E.C. Hirschman (Eds.)
Theories in Retailing, Chicago, IL.: American Marketing Association, 182.

Figure 3
Sheth and Thomas Theory of Private Brand Buying Behavior


Adapted from:
Sheth, J.N. (1981). "A Theory of Merchandise Buying Behavior," in R.H. Stampfl and E.C. Hirschman (Eds.) Theories in Retailing, Chicago, IL.: American Marketing Association, 182.

The inclusion of the merchandise requirement retailer size in a model for private brands is justified because the preliminary analysis indicated that smaller firms earned higher maintained markup percentages for their private brands than did larger retail firms. This finding indicates that smaller retail firms may not be involved in intrabrand competition. A second merchandise requirement, type of merchandise, was important for the national brand and appears to also be important in explaining the variability in maintained markup percentage for private brands. The difference in type of merchandise for national and private brands is that for the national brand sweaters earned the highest margins, while for private brands shirts earned the highest margins.

Relative Marketing Effort, which was not important for the national brand, appears to be important in explaining the variability in maintained markup percentage for the private brand. The negative relationship which was observed between Relative Marketing Effort and private brand maintained markup percentage indicates that as the importance of the marketing activities provided by the vendor increases, maintained markup percentage decreases. This finding is important and is possibly explained by differences in the need for and the provision of vendor marketing efforts when national and private brands are being purchased. The supplier accessibility factor Vendor Characteristics, which was important for the national brand, appears to also be important for the private brand. This finding suggests that similarities may exist between national and private apparel brand purchase decisions concerning the importance of Vendor Characteristics.

These preliminary findings on hypothesis two were used to develop a model which explains factors which affect private brand maintained markup percentage (Figure 3). The variables which affect private brand maintained markup percentage are different from the variables which affect national brand maintained markup percentage (Figure 2). Perhaps the addition of the variable management mentality, which includes management style (i.e., the buying objectives of the firm), may help to further explain the variability in private brand maintained markup percentage. A study to test Figure 3 is suggested. Testing of Figure 3 may lead to further refinement of the variables which affect private brand mainatined markup percentage or the construction of a new model for private brands.

One possible explanation of the differences which were observed between national and private brands may be due to a corretation between pairs of private brand maintained markup percentages (Appendix G). Further investigation of the correlation between pairs of private brand maintained markup percentages is suggested.

The current study examined national and private brands separately and did not test for differences between national and private brand maintained markup percentage. A follow up study which statistically examines differences in brand mix, merchandise requirements, and supplier accessibility factors for national and private brands might provide useful information for retail buyers and department stores. A further study examining the interactive effect of variables in the model is also suggested.

One approach which could be used in a continuing effort to examine factors affecting maintained markup percentage would be to refine the
variables brand mix and product positioning. The literature suggests that one of the competitive strategies used by retail buyers is to alter the mix of national and private brands sold ("Department stores: Finding a new niche", 1991). Although the current study did not support this position, further refinement of brand mix may provide different results. Further refinement of the variable product positioning is also suggested to help identify additional strategic roles of brands which are used for both national and private brands.

The variable choice calculus, which was identified in Sheth's model, was not measured nor tested in the current study. The development of instrument items which could be used to examine the three choice calculus rules identified by Sheth (i.e., trade-off, sequential, and dominance) might provide a better understanding of how merchandise requirements and supplier accessibility factors impact retailers' decisions. Instrument items should also be developed to examine management mentality and management style.

This study could be extended to include specialty stores and discount stores. Since some specialty chain stores, such as The Limited, and discount stores, such as Wal-Mart, offer a large assortment of private brands, extension of this study to these types of stores might provide useful information for the development of private brand programs.

The effect of the variable maintained markup percentage on profitability could also be examined. Although a study of this nature would require obtaining detailed financial statements from a retailer, the implications of the findings would greatly contribute to the limited knowledge on maintained markup percentage.

## BIBLIOGRAPHY

Abend, J. (1989, December). Men's furnishings: What's in a name? Stores, pp. 40-43.

Anthony, C. A. E., \& Jolly, L. D. (1991). The influence of uncertainty on ratings of information importance by retail apparel buyers. Clothing and Textiles Research Journal, 10(1), 1-7.

Assel, H. (1981). Consumer behavior and marketing_action. Boston: Kent.

Bahn, K. D. (1986, December). How and when do brand perceptions and preferences first form? A cognitive developmental investigation. Journal of Consumer Research, 13(3), 382-393.

Baugh, D. F., \& Davis, L. L. (1989). The effect of store image on consumers' perceptions of designer and private label clothing. Clothing and Textiles Research Journal, 7(3), 15-21.

Baumol, W. J., \& Blinder, A. S. (1985). Economics principles and policies (3rd ed.). New York: Harcourt Brace Jovanovich.

Berens, J. S. (1971-1972, Winter). A decision matrix approach to supplier selection. Journal of Retailing, 47(4), 47-53.

Bogart, L. (1973, November-December). The future of retailing. Harvard Business Review, pp. 16-32, 176.

Bohlinger, M. S. (1990). Merchandise buying, 3rd ed. Needham Heights, MA: Allyn and Bacon.

Bonoma, T. V., Zaltman, G. \& Johnson, W. J. (1978). Industrial buying behavior (Marketing Science Institute Monograph). Cambridge, MA: Marketing Science Institute. (Cited in Moriarty, 1983).

Buzzell, R. D., \& Dew, M. K. (1980, August). Strategic management helps retailers prepare for the future. Marketing News, p. 6.

Cravens, D. W., \& Woodruff, R. B. (1986). Industrial buying behavior. Reading, MA:Addison-Wesley.

Cronbach, L. J. (1951, September). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.

Cunningham, I., Hardy, A. P., \& Imperia, G. (1982). Generic brands versus national brands and store brands. Journal of Advertising Research, 22, 25-32.

Curhan, R. C., Salmon, W. J., \& Buzzell, R. D. (1983, Spring). Sales and profitability of health and beauty aids and general merchandise in supermarkets. Journal of Retailing, 59(1), 77-79.

Davidson, W. R., \& Doody, A. F. (1966). Retailing management, (3rd ed.) New York: The Ronald Press Company, pp.539-540.

Davis, L. L. (1985). Effects of physical quality and brand labeling on perceptions of clothing quality. Perceptual and Motor Skills, 61, 671-677.

Department stores: Finding a new niche. (1990, February). Stores, p. 17 .

Do private brands measure up? (1991, December-January). Apparel Merchandising, p. 10.

Eckman, M., Damhourst, M. L., \& Kudolph, S. J. (1990, Winter). Toward a model of the in-store purchase decision process: Consumer use of criteria for evaluating women's apparel. Clothing and Textiles Research Journal, 8(1), 13-22.

Ellis, B. T. (1990). Competitive advantage for retailers: A conceptual and empirical investigation. (Doctoral dissertation, University of Alabama, 1990). Dissertation Abstracts International, 51, 1689A.

Ettenson, R., \& Wagner, J. (1986, Spring). Retail buyers' salability judgments: A comparison of information use across three levels of experience. Journal of Retailing, 62(1), 41-63.

Fairhurst, A., \& Fiorito, S. S. (1990, October). Retail buyers' decision-making process: an investigation of contributing variables. The International Review of Retail, Distribution, and Consumer Research, 1(1), 87-100.

Fiorito, S. S. (1990, Summer). Testing a portion of Sheth's theory of merchandise buying behavior with small apparel retail firms. Entrepreneurship Theory and Practice, 14(4), 19-34.

Fiorito, S. S., \& Fairhurst, A. E. (1989, Fall). Buying for the small apparel retail store: Job content across four merchandise categories. Clothing and Textiles Research Journal, 8(1), 1021.

Flately, W. J. (1989, June 20). The brand name game: A retail perspective on brands and private label. Paper presented at Kurt Salmon Associates Third Annual Executive Briefing for Soft Goods Marketers, New York.

Frances, S. K., \& Brown, D. J. (1986). Retail buyers of apparel and appliances: A comparison. Clothing and Textiles Research Journal, 4(1), 1-8.

Gifford, J. B., \& Stearns, J. B. (1985). Perceived importance of financial ratios as indicators of corporate health and vitality in the retail industry. Paper presented at the meeting of the American Collegiate Retailing Association, San Francisco.

Gill, P. (1990, February). What's a department store? Stores, pp.8-10, 15.

Hathcote, J. M. (1990). Impact of apparel imports on retail profitability. (Doctoral dissertation, University of Tennessee, 1989). Dissertation Abstracts International, 51, 932A.

Hershlang, J. (1983, March). Brand name game: Whose label? Stores, pp.36-37.

Hirschman, E. C. (1978, Winter). A descriptive theory of retail market structure. Journal of Retailing, 54(4), 29-48.

Hirschman, E. C. (1981). An explanatory comparison of decision criteria used by retail buyers. In R. F. Lusch \& W. R. Darden (Eds.), Retail patronage theory. Norman: University of Oklahoma Printing Services. (Cited in Wagner, Ettenson, \& Parrish, 1989).

Hirschman, E. C., \& Mazursky, D. (1982). A transorganizational investigation of retail buyers' criteria and information sources. New York University Institute of Retail Management Working Paper No. 82-8. New York University Graduate School of Business Administration. Working Paper No. 82-17. (Cited in Wagner, Ettenson, \& Parrish, 1989).

Hise, R. T., Kelly, J. P., Gamble, M., \& McDonald, J. B. (1983, Summer). Factors affecting the performance of individual chain store units: An empirical analysis. Journal of Retailing, $\underline{59}(2)$, 22-39.

Jarnow, J. A., Guerreiro, M., \& Judelle, B. (1987). Inside the fashion business. NY: Macmillan Publishing Company.

Jacoby, J., 07son, J. C., \& Haddock, R. A. (1971). Price, brand name, and product composition characteristics as determinants of perceived quality. Journal of Applied Psychology, 55, 570-579.

King, C. W., Ring, L. J. (1980, Spring). Market positioning across retail fashion institutions: A comparative analysis of store types. Journal of Retailing, 56(1), 37-55.

Kneider, A. P. (1986). Mathematics of merchandising, 3rd ed. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Kotler, P. (1988). Marketing management: Analysis, planning, implementation, and control, 6th ed. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Kotler, P., \& Armstrong, G. (1991). Principles of marketing, 3rd. ed. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Kurt Salmon Associates. (1988, January). Private label development for retailers. New York.

Kurt Salmon Associates. (1990). The KSA Perspective. New York.
Making a name at Penney's. (1991, December-January). Apparel Merchandising, pp. 28-29.

Marketing private label. (1989, June). Stores, pp.20-21.
Martin, C. R. (1973, Summer). The contribution of the professional buyer to a store's success of failure. Journal of Retailing, 49(2), 69-80.

Mason, J. B., Morris, L. M. (1980, Spring). Retail merchandise information systems for the 1980's. Journal of Retailing, 56(1), 56-76.

Mayer, M.L., Mason J.B., \& Gee, M. (1971, Fall). A reconceptualization of store classification as related to retail strategy formulation. Journal of Retailing, 47(3), 27-36, 96.

Miller, R. (1981, Winter). Strategic pathways to growth in retailing. The Journal of Business Strategy, 1 (3), 16-29.

Moin, D. (1991, April 10). Saks highlights private label at talks. Daily News Record, p. 22.

Moriarty, R. T. (1983). Industrial buyer behavior. Lexington, Massachusetts: Lexington Books D.C. Heath and Company.

Munn, H. L. (1961-1962, Winter). Should retailers reduce the number of brands stocked? Journal of Retailing, 38(4), 1-6, 60.

Muse, W. V., Hartung, K. L. (1973, Spring). Consumer perception of a dual brand name. Journal of Retailing, 49(1), 23-34.

Narver, J. C., Slater, S. C. (1990, October). The effect of market orientation on business profitability. Journal of Marketing, 54(4), 20-35.

Nevid, J. (1981). Effects of brand labeling on ratings of product quality. Perceptual and Motor Skills, 53, 407-410.

Ostrow, R., \& Smith, S. R. (1985). The dictionary of retailing. NY: Fairchild Publications.

PL: Winners and Sinners. (1990, May). Stores, pp. 80-81.
Packard, S., Winters, A. A., \& Axelrod, N. (1983). Fashion buying and merchandising. NY: Fairchild.

Porter, M. E. (1980). Competitive strategy. NY: The Free Press.
Rachman, D. J. (1979). The organizational structure of the retail firm: The buyer's role. In R. P. Cash (Ed.), The buyers manual, pp. 29-42. New York: National Retail Merchants Association.

Risch, E. H. (1986). Operating profits in the conventional department store: A statistical prognosis. Paper presented at the meeting of the American Collegiate Retailing Association, New York.

Robinson, P. J., Farris, C. W., \& Wind, Y. (1967). Industrial buying behavior. Boston: Allyn and Bacon. (Cited in Moriarty, 1983).

Salmon, W. J., \& Cmar, K. A. (1987, May/June). Private labels are back in fashion. Harvard Business Review, 65(3), 99-106.

Samli, A. C. (1989). Retail marketing strategy: Planning, implementation, and control. NY: Quorum Books.

Statistical analysis systems manual. (1988). Cary, NC: SAS Institute.
Serpkenci, R. R. (1985). An investigation into the determinants of retail store performance. (Doctoral dissertation, The University of Oklahoma, 1984). Dissertation Abstracts International, ^^45^F, 2592A.

Sheldon's retail directory. (1991). New York: Phelon, Sheldon, \& Marsar, Inc.

Sheth, J. N. (1973). A model of industrial buyer behavior. Journal of Marketing, 37(1), 50-56.

Sheth, J. N. (1981). A theory of merchandise buying behavior. In R. W. Stampfe \& E. C. Hirschman (Eds.), Theory in retailing; Traditional and nontraditional resources, (pp. 180-189). Chicago: American Marketing Association.

Sheth, J. N. (1983, Fall). Emerging trends for the retail industry. Journal of Retailing, 59(3), 6-18.

Shuch, M. (1988). Retailing buying and merchandising. Englewood Cliffs, $N J:$ Prentice-Hall.

Shim, S., \& Drake, M. F. (1991). Profitability of women's apparel shops: Business practices, promotions, and stores/owner characteristics. Clothing and Textiles Research Journal, 10(1), 68-75.

Shim, S., Kotsiopulos, A. (1991). Information-seeking patterns of retail apparel buyers. Clothing and Textiles Research Journal, 10(1), 2030.

Specialty stores capitalize on eminent retail shakeout to increase market share. (1990, Summer). Retail Merchandising Service Automation Service, Inc., 9, pp. 1, 7.

Standard and Poor. (1991, April). Outlook uncertain as retailers struggle. Standard and Poors Industry Survey, 158(23), pp.T85T94.

Stone, L. C., \& Cassill, N. L. (1989, Fall). Retail buyers' salability judgments: A comparison of merchandise categories. Clothing and Textiles Research Journal, 8(1), 56-60.

Sweeney, D. J. (1973, January. Improving the profitability of retail merchandise decisions. Journal of Marketing, 37(1), 60-68.

Thompson, A. A., \& Strickland, A. J. (1984). Strategic management. Plano, Texas: Business Publications.
U.S. Department of Commerce. (1991). Retailing. In U.S. industrial outlook, pp.40.1-40.10.

Van Buren-Carr: Private label geared to specialty stores. (1987, April). Stores, p. 16.

Wagner, J., Ettenson, R., \& Parrish, J, (1984, Spring). Vendor selection among retail buyers: An analysis by merchandise division. Journal of Retailing, 65(1), 58-79.

Walters, D., \& Knee, D. (1989, December). Competitive strategies in retailing. Long Range Planning, 22(6), 74-84.

Webster, F. E., \& Wind, Y. (1972). A general model for understanding organizational buying behavior. Journal of Marketing, 36, 12-19.

Wind, Y. J. (1982). Product policy: Concept, method, and strategy. Reading, MA: Addison-Wesley.

Wortzel, L. H. (1987, Spring). Retailing strategies for today's mature marketplace. The Journal of Business Strategy, (4), 45-57.

APPENDIX A
QUESTIONNAIRE

## 912032

## UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

Institutional Review Board Notification Form


MODIFICATIONS/COMMENTS:


Approval ni research is valid for one year unless otherwise indicated. If your research gees beyond
one year, the project mast be reviewed prior to continuation. one year, the project must be reviewed prior to continuation.

ACTION:IRB $1 / 20$

DEPARTMENT OF CLOTHING AND TEXTILES UNIVERSITY OF NORTH CAROLINA AT GREENSBORO GREENSBORO, NORTH CAROLINA 27412

PLEASE ANSWER ALL QUESTIONS IF YOU WISFI TO COMMENT ON QUESTIONS OR QUALIFY YOUR ANSWERS, PLEASE FEEL FREE TO USE THE SPACE IN THE MARGINS.

THANK YOU FOR YOUR HELP
1867

## RETAIL BUYER SURVEY

Part I
From the category below select two EQUIVALENT garments fairly typical of your department's price lines and quality for the Spring/Summer 1991 selling season. One garment must be a national brand, and the other garment a private brand. If you purchase only national or private brands, please go ahead and complete the questionnaire. A NATIONAL BRAND is an item which is both manufactured and marketed by the vendor (i.e., Levi or Hanes), while a Private Brand is manufactured exclusively for one retailer and is marketed by the retailer (i.e., The Limited Forenza brand).

APPAREL PRODUCT CATEGORY
APPARE PRod Chirts or Blous

1. Shirts or Blouses
2. Sweaters
3. Slacks
4. Skirts

PLEASE KEEP THE APPAREL PRODUCT CATEGORY SELECTED IN MIND AS YOU ANSNER THE QUESTIONS IN THIS SURVEY.

Category $\qquad$

1. The quality of the national and private brand garments should be equal. Please rate the quality of the garments by circling the appropriate number.
2. Excellent
3. Above Average
4. Average
5. Poor
6. Unsatisfactory
7. In terms of your cost, what percentage of goods purchased for Spring/Summer 1991 season were... (Fill in the appropriate percentage) National Brands Private Brands Total 100\%
8. Who in your firm makes the decision concerning the percentage of national and private apparel brands purchased? (Circle the appropriate number) 1. Buyer
9. President or Store owner
10. General Merchandise Manager
11. Joint decision between $1 \& 2$
12. Joint decision between 2 \& 3
13. Joint decision between $1 \& 3$
14. Other (please specify) $\qquad$ .
15. Do you buy for.... (Circle the one best number)
16. The entire store
17. A department (i.e., women's apparel)
18. A specific apparel category (i.e., blouses)
19. A specific apparel classification (i.e., missy updated separates)
20. In the space provided, please indicate the number of stores that you buy for $\qquad$ -

In the spaces below, please indicate the approximate square footage of selling space per store given to the apparel product category (from page 1).
6. Is the national brand item (Circle the appropriate number)

1. New/Fashion
2. Basic/Staple
3. Is the private brand item (Circle the appropriate number)
4. New/Fashion
5. Basic/Staple
6. Would you consider the national brand (Circle the one best number)

7. High Fashion
8. Fashion
9. Mass Fashion
10. Classic
11. Passe (Out of fashion)
12. Would you consider the private brand (Circle the one best number)
13. High Fashion
14. Fashion
15. Mass Fashion
16. Classic
17. Passe (Out of fashion)
18. Please record the approximate total square footage of selling space in your store or the average selling space of a single store in your firm?
19. Approximate annual sales volume of the apparel product category selected
(from page 1) or the average sales volume of this category if you buy for more than one store: (Circle the one best number)
20. Under $\$ 250,000$
21. $\$ 251,000-\$ 500,000$
22. $\$ 501,000-1$ million
23. $\quad \$ 1-10$ million
24. $\$ 10-50$ million
25. Over $\$ 50$ million

Part 1I
Select one purchase order involving a national brand and another purchase order which involves an equivalent private brand. Fill in the information in the appropriate column which pertains to each method of purchase. If you purchase only national or private brands, please complete the one appropriate column. Should a question not be applicable, move to the next question.

Category (from page l) $\qquad$

| NATIONAL | PRIVATE |
| :--- | :--- |
| Brand | Brand |

12. Is the national brand and private brand selected....(Circle all that apply)
13. What is the name of the national brand and private brand on the purchase order?
14. Number of items purchased on purchase order (e.g. total number received)
15. Purchase price (your cost) per item (e.g., $\$ 9.50$ ea.)
16. Transportation/insurance cost (Dollar amount paid to transfer goods from source to you)
17. Original retall price (Book selling price for each unit expressed in dollars and cents, e.g., \$19.99 ea.)
18. Shortages and damages at retail (Estimate total dollar amount)
19. Advertising allowance
(Total dollars available from vendor to promote merchandise)
20. Number of items sold at full retail from this order
21. Was there a promotional or advertised markdown taken? (Circle one for each brand) If no, please skip to Q24.
22. Advertised/promotional price
(i.e., Advertised for $\$ 12.99$ ea.)
23. Number of items sold at advertised/promotional price
24. Markdown/clearance price
(e.g., reduced to $\$ 5.00$ ea.)
25. Number of items sold at markdown price

| 1 Domestic <br> 2 Imported <br> 3 Loss leader <br> 4 High image/ <br> low profit <br> 5 ligh profit | 1 Domestic <br> 2 Imported <br> 3 Loss leader <br> 4 High image/ low profit <br> 5 High profit |
| :---: | :---: |
| Brandname | Brandname |
| \$ | \$ |
| \$ | \$ |
| \$ | \$ |
| \$ | \$ |
| \$ | S |
| Yes No | Yes No |
| \$ | S |
| \$ | \$ |
|  |  |

## Part 111



|  | $\begin{aligned} & \text { NO } \\ & \text { IMPORTANCE } \\ & \text { (1) } \end{aligned}$ | $\begin{aligned} & \text { VENDOR SELECTION } \\ & \text { MODERATE } \\ & \text { IMPORTANCE } \\ & \text { (2) } \end{aligned}$ | VERY IMPORTANT (3) | (7-34) |
| :---: | :---: | :---: | :---: | :---: |
| 1. Reorder availability | (1) | (2) | (3) |  |
| 2. Credit and finance | (1) | (2) | (3) |  |
| 3. Delivery reliability | (1) | (2) | (3) |  |
| 4. Promotional assistance | (1) | (2) | (3) |  |
| 5. Reputation of vendor | (1) | (2) | (3) |  |
| 6. Reputation of product | (1) | (2) | (3) |  |
| 7. Past experience with vendor | (1) | (2) | (3) |  |
| 8. Financial condition of vendor | (1) | (2) | (3) |  |
| 9. Novelty or innovative approach | (1) | (2) | (3) |  |
| 10. Return policy | (1) | (2) | (3) |  |
| 11. Fair prices | (1) | (2) | (3) |  |
| 12. Merchandise suitability | (1) | (2) | (3) |  |
| 13. Vendor distribution policy (exclusive, selective, intensive) | (1) | (2) | (3) |  |
| 14. Gross profit percentage | (1) | (2) | (3) |  |
| 15. Minimum order requirement | (1) | (2) | (3) |  |
| 16. Intra- and inter-store competition | (1) | (2) | (3) |  |
| 17. Packaging | (1) | (2) | (3) |  |
| 18. Extensive product variety | (1) | (2) | (3) |  |
| 19. Product quality | (1) | (2) | (3) |  |
| 20. Technical assistance | (1) | (2) | (3) |  |
| 21. Understanding of retailer's problems | (1) | (2) | (3) |  |
| 22. New product availability | (1) | (2) | (3) |  |
| 23. Services provided | (1) | (2) | (3) |  |
| 24. Recommendation of others | (1) | (2) | (3) |  |
| 25. Personal judgement | (1) | (2) | (3) |  |
| 26. Marketing expertise | (1) | (2) | (3) |  |
| 27. Consumer demand for a vendor <br> 28. Markdown allowance | (1) | (2) $(2)$ | (3) (3) |  |

Part IV:
The following information is for classification purposes.
27. Is the store which you buy for a chain? (Check one)
$\qquad$
$\qquad$
If yes, please record the number of stores in your chain $\qquad$ .
28. Please circle the location which best describes the majority of your
stores. (Circle one)

1. Central Business District
2. Regional Shopping Center
3. Strip Center
4. Free Standing Location
5. Other (please specify)
6. In what geographic location is your store? (Circle one)
7. Western States
8. South Central States
9. North Central States
10. Southeastern States
11. Northeastern States
12. Would you classify your store as: (Circle one)
13. International
14. National
15. Regional
16. Local
17. Circle the number which best represents the average number of part-time and full-time employees employed by your store, or a store in your firm. (Circle one)
18. 5 or few employees
19. 6 to 10 employees
20. 11 to 50 employees
21. 51 to 250 employees
22. 251 to 750 employees
23. 751 to more employees
24. Estimate the typical proportion of your buying activities. The total of
these three items should equal 100\%
_ \% New Task: The purchase of items not previously purchased by the firm.
\% Modified Rebuy: The purchase of items purchased in the past but not recently or regularly.
__ Straight Rebuy: The purchase of an item which is purchased
frequently and regularly.
$100 \%$
25. Do you have a special shop (i.e boutique) for your national brand? (Check one)
$\xrightarrow[2]{1}$. Yes $\longrightarrow$ Square footage $\longrightarrow$
26. No $\qquad$ (i.e. boutique)
27. Do you have a special shop (i.e. boutique) for your private brand? (Check one)
28. $\mathrm{Yes} \longrightarrow$ Square footage
29. $\mathrm{No} \longrightarrow$
(43-51)
$\qquad$
30. Considering all sales revenues generated by the apparel product category (from page 1) what percentage of revenues of goods sold for the Spring/Summer 1991 season were...... (Fill in the appropriate percentage) National Brands $\qquad$ Privata Brands Total
$100 \%$
31. Considering all sales revenues generated by the apparel product category (from page 1) what percentage of revenues of goods sold for the past year (i.e., Spring/Summer' 91 and Fall/Winter 'go) were...... (Fill in the appropriate percentage)
National Brands
Private Brands
Total
$100 \%$
32. What is your gender? (Circle one)
33. Male 2. Female
34. What is your age? $\qquad$
35. Highest degree completed (Circle one)
36. High School Diploma
37. Technical School or Community College
38. Bachelors
39. Masters
40. Advanced Degree
41. Other (list)
42. How long have you been a retail buyer? (Total number of years in occupation) (Circle one)
43. Less than 2 years
44. 2 to 5 years
45. 6 to 10 years
46. 11 to 15 years
47. Over is years
48. How long have you been buying for this store? (Circle one)
49. Less than 2 years
50. 2 to 5 years
51. 6 to 10 years
52. 11 to 15 years
53. Over 16 years
54. Approximate annual sales volume of your store or the average sales volume of a single store if you buy for more than one store: (Circle one)
55. Under 5250,000
56. $\$ 251,000-\$ 500,000$
57. $5501,000-1$ milition
58. $\$ 1$ - 10 million
59. $\$ 10-50$ million
60. Over $\$ 50$ million

Is there anything else that you would like to tell us about purchasing national or private brands? Please use this space, or the back of this booklet if needed for that purpose. RESULTS REQUESTED" on the back of the return envelope (Not on this questionnaire) and I will see that you receive a copy.

## APPENDIX B

## IdENTIFICATION OF VENDOR SELECTION

 CRITERIA ITEMSAppendix B
Identification of Vendor Selection Criteria Items
ITEM ..... CS (a) RME(b) CI (c)

1. Reorder availability ..... $x$
$x$
2. Credit and finance ..... $X$
3. Delivery reliability$X$
4. Promotional assistance$X$
5. Reputation of vendor$X$
6. Reputation of product ..... X
7. Past experience with vendor ..... $X$
8. Financial condition ofvendorX
9. Novelty or innovativeapproachX
10. Return policy
11. Fair prices12. Merchandise suitability$X$
12. Vendor distribution policy (exclusive, selective, orintensive) $X$14. Gross profit percentage$X$
13. Minimum order requirement ..... $X$
14. Intra- and inter-store competition ..... $X$
15. Packaging18. Extensive product variety19. Product quality$x$$x$20. Technical assistance.$X$
16. Understanding of retailer's problem ..... $X$
17. New product availabilityX
18. Services providedX
19. Recommendation of others
20. Personal judgment ..... $x$26. Marketing expertise27. Consumer demand for a vendorX28. Markdown allowance$X$
a. CS refers to Competitive Structure. b. RME refers to Relative Marketing Effort. c. CI refers to Corporate Image.

## APPENDIX C

FIELD TEST EVALUATION FORM

## FIELD TEST EVALUAIION FORH

Please use this form to give your critical reaction to the questionnaire once you have completed it.

1. Was there anything special that made you want to or not want to fill out the questionnaire?
2. What problems, if any, did you have in answering the questions? Please indicate which question(s) (question number) and the problem(s) you had.
3. If there were questions for which you did not find an appropriate answer given and no opportunity to list your own, please indicate which question(s) and your answer(s).
4. Did you find the questionnaire easy to fill out?
5. Was the size of the print too small?
6. Do the sections of the questionnaire come in an appropriate order?
7. If you had received this questionnaire in the mail, would you have completed and returned it in a provided self-addressed stamped envelope? If no, what would make you want to complete and return the questionnaire?
8. About how long did it take you to fill out the questionnaire?
9. Please give any other suggestions or comments that would improve the questionnaire.

School of Human Environmental Sciences

Deprartmant of Clothing and Textiles
242 Stone Building, UNCG
Greensboro, NC 27412.5001
(919) 334.5250

September 5, 1991

WORTH RATLIFF
WORTH RATLIFF CO INC
ALBERTVILLE SHOPPING CENTER
218 HWY 431 SO
ALBERTVILLE, AL 35950
Dear Mr. Ratliff:
Your store has been selected to participate in a national study involving national and private women's apparel brands. This will examine the factors that affect the performance of both national and private sportswear brands.

In the coming week you will receive several copies of a questionnaire which can be completed in approximately 15 minutes. please take the time to give a copy of the survey to all women's sportswear buyers in your area and encourage them to complete and return the survey.

I emphasize that all information is confidential. This study does not seek department or store profit information. Each questionnaire is numerically coded for clerical purposes only.

The results of this research will be made available to interested respondents. Your buyers may receive a summary of the results by writing "Copy of Results Requested" on the return envelope.

Your cooperation is greatly appreciated. If you have any questions concerning this study, or if you do not desire to participate, please write or call (803) 323-2186 or fax (803) 323-3960.

Sincerely,

Jane B. Thomas
Doctoral Candidate

Nancy L. Cassill, Ph.D. Major Professor

School of Human Environmental Sciences

Department of Clothing and Taxtiles
242 Stone Bulding, UNGG
Greensboro, NC 27412.5001
(919) 334.5250

September 12, 1991
THE
UNIVERSITY OF

WORTH RATLIFF
WORTH RATLIFF CO INC
ALBERTVILLE SHOPPING CENTER
218 HWY 431 SO
ALBERTVILLE, AL 35950
Dear Mr. Ratliff:
Recently you received a letter indicating that your firm had been selected to participate in a national study of department stores national and private apparel brands. Your cooperation in having your women's sportswear buyers complete and return this survey is greatly appreciated.

In order that the results of this study truly represent actual buying situations, it is important that each questionnaire be completed by the person(s) responsible for buying women's sportswear. I have enclosed a copy of the survey for each sportswear buyer who was listed in Sheldon's 1991 Retail Directory. Please give the survey (which should take 15 minutes to complete) to each of your buyers and encourage them to complete and return the survey to you. I have enclosed a return envelope which can be used by you to return all surveys. Please return completed surveys by September 23.

Your answers will remain strictly confidential. The survey has an identification number, for mailing purposes only, to help me verify your store's response on my mailing list when a survey is returned. Neither you, the name of your store, or buyers will be identified with responses.

Please contact me at (803) 323-2186 or fax (803) 323-3960 if you have any questions.

Sincerely,

Jane B. Thomas
Doctoral Candidate

Nancy L. Cassill, Ph.D.
Major Professor

## School of Human Environmental Sciences

Depmitment of Clothing and Textiles
242 Stone Building. UNCG
Greensboro, NC 27412.5001
(919) 334.5250

UNCG
September 18, 1991

WORTH RATLIFF
WORTH RATLIFF CO INC
ALBERTVILLE SHOPPING CENTER
218 HWY 431 SO
ALBERTVILLE, AL 35950
Dear Mr. Ratliff:
Two weeks ago $I$ wrote to you seeking information concerning national and private apparel brands. As of today, $I$ have not received any completed questionnaire(s) from your company.

Your input is genuinely needed if this research is to be of high quality. Although the questionnaire is not long, I would very much appreciate the time and effort your buyer(s) spend completing it.

Again, let me assure you of the confidentiality of your responses. specific store or department profit is not the concern of this research and your responses will never be released to anyone. If you have any questions at all, please feel free to contact me at (803) 323-2186 or Fax (803) 3232-3960.

Sincerely,

Jane Boyd Thomas
Doctoral Candidate

Nancy C. Cassill
Major Professor
JBT/NCC/pvh

## APPENDIX E

REASONS FOR DECLINING TO PARTICIPATE IN THE STUDY
Appendix E
Analysis of Reasons for Declining to Participate in the Study (a)
Out Of BusinessNo Apparel Was Sold

\# of Stores | 7 |
| :---: |
| 7 |$\quad \frac{\text { of Buyers }}{7}$

Did Not Want To Participate ..... 347
Incorrect Address
No Buyer8
Centralized Buying8
No Private Label Carried8
No Records Of Purchases189101
18671124
(a) Each of the stores requested that their name be removed from the mailing list and provided the rationale which was recorded.

## APPENDIX F <br> A NUMERICAL EXAMPLE OF CALCULATING MAINTAINED MARKUP PERCENTAGE

## Appendix F <br> Numerical Example of Calculating Maintained Markup Percentage

```
A national brand shirt had the following purchase and sales data for the Spring/Summer 1991.
Purchase and Sales Data
Number of items purchased \(=150\) units (Q14)
Purchase price per item \(=10.00\) (Q15)
Transportation/insurance \(=25.00\) (Q16)
Original retail selling price \(=20.00\) (Q17)
Shortages and damages at retail \(=20.00\) (Q18)
Number of items sold at full retail \(=60\) (Q20)
Advertised/promotional price \(=15.99\) (Q22)
Number of items sold at advertised/promotional price \(=30\) (Q23)
Markdown/clearance price \(=12.99\) (Q24)
Number of items sold at markdown price \(=40\) (Q25)
```

Using this data, the maintained markup dollar and percentage can be calculated as follows:

MMS $=($ RP-RED $)-C M S$
$R P=150 * 20.00=\$ 3,000$
RED = shortages (\$20.00)

+ advertised markdowns $[(\$ 20.00-\$ 15.99) * 30]=\$ 120.30$
+ markdown/clearance $[(\$ 20.00-\$ 12.99) * 40)]=\$ 280.40$
$\$ 420.70$
CMS $=(150 * \$ 10.00)+25.00=\$ 1,525$
Therefore, MM\$ $=(\$ 3,000-\$ 420.70)-\$ 1,525=\$ 1054.30$
$M M \%=M M \$ / N S$

$$
N S=(\$ 20.00 * 60)+(\$ 15.99 * 30)+(\$ 12.99 * 40)=\$ 2,199.30
$$

Therefore, $M 4 \%=\$ 1054.30 / \$ 2,199.30=47.9 \%$

```
Appendix G
Correlation Matrix of Paired Maintained Markup Percentages (a)
```

Pearson Correlation Coefficients / Prob > |RI under Ho: Rho=0 / Number of Observations

|  | MMPNB1 | MMPPB1 | MMPNB2 | MMPPB2 |
| :--- | :--- | ---: | ---: | ---: |
| MMPNB1 | 1.00000 | 0.84408 | -0.11550 | 0.20515 |
|  | 0.0 | 0.0003 | 0.6819 | 0.5013 |
|  | 16 | 13 | 15 | 13 |


| MMPPB1 | 0.84408 | 1.00000 | 0.33266 | 0.70103 |
| :--- | ---: | ---: | ---: | ---: |
|  | 0.0003 | 13 | 0.0 | 0.2907 |
|  |  | 13 | 12 | 0.0162 |
| MMPNB2 | -0.11550 | 0.33266 | 1.00000 | 0.90722 |
|  | 0.6819 | 0.2907 | 0.0 | 0.0001 |
|  | 15 | 12 | 16 | 14 |
| MMPPB2 | 0.20515 | 0.70103 | 0.90722 | 1.00000 |
|  | 0.5013 | 0.0162 | 0.0001 | 0.0 |
|  | 13 | 11 | 14 | 14 |

(a) MMPNB1 - Refers to the maintained markup percentage for the first pair of national brand apparel items.

MMPPB1 - Refers to the maintained markup percentage for the first pair of private brand apparel items.

## APPENDIX H

ANALYSES FOR NATIONAL BRANDS

## Appendix H-1

Initial Analysis of Covariance for Mational Brands
Dependent Variable: Maintained Markup Percentage for National Brand

|  | DF | Sum of <br> Source | Mean <br> Squares | Pquare | F Value |
| :--- | ---: | ---: | ---: | ---: | ---: |


| $\begin{aligned} & \text { R-Square } \\ & 0.387913 \end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Source | DF | Type 1 SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| Retailer Size | 5 | 11259.083536 | 2251.816707 | 1.25 | 0.2974 |
| Retailer Type | 1 | 94.655330 | 94.655330 | 0.05 | 0.8195 |
| Retailer Location | 2 | 3634.131361 | 1817.065681 | 1.01 | 0.3708 |
| Type of Merchandise | 3 | 6879.849701 | 2293.283234 | 1.27 | 0.2918 |
| Product Positioning | 2 | 10669.674133 | 5334.837067 | 2.96 | 0.0593 |
| New Task | 1 | 868.065254 | 868.065254 | 0.48 | 0.4903 |
| Modified Rebury | 1 | 60.142832 | 60.142832 | 0.03 | 0.8556 |
| Straight Rebuy | 1 | 223.193515 | 223.193515 | 0.12 | 0.7269 |
| Competitive Structure | 1 | 740.000297 | 740.000297 | 0.41 | 0.5240 |
| Relative Marketing Effort | 1 | 1370.114299 | 1370.114299 | 0.76 | 0.3867 |
| Vendor Characteristics | 1 | 15352.992378 | 15352.992378 | 8.52 | 0.0049 |
| Corporate Image | 1 | 18253.492385 | 18253.492385 | 10.13 | 0.0023 |
| Brand Mix | 1 | 259.765136 | 259.765136 | 0.14 | 0.7055 |
| Source | DF | Type 111 SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| Retailer Size | 5 | 5269.649269 | 1053.929854 | 0.58 | 0.7114 |
| Retailer Type | 1 | 89.137622 | 89.137622 | 0.05 | 0.8247 |
| Retailer Location | 2 | 508.470438 | 254.235219 | 0.14 | 0.8687 |
| Type of Merchandise | 3 | 15680.142903 | 5226.714301 | 2.90 | 0.0421 |
| Product Positioning | 2 | 13966.013011 | 6983.006505 | 3.88 | 0.0260 |
| New Task | 1 | 343.212544 | 343.212544 | 0.19 | 0.6641 |
| Modified Rebuy | 1 | 65.160589 | 65.160589 | 0.04 | 0.8498 |
| Straight Rebuy | 1 | 227.587495 | 227.587495 | 0.13 | 0.7235 |
| Competitive Structure | 1 | 1233.378862 | 1233.378862 | 0.68 | 0.4113 |
| Relative Marketing Effort | 1 | 22.589842 | 22.589842 | 0.01 | 0.9112 |
| Vendor Characteristics | 1 | 9950.255759 | 9950.255759 | 5.52 | 0.0220 |
| Corporate Image | 1 | 18343.442255 | 18343.442255 | 10.18 | 0.0022 |
| Brand Mix | 1 | 259.765136 | 259.765136 | 0.14 | 0.7055 |

Appendix H-2
Analysis of Covariance for Mational Brands
Dependent Variable: Maintained Markup Percentage for National Brand

| Source | DF | Sum of <br> Squares | Mean <br> Square | F Value | Pr > F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Model | 7 | 61842.942462 | 8834.706066 | 5.63 | 0.0001 |
| Error | 75 | 117746.786881 | 1569.957158 |  |  |
| Corrected Total | 82 | 179589.729343 |  |  |  |
|  |  |  |  |  |  |

R-Square
0.344357

| Source | DF | Type I SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Merchandise | 3 | 6436.510542 | 2145.503514 | 1.37 | 0.2595 |
| Product Positioning | 2 | 17384.063905 | 8692.031953 | 5.54 | 0.0057 |
| Vendor Characteristics | 1 | 17207.842733 | 17207.842733 | 10.96 | 0.0014 |
| Corporate Image | 1 | 20814.525281 | 20814.525281 | 13.26 | 0.0005 |
| Source | DF | Type III SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| Type of Merchandise | 3 | 15713.529845 | 5237.843282 | 3.34 | 0.0238 |
| Product Positioning | 2 | 22168.397825 | 11084.198913 | 7.06 | 0.0016 |
| Vendor Characteristics | 1 | 11901.689909 | 11901.689909 | 7.58 | 0.0074 |
| Corporate Image | 1 | 20814.525281 | 20814.525281 | 13.26 | 0.0005 |

## APPENDIX I

## aNALYSES FOR PRIVATE BRANDS

## 극 Analysis of Covariance for Private Brands

Dependent Variable: Maintained Markup Percentage for Private Brand

|  | DF | Sum of <br> Squares | Mean <br> Square | F Value | Pr $>$ F |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Source | 21 | 128601.51055 | 6123.88145 | 1.01 | 0.4714 |
| Model | 42 | 254312.88607 | 6055.06872 |  |  |
| Error | 63 | 382914.39662 |  |  |  |

0.335849

| Source | DF | Type 1 SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Retailer Size | 5 | 42116.044963 | 8423.208993 | 1.39 | 0.2472 |
| Retailer Type | 1 | 1009.964976 | 1009.964976 | 0.17 | 0.6850 |
| Retailer Location | 2 | 2871.256123 | 1435.628062 | 0.24 | 0.7900 |
| Type of Merchandise | 3 | 24600.871444 | 8200.290481 | 1.35 | 0.2698 |
| Product Positioning | 2 | 17123.297430 | 8561.648715 | 1.41 | 0.2545 |
| New Task | 1 | 3352.270761 | 3352.270761 | 0.55 | 0.4610 |
| Modified Rebuy | 1 | 224.486255 | 224.486255 | 0.04 | 0.8482 |
| Straight Rebuy | 1 | 133.192956 | 133.192956 | 0.02 | 0.8828 |
| Competitive Structure | 1 | 1753.133774 | 1753.133774 | 0.29 | 0.5934 |
| Relative Marketing Effort | 1 | 16364.160472 | 16364.160472 | 2.70 | 0.1077 |
| Vendor Characteristics | 1 | 16819.361303 | 16819.361303 | 2.78 | 0.1030 |
| Corporate Image | 1 | 496.058482 | 496.058482 | 0.08 | 0.7761 |
| Brand Mix | 1 | 1737.411608 | 1737.411608 | 0.29 | 0.5950 |
| Source | DF | Type [11 SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| Retailer Size | 5 | 44420.888955 | 8884.177791 | 1.47 | 0.2209 |
| Retailer Type | 1 | 4684.878435 | 4684.878435 | 0.77 | 0.3841 |
| Retailer Location | 2 | 4857.248244 | 2428.624122 | 0.40 | 0.6721 |
| Type of Merchandise | 3 | 31194.397054 | 10398. 132351 | 1.72 | 0.1780 |
| Product Positioning | 2 | 1480.786398 | 740.393199 | 0.12 | 0.8852 |
| Hew Task | 1 | 1253.776094 | 1253.776094 | 0.21 | 0.6514 |
| Modified Rebuy | 1 | 1796.109167 | 1796.109167 | 0.30 | 0.5889 |
| Straight Rebuy | 1 | 1134.908139 | 1134.908139 | 0.19 | 0.6673 |
| Competitive Structure | 1 | 140.594377 | 140.594377 | 0.02 | 0.8796 |
| Relative Marketing Effort | 1 | 16618.363067 | 16618.363067 | 2.74 | 0.1050 |
| Vendor Characteristics | 1 | 14516.235796 | 14516.235796 | 2.40 | 0.1290 |
| Corporate Image | 1 | 949.260671 | 949.260671 | 0.16 | 0.6942 |
| Brand Mix | 1 | 1737.411608 | 1737.411608 | 0.29 | 0.5950 |

## Dependent Variable: Maintained Markup Percentage for Private Brands

| Source | DF | Sum of Squares | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Model | 10 | 113069.43147 | 11306.94315 | 2.22 | 0.0304 |
| Error | 53 | 269844.96515 | 5091.41444 |  |  |
| Corrected Total | 63 | 382914.39662 |  |  |  |
| $\begin{aligned} & \text { R-Square } \\ & 0.295286 \end{aligned}$ |  |  |  |  |  |
|  |  |  |  |  |  |
| Source | DF | Type I SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| Type of Merchandise | 3 | 20858.424812 | 6952.808271 | 1.37 | 0.2633 |
| Retailer Size | 5 | 46810.584488 | 9362.116898 | 1.84 | 0.1219 |
| Relative Marketing Effort | 1 | 29096.626161 | 29096.626161 | 5.71 | 0.0204 |
| Vendor Characteristics | 1 | 16303.796005 | 16303.796005 | 3.20 | 0.0793 |
| Source | DF | Type III SS | Mean Square | F Value | $\mathrm{Pr}>\mathrm{F}$ |
| Type of Merchandise | 3 | 38058.255498 | 12686.085166 | 2.49 | 0.0701 |
| Retailer Size | 5 | 55829.601837 | 11165.920367 | 2.19 | 0.0687 |
| Relative Marketing Effort | 1 | 26280.711509 | 26280.711509 | 5.16 | 0.0272 |
| Vendor Characteristics | 1 | 16303.796005 | 16303.796005 | 3.20 | 0.0793 |

