

PROFILES OF THREE FEMALE AGE GROUP
SEGMENTS IN RELATION TO
BRA PURCHASE

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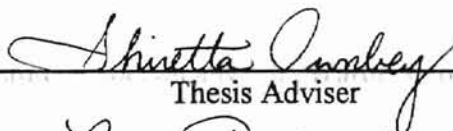
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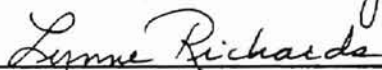
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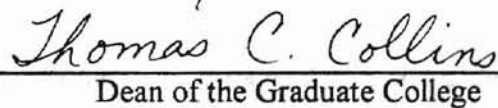
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CHAPTER I

INTRODUCTION

According to Gale Gehlson and Lela June Stoner's report, the female breasts contain no muscle tissues (Cummins, 1989). They actually contain loose fatty tissues (Bayne, 1968) and anatomically are "two glandular structures lying over the pectoralis major muscles on the anterior chest wall" (Haycock, 1978, p. 50). Support for the breasts primarily depends on the skin and Cooper's "ligaments" which differ from the ligaments attaching muscles to bone or support joints (Costantakos & Watkins, 1982; Haycock, 1978). Gehlson and Stoner's report explains that the Cooper's Ligaments are indeed weak cables that stretch easily and thus permit the breasts to sag (Cummins, 1989).

With advancing age, most women's breasts become flatter and longer (Haycock, 1978). In primitive areas of the world, middle-aged women who wear nothing to support their breasts have flattened and long pendulous breasts. However, this sagging happens much later in civilized areas where women wear some breast supporting garments.

According to Haycock (1978), "society has attached to the female breast various sexual connotations [sic] as size and attractiveness" (p. 50). A woman's breasts may be considered attractive because of size, healthy-looking roundness, and firm shape. To increase attractiveness, many women have used bras everyday to avoid sag, to modify the shape of their breasts, or to make breasts appear larger or smaller. Apparently, bras provide various benefits to satisfy current female consumer needs.

The term "bra benefits sought" may be used to refer to any benefits that bra consumers seek. As a woman's breast shape changes through the aging process, a female

consumer may use bras for different needs. During the stage of breast development, teenage females may search for stretchy, soft, and comfortable bras. With mature breasts, baby busters (ages 20 to 31) may look for ease of care and fashion, whereas baby boomers (ages 32 to 50) may seek support, sexual attractiveness, and style from bras.

Clothing researchers have investigated clothing benefits in terms of measuring the importance of attributes (or evaluative criteria) and descriptive benefits (e.g., Aiken, 1963; Cassill & Drake, 1987; Jenkins & Dickey, 1976; Shim & Bickle, 1994; Shim & Drake, 1988). A commonality of the previous studies of clothing benefits is that researchers focused on the same type of merchandise--the general garment. By examining the general garment solely, it is difficult to capture the benefits sought by consumers from specific types of apparel. For instance, a female consumer may seek benefits such as contributing to her social status or mobility from a career suit, but not from a bra at all. The benefits sought from a career suit and from a bra may be very different.

As compared to general garments, the usage rate of bras is very intensive for female consumers; they may wear skirts often but not on a daily basis as bras are worn. Thus, the bra can be considered a very important apparel item to female consumers. However, research on bras is limited. Among existing studies, most have been focused on nursing bras (e.g., Costantakos & Watkins, 1982), sports bras (e.g., Gehlsen & Albohm, 1980; Haycock, Shierman, & Gillette, 1978; Hunter & Torgan 1982; Lawson & Lorentzen, 1990), or bra history (e.g., Ewing, 1978). Little research has focused on bra segmentation (e.g., Richards & Sturman, 1977) or why female consumers need bras.

To earn market share and profits, it is important for bra manufacturers and retailers to have an effective method of segmenting consumers by an easily identifiable trait such as age. If female bra consumers who are segmented by age have distinct psychographically-oriented traits, marketers can utilize these traits to predict consumer preferences and decisions. Bra manufacturers and retailers can then choose their target age groups and attempt to meet these groups' needs. Since the bra benefits that female consumers seek may vary by age and have not been identified, it is necessary to investigate consumer behavior in relation to the bra, an intensively used apparel product.

Purpose and Conceptual Framework

The overall purpose of this study was to profile female consumers in three different age groups--teens, baby busters, and baby boomers-- in terms of bra benefits sought, psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with certain bra purchase and use issues, and overall bra satisfaction level.

The conceptual framework used for this study was an outgrowth of the High-Involvement Decision Process postulated by Engel and Blackwell (1982). This model illustrated that product benefits received by consumers occur as a result of consumer decisions, which are, in turn, influenced by psychographics. In two previous studies (Cassill & Drake, 1987; Shim & Bickle, 1994), researchers adapted Engel and Blackwell's model to investigate relationships among consumer traits, consumer decision making, and consumer product benefits. Shim and Bickle (1994) adopted the Engel and Blackwell

model to hypothesize that “psychographics, shopping orientations, and demographics ^{in a} exert influence on benefits which consumers seek from clothing” (p. 2). Shim and Bickle generated profiles for three consumer segments which were grouped upon the basis of the clothing benefits consumers sought.

Of interest in the Shim and Bickle study (1994) was the finding that the three clothing benefits segments had distinct age characteristics, indicating relationships among age and various psychographically-oriented variables (i.e., shopping orientations, psychographic traits, and product benefits sought by consumers). Based on this finding and other consumer clothing studies which have indicated that age is an important factor in fashion change (Chowdhary, 1989; Greco & Paksoy, 1989; Gutman & Mills, 1982), the current bra study was based on a conceptual framework which incorporates age as an integral variable associated with various psychographically-oriented consumer characteristics (i.e., religious and spiritual involvement, psychographics, and bra consumer attributes such as shopping orientations, bra benefits sought, patronage behavior, and satisfaction levels of consumers). Figure 1 (page 87) illustrates the conceptual framework for the current study. The model implies that there are relationships between age and certain consumer attributes. In addition, age may influence the variables, spiritual and religious involvement and psychographics, which may, in turn, influence various consumer attributes. There may also be relationships among the consumer attribute variables themselves. This study focused on testing the sequential relationship of age to variables indicated in the model (i.e., spiritual and religious involvement, psychographics, benefits sought, shopping orientations, patronage behavior, satisfaction with purchase and use

issues, and overall satisfaction level). These concepts were applied to the situation of bra purchase and use.

Objectives

This study attempted to achieve the following objectives:

1. To investigate the benefits sought by female bra purchasers;
2. To segment the bra market based on age groups: teens (born 1977-1981), baby busters (born 1965-1976), and baby boomers (born 1946-1964);
3. To identify psychographics, shopping orientations, patronage behavior, and perceived level of spiritual and religious involvement of each age group;
4. To investigate satisfaction with five bra purchase and use issues and overall bra satisfaction level of female bra purchasers in each age group; and
5. To develop a profile of each age group in terms of bra benefits sought, psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with five bra purchase and use issues, and overall bra satisfaction level.

Research Questions

1. Do three female age groups (teens, baby busters, and baby boomers) differ significantly with regard to bra benefits sought?
2. Do the three identified female age groups differ with regard to psychographics?
3. Do the three identified female age groups differ with regard to shopping orientations?

4. Do the three identified female age groups differ with regard to patronage behavior?
5. Do the three identified female age groups differ with regard to perceived level of spiritual and religious involvement?
6. Do the three identified female age groups differ with regard to satisfaction with five bra purchase and use issues and overall bra satisfaction level?

Definitions

Attributes are features or characteristics of an object (Shim & Bickle, 1994).

Baby boomers are individuals born between 1946 and 1964.

Baby busters are individuals born between 1965 and 1976.

Bra band size is a number from 32 to 52 which equals the measurement of the rib cage just below the bust plus 5 or 6 inches to result in an even number (Brown, 1992; Thomas, 1995).

Bra benefits sought refers to benefits that a consumer seeks from wearing a particular bra.

Bra cup size is a letter ranging from AAA to F which represents the difference between the measurement of the bust at its fullest point and bra band size. If the difference is the same or less than band size, the cup size is AAA; 1/2 inch, AA; 1 inch, A; 2 inches, B; 3 inches, C; 4 inches D; 5 inches DD/E; 5 1/2 inches F (Brown, 1992; Thomas, 1995).

Demographics refers to the characteristics of the human population such as size, growth, density, distribution, and vital statistics; used in research to describe the segments of consumers (Engel, Blackwell, & Miniard, 1990).

Descriptive benefits are the outcomes that attributes may provide (Shim & Bickle, 1994).

Evaluative criteria refers to “the standards and specifications used by consumers to compare different products and brands” (Engel et al., 1990, p. 479).

Extrinsic cues refer to attributes that are not part of the physical product but are added by retailers and manufacturers (Olson & Jacoby, 1972).

Intrinsic cues refer to physical characteristics that are inherent in a product (Olson & Jacoby, 1972).

Patronage behavior is a store choice which represents an individual’s preference for a particular store (Shim & Kotsiopoulos, 1992a).

Psychographics refers to psychological profiles of individuals regarding life-styles of Activities, Interests, and Opinions (AIOs) (Schiffman & Kanuk, 1994).

Shopping orientation is a consumer’s shopping life-style that places particular emphasis on certain activities, interests, and opinions, and reflects a view of shopping as a complex social, recreational, and economic phenomenon (Hawkins, Best, & Coney, 1989; Howell, 1979).

Teens surveyed in this study are individuals ages 15 to 19 (born between 1977 and 1981).

Assumptions and Limitations

Assumptions

This study assumed that bra benefits sought by each age group differed significantly. Reasons for differences may include the change of body-shape throughout a female's life, activities, interests, opinions, shopping orientations, store choice, the aging process, life-cycles, and other factors. For instance, comfort might be a focus of teenage females due to the developing breasts, whereas sexual attractiveness might be important to the boomer females due to relationships. While price and ease of care might be crucial to buster females due to economic reasons, modesty might strongly influence some older females. The baby buster females might consider fashion as important, whereas the more mature consumers might focus on fit and function when choosing a bra.

Limitations

The findings of the study had bias due to the following reasons:

1. The study involved use of a convenience sample.
2. The respondents drawn in one state did not represent the entire U.S. population.
3. One age group of the sample was drawn from a metropolitan area, whereas the other groups of the sample were drawn from a smaller town where limited retail outlets were available. This difference may have influenced respondents' store choices.
4. Because the respondents' characteristics were not compared to averages for the U.S. female population, the sample might be unbalanced.

5. No analysis was conducted on the influences of certain demographics on psychographically-oriented variables. For instance, family size which was not examined in the study, may impact boomers' disposable income for bra purchases.

Therefore, findings are not generalizable to all females of the specified age groups.

CHAPTER II

LITERATURE REVIEW

The literature review covers the following topics related to bra purchase and use: clothing benefits, psychographics, shopping orientations, patronage behavior, religiosity, influence of age groups on apparel choices, and bra studies/research.

Clothing Benefits

Clothing benefits include apparel attributes and descriptive benefits. Attributes are the features or characteristics of an object, while descriptive benefits are the outcomes that attributes may provide (Shim & Bickle, 1994). For instance, the name brand of a dress is an attribute, whereas prestige the wearer perceives is a descriptive benefit. In general, descriptive benefits are more abstract and psychological than attributes. Several researchers have studied apparel attributes in terms of evaluative criteria, intrinsic cues, and extrinsic cues (e.g. Abraham-Murali & Littrell, 1995; Cassill & Drake, 1987; Eckman, Damhorst, & Kadolph, 1990; Jenkins & Dickey, 1976; Shim & Drake, 1988). By examining attributes solely, however, it is difficult to understand consumers' psychological needs (Shim & Bickle, 1994). Thus, several researchers have also investigated descriptive benefits from the social-psychological approach (e.g., Ericksen & Sirgy, 1985; Koch & Dickey, 1988; Shim & Bickle, 1994; Sweat, Kelley, Blouin, & Glee, 1981). This section reviews both apparel attributes and descriptive benefits.

Apparel Attributes

Intrinsic and extrinsic cues. Apparel researchers have used intrinsic and extrinsic cues to examine overall apparel judgments made by consumers (e.g., Abraham-Murali & Littrell, 1995; Eckman et al., 1990; Fiore & Damhorst, 1992; Hatch & Roberts, 1985; Szybillo & Jacoby, 1974). Intrinsic cues refer to physical characteristics that are inherent in the product; and extrinsic cues are attributes that are not part of the physical product but added by retailers and manufacturers (Olson & Jacoby, 1972). Researchers have found that intrinsic cues are used by apparel consumers on overall judgment more frequently than extrinsic cues (Abraham-Murali & Littrell, 1995; Eckman et al., 1990).

Eckman et al. (1990) identified intrinsic cues from 21 previous studies: product composition, style, color/design, fabric, appearance, fiber content, performance, care, fit or sizing, durability, comfort, safety, colorfastness, construction quality, physical quality, fabric quality, and sex appropriateness. Among these cues, style, color, design, fabric, and appearance are examined most frequently. Specifically, style is considered the most important intrinsic cue when making an apparel purchase decision (Davis, 1987; Eckman et al., 1990).

Eckman et al. (1990) also identified nine extrinsic cues from the same 21 previous research studies: price, brand name or label, country of origin, store image, coordination with wardrobe, salesperson's evaluation, department in store, approval of others, and warranty. The most extensively used extrinsic cues are price and brand name/label (Abraham-Murali & Littrell, 1995; Cassill & Drake, 1987; Davis, 1987; Eckman et al., 1990; Jenkins & Dickey, 1976). In general, the effects of price depend on the type of

garment and other product-related variables. For instance, price is a more important determinant on perceived quality of blouses and suits than on socks and sweaters (Hatch & Roberts, 1985).

While the effects of price were shown to be relatively consistent in previous research, studies have revealed contradictory effects of brand name on quality evaluation of apparel products. For example, Davis (1985) indicates that quality is rated significantly higher for name brand skirts than for nonbranded skirts. However, Forsythe (1991) found that consumers' perceptions of shirt quality depend on actual garment characteristics (intrinsic cues), rather than on designer, private, or national brand name. Apparently, consumers choose designer branded shirts not for assurance of quality, but for other reasons.

In general, both intrinsic and extrinsic cues can be used in isolation and in conjunction with other cues. Nevertheless, the degree of contribution of each cue or cue combination when evaluating different apparel items is found to be different (Eckman et al., 1990; Hatch & Roberts, 1985, Szybillo & Jacoby, 1974). For example, the same set of cues such as fiber content, price, country of origin, and product guarantee are more important in judging the quality of suits and blouses than in judging that of socks and sweaters (Hatch & Roberts, 1985). Similarly, the perceived importance of workmanship when buying garments in general is considered more important than when buying specific garments (Eckman et al., 1990).

Evaluative criteria. Evaluative criteria refers to “the standards and specifications used by consumers to compare different products and brands” (Engel et al., 1990, p. 479).

Apparel evaluative criteria are, in fact, the intrinsic and extrinsic cues used by consumers to compare different items in making clothing choices. Because apparel evaluative criteria are also types of clothing attributes, they can be used to understand consumer needs (Jenkins & Dickey, 1976). Clothing and consumer researchers have categorized apparel evaluative criteria either by apparel categories or by dimensional levels of attributes to study clothing benefits that consumers seek (e.g., Cassill & Drake, 1987; Eckman et al., 1990; Jenkins & Dickey, 1976; Shim & Drake, 1988).

Based on different apparel categories studied, researchers have classified clothing criteria in several ways. Eckman et al. (1990) generated four evaluative classifications related to consumer decisions for purchase of both general and specific garments: aesthetics, usefulness, performance and quality, and extrinsic criteria. Jenkins and Dickey (1976) grouped consumers of generic apparel on the basis of two dimensions underlying evaluative criteria for apparel choice: appearance and practicality. Kelley, Strother, Blouin, and Crouch (1986) classified innerwear and outerwear attributes into similar groups: aesthetic and performance criteria. Also, Cassill and Drake (1987) identified three evaluative categories used by female consumers to purchase social apparel: appropriateness, economic, and other-people directed. Shim and Drake (1988) found similar evaluative factors for the purchase of career apparel: quality conscious, social directed, appropriate, and economic.

Researchers have also categorized criteria in terms of dimensional levels of apparel attributes: unidimensional and multidimensional attributes (e.g., Abraham-Murali & Littrell, 1995; Hatch & Roberts, 1985). A unidimensional attribute involves a single

characteristic, often related to the garment composition or construction such as fiber content and color criteria. A multidimensional attribute is a function of or results from two or more unidimensional attributes (Geistfeld, Sproles, & Badenhop, 1977). The classification of attribute dimensionality provides researchers a base for examining how consumers combine unidimensional attributes such as washable, stain removal, and cost/time care into a multidimensional attribute such as ease of care (Abraham-Murali & Littrell, 1995). Abraham-Murali and Littrell (1995) have specifically grouped both unidimensional and multidimensional attributes into four evaluative categories: physical appearance, physical performance, expressive, and extrinsic.

Descriptive Benefits

Traditionally, clothing has been used to project a role-related image and to communicate one's culture and social status (Solomon & Douglas, 1985). The clothing a person wears indicates self-identity and aesthetic taste. In recent years, clothing has further become an indicator of professional image in the workplace (Chowdhary, 1988; Ericksen & Sirgy, 1985; Goudge & Littrell, 1989; Koch & Dickey, 1988; Rabolt & Drake, 1984-1985; Solomon & Douglas, 1983, 1985). Apparently, clothing is a nonverbal communicator or symbol of the wearer (Rosencranz, 1960). To understand the symbols the wearer attempts to communicate through clothing, researchers have examined clothing benefits from the symbolic interaction/impression management perspective using a social-psychological approach.

Researchers have found that clothing has significant social identity congruence (Feinberg, Mataro, & Burroughs, 1992; Shim & Bickle, 1994; Solomon & Douglas,

1985). Wayne and Liden (1995) found that subordinates' impression management behavior has a significant impact on performance ratings through supervisors' liking of and perceived similarity to new subordinates. Among cues used to manage various impressions, clothing is often used by individuals as a significant social symbol because: (a) clothing is used in daily activity, (b) clothing is displayed in public frequently, and (c) clothing symbols are manipulated easily (Feinberg et al., 1992). Therefore, clothing is an indicator of social identity which observers perceive from their observations of what a person wears. Solomon and Douglas (1985) explain that a clothing item is assessed based on social position and the self-image a person wishes to convey. These researchers indicate that women often use clothing to define their self-images. People, thus, use clothing as an important cue to make initial judgments of others.

Some salient evidence related to dress and self-definition is found in the literature. For example, Koch and Dickey (1988) report that clothing has played an important role in the attainment of an obvious self-definition regarding one's level of professional achievement. Solomon and Douglas (1983) point out that most women working in a traditionally male industry feel that dressing right is a key to projecting the proper self-image. To individuals, "looking 'right' means feeling comfortable, accepted, and approved of" (Solomon & Douglas, 1983, p. 60). Thus, apparel consumers need to be sensitive while making apparel choices for specific occasions (Chowdhary, 1988).

In addition to social identity, individuals can use clothing as a tactical weapon for a good image which can lead him/her to a professional advancement (Ericksen & Sirgy, 1985; Koch & Dickey, 1988; Solomon & Douglas, 1985). Solomon and Douglas (1985)

indicate that clothing can reinforce people's self-confidence and feelings of competence in their jobs and lead to improved work performance. To many people, clothes have a crucial impact on getting ahead. They take "dress for success" seriously and believe that clothes make a big difference in how one is viewed by supervisors, colleagues, and clients (Solomon & Douglas, 1983). Consequently, businesslike clothing may be perceived as an instrument leading to the attainment of success on the job (Ericksen & Sirgy, 1985).

However, the perceived importance of businesslike costumes does not remain consistent throughout a person's working life. Solomon and Douglas (1983) explain that the woman most concerned about dress is not the woman at the top management level, but the woman on her way up. As one becomes satisfied and secure in his or her achievement of professional goals, use of clothing as a strategic tool for maintaining a professional status appears to be reduced (Koch & Dickey, 1988).

Perceptions regarding the importance of clothing in job acquisition differ between employers and university students. According to Sweat et al. (1981), university students perceive that appearance is a crucial factor in job acquisition. However, businessmen rate one's resume and skills as being more important than dress. Dress is considered only slightly important for job acquisition (Goudge & Littrell, 1989).

Besides being a tactical tool for promotion, clothing can also be an important internal cue for an individual's self-concept and self-confidence (Solomon & Douglas, 1985). An individual's self-confidence often results from being well-dressed and looking elegant, attractive, or smart. On an intuitive level, clothing style and color have positive

psychological effects on the wearer. An individual's ego and personal value can also be reinforced by the way he or she dresses (Solomon & Douglas, 1985).

Psychographics

Psychographics is a term used interchangeably with life-style and includes consumer psychological characteristics such as an individual's Activities, Interests, and Opinions (AIOs) (Schiffman & Kanuk, 1994). According to Wells and Tigert (1971), a major aim of psychographic analysis is to develop recognizable consumer portraits. The analysis provides two advantages: to define precise AIOs of target markets and to understand life-styles of target consumers through more effective communication (Shim & Bickle, 1994). Several researchers have investigated life-styles related to both general retailing applications (e.g., Moschis, 1976; Reynolds & Darden, 1972; Valette-Florence & Jolibert, 1990) and apparel-specific studies (e.g., Cassill & Drake, 1987; Gutman & Mills, 1982; Jasper & Lan, 1992; King, Tigert, & Ring, 1975; Richards & Sturman, 1977).

Generally, life-style characteristics can be generated from a wide range of AIO statements which can be either general- or product-specific (Shim & Bickle, 1994). Therefore, many different characteristics have been examined in previous studies. Life-style characteristics frequently examined include self-confidence, optimism, leisure activities, travels, traditionalism, information seeking, mobility, opinion leadership, education, attractive/fashionable interests, and satisfaction with life (e.g., Brown, 1984; Cassill & Drake, 1987; Gutman & Mills, 1982; Huddleston, Ford, & Bickle, 1993; Jasper

& Lan, 1992; Reynolds, 1974; Reynolds, Crask, & Wells, 1977; Shim & Bickle, 1994; Shim & Drake, 1988; Valette-Florence & Jolibert, 1990).

Life-style characteristics are believed to be important influences on consumer behavior (Reynolds et al., 1977). Engel and Blackwell (1982) indicate that life-style can influence the alternative evaluative criteria used for apparel selection. Shim and Drake (1988) report that life-style characteristics can be used to identify various apparel information searchers. For example, print-oriented searchers do not have self-confidence in dress, but have a fashion conscious and self-confident life-style. They are travel prone and consider themselves as opinion leaders. Generally, audio-visual oriented searchers are financially pessimistic and believe that college education is important. While store intensive searchers like to look attractive and have a fashionable life-style, they do not have self-confidence in dress. Contrary to professional advice searchers who have a self-confident life-style, pal advice searchers lack self-confidence in both dress and life-style.

Valette-Florence and Jolibert (1990) also used life-style factors to examine consumption patterns. They found that "entertainment" and "pleasure and enjoyable life" show more correlation to consumption patterns than other life-style factors. Also, even if life-styles and values appear to be complementary when explaining consumption patterns, life-style characteristics can explain more patterns than values.

Furthermore, Reynolds et al. (1977) identified the traditional and modern feminine orientations through the comparison of several life-style characteristics. They compared modern and traditional women and found that modern women are more financially optimistic and interested in looking fashionable and being attractive to males, but less

satisfied with life. Due to professing self-confidence, being cosmopolitan, and having a mobile attitude, modern women are also more interested in travel and tend to change their area of residence. Regarding activities, modern women are younger and more interested in leisure activities such as movies, swimming, bowling, and skiing. This characteristic agrees with findings from the baby boomer survey conducted by Monroe Mendelsohn Research, Inc. (Brown, 1984). Results of this survey indicate that nearly half of all baby boomers aged 18-37 in 1984 were leading active lives. They exercised regularly and engaged in a wider variety of sports than other adults.

Shim and Bickle (1994) found that life-style characteristics of symbolic/instrumental users, practical/conservative users, and apathetic users of clothing are different. Symbolic/instrumental users are opinion leaders and believe that education is important for success. Practical/conservative users do not greatly enjoy spending time with friends, are not exercise prone, and are pessimistic about their financial outlook. Apathetic users are not education oriented and tend to be dreamers about overseas travel.

Some other life-style applications have been incorporated into previous apparel studies. For instance, Warnaco, Inc. conducted a life-style segmentation study to determine its consumers' physical needs, fashion preferences, and bra style criteria (Richards & Sturman, 1977). Shim and Kotsiopoulos (1992a) found that life-style is important in predicting consumers' preferred store attributes and information sources. Huddleston et al. (1993) mention that life-style characteristics are good predictors of fashion opinion leadership. Cassill and Drake (1987) found that the characteristics, "attractive/fashionable" and "satisfaction with life" are positively related to certain apparel

selection criteria, but the characteristic, “traditional views toward home, family, and housekeeping” is negatively correlated with apparel selection criteria.

Shopping Orientations

Shopping orientation refers to a shopping life-style encompassing particular shopping activities, interests, and opinions, and reflecting a view of shopping as a complex social, recreational, and economic phenomenon (Hawkins et al., 1989; Howell, 1979). Researchers have investigated consumer shopping styles in relation to information sources (Bruner, 1986; Moschis, 1976), patronage behavior (Gutman & Mills, 1982; Shim & Kotsiopoulos, 1992a), store attributes (Bellenger, Robertson, & Greenberg, 1977; Lumpkin, 1985), outshopping (Lumpkin, Hawes, & Darden, 1986), in-home shopping (Gehrt & Carter, 1992), product benefits (Shim & Bickle, 1994), and different psychographic and demographic characteristics (Darden & Howell, 1987).

Among these past studies, researchers have identified several shopping orientations. Stone (1954), one of the first researchers to examine that consumers shop for reasons other than just economics, identified four distinct orientations in his study: economic, personalizing, ethical, and apathetic. Economic shoppers view shopping as solely an activity to obtain goods. Price, quality, variety, and efficiency are important to them. Personalizing shoppers tend to individualize the shopping trip and prefer a friendly customer-personnel relationship. These consumers usually shop at local stores where they have developed good social relationships with local merchants. Ethical shoppers may feel obligated to purchase products from specific local stores rather than from large chain

stores. Apathetic shoppers have little interest in shopping and desire to minimize the buying effort. Thus, convenience and ease of procurement, but not type of store, are important to them (Stone, 1954).

In more recent studies, researchers found two different shopping orientations: recreational and convenience-economic shoppers (Bellenger & Korgaonkar, 1980; Bellenger et al., 1977; Korgaonkar, 1981). These two shopper groups differ in the amount of time and the information-seeking involved in shopping activities. Recreational shoppers appear to enjoy shopping as a leisure activity and use information actively. They tend to shop impulsively and spend more time shopping. However, convenience-economic shoppers dislike shopping or are neutral toward it and attempt to approach retailers from a time- or money-saving point of view. An example of this type of shopper is the catalog showroom patron. This shopper is more likely to be an economic shopper than a recreational shopper (Korgaonkar, 1981).

Investigating catalog shoppers, two of seven shopping orientations identified by Gehrt and Carter (1992) are similar to Korgaonkar's (1981) orientations: catalog/convenience and catalog/recreational orientation. The catalog/convenience orientation is characterized by relatively older shoppers who attempt to learn about the product or purchase through catalogs to save time. The catalog/recreational shopper appears to enjoy the hunt as well as the actual purchase through the catalog.

Focusing on elderly shoppers, Lumpkin (1985) identified three shopping orientation groups: active, economic, and uninvolved shoppers. The three groups differ on the basis of information sources and store attribute preference. Active shoppers tend

to enjoy shopping, be interested in fashion, spend the most on apparel, be opinion leaders, and like to exchange information with friends. Economic shoppers attempt to look for quality and a best price. They tend not to use newspaper ads as information sources. The uninvolved shopper is similar to Stone's (1954) apathetic shopper and is less interested in shopping. This shopper is likely to spend the least on apparel and seldom utilizes all forms of information.

By examining rural consumers, Lumpkin et al. (1986) report another three shopping orientation groups: inactive inshoppers, active outshoppers, and thrifty innovators. The inactive inshoppers are likely to prefer local shopping and have high levels of loyalty to local merchants, but have less shopping self-confidence. The active outshoppers tend to favor shopping in large cities and show less loyalty to local retailers. They have negative attitudes toward the local shopping environment. The thrifty innovators tend to be in-home shopping oriented and have self-confidence. They also appear to be economic shoppers who shop around to look for the lowest price.

Concerning apparel shopping orientations, Shim and Kotsiopulos (1993) segmented female clothing shoppers into distinct groups of apparel shopping styles: highly involved apparel shopper, apathetic apparel shopper, and convenience-oriented catalog shopper. Highly involved apparel shoppers appear to be confident in their clothing purchases, be conscious about appearance and brand name, be fashion leaders, enjoy shopping leisurely, and favor local stores and U.S.-produced apparel. As compared with the former group, apathetic apparel shoppers are likely to be less confident in their clothing shopping. Convenience-oriented catalog shoppers tend to favor catalog

shopping, be heavy users of credit, and be most concerned with convenience of and time for shopping.

Patronage Behavior

Patronage behavior of apparel shopping refers to a store choice representing an individual's preference for a particular apparel store (Shim & Kotsiopoulos, 1992a). Shim and Kotsiopoulos (1992a) report that consumers' apparel store choices among discount stores, specialty stores, department stores, and catalog shopping can be somewhat predicted by store attributes, shopping orientations, information sources, and personal characteristics. Shopping orientations and store attributes are more important in explaining patronage behavior than information sources and personal characteristics. Specifically, shopping orientations have a stronger impact on patronage behavior than store attributes (Shim & Kotsiopoulos, 1992b).

Shim and Kotsiopoulos (1992a) found that discount store shoppers who are usually economic shoppers view frequent special sale prices, price levels, or return policies as important. As compared to discount store shoppers, specialty store shoppers are not economic shoppers, but instead place importance on clothing quality, variety of styles, brand names, and fashion. Department store shoppers tend to be mall shoppers. Catalog shoppers are not as fashion conscious as specialty store shoppers, but prefer to purchase U.S.-produced goods (Shim & Kotsiopoulos, 1992a).

Hawkins et al. (1989) also mention that shopping orientations influence both specific and general type of outlets selected by consumers. Bellenger et al. (1977)

examined the relationship between shopping orientations and store attributes. They report that recreational and economic shoppers exhibit different desires in regard to shopping center selection. Recreational shoppers are concerned with store attributes such as store decor, variety of products offered, and quality. Thus, they prefer a high quality shopping center offering a wide variety of products and a large number of services. The economic shopper's major concern is low price.

Other researchers have also investigated relationships among shopping orientations, the importance of store/product attributes, information sources, and patronage behavior (Lumpkin, 1985; Shim & Kotsiopoulos, 1993). Shim and Kotsiopoulos (1993) found that highly involved apparel shoppers who place importance on fashion, appearance, and brand names prefer to shop at specialty stores or department stores. This finding parallels Shim and Kotsiopoulos' (1992a) previous findings. Nevertheless, the findings related to catalog shopper behavior are not consistent. Shim and Kotsiopoulos (1992a) found that catalog shoppers prefer to purchase products made-in-the-U.S.A.; later, the same researchers (Shim and Kotsiopoulos, 1993) discovered that convenience-oriented catalog shoppers viewed made-in-the-U.S.A. products less favorably than two other consumer segments they surveyed.

Examining elderly consumers' use of information and perceived importance of store attributes, Lumpkin (1985) found that the difference in terms of patronage behavior among three distinct shopping orientation groups did not exist. Lumpkin's (1985) study indicates that elderly consumers prefer to shop in department stores, while Shim and Kotsiopoulos' (1992a) study indicates that older consumers often find mall/department

store shopping tiresome, frustrating, and lacking personal service. In summary, previous studies have investigated several factors influencing patronage behavior and their findings appear to be inconsistent.

Religiosity

Religiosity is “a belief in God accompanied by a commitment to follow principles believed to be set forth by God” (McDaniel & Burnett, 1990, p. 103). Traditionally, religiosity has been viewed from one of two perspectives: religious commitment or religious affiliation. According to McDaniel and Burnett (1990), religious commitment has been measured both cognitively (e.g., degree to which a person holds his/her spiritual belief) and behaviorally (e.g., frequency with which a person attends a church/synagogue). Religious affiliation has been measured in terms of denominational membership or religious identification of individuals (e.g., Catholic, Protestant, Jew).

Some previous studies have suggested a strong association between religious commitment and certain consumer behaviors such as shopping motives (Sheth, 1983), patronage behavior, (McDaniel & Burnett, 1990), psychographics (Barton & Vaughan, 1976; Wilkes, Burnett, & Howell, 1986), and demographics (Wilkes et al., 1986). Engel and Blackwell (1982) indicated that religion is a macro-level transmitter of values. Sheth (1983) postulated that one particular determinant of personal values is religion. Thus, a person’s religious orientation, as other individual traits such as sex, age, and race, may significantly influence his/her general shopping motives (Sheth, 1983).

Regarding store evaluative criteria, McDaniel and Burnett (1990) found that consumers with a high level of cognitive religiosity viewed shopping efficiency, sales personnel friendliness/assistance, and product quality as more important than those with a low cognitive religiosity level. Consumers with a high frequency of church/synagogue attendance saw shopping convenience as more important than those with a low frequency.

In relation to life-styles, a previous study indicated that people with a higher degree of intrinsic religiosity tend to be more conservative and traditional (Barton & Vaughan, 1976) than people with a lower degree. Furthermore, Wilkes et al. (1986) found that people with a high degree of religious commitment tend to be more satisfied with their lives, be opinion leaders, and have a more traditional sex role orientation, compared to less religious persons. In addition to life-style, Wilkes et al. (1986) also found that religiosity has a positive relationship with age (i.e., older people tend to be more religious) and with sex (i.e., females tend to be more religious), and has a negative relationship with income (i.e., low income persons tend to be more religious).

By studying religious ethnicity, Hirschman (1981, 1982) found that religious affiliation is also related to consumer behavior. According to Sklare and Greenblum (1967), when one is born a Jew, he/she is born into a Jewish religion. Exposed to an above average level of cognitively stimulating experiences, Jews are more innovative (e.g., willing to adopt new products independent of the judgment of others), are less store and brand loyal, transfer more consumption information to others, and expose themselves to more information sources than non-Jews (Hirschman, 1981). In a later study, Hirschman (1982) found that religious affiliation also influences buying decision making. For

example, Catholics view price, location, transportation and mood as more important in selecting entertainment, compared to Protestants.

Influence of Age Groups on Apparel Choices

Aging is an important factor in fashion change (Chowdhary, 1989). As consumers age, their life-styles, financial status, shopping orientations, and store choice also change. For example, the baby boomers born between 1946 and 1964 often have higher annual average incomes and increased time constraints. Consequently, they often use fashion ads and colleagues' opinions, and shop through mail-order catalogs and outlet stores (e.g., Chowdhary, 1989; Shim & Drake, 1988). The baby busters, sometimes referred to as twentysomethings or generation Xs, who were born between 1965 and 1976 are self-oriented and often prefer to purchase in apparel specialty stores (Bradford & Raines, 1992). Teenagers born between 1977 and 1981 are more dependent on parents' and friends' opinions, and tend to be brand loyalty (e.g., Kate, 1995; Mascarenhas & Higby, 1993). This section summarizes various influences of apparel choice on teens, baby busters, and baby boomers.

Teens

With a 1992 population of nearly 17.0 million individuals, 15- to 19-year-old teens born between 1977-1981 represent 7.0% of the U.S. population (U.S. Bureau of the Census, 1994). Of the total U.S. teenage population, about 8.3 million are females, accounting for 6.5% of the total female population (U.S. Bureau of the Census, 1994). Zollo (1995) indicates that teens are a powerful consumer segment and explains six key

reasons. First, teens have real spending power. Teenage girls have average weekly incomes of \$58 and spend an average of \$34 of their own money each week. Second, teens also spend their family's money. Currently, more than half of teenage girls assume the responsibility for some household shopping. In addition, teens influence overall household spending. They ask or convince parents to buy something, or even actively serve as their parents' counselors regarding certain brands and products such as computers, stereos, and jeans. Fourth, teens are trendsetters, influencing purchases of the latest fashions such as blue jeans. Furthermore, teens are future spenders on certain products such as automobiles. Finally, as a growing population, the number of teens ages 12 to 19 will increase from 29 million in 1995 to about 35 million individuals in 2010 (Zollo, 1995).

Generally, current teenagers appear to be more brand loyal than other generations, remaining satisfied with the brands they choose (Kate, 1995; Zollo, 1995). According to Teenage Research Unlimited, teenagers are least willing to change brands when purchasing intimate categories of merchandise (Zollo, 1995). The top five product categories for which brand choice is the most important to teenage girls are sanitary pads, shampoo, deodorant, jeans, and hair conditioner. However, brand loyalty is expected to decrease as teens age (Kate, 1995).

Younger teens are more likely to buy products that their parents or friends approve of than older teens (Kate, 1995). This parallels Mascarenhas and Higby's (1993) finding that parental and friend influences decrease as teens age. In one study, 78% of boys aged 16 to 19 decided which brand to purchase themselves whereas only 64% of boys aged 12

to 15 did so (Kate, 1995). Twenty-one percent of younger boys are more likely to buy what their friends approve of as compared to 17% of older boys (Kate, 1995).

Apparel remains the most important product category to teenage girls (Zollo, 1995). They spend the greatest proportion of their disposable income and exert their greatest efforts influencing parents in regard to apparel purchases. A 1995 study indicates that the most important apparel brands to teens are Guess, Levi's, and Gap, indicating their preferences for casual style clothing (Zollo, 1995).

Baby Busters

With a 1992 population of nearly 44.6 million individuals, baby busters (ages 20 to 31 years old in 1996) constitute 17.0 % of the U.S. population (U.S. Bureau of the Census, 1994). About 22 million female busters account for 16.7% of the female population. According to Atlanta-based Metier Marketing, baby busters have an estimated annual spending power of \$125-\$180 billion (Healea, 1995). About half of these individuals continue to live with their parents through their late 20s (Bradford & Raines, 1992; Healea, 1995; Ritchie, 1995). Even when they live on their own, 74% of them continue to receive financial help from their parents (Ritchie, 1995). Thus, their own money is often spent on luxury purchases. The top categories on which they spend their money are entertainment, furniture, apparel, personal care products, exercise and fitness products, and fragrances (Healea, 1995; "X market's," 1995).

Generally, baby busters often delay marriage until completing education and establishing careers (Bradford & Raines, 1992; Ritchie, 1995). They also delay the birth of children to help maximize resources (Ritchie, 1995). After marriage, both partners

usually work and share household chores to create a less stressful life. As a result, the divorce rate of baby busters is currently lower than that of the baby boomer generation.

Depending upon their life-style, baby busters place emphasis on leisure activities and family entertainment, economical and functional clothing, quality day care, and home offices (Ritchie, 1995). Buster women pay more attention than baby boomers to the home and family life. They work, but are not willing to sacrifice their personal lives or families to jobs. Busters even expect work to be fun and are not as loyal or committed to work as older generations (Bradford & Raines, 1992; Ratan, 1993). Clearly, they are an individualistic generation (Bradford & Raines, 1992; Sellers, 1994).

With 60% of busters having credit cards, baby buster women tend to shop women's full price apparel specialty stores more frequently than their elders ("X market's," 1995). On average, buster women shop in these retail sites 17 times per year compared to 13 shopping visits for older women. Baby buster women also shop less in manufacturer outlet stores than baby boomer and other older women.

Baby Boomers

With nearly 77.6 million people in 1992 and representing 29.5% of the U.S. population, baby boomers (ages 32 to 50 years old in 1996) are the best-educated consumers in U.S. history (Braus, 1995; Stern, 1987). About 40 million female boomers account for 30% of the female population (U.S. Bureau of the Census, 1994). Although they are in their peak of labor force participation, they are not in their top earning years (Braus, 1995). In 1993, the median household income for boomers ages 35 to 44 was \$40,900, compared to \$46,200 for those ages 45 to 54 and \$31,200 for all households

(Braus, 1995). The reason most boomers have a higher household income than other age groups is the high proportion of dual-earner boomer households (Braus, 1995). For instance, three-fourths of boomer-aged women are working, compared with 71% of women aged 20 to 24 and 47% of older women (ages 55 to 64). Consequently, some demographers view boomers as being economically optimistic and feeling higher financial security than other generations (Braus, 1995; Price, 1984).

Baby boomers control much of the U.S. economy and dominate most areas of retail ("Boomers Flex," 1995; Stern, 1987). According to the Conference Board's recent report, "Baby Boomers in Mid-Passage," boomers will account for about 40% of the spending power by the end of the century. The baby boomers aged 35 to 44 spend more than twice as much as the average U.S. household on boy's and girl's apparel ("Where Workers Live," 1993). They tend to spend more per visit and be far more likely to shop in manufacturer outlet stores than other generations ("Boomers Flex," 1995). However, across their 18-year age range, boomers are a diverse group (Braus, 1995; Stern, 1987). Therefore, age, income, and sex are no longer predictors of their buying patterns (Stern, 1987). Some experts recommend that the consumption patterns of boomers should be forecasted by their life stages (Braus, 1995; Stern, 1987).

Baby boomers currently have less leisure time than other generations (Braus, 1995). According to Roper Starch Worldwide, Inc. of New York City, boomers relax for an average of 5.5 hours on a particular Saturday, compared with the average adult's 6.9 hours. The reason boomers spend less time relaxing is that their work or children interrupt their leisure time. Thus, many feel stress and tension at the end of almost every

day. Sixty-two percent of adults ages 30 to 44 have children under age 18 at home and one-third of them see children as a major cause of stress. To help manage time, boomers tend to shop through mail-order catalogs (Garland, 1991).

Changes that baby boomers experience are related to physical status, family role, and marital status (Braus, 1995). Even though nearly two-thirds of boomers are currently married, the boomers' divorce rate is still higher than other generations. As boomers age, they move toward mature physical status. By the time they reach age 45, the incidence of heart disease increases (Braus, 1995).

Bra Studies/Research

The bra is a very important apparel item to most female consumers. For many years, women in civilized areas have used supporting garments to prevent sagging breasts. Today, bras are designed and used as the major breast supporting garment. The modern bra provides female consumers not only functional support, but also comfort, fashion, and style. This section reviews bra history and the benefits provided by regular, sports, and nursing bras.

Bra History

The styles of breast supporting garments have changed through time. For example, about 500 B.C., Greek women wore a bandeau-style bra, a woolen cloth called apodesm, and Roman women used a flattening band of precious purple cloth called strophia to cover their breasts (Thomas, 1995). In past centuries, European women wore corsets to support their breasts. In 1889, the first bra connecting a corset called le Bien-

Etre (French for “well-being”) was devised by French lingerie maker Herminie Cadolle. In 1907, the French term *brassiere* was first used by French Vogue to refer to an infant’s under-bodice or a harness (Ewing, 1978; Thomas, 1995). In 1912, the word *brassiere* was added to the Oxford English Dictionary. In 1935, Warner’s introduced A, B, C and D cup bras (Thomas, 1995). During the late 1960s and early 1970s, feminists burned bras and renounced the device as torturous and unnatural. Then the singer Madonna introduced underwear as outerwear in the 1980s. Currently, bra band sizes are measured in two-inch increments from 32 to 52, and bra cup sizes range from AAA through F (Brown, 1992; Stamper, Sharp, & Donnell, 1991).

Regular Bra Benefits

Basically, the primary bra benefit female consumers typically seek is proper support for all activities. Three factors influencing bra support function are having a well-fitted band at the bra base, wide straps, and well-fitted cups (Brown, 1992; Costantakos & Watkins, 1982; Thomas, 1995). The straps should be adjusted to smooth the neckline edge of the bra, but not tightened to achieve the support effect (Brown, 1992; Costantakos & Watkins, 1982). The cups should fit smoothly and remain in the right place even if the straps are not used (Costantakos & Watkins, 1982; Thomas, 1995). A full-figured bust (cup size C and D) often needs the support of an underwire to avoid sag and a motion effect (Brown, 1992; Frankel & Tien, 1991). The underwire should never dig into the breast (Thomas, 1995). Furthermore, the bra band and straps should align with the wearer’s skin evenly and flatly and not cut into the skin (Costantakos & Watkins, 1982; Thomas, 1995).

In addition to support, regular bra manufacturers have tried to provide comfort and style to consumers. Haycock et al. (1978) report that some female athletes complain about breast injuries from bra lace (scratching the skin), hooks, and adjusters on straps. Thus, to provide comfort, manufacturers have begun using soft materials such as Lycra spandex and cotton to produce bras, and have attempted to shield metal or plastic fasteners (Costantakos & Watkins, 1982). In addition to comfort, bra manufacturers provide female consumers various fashionable colors, styles, and designs. This results in female consumers choosing bras not only for support, but also for other reasons (Corwin, 1993). For example, more and more women purchase the Wonderbra due to the sexually-attractive, cleavage-enhancing style ("Cleavage Enhancers," 1995). However, Frankel and Tien (1991) indicate that choosing a bra based on style is a significant mistake because although the bra may look good, it might provide a poor fit for the wearer.

Modern bras also provide women the option of making their breasts appear larger or smaller. According to Haycock (1978), "society has attached to the female breast various sexual connotations [sic] as to size and attractiveness" (p. 50). Attractive breasts, thus, may enhance a woman's self-confidence. To achieve attractiveness, two types of bras that can change female breast size exist. First, a maximizer bra with foam padding makes the bust appear larger (Brown, 1992). Second, the minimizer bra presses the breasts to the sides instead of lifting them outward, and makes the breasts appear smaller.

Sports Bra Benefits

Increased participation in sports by women has prompted studies of sports bras. Haycock et al. (1978) found that female athletes generally feel bras are uncomfortable.

This discomfort is attributed to:

- A. the different distribution of the weight of the breast since it laid more evenly over the rib cage; the unaccustomed pressure from the front, sides, and back, instead of just on the shoulders and underneath the breast;
- B. the feeling created by pressure from below the breast, and a triangular center that thrust the breast upward to restrict motion and increase support (p. 5).

Haycock et al. (1978) compared breast movement with each female athlete running while wearing her own regular bra and while wearing a specifically designed and fitted bra. The researchers found that the specifically designed and fitted bra significantly restricted breast movement up and down and laterally. They concluded that an adequate bra should provide firm support; limit motion of the breasts; be fitted for the athlete as part of the uniform and other protective equipment; be designed so that padding may be added if desired; and be made of firm, nonelastic, nonabrasive, sturdy, and non-allergenic material.

Lorentzen and Lawson (1987) examined breast motion of female athletes jogging in eight selected sports bras. They found that women with size D bra cups had a more serious problem with vertical breast displacement than women with A, B, and C cup bras. This finding suggests that women of different sizes need different support and design

standards (Lawson & Lorentzen, 1990). However, most female athletes agree that they seek bras that support, are easy to care for, are inexpensive, are available in a wide range of sizes, are absorbent, have seamless cups and no irritating clasps, and have straps that stay on the shoulders (Hunter & Torgan, 1982). These sports bra benefits that female athletes seek may also be benefits sought by teen girls who are often sports-oriented.

Nursing Bra Benefits

In relation to nursing bras, comfort and pressure reduction are the major benefits that nursing mothers need. Costantakos and Watkins (1982) report that comfort is associated with pressure at specific points of a bra. The more pressure is reduced, the more comfort increases. The researchers also found that pressure concentration at specific areas of a bra can be reduced through certain design features. For instance, pressure reduction can be achieved by increasing the width of the shoulder strap of a basic sport bra to 1-inch, and by adding a 2-inch elastic strip at the end of the regular bra strap. These nursing bra benefits may also be benefits sought by women with larger breasts who need support and comfort similar to that required by nursing women.

Summary

Anatomically, the female breast shape changes as women age. The female breast develops during the teenage years. If weight does not significantly change, the breast may maintain the same size as women move through their 20s and early middle age. However, the breast may start to sag, flatten, and elongate with advancing age (Haycock, 1978). Different anatomical breast status among teens, baby busters, and baby boomers may

result in women seeking different bra benefits. To target and to communicate more effectively with these three age groups, it is essential for designers, manufacturers, and retailers to understand life-styles, shopping orientations, psychographics, patronage behavior, and demographics of consumers.

CHAPTER III Scale, Data, Stim & Digite.

METHODOLOGY

Description of the Survey

The purpose of this study was to generate profiles for female consumers in three different age groups--teens, baby busters, and baby boomers--in terms of bra benefits sought, psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with five bra purchase and use issues, and overall bra satisfaction level. To accomplish this purpose, data were collected by means of a questionnaire.

Questionnaire Design

The questionnaire for the study was designed based on the literature review and incorporated recommendations of Dillman (1978) for development of mail survey questionnaires. All items were developed carefully to allow all respondents of the three age groups to answer. The respondents were asked questions regarding the bra benefits they sought as well as information on bra purchases, shopping orientations, psychographics, patronage behavior, demographics, and satisfaction in relation to bra selection, color, comfort, styles, and longevity/care. The items related to bra benefits, shopping orientations, psychographics, and satisfaction levels were gathered using a five-point scale for respondents to indicate the extent of their agreement with various statements. All items related to bra benefits, all satisfaction level items, some psychographic items, and some shopping orientation statements were designed specifically for this study. Other psychographic and shopping orientation items were adapted from

previous studies (e.g., Cassill & Drake, 1987; Shim & Bickle, 1994; Shim & Drake, 1988).

The respondents were also asked to indicate the frequency with which they purchased bras from different types of apparel sources within the last year. The questionnaire presented six types of apparel outlets: mail-order catalogs, intimate-apparel specialty stores, apparel specialty stores, upscale or better department stores, moderate department stores, and discount stores. Moreover, the questionnaire gathered demographic data including age, bra size, weight and height, ethnic group, marital status, current education level, religion, occupation, and income in order to aid in data analysis and description of the sample.

To test the readability of questions before distribution, the questionnaire was pretested with 13 female students from Oklahoma State University. The final questionnaire was revised based on their responses (see Appendix A).

Selection of the Sample

The sample in this study included three age groups of females in Oklahoma: teens, baby busters, and baby boomers. Teenage females (ages 15 to 19) were drawn from a high school in Edmond, Oklahoma. Respondents were selected from different grades to include a range of ages. Baby busters (ages 20 to 31) were drawn from classes at Oklahoma State University (OSU). Female students in classes offered by different colleges and majors were selected to produce a heterogeneous sample. Baby boomers (ages 32 to 50) were represented by women from Perkins, Oklahoma and Stillwater, Oklahoma civic/community organizations, OSU staff and faculty members, and a church in

Stillwater, Oklahoma. The civic organizations consisting primarily of boomer women were selected from the Stillwater Civic and Service Listing provided by the Stillwater Chamber of Commerce.

Data Collection

Initial contacts were made to instructors and organization presidents through a letter soliciting their assistance in allowing distribution of questionnaires. Questionnaires were delivered by the researcher to selected classes and organizations in Spring 1996. If there were males in the selected classes and organizations, they were excused before the questionnaire was distributed due to the subject matter of the questionnaire. Participants were told that the survey was designed to learn of their needs related to bra shopping and usage. The voluntary nature of the study was explained and participants were assured of confidentiality. After receiving questionnaires, participants were asked to spend 10-15 minutes completing and returning them to the researcher. In total, 500 questionnaires were distributed. Of those, 326 questionnaires (teens: 97, baby busters: 129, and baby boomers: 100) provided usable data and were included in the data analysis. The majority of teen respondents were from Edmond Memorial High School and buster respondents were from OSU classes. The percentages of collected boomer responses were 12% from OSU classes, 31% from OSU staff/faculty members, 1% from Edmond Memorial High School, 39% from civic/community organizations, and 17% from a church.

Statistical Analysis

Figure 2 (page 88) presents the statistical procedures of the study. Table 8 (see Appendix B) links the statistical procedures with items on the questionnaire. First,

Cronbach's alpha coefficient was calculated for the scores resulting from responses to the bra benefit, psychographic, and shopping orientation items. "Coefficient alpha absolutely should be the first measure one calculates to assess the quality of the instrument" (Churchill, 1979, p. 68). Principal components factor analysis with varimax rotation was employed to reduce the large number of variables into a smaller number of interpretable factors (Hair, Anderson, Tatham, & Black, 1995). Factor analysis is useful when a large number of variables exist and the correlations among these variables are from very high to very low levels (Wells & Sheth, 1971). The variable reduction technique was applied to data obtained from all respondents on the agree-disagree statements used in assessing bra benefit, psychographic, and shopping orientation variables. The value of one was placed in the diagonal of the correlation matrix which represented the correlation of a variable with itself.

A minimum eigenvalue of one was used as the criteria to control the number of factors extracted. According to Wells and Sheth (1971), "all factors whose eigenvalues are greater than one when a correlation matrix is factored can be considered as significant and meaningful factors" (p. 219).

The second step involved developing an overall bra satisfaction level (BSL) index for each respondent. The overall BSL index is a number representing each respondent's degree of agreement with five bra purchase and use statements that related to bra selection, color, comfort, styles, and longevity/care (see questionnaire section VI in Appendix A). For each of the five bra purchase and use statements, the respondent circled an answer (ranging from strongly disagree to strongly agree). During data analysis, each

Cronbach's alpha coefficient was calculated for the scores resulting from responses to the bra benefit, psychographic, and shopping orientation items. "Coefficient alpha absolutely should be the first measure one calculates to assess the quality of the instrument" (Churchill, 1979, p. 68). Principal components factor analysis with varimax rotation was employed to reduce the large number of variables into a smaller number of interpretable factors (Hair, Anderson, Tatham, & Black, 1995). Factor analysis is useful when a large number of variables exist and the correlations among these variables are from very high to very low levels (Wells & Sheth, 1971). The variable reduction technique was applied to data obtained from all respondents on the agree-disagree statements used in assessing bra benefit, psychographic, and shopping orientation variables. The value of one was placed in the diagonal of the correlation matrix which represented the correlation of a variable with itself.

A minimum eigenvalue of one was used as the criteria to control the number of factors extracted. According to Wells and Sheth (1971), "all factors whose eigenvalues are greater than one when a correlation matrix is factored can be considered as significant and meaningful factors" (p. 219).

The second step involved developing an overall bra satisfaction level (BSL) index for each respondent. The overall BSL index is a number representing each respondent's degree of agreement with five bra purchase and use statements that related to bra selection, color, comfort, styles, and longevity/care (see questionnaire section VI in Appendix A). For each of the five bra purchase and use statements, the respondent circled an answer (ranging from strongly disagree to strongly agree). During data analysis, each

answer was translated into a score. Thus, the overall BSL index represents the sum of a participant's answers to all five bra purchase and use items. The BSL index serves as a measure of females' overall feelings of satisfaction with their bras and bra purchase experiences.

The third step in analysis differentiated respondents into teen, baby buster, and baby boomer groups by their ages. The fourth step involved univariate analysis of variance (ANOVA) and Least Significant Difference (LSD) multiple comparison tests to determine whether the female age groups differ in terms of bra benefit factors, shopping orientation factors, and psychographic factors. ANOVA was used to show which differences exist among groups (Cooley & Lohnes, 1971). When ANOVA indicated significant differences, LSD tests were used to identify differences among pairs of groups.

The fifth step involved determining whether the age groups differed with respect to patronage behavior, perceived level of spiritual and religious involvement, and satisfaction with five bra purchase and use issues. Chi-square tests were employed to test these categorical variables. If the calculated test statistic χ^2 was larger than the tabulated value of chi-square, it was concluded that the overall groups were significantly different. The final step involved ANOVA and LSD multiple comparison tests to examine whether the three identified age groups differed in terms of overall bra satisfaction level index.

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**PROFILES OF THREE FEMALE AGE GROUP
SEGMENTS IN RELATION TO
BRA PURCHASE**

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Abstract

The purpose of the study was to profile female consumers in three different age groups--teens, baby busters, and baby boomers--in terms of bra benefits sought, psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, and bra satisfaction level. The study involved use of a questionnaire to obtain data. Respondents were drawn from a south central state. Data from 326 questionnaires (teens: n = 97, baby busters: n = 129, and baby boomer: n = 100) were included in the analysis which included factor analysis, univariate analysis of variance, Least Significant Difference multiple comparison tests, and chi-square. Statistically significant differences were identified across age groups for six bra benefit factors, five psychographic factors, five shopping orientation factors, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with four bra purchase and use issues, and overall bra satisfaction level.

teenage females may search for stretchy, soft, and comfortable bras. With mature breasts, baby busters/twenty-somethings may look for ease of care and fashion, whereas baby boomers may seek support, sexual attractiveness, and style from bras.

Clothing researchers have investigated clothing benefits in terms of measuring the importance of attributes (or evaluative criteria) and descriptive benefits (e.g., Aiken 1963; Cassill & Drake 1987; Jenkins & Dickey 1976; Shim & Bickle 1994; Shim & Drake 1988). A commonality of the previous studies of clothing benefits is that researchers focused on the same type of merchandise--the general garment. By examining the general garment solely, it is difficult to capture the benefits sought by consumers from specific types of apparel. For instance, a female consumer may seek benefits such as contributing to her social status or mobility from a career suit, but not from a bra at all.

As compared to general garments, the usage rate of bras is very intensive for female consumers; they may wear skirts often but not on a daily basis as bras are worn. Thus, the bra can be considered a very important apparel item to female consumers. However, research on bras is limited. Among existing studies, most have been focused on nursing bras (e.g., Costantakos & Watkins 1982), sports bras (e.g., Gehlsen & Albohm 1980; Haycock et al 1978; Hunter & Torgan 1982; Lawson & Lorentzen 1990), or bra history (e.g., Ewing 1978). Little research has focused on bra segmentation (e.g., Richards & Sturman 1977), or why female consumers need bras.

To satisfy consumers and earn market share and profits, it is important for bra manufacturers and retailers to have an effective method of segmenting consumers by an easily identifiable trait such as age. If females who are segmented by age have distinct

psychographically-oriented traits, marketers can utilize these traits to predict consumer preferences, to choose their target groups, and to meet target groups' needs. Since the bra benefits that female consumers seek may vary by age and have not been identified, it is necessary to investigate consumer behavior in relation to the bra.

The overall purpose of the study was to profile female consumers in three different age groups--teens, baby busters, and baby boomers--in terms of bra benefits sought, psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with five bra purchase and use issues, and overall bra satisfaction level. More specifically, this study attempted to (1) investigate the benefits sought by female bra purchasers; (2) segment the bra market based on age groups: teens (born 1977-1981), baby busters (born 1965-1976), and baby boomers (born 1946-1964); (3) identify psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with five bra purchase and use issues, and overall bra satisfaction level of each group; and (4) develop a profile of each group in terms of bra benefits sought, psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, and overall bra satisfaction level.

Review of Literature

Conceptual Framework

Based on the Engel and Blackwell model (1982), Shim and Bickle (1994) generated profiles of three clothing benefits segments. Of interest in their study was that the segments had distinct age characteristics, indicating relationships among age and

various psychographically-oriented variables (i.e., shopping orientations, psychographic traits, and product benefits sought by consumers). On the basis of this finding and other consumer clothing studies which have indicated that age is an important factor in fashion change (Chowdhary 1989; Greco & Paksoy 1989; Gutman & Mills 1982), the current bra study was based on a conceptual framework which incorporates age as an integral variable which is associated with various psychographically-oriented consumer characteristics (i.e., religious and spiritual involvement, psychographics, and bra consumer attributes such as shopping orientations, bra benefits sought, patronage behavior, and satisfaction levels of consumers). Figure 1 illustrates the conceptual framework for the current study. The model implies that in addition to the obvious relationships (i.e., age associated with psychographically-oriented variables), there may be relationships among the psychographically-oriented variables themselves. However, the current study focused on testing the sequential relationship of age to variables indicated in the model (i.e., spiritual and religious involvement, psychographics, bra benefits sought, shopping orientations, patronage behavior, satisfaction with bra purchase and use issues, and overall bra satisfaction level).

Insert Figure 1 about here

Clothing Benefits

Clothing benefits include apparel attributes and descriptive benefits. Attributes are the features or characteristics of an object, while descriptive benefits are the outcomes that

attributes may provide (Shim & Bickle 1994). For instance, the name brand of a dress is an attribute, whereas prestige the wearer perceives is a descriptive benefit. In general, descriptive benefits are more abstract and psychological than attributes.

Apparel attributes. Several researchers have studied apparel attributes in terms of evaluative criteria, intrinsic cues, and extrinsic cues. Recent studies have found that intrinsic cues are used by apparel consumers on overall judgment more frequently than extrinsic cues (Abraham-Murali & Littrell 1995; Eckman et al 1990). From 21 previous studies, Eckman et al (1990) identified the most frequently examined intrinsic cues including style, color, design, fabric, and appearance and the most frequently used extrinsic cues including price, brand name/label, country of origin, and store image. Among these, the most important intrinsic and extrinsic cues are style and price when making an apparel purchase decision (Abraham-Murali & Littrell 1995; Cassill & Drake 1987; Davis 1987; Eckman et al 1990; Jenkins & Dickey 1976).

Apparel evaluative criteria are, in fact, the intrinsic and extrinsic cues used by consumers to compare different items in making clothing choices. Clothing researchers have categorized evaluative criteria by apparel categories to study clothing benefits that consumers seek. For example, Eckman et al (1990) generated four evaluative classifications related to consumer decisions for purchase of both general and specific garments: aesthetics, usefulness, performance and quality, and extrinsic criteria. Jenkins and Dickey (1976) grouped consumers of generic apparel on the basis of two criteria dimensions: appearance and practicality. Kelly et al (1986) classified innerwear and outerwear attributes into similar groups: aesthetic and performance criteria. Also, Cassill

and Drake (1987) identified three evaluative categories used by female consumers to purchase social apparel: appropriateness, economic, and other-people directed.

Moreover, Shim and Drake (1988) found similar evaluative factors for the purchase of career apparel: quality conscious, social directed, appropriate, and economic.

Descriptive benefits. Clothing is a nonverbal communicator or symbol of the wearer (Rosencranz 1960). To understand the symbols the wearer attempts to communicate through clothing, researchers have examined clothing benefits from the symbolic interaction perspective or impression management behavior using a social-psychological approach. Solomon & Douglas (1985) explicate that clothing can be an important internal cue for an individual's self-concept and self-confidence. An individual's ego and personal value can be reinforced by the way he or she dresses. Therefore, while a clothing item is assessed based on the self-image and social position a person wished to convey (Solomon & Douglas 1985), clothing becomes an indicator of social identity (Feinberg, et al 1992) and a tactical weapon for managing an image/impression which leads to professional advancement (Ericksen & Sirgy 1985; Koch & Dickey 1988; Solomon & Douglas 1985; Wayne & Liden 1995).

Psychographics

Psychographics is a term used interchangeably with life-style and includes consumer psychological characteristics such as an individual's Activities, Interests, and Opinions (AIOs) (Schiffman & Kanuk 1994). According to Wells and Tigert (1971), a major aim of psychographic analysis is to develop recognizable consumer portraits. The analysis provides two advantages: to define precise AIOs of target markets and to

understand life-styles of target consumers through more effective communication (Shim & Bickle 1994).

Generally, life-style characteristics can be generated from a wide range of AIO statements which can be either general- or product-specific (Shim & Bickle 1994).

Therefore, many different characteristics have been examined in previous studies. The frequently examined life-styles include self-confidence, optimism, leisure activities, travels, traditionalism, information seeking, mobility, opinion leadership, education, attractive/fashionable interests, and satisfaction with life (e.g., Brown 1984; Cassill & Drake 1987; Reynolds et al 1977; Shim & Bickle 1994).

Shopping Orientations

Shopping orientation refers to a shopping life-style encompassing particular shopping activities, interest, and opinions, and reflecting a view of shopping as a complex social, recreational, and economic phenomenon (Hawkins et al 1989; Howell 1979). Previous studies have found that shopping styles have some relationships with product benefits (Shim & Bickle 1994), patronage behavior (Gutman & Mills 1982; Shim & Kotsiopoulos 1992), psychographics, and demographic characteristics (Darden & Howell 1987). Among past studies, the important shopping orientations identified include economic/convenience-oriented, recreational, personalizing, ethical, active, and apathetic/uninvolved styles (e.g., Bellenger & Korgaonkar 1980; Korgaonkar 1981; Lumpkin 1985; Shim & Kotsiopoulos 1993; Stone 1954).

Religiosity

Religiosity is "a belief in God accompanied by a commitment to follow principles believed to be set forth by God" (McDaniel & Burnett 1990, p. 103). Traditionally, religiosity has been viewed from one of two perspectives: religious commitment or religious affiliation. According to McDaniel and Burnett (1990), religious commitment has been measured both cognitively (e.g., degree to which a person holds his/her spiritual belief) and behaviorally (e.g., frequency with which a person attends a church/synagogue). Religious affiliation has been measured in terms of denominational membership or religious identification of individuals (e.g., Catholic, Protestant, Jew).

Some previous studies have suggested a strong association exists between religious commitment and certain consumer behaviors such as shopping motives (Sheth 1983), patronage behavior, (McDaniel & Burnett 1990), psychographics (Barton & Vaughan 1976; Wilkes et al 1986), and demographics (Wilkes et al 1986). In terms of religious affiliation, Hirschman (1981, 1982) also found that Jews, Catholics, and Protestants illustrated different consumer behavior.

Influence of Age Groups on Apparel Choices

Aging is an important factor in fashion change (Chowdhary 1989). As consumers age, their life-styles, financial status, shopping orientations, and store choices may also change. For example, many baby boomers earn higher annual average incomes than they have previously and experience increased time constraints. Consequently, they often use fashion ads and colleagues' opinions, and shop through mail-order catalogs and outlet stores (e.g., Chowdhary 1989; Shim & Drake 1988). The baby busters are self-oriented

and often prefer to purchase in apparel specialty stores (Bradford & Raines 1992).

Teenagers are more dependent on parents' and friends' opinions, and tend to be brand loyal (e.g., Kate 1995; Mascarenhas & Higby 1993).

Bra Benefits

Regular bra benefits. Basically, the primary bra benefits female consumers typically seek are proper support and fit. Three factors influencing bra support function are having a well-fitted band at the bra base, wide straps, and well-fitted cups (Brown 1992; Costantakos & Watkins 1982; Thomas 1995). The straps should be adjusted to smooth the neckline edge of the bra, but not tightened to achieve the support effect (Brown 1992; Costantakos & Watkins 1982). The cups should fit smoothly and remain in the right place even if the straps are not used (Costantakos & Watkins 1982; Thomas 1995). A full-figured bust (cup sizes C and larger) often needs the support of an underwire to avoid sag and a motion effect (Brown 1992; Frankel & Tien 1991). The underwire should never dig into the breast (Thomas 1995). Furthermore, the bra band and straps should align with the wearer's skin evenly and flatly and not cut into the skin (Costantakos & Watkins 1982; Thomas 1995).

Other important bra benefits are comfort, fashion, colors, and styles. Haycock et al (1978) report that some female athletes complain about breast injuries from bra lace (scratching the skin), hooks, and adjusters on straps. Thus, to provide comfort, manufacturers have begun using soft materials such as Lycra spandex and cotton to produce bras, and have attempted to shield metal or plastic fasteners (Costantakos & Watkins 1982). In addition to support, fit, and comfort, female consumers may choose

bras for other reasons such as fashionable colors, styles, and designs (Corwin 1993). For example, many women purchase the Wonderbra due to the sexually-attractive, cleavage-enhancing style ("Cleavage Enhancers" 1995). Some women may select a maximizer bra with foam padding to make their bust appear larger or a minimizer bra pressing the breasts to the sides instead of lifting them outward, to make their breasts appear smaller.

Sports bra benefits. Haycock et al (1978) found that female athletes generally feel bras are uncomfortable. This discomfort is attributed to:

- A. the different distribution of the weight of the breast since it laid more evenly over the rib cage; the unaccustomed pressure from the front, sides, and back, instead of just on the shoulders and underneath the breast;
- B. the feeling created by pressure from below the breast, and a triangular center that thrust the breast upward to restrict motion and increase support (p. 5).

Haycock et al (1978) compared breast movement with each female athlete running while wearing her own regular bra and while wearing a specifically designed and fitted bra. The researchers found that the specifically designed and fitted bra significantly restricted breast movement up and down and laterally. They concluded that an adequate bra should provide firm support; limit motion of the breasts; be fitted for the athlete as part of the uniform and other protective equipment; be designed so that padding may be added if desired; and be made of firm, nonelastic, nonabrasive, sturdy, and non-allergenic material. Lorentzen and Lawson (1987) found that female athletes with size D bra cups had a more serious problem with vertical breast displacement than women with A, B, and C cup bras. Thus, women of different sizes need different support and design standards (Lawson &

Lorentzen 1990). Most female athletes agree that they seek bras that support, are easy to care for, are inexpensive, are available in a wide range of sizes, are absorbent, have seamless cups and no irritating clasps, and have straps that stay on the shoulders (Hunter & Torgan 1982).

Nursing bra benefits. In relation to nursing bras, comfort and pressure reduction are the major benefits that nursing mothers need. Costantakos and Watkins (1982) report that comfort is associated with pressure at specific points of a bra. The more pressure is reduced, the more comfort increases. The researchers found that pressure concentration at specific areas of a bra can be reduced through certain design features. For instance, pressure can be decreased by increasing the width of the sports bra straps to 1-inch, and by adding a 2-inch elastic strip at the end of the regular bra straps.

Research Questions

1. Do three female age groups (teens, baby busters, and baby boomers) differ significantly with regard to bra benefits sought?
2. Do the three identified female age groups differ with regard to psychographics?
3. Do the three identified female age groups differ with regard to shopping orientations?
4. Do the three identified female age groups differ with regard to patronage behavior?
5. Do the three identified female age groups differ with regard to perceived level of spiritual and religious involvement?
6. Do the three identified female age groups differ with regard to their satisfaction with five bra purchase and use issues and overall bra satisfaction level?

Methodology

Survey

The study involved use of a questionnaire to obtain data. The respondents were asked questions regarding the bra benefits they sought, shopping orientations, psychographics, patronage behavior, demographics, and five satisfaction issues related to bra selection, colors, comfort, styles, and longevity/care. The items related to bra benefits, shopping orientations, psychographics, and satisfaction level included a five-point scale for respondents' use in indicating the extent of their agreement. All items related to bra benefits, some psychographic statements, some shopping orientation items, and all satisfaction level statements were designed specifically for this study. Other psychographic and shopping orientation items were adapted from previous studies (e.g., Cassill & Drake 1987; Shim & Bickle 1994; Shim & Drake 1988). The respondents were also asked to indicate the frequency with which they purchased bras from different types of apparel stores within the last year. Moreover, the questionnaire gathered demographic data to aid in data analysis and description of the sample.

To test the readability of questions, the questionnaire was pretested with 13 female students from a major university. The final questionnaire was revised based on responses to the pretest.

Sample and Data Collection

The sample included three age groups of females. Teenagers (ages 15 to 19) were drawn from a high school. Respondents were selected from different grades to include a range of ages. Baby busters (ages 20 to 31) were drawn from university classes. Female

students in classes offered by different colleges and majors were selected to produce a heterogeneous sample. Baby boomers (ages 32 to 50) were drawn from civic/community organizations, university staff and faculty members, and a church.

Initial contacts were made to instructors and organization presidents through a letter soliciting their assistance in allowing distribution of questionnaires. Questionnaires were delivered or mailed by the researchers to selected classes, organizations, and church in Spring 1996. If there were males in the selected classes and organizations, they were excused before the questionnaire was distributed due to the subject matter of the questionnaire. The voluntary nature of the study was explained and participants were assured of confidentiality. A total of 500 questionnaires were distributed. Of those, 326 questionnaires (teens: $n = 97$, baby busters: $n = 129$, and baby boomer: $n = 100$) were deemed usable and included in the data analysis.

Statistical Analysis

Figure 2 presents the statistical procedures of the study. The first step employed Cronbach's alpha coefficients and principal components factor analysis with varimax rotation. Cronbach's alpha coefficient was examined in order to assess internal consistency (reliability) of the scores generated for each item in the bra benefit, psychographic, and shopping orientation sections of the questionnaire. Principal components factor analysis with varimax rotation was involved to reduce the large number of variables into a smaller number of interpretable factors (Hair et al 1995). Factor analysis is useful when a large number of variables exist and the correlations among these variables are from very high to very low levels (Wells & Sheth 1971). The variable

reduction technique was applied to data obtained from all respondents on the agree-disagree statements used in assessing bra benefit, psychographic, and shopping orientation variables. Responses to these statements were measured by assigning 1 to 5 points to a scale ranging from "strongly disagree" (1) to "strongly agree" (5). The value of one was placed in the diagonal of the correlation matrix which represented the correlation of a variable with itself.

A minimum eigenvalue of one was used as the criteria to control the number of factors extracted. According to Wells and Sheth (1971), "all factors whose eigenvalues are greater than one when a correlation matrix is factored can be considered as significant and meaningful factors" (p. 219). Items loading greater than .40 on a single factor and much greater than other loadings on all other factors were included.

The second step involved developing an overall bra satisfaction level (BSL) index for each respondent. The overall BSL index is a number representing each respondent's degree of agreement with five bra purchase and use statements that related to bra selection, colors, comfort, styles, and longevity/care. For each of the five bra purchase and use statements, the respondent circled an answer (ranging from strongly disagree to strongly agree). During data analysis, each answer was translated into a score. Thus, the overall BSL index represents the sum of a participant's answers to all five bra purchase and use items. The BSL index serves as a measure of females' overall feelings of satisfaction with their bras and bra purchase experiences.

The third step differentiated respondents into teen, baby buster, and baby boomer groups by their ages. The fourth step involved univariate analysis of variance (ANOVA)

to determine whether the female age groups differ in terms of bra benefit factors, shopping orientation factors, and psychographic factors. ANOVA was used to show if differences existed among groups (Cooley & Lohnes 1971). When ANOVA indicated significant differences, LSD (Least Significant Difference) multiple comparison tests were used to examine differences between pairs of groups.

The fifth step involved determining whether the age groups differed with respect to patronage behavior, perceived level of spiritual and religious involvement, and satisfaction with five bra purchase and use issues. Chi-square tests were employed to test these categorical variables. If the calculated test statistic χ^2 was larger than the tabulated value of chi-square, it was concluded that the overall groups were significantly different. The final step involved ANOVA and LSD multiple comparison tests to examine whether the three identified age groups differ in terms of overall bra satisfaction level index.

Insert Figure 2 about here

Results

Respondents' Characteristics

The majority of respondents were white (teens 90%, busters 85%, and boomers 90%). Most of teenagers and baby busters were single (teens 97% and busters 72%), while most of baby boomers were married (70%). The majority of respondents reported a cup size B (teens 49.5%, busters 35.7%, and boomers 34.0%) or C (teens 35.8%, busters 36.5%, and boomers 32.0%). Approximately, 32.0% of boomers indicated they had a

band size between 38 and 48, while only 14.8 % of busters and 9.3% of teens did so. While most of the teenagers and busters weighed less than 135 lbs. (teens 84% and busters 57%), about 60% of boomers had a weight more than 135 lbs. The majority of teenagers were high school students (66%) or had a high school diploma (32%). Most of the baby busters and boomers had some college credits or a bachelor's degree (busters: 68% and 25% respectively; and boomers: 32% and 30% respectively). The religion of a majority of respondents was Protestant (teens 63%, busters 69%, and boomers 86%).

The enrollment of buster respondents in each college of the university surveyed was 10% from Agriculture, 16% from Arts and Sciences, 17% from Business, 14% from Education, 14% from Human Environmental Sciences, and 12% from Engineering. While the majority of teenagers and busters were students (90% and 76%, respectively), boomers' professions included 10% who were students; 35% who were employed in jobs such as technician, salesperson, office worker; 40% employed in professional positions (e.g., teacher, middle level manager, corporate executive, engineer, etc.); and 13% who were homemakers. The percentages of boomers drawn from different sub-groups were 12% from university classes, 31% from university staff/faculty members, 39% from civic/community organizations, 1% from a high school, and 17% from a church.

Approximately one-third of teenagers did not report their personal and family incomes. Approximately 65% of busters had a personal income of \$5,001-\$25,000, while 49% of them had household incomes ranging from \$5,001-\$35,000. About 70% of boomers reported a personal income of \$5,001-\$35,000, while about 59% of boomers had a household income of \$25,001-\$75,000.

Validity and Reliability

Cronbach's alpha coefficients were calculated to assess reliability and factor analytic procedures were used to assess validity of the bra benefit, psychographic, and shopping orientation items. Table 1 provides Cronbach's alpha coefficients and factor loadings.

Factorial validity. Kline (1994) reports that in samples of at least 100 subjects, a factor loading of .30 is salient; in this study, all items loaded above .30 (with -.39 as the lowest loading). The more conservative criterion of .40 was set as the minimum loading to accept in order to retain an item in this study. Only one item was eliminated based on this criterion (see Table 1).

Highly significant factor loadings of 37 of the items (.70 - .89 range), moderately significant loadings of 34 others (.50 - .69 range), and the minimally significant loadings of only nine statements (.30 - .49 range) showed the statements were associated with the underlying bra benefit, psychographic, and shopping orientation constructs (Hair et al 1995).

Reliability. Cronbach's alpha coefficients (see Table 1) calculated for the 25 bra benefit questionnaire items retained (based on factor analysis procedures described on p. 63) ranged from .62 to .66. For 21 psychographic items retained, alpha coefficients ranged from .54 to .63. Coefficients calculated for 21 retained shopping orientation items ranged from .56 to .61. According to Nunnally (1967) and Murphy and Davidshofer (1988), reliability levels of .60 and higher are acceptable for the type of research conducted in this study.

Identification of Factors

Using the minimum eigenvalue criterion of one, 11 bra benefit factors, six psychographic factors, and eight shopping orientation factors were extracted. However, among these, three benefit factors and two shopping orientation factors were difficult to interpret in that a) the associated questionnaire items were not logically related or b) the factor contained only one questionnaire item. Furthermore, one questionnaire item with a loading lower than .40 and four items loading similarly on two factors were also difficult to interpret. These items were eliminated. In total, eight bra benefit factors consisting of 25 items, six psychographic factors consisting of 21 items, and six shopping orientation factors consisting of 21 items were retained.

Insert Table 1 about here

Bra benefit factors. Total percent of variance explained by the eight retained bra benefit factors was 51%. Factor 1 was labeled Fashion and Coordination and questionnaire items related to bra colors, coordination with panties, and fashion appearance. Factor 2, Comfort and Outer Appearance, included statements related to irritation from rigid bra materials, problems with the bra digging into the skin, and appearance through outerwear. Statements concerning construction characteristics including soft-cups, seamless cups, front closure, and underwires, loaded together as Factor 3, labeled Construction Features. Factor 4 was labeled Support and Coverage and included items regarding breast movement, support, and breast coverage. Factor 5,

Padding, included statements in relation to bra padding for purposes of modesty and appearance of larger breasts. Statements regarding cup fabrics and full/partial coverage loaded on Factor 6, Bra Cup Characteristics. Factor 7 was labeled Function and the questionnaire items described preferences for sports bras and T-back bras. Fit was the label for Factor 8 which included statements related to straps and cups staying positioned correctly.

Psychographic factors. Total variance explained by the six retained psychographic factors was 56.9%. Factor 1 was labeled Satisfaction with Life and included statements regarding confidence and pleasure in life. Statements describing the uncomfortable feeling of discussing or watching intimate activities when men are present loaded together on Factor 2, Conservatism. Factor 3 was labeled Outgoing & Social and included items related to respondents' friends and attractiveness. Factor 4, Opinion Leadership, included statements about providing fashion trends or brand advice to friends or family. Items describing a positive financial outlook and being exercise prone loaded on Factor 5, labeled Financial Optimism/Exercise Prone. Finally, Factor 6, labeled Traditional Sex-role Oriented, related to opinions of equal rights between men and women and beliefs about roles of men and women.

Shopping orientation factors. The total variance explained by the six retained shopping orientation factors was 50.7%. Factor 1 was labeled Price-oriented Shopping and included statements regarding price as an important criteria in bra purchase. Statements related to time-consciousness while shopping for bras loaded on Factor 2, Convenience Shopping. Factor 3, Shopping Dependent, included items describing

preference for having opinions or information from family, friends, or sales associates when shopping for bras. Local Shopping, Factor 4, included items related to preferences for bra shopping in local stores. Statements concerning preferences for having or trying different kinds and styles of bras loaded on Factor 5, Bra Wardrobe-oriented Shopping. Finally, Factor 6, labeled Printed Information-oriented Shopping, included items regarding whether mail-order catalogs, newspaper, or magazine ads are primary bra information sources.

Identification of Differences Across Age Groups

Table 2 presents results of ANOVA and LSD multiple comparison tests conducted to identify differences existing among the three age groups for bra benefit, psychographic, and shopping orientation factors. Means are provided for each factor for the entire sample. Then, a mean representing each age group's scores on each factor is indicated. Statistical significance is identified as $p \leq .05$.

Insert Table 2 about here

Bra benefits. ANOVA indicated there were significant differences among the three age groups for six of the eight bra benefit factors. For the Fashion and Coordination factor, significant differences were identified between a) teens and boomers and b) busters and boomers. For the Comfort and Outer Appearance factor, there were significant differences between a) teens and busters and b) teens and boomers. In regard to the Construction Features factor, significant differences were found between a) teens and

boomers and b) busters and boomers. Significant differences were identified between teens and busters in regard to the Support and Coverage factor mean scores. For the Padding factor, there were significant differences between a) teens and boomers and b) busters and boomers. Significant differences were found between mean scores of a) teens and boomers and b) busters and boomers for the Bra Cup Characteristics factor. No statistically significant differences were found between the mean scores of the three age groups on the Function and Fit factors.

For the entire sample, Fit had the highest mean score ($\underline{M} = 4.5$), followed by Comfort and Outer Appearance, Support and Coverage, Construction Features, Fashion and Coordination, Bra Cup Characteristics, Padding, and Function ($\underline{M} = 4.2$, $\underline{M} = 3.7$, $\underline{M} = 3.6$, $\underline{M} = 3.2$, $\underline{M} = 2.9$, $\underline{M} = 2.8$, $\underline{M} = 2.1$, respectively). The teen group had the highest mean score ($\underline{M} = 3.4$) on Fashion and Coordination. As compared to the boomers, the teen group also had higher means on Construction Features ($\underline{M} = 3.7$, $\underline{M} = 3.4$, respectively), Padding ($\underline{M} = 2.9$, $\underline{M} = 2.4$, respectively), and Bra Cup Characteristics ($\underline{M} = 3.0$, $\underline{M} = 2.7$, respectively). The baby buster group had the highest mean score on Support & Coverage ($\underline{M} = 3.8$). The baby boomer group had the lowest mean score on Fashion & Coordination ($\underline{M} = 2.9$), Construction Features ($\underline{M} = 3.4$), Padding ($\underline{M} = 2.4$), and Bra Cup Characteristics ($\underline{M} = 2.7$) compared to the other two age groups.

No significant differences were found between the teen group and the buster group in terms of the Fashion and Coordination ($\underline{M} = 3.4$, $\underline{M} = 3.3$, respectively), Construction Features ($\underline{M} = 3.7$, $\underline{M} = 3.7$, respectively), Padding ($\underline{M} = 2.9$, $\underline{M} = 2.9$, respectively), and Bra Cup Characteristics ($\underline{M} = 3.0$, $\underline{M} = 3.0$, respectively) factors. No significant

differences existed between the teen group and the boomer group in regard to the Support and Coverage factor ($\underline{M} = 3.6$, $\underline{M} = 3.7$, respectively). Also, no significant differences were identified between buster and boomer groups in regard to the Comfort and Outer Appearance factor ($\underline{M} = 4.3$, $\underline{M} = 4.3$, respectively), and the Support and Coverage factor ($\underline{M} = 3.8$, $\underline{M} = 3.7$, respectively).

Psychographics. Overall, significant differences between age groups were identified for all psychographic factors, except the Financial Optimism/Exercise Prone factor. For the Satisfaction with Life factor, significant differences were identified between a) teens and busters and b) teens and boomers. For the Conservatism factor, there were significant differences between a) teens and busters, b) teens and boomers, and c) busters and boomers. Significant differences were identified between a) teens and busters and b) busters and boomers in regard to the Outgoing and Social factor mean scores. For the Opinion Leadership factor, there were significant differences between a) teens and boomers and b) busters and boomers. No statistically significant differences were found between the mean scores of the three age groups on the Financial Optimism/Exercise Prone factor. In regard to the Traditional Sex-role Oriented factor, significant difference was identified between busters and boomers.

While the teen group had the highest score on the Opinion Leadership factor ($\underline{M} = 3.5$), the buster group had the highest mean scores on the Satisfaction with Life ($\underline{M} = 4.2$), the Outgoing and Social ($\underline{M} = 4.4$), and the Traditional Sex-role Oriented ($\underline{M} = 4.3$) factors. As compared to other groups, the teen group had lowest scores on the Satisfaction with Life ($\underline{M} = 3.9$) and the Conservatism ($\underline{M} = 2.1$) factors. The boomer

group had the highest score on the Conservatism factor ($\underline{M} = 3.3$) and lowest scores on the Outgoing and Social ($\underline{M} = 4.0$) and the Opinion Leadership ($\underline{M} = 3.1$) factors.

No significant differences existed between teen and buster groups on the Opinion Leadership ($\underline{M} = 3.5$, $\underline{M} = 3.4$, respectively) and the Traditional Sex-role Oriented ($\underline{M} = 4.1$, $\underline{M} = 4.3$, respectively) factors. No significant differences were identified between buster and boomer groups for the Satisfaction with Life factor ($\underline{M} = 4.2$, $\underline{M} = 4.1$, respectively). In addition, no significant differences were found between teen and boomer groups on the Outgoing and Social ($\underline{M} = 4.1$, $\underline{M} = 4.0$, respectively) and the Traditional Sex-role Oriented ($\underline{M} = 4.1$, $\underline{M} = 4.1$, respectively) factors.

Shopping orientations. Based on ANOVA, there were significant differences among age groups for five of six shopping orientation factors. For the Price-oriented Shopping factor, significant differences were identified between a) teens and boomers and b) busters and boomers. Significant difference was found between busters and boomers in regard to the Convenience Shopping factor. For the Shopping Dependent factor, significant differences were identified between a) teens and busters, b) teens and boomers, and c) busters and boomers. In regard to the Local Shopping factor, there were significant differences found between a) teens and busters, b) teens and boomers, and c) busters and boomers. For the Bra Wardrobe-oriented Shopping factor, significant differences were identified between a) teens and boomers and b) busters and boomers. No significant differences were found between the mean scores of the three age groups on the Printed Information-oriented Shopping factor.

The teen group had higher mean scores on the Local Shopping ($\underline{M} = 3.1$) and the Bra Wardrobe-oriented Shopping ($\underline{M} = 3.5$) factors. The buster group had higher scores on the Price-oriented Shopping ($\underline{M} = 3.4$) and the Shopping Dependent ($\underline{M} = 3.0$) factors and the lowest mean scores on the Convenience Shopping ($\underline{M} = 3.0$) and Local Shopping ($\underline{M} = 2.6$) factors. The boomer group had the lowest mean scores for Price-oriented Shopping ($\underline{M} = 3.1$), Shopping Dependent ($\underline{M} = 2.5$), and Bra Wardrobe-oriented Shopping ($\underline{M} = 3.0$); but had the highest mean score on Convenience Shopping ($\underline{M} = 3.4$) among the groups.

There were no significant differences between teen and buster groups on Price-oriented Shopping ($\underline{M} = 3.3$, $\underline{M} = 3.4$, respectively), Convenience Shopping ($\underline{M} = 3.2$, $\underline{M} = 3.0$, respectively), and Bra Wardrobe-oriented Shopping ($\underline{M} = 3.5$, $\underline{M} = 3.4$, respectively). No significant difference was identified between teen and boomer groups in terms of Convenience Shopping ($\underline{M} = 3.2$, $\underline{M} = 3.4$, respectively).

Patronage behavior. Table 3 presents differences (identified by using chi-square statistical analysis) across age groups in relation to patronage behavior. The results revealed that the three age groups differed with respect to the number of times they purchased bras from intimate-apparel specialty stores ($\chi^2 = 37.8$, [df = 6], $p < .001$), apparel specialty stores ($\chi^2 = 20.1$, [df = 6], $p = .003$), upscale or better department stores ($\chi^2 = 32.2$, [df = 6], $p < .001$), and discount stores ($\chi^2 = 18.8$, [df = 6], $p = .005$) within the last year. No significant differences were found among age groups on the frequency of bra purchase from mail-order catalogs ($\chi^2 = 2.3$, [df = 6], $p = .893$) and moderate department stores ($\chi^2 = 5.2$, [df = 6], $p = .518$).

Insert Table 3 about here

Table 4 presents the percentages of respondents purchasing bras from different types of retail sources within the last year. Large percentages of respondents purchased bras from: upscale or better department stores (61.5%) and intimate-apparel specialty stores (60.4%), followed by moderate department stores (59.8%) and discount stores (59.2%). While all types of bra shopping outlets except mail-order catalogs and apparel specialty stores were important to busters, the important types of stores to teens were upscale or better department stores and intimate-apparel specialty stores and to boomers were moderate department stores and discount stores.

Insert Table 4 about here

Perceived level of spiritual and religious involvement. Table 5 presents the results of chi-square analysis which identified differences among age groups in terms of perceived level of spiritual and religious involvement. The results revealed that a significantly higher percentage of subjects in the boomer group (62.0%) reported a higher level of spiritual involvement, as compared to the buster group (44.2%) and teen group (35.0%) ($\chi^2 = 15.8$, [df = 4], $p = .003$). In terms of perceived level of religious involvement ($\chi^2 = 13.3$, [df = 4], $p = .01$), boomers also had a significantly higher percentage of involvement (43.0%), in contrast to busters (24.0%) and teens (25.8%).

Insert Table 5 about here

Satisfaction with five bra purchase/use issues. Table 6 presents the results of chi-square statistical analysis to identify differences in satisfaction with five bra purchase and use issues across age groups. The purchase and use issues with percent of dissatisfaction (responses of disagree or strongly disagree to satisfaction statements) of the entire sample were: a) selections (choices available for consumers' preferences), 35.3%; b) colors offered, 14.0%; c) comfort of bras purchased, 23.6%; d) bra styles available in stores, 26.0%; e) longevity/care (how long bras last through many washings), 27.5%. Significant differences were identified across age groups for four of the five issues; there were no significant differences across age groups for satisfaction with bra colors ($\chi^2 = 12.4$, [df = 8], $p = .134$). Approximately, 46.0% of boomer women disagreed or strongly disagreed that they were satisfied with bra selections, followed by busters (42.2%) and teens (14.7%) ($\chi^2 = 31.1$, [df = 8], $p < .001$). About 33.3% of boomers disagreed or strongly disagreed that they were satisfied with the comfort of their bras, followed by busters (28.9%) and teens (6.4%) ($\chi^2 = 28.1$, [df = 8], $p < .001$). In terms of styles, the teen group included a higher percentage of respondents who agreed or strongly agreed that they were satisfied with styles available in stores (74.7%); about one-half of the buster and boomer respondents agreed or strongly agreed they were satisfied with style offerings (53.9%, 55.0%, respectively) ($\chi^2 = 31.1$, [df = 8], $p < .001$). Moreover, the majority of teens and boomers (64.2%, 64.0%, respectively) were satisfied with bra longevity/care,

but only 46.1% of busters were satisfied with longevity/care ($\chi^2 = 26.3$, [df = 8], $p = .001$).

Insert Table 6 about here

Overall bra satisfaction level. ANOVA and LSD multiple comparison tests were used to determine if significant differences existed among the three age groups in terms of overall BSL index at the .05 level. The results indicated that there was significant difference among the three age groups for females' overall feelings of satisfaction with their bras and bra purchase experiences ($F = 14.96$, $p = .0001$). Significant differences were identified between a) teens and busters and b) teens and boomers. No significant difference was found between busters and boomers. While the entire sample had a mean BSL index of 16.9, the teen group had the highest mean BSL index ($M = 18.6$), followed by the boomers and the busters ($M = 16.4$, $M = 16.1$, respectively).

Conclusions, Discussion, and Implications

Profiles of the Age Groups

The results of this study reveal that the three age group subsegments of female bra consumers have distinct characteristics. The identified age groups differed in terms of six bra benefit factors, five psychographic factors, five shopping orientation factors, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with four bra purchase and use issues, and overall bra satisfaction level. Thus, the results imply that

these variables were influenced by age. This finding supports the conceptual framework of the study, which proposed age as a factor which may directly and indirectly influence psychographically-oriented variables and various consumer attributes. Table 7 provides detailed profiles of the three age groups.

Insert Table 7 about here

This study's findings indicate that the most important benefit female consumers seek from bras is fit, followed by comfort and outer appearance, support and coverage, construction features, fashion and coordination, bra cup characteristics, padding, and function. Overall, support, comfort, fit and construction features that a bra provides were very important to all three age groups of female consumers. All groups appeared to be satisfied with bra colors they could find in the current market.

Teen group. Teen females tended to favor bras with a fashionable look and colored bras. A bra coordinated with a panty or with the color of outer clothes was likely to be important to them. They apparently tend to search for bras using appearance and fashion criteria. Teen respondents were likely to enjoy having a bra wardrobe collection. They preferred to shop for bras from local intimate-apparel specialty stores and upscale or better department stores. This finding supports Shim and Kotsiopulos' findings (1992, 1993) that highly involved apparel shoppers who place importance on fashion and appearance prefer to shop in specialty stores or department stores. While teens were less likely to be happy and confident in their daily lives, they tended to be philosophically liberal and see themselves as opinion leaders. Teens tended to have greater satisfaction

with bra selection, comfort, styles, longevity/care, and overall bra purchase and use experiences than other age groups.

Baby buster group. Buster females tended to pay similar attention to bra fashionability and bra wardrobe collecting as the teens did. These findings support Jenkins and Dickey's findings (1976) that characterized fashion advocates as younger and fashion oriented. In general, busters were likely to value support and coverage more than teens. With a traditional sex-role point of view, baby busters tended to be happy and confident in their daily lives and enjoy being outgoing and social with friends. They were more likely to favor another person's (e.g., boyfriend or husband) help when buying bras. They tended to be price-conscious and not purchase bras from local stores, mail-order catalogs, and apparel specialty stores. In terms of satisfaction levels, they appeared to be less satisfied with bra selections, comfort, and styles than teens, and longevity/care than both teen and boomer groups.

Baby boomer group. The major bra benefits baby boomers sought tended to be support, comfort, and fit. They were more likely to perceive themselves as conservative, religious, and spiritual individuals and not view themselves as opinion leaders and not be as outgoing or involved in social activities as other groups. They tended to be convenience (time-conscious) shoppers and not to be bra wardrobe collectors. Some of these characteristics agree with findings of previous studies in which people with a high level of religious commitment tended to be older, conservative, and time-conscious (Barton & Vaughan 1976; McDaniel & Burnett 1990; Wilkes et al 1986). The boomer respondents were less interested in bra appearance, padding, construction features, or cup

characteristics. These benefits sought were similar to the benefits sought by Shim and Bickle's (1994) practical/conservative users of clothing. In this study, boomers tended to shop for bras from moderate department stores or discount stores. Furthermore, the boomer group tended to have the lowest satisfaction level with bra selections and comfort of any group, and were less satisfied with styles, longevity/care and overall bra purchase and use experiences than teens.

Implications and Conclusions

Teen group. teens were bra wardrobe-oriented shoppers. Being philosophically liberal, teen females were also more fashion-oriented. This orientation reflects youth and exploratory values with a tendency to experiment in relation to their fashion appearance (Creekmore 1963). Thus, the orientation toward creating a fashionable bra wardrobe is a natural interest. If marketers take action to capture and enhance this interest in teens, a continuation of this shopping orientation may occur as teens age. For example, advertising and labeling that emphasizes the "bra wardrobing" concept and in-store strategies to educate consumers regarding bras available to serve various needs may be effective. Furthermore, teen females favored purchasing bras from intimate-apparel specialty stores and upscale or better department stores. Thus, these types of stores should target teen females and offer more fashion-oriented bras, various colored bras, and bra/panty sets in order to appeal to and retain customers of this age subsegment. Other types of retail outlets should adjust their merchandise mix to address teen preferences if they wish to target teen consumers.

Baby buster group. Baby busters were similar to teens in terms of bra benefits and bra wardrobe-oriented shopping and similar to boomers in terms of satisfaction with two bra purchase and use issues (selection and comfort) and overall satisfaction level. It appears that baby busters may retain some of the orientations of the teen shoppers while beginning to adopt some preferences of older shoppers. In addition, busters were price-conscious and less satisfied with longevity/care that their bras provide. Not surprisingly, the inclination toward price-consciousness may be attributed to the fact that university students often have economic pressures. In addition, purchasing lower priced bras may be linked with lower quality products that do not last as long. To capture buster consumers, retailers should focus on low-price-high-comfort and offer a variety of selections and styles including fashionable and colored bras.

Baby boomer group. Boomers were less satisfied with bra selections, comfort, and styles available in the current market, and their overall bra satisfaction level was lower than the other age groups. These benefits sought by boomers should be the focus of bra designers, manufacturers, and retailers targeting boomers. For example, bra designers and manufacturers targeting boomers should design or produce bras with strong support, fit, and comfort. The role of testing the support, fit, and comfort of bras by fit models and consumer test groups is of great importance when developing bras for the boomer population. Retailers should offer more variety in bra selection and styles in the stores where boomers shop to accommodate needs of boomer females.

With higher perceived levels of spiritual and religious involvement, boomers tended to indicate more conservative preferences than other age groups. Their

conservative viewpoint may be linked with the bra benefits they seek which seem focused on basic functions. Thus, advertising which targets boomers should highlight basic needs such as comfort, fit, and support and further educate boomer females about fashion bras, in order to capture more market share. Furthermore, boomers appeared to be time-conscious, but not price-conscious. Creating an ease-of-procurement bra shopping environment and high-quality-high-price product lines would be valuable strategies.

Overall, many females tend to find a bra that meets certain “benefits criteria” and then buy only that style and type of bra to wear with all outerwear. Shifting the consumer paradigms from the “one bra for all occasions” to the “variety of bras to complement different outerwear choices and activities” is an opportunity for marketers to help consumers change the way they shop for bras. It also provides a chance for bra manufacturers and retailers to sell more bras through satisfying diverse consumer needs for intimate apparel that is used for various activities, occasions, and life-styles. The opportunity to measure the bra wardrobe-oriented shopping orientation will provide assistance to the intimate apparel industry as manufacturers and retailers attempt to appeal to a diverse consumer market.

Limitations and Recommendations

Although the respondents of the study represented relatively diverse groups, bias was involved in the study for various reasons. First, the study involved use of a convenience sample which was drawn from a south central state. Also, the teen group was drawn from a metropolitan area, whereas the bustler and the boomer groups were

drawn from a small town with limited retail resources available locally. This difference may influence the store choices among the age groups. However, it is important to note that the shopping mobility of consumers today (indicated by the high percentages of consumers who outshop) implies that many consumers overcome limited offerings of local retailers by traveling to shop elsewhere. Since the demographics of consumers in this study were not compared with the U.S. female population averages, the sample may not be representative of the population. With an 18-year-range, the boomer group may include some sub-groups which have distinct characteristics. For instance, young boomers may have lower incomes and shop in discount stores and older boomers may have higher incomes and shop in department stores. Based on these limitations, the findings may not be generalizable to all females of the specified age groups. It is hoped that future research will be conducted with a random sample to help bra marketers identify the bra benefits females seek which are generalizable to females of specified groups.

Various directions for future research are suggested. Studies which segment females by bra cup sizes and life-styles to investigate benefits sought by these consumers would be valuable to bra designers. Design-oriented studies focusing on the factors influencing bra comfort are recommended. In-depth investigations of the intervening influences of psychographics and religious/spiritual involvement on other consumer attributes (i.e., benefits sought, shopping orientations, satisfaction level) would be enlightening to marketers of intimate apparel. Expansion of the bra focus to include the bra components of swimwear would be helpful to an additional segment of the apparel

industry. Studies focusing on benefits sought by consumers in different ethnic and cultural groups would aid in targeting groups domestically and in trading internationally.

This is the first study to identify certain benefits sought by consumers, shopping orientations, and psychographics that are specifically oriented toward the bra, an intensively used and very specialized apparel product. Results show that, with further development, the bra benefit, psychographic, and shopping orientation sections of the questionnaire hold promise for use in future studies involving segmentation of females for investigation of issues related to bra purchase and use.

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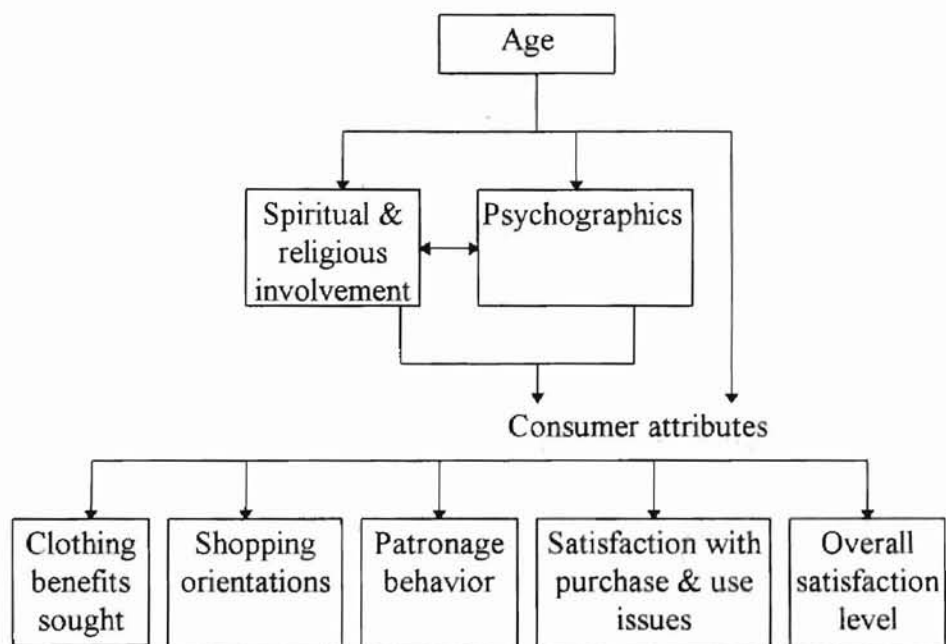


Figure 1. A research framework.

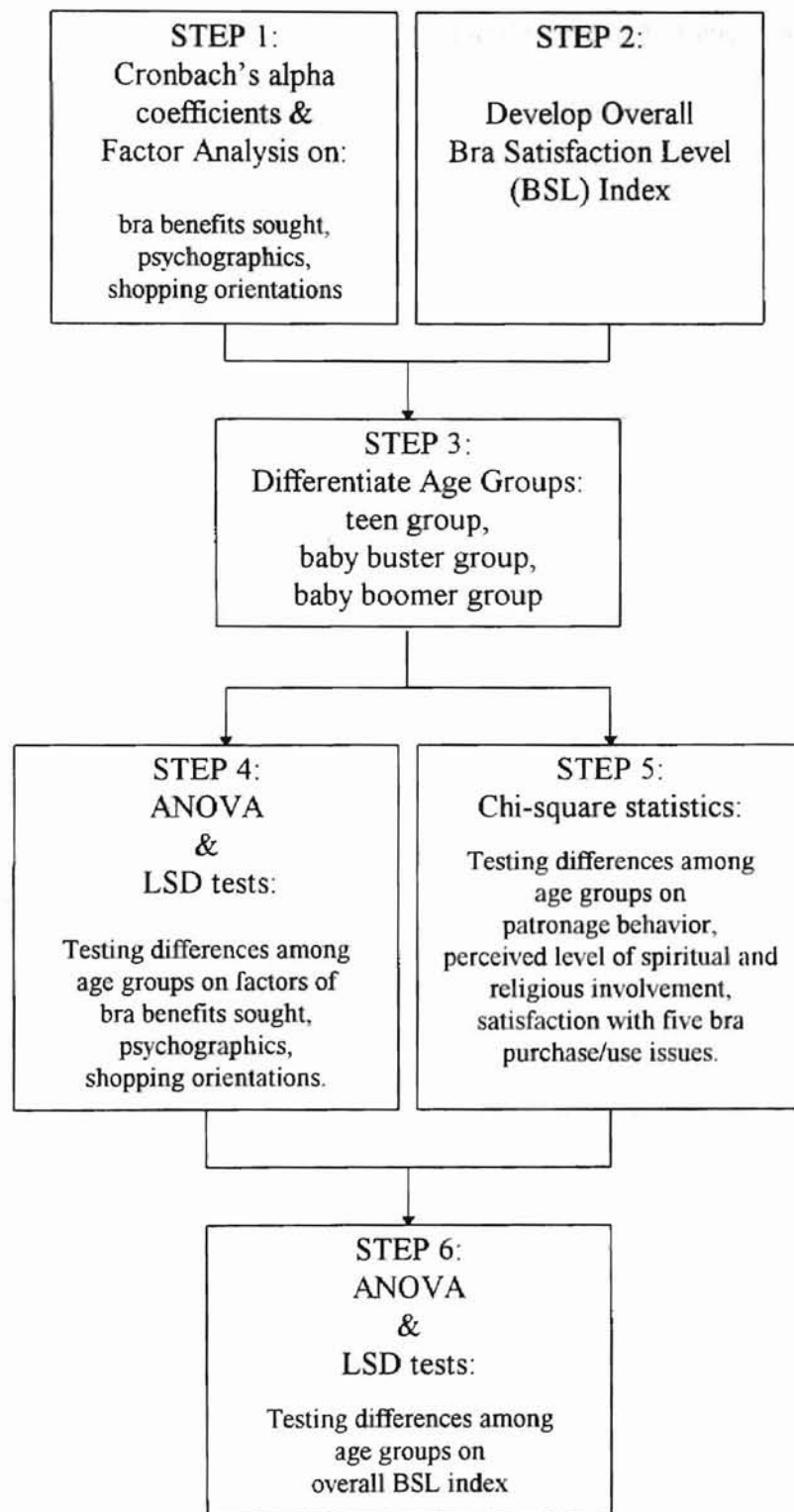


Figure 2. Statistical procedures.

Table 1.

Cronbach's Coefficient Alpha, Factor Loadings, and Percent of Variance Explained for
Bra Benefit, Psychographic, and Shopping Orientation Statements

Item number	Questionnaire statements	Cronbach's coefficient alpha	Factor loading	% of variance explained
<u>Bra benefit factors</u>				
Factor 1: Fashion and coordination				10.4
3.	I buy bras in various colors.	.64	.75	
5.	I like to wear a bra coordinated with a panty.	.64	.77	
8.	I like bras which allow cleavage to be visible. ^a	.64	.44	
22.	I carefully coordinate the color of my bras with my clothes.	.64	.67	
23.	I like to wear a bra that makes my body look beautiful, sexy, and attractive.	.62	.57	
29.	I usually buy neutral-colored bras (e.g., beige, white). ^c	.66	-.63	
Factor 2: Comfort and outer appearance				7.3
16.	It is important that plastic or metal materials on bras (e.g., hooks, strap adjusters) do not irritate my skin.	.63	.69	
17.	I pay attention to bra cups that pucker because it makes my outerwear look puckered.	.63	.76	
18.	A bra providing a healthy-looking roundness is important to me.	.62	.53	
19.	I look for bras that don't dig into my breastbone, side, or shoulders, with a back that does not ride up.	.63	.70	
31.	The comfort of a bra is very important to me. ^a	.64	.40	

(table continues)

Table 1. (continued)

Item number	Questionnaire statements	Cronbach's coefficient alpha	Factor loading	% of variance explained
Factor 3: Construction features				6.4
14.	I like to wear soft-cup bra.	.65	-.47	
25.	I prefer to wear seamless bras.	.64	-.44	
28.	I prefer bras that close in front. ^b	.65	-.39	
32.	I usually buy underwire bras.	.64	.80	
33.	I like to wear underwire bras.	.64	.79	
Factor 4: Support and coverage				6.1
6.	I prefer bras that cover my entire breasts for modesty.	.66	.53	
26.	A bra that restricts breast movement up and down during walking and running is important to me.	.63	.75	
35.	A bra that provides strong support to my bustline is very important to me.	.64	.53	
Factor 5: Padding				5.9
13.	I prefer bras with some padding to allow for modesty and prevent embarrassment.	.65	.84	
21.	I like to wear push-up padded bras to make my bust appear larger.	.64	.71	

(table continues)

Table 1. (continued)

Item number	Questionnaire statements	Cronbach's coefficient alpha	Factor loading	% of variance explained
Factor 6: Bra cup characteristics				5.8
9.	A bra made of lace tends to scratch my skin. ^c	.66	-.77	
12.	I like bras with cups that are lace or partially lace.	.66	.78	
20.	I prefer bras with demi-cups (provide partial coverage).	.64	.48	
Factor 7: Function				4.6
11.	I prefer to wear sports bras most of the time.	.66	.77	
15.	I prefer to buy bras with a T-back.	.66	.75	
Factor 8: Fit				4.5
1.	I search for bras with straps that stay on my shoulders.	.65	.70	
2.	It is very important to me that bra cups stay positioned correctly.	.63	.53	
Factor 9:				4.5
7.	I like built-up (wider) straps on my bras. ^c	.65	.78	
10.	I like to wear bras which minimize my bustline. ^a	.66	.41	
30.	I prefer bras made of certain fabrics/materials for modesty and to prevent embarrassment. ^c	.64	.45	
Factor 10:				4.1
27.	I prefer to buy bras that can be machine-washed. ^c	.64	.71	
34.	I like strapless bras so no bra straps show. ^c	.64	-.57	

(table continues)

Table 1. (continued)

Item number	Questionnaire statements	Cronbach's coefficient alpha	Factor loading	% of variance explained
Factor 11:				3.6
4.	I prefer bras that maintain their original shape and firmness when laundered. ^a	.64	-.50	
24.	I like a bra that gets softer when it is washed. ^d	.65	.78	
<u>Psychographic factors</u>				
Factor 1: Satisfaction with life				12.5
4.	I have a pleasant and enjoyable life.	.54	.83	
6.	I feel confident in my daily life.	.54	.84	
16.	I have a lot of confidence in my ability to succeed.	.55	.61	
18.	I usually feel happy in my daily life.	.55	.80	
Factor 2: Conservatism				11.6
2.	When men are around, I feel uncomfortable discussing bra purchase.	.63	.73	
11.	I prefer staying home during weekends.	.63	.70	
12.	I feel embarrassed watching sexual activities on movies or TV when I am with male friends.	.62	.79	
19.	I find parties or bars exciting. ^e	.60	-.64	

(table continues)

Table 1. (continued)

Item number	Questionnaire statements	Cronbach's coefficient alpha	Factor loading	% of variance explained
Factor 3: Outgoing and social				9.7
9.	I consistently make an effort to be attractive.	.56	.66	
14.	I like it when men think I am attractive.	.58	.69	
15.	Entertaining friends is an enjoyable activity.	.56	.68	
Factor 4: Opinion leadership				8.5
5.	My friends or family often come to me for product or brand advice.	.56	.50	
10.	I spend a lot of time with my friends.	.55	.51	
20.	I often spend my leisure time on movies, swimming, or bowling.	.58	.63	
21.	I like to advise my friends and family about new fashion trends.	.57	.64	
Factor 5: Financial optimism/exercise prone				8.1
1.	No matter how fast my income goes up, I never seem to get ahead.*	.62	-.63	
3.	I exercise on a regular basis.	.59	.70	
8.	Participating in an active sport makes me feel energetic.	.57	.61	
17.	My income is high enough to satisfy nearly all my important desires.	.59	.47	

(table continues)

Table 1. (continued)

Item number	Questionnaire statements	Cronbach's coefficient alpha	Factor loading	% of variance explained
Factor 6: Traditional sex-role oriented				6.5
7.	Women have as many rights as men.	.60	.79	
13.	Taking care of children and housekeeping are women's jobs, not men's. ^a	.61	-.57	
<u>Shopping orientation factors</u>				
Factor 1: Price-oriented shopping				10.5
5.	The major criteria I use when purchasing a bra is the price.	.56	.65	
7.	Expensive bras are not worth the money because the delicate fabrics don't stand up to wear and washing.	.57	.64	
10.	I find myself checking prices on bras when I shop.	.56	.70	
13.	I usually only buy bras I consider to be good values for their prices.	.56	.66	
17.	If a bra is priced too high, I don't even consider buying it.	.56	.73	
Factor 2: Convenience shopping				10.0
2.	When I shop, I tend to finish as fast as possible.	.59	.80	
4.	Shopping for bras is an enjoyable activity. ^a	.59	-.62	
8.	I do not like to spend much time shopping for bras.	.61	.74	
22.	When I shop, finding and buying a bra quickly is important.	.58	.81	

(table continues)

Table 1. (continued)

Item number	Questionnaire statements	Cronbach's coefficient alpha	Factor loading	% of variance explained
Factor 3: Shopping dependent				9.2
1.	The willingness, friendliness, and politeness of the sales associate is important to me when buying bras.	.58	.59	
3.	I prefer that a special person (e.g., mother, husband, boyfriend, other) actually helps me select a bra.	.56	.74	
20.	I enjoy exchanging bra information with my friends or family members.	.57	.60	
21.	Before I buy bras, I think about another person's (e.g., husband, boyfriend, other) preferences.	.57	.50	
23.	I learn bra information primarily from my friends or family members.	.56	.65	
Factor 4: Local shopping				8.0
11.	Local stores meet my bra shopping needs.	.60	.85	
12.	I prefer to shop for bras in local stores due to friendly customer-personnel relationship.	.56	.55	
24.	I have trouble finding exactly what bras I want in local stores. ^a	.61	-.82	
Factor 5: Bra wardrobe-oriented shopping				7.1
15.	I like to try different kinds and styles of bras.	.58	.78	
18.	I like to have an extensive bra wardrobe collection.	.59	.66	

(table continues)

Table 1. (continued)

Item number	Questionnaire statements	Cronbach's coefficient alpha	Factor loading	% of variance explained
Factor 6: Printed information-oriented shopping				5.9
14.	I learn bra information primarily from mail-order catalogs.	.57	.73	
19.	I learn bra information primarily from newspaper and magazine ads.	.57	.66	
Factor 7:				5.7
6.	I feel better if the sales associate helps me in the dressing room when I try on bras. ^c	.59	.65	
9.	feel obligated to purchase bras from local stores because I want to support the community. ^c	.58	.74	
Factor 8:				4.9
16.	If I find a bra that I like is on sale, I often buy several of them at once. ^d	.60	.87	

Note. ^aThe item was not retained because its loadings on two factors were similar. ^bThe item was not retained because its loading was less than .40. ^cThe item was not retained because its content was not logically related to other items loading on the same factor. ^dThe item was not retained because it loaded independently on a factor. ^eThe item was reverse coded.

Table 2.

Analysis of Variance and Least Significant Difference Tests for Bra Benefit,
Psychographic, and Shopping Orientation Factors among Three Age Groups

Factors	Factor M	Age group means			Univariate	
		Teens	Busters	Boomers	F	p
<u>Bra Benefits</u>						
Fashion & coordination	3.2	<u>3.4^c</u>	3.3 ^b	2.9 ^{bc}	16.96	.0001
Comfort & outer appearance	4.2	4.0 ^{ac}	4.3 ^a	4.3 ^c	7.74	.0005
Construction features	3.6	3.7 ^c	3.7 ^b	3.4 ^{bc}	7.05	.001
Support & coverage	3.7	3.6 ^a	<u>3.8^a</u>	3.7	4.09	.0176
Padding	2.8	2.9 ^c	2.9 ^b	2.4 ^{bc}	7.65	.0006
Bra cup characteristics	2.9	3.0 ^c	3.0 ^b	2.7 ^{bc}	3.31	.0379
Function	2.1	2.2	2.1	2.1	.47	.6227 (N.S.)
Fit	4.5	4.5	4.5	4.5	.70	.4973 (N.S.)
<u>Psychographics</u>						
Satisfaction with life	4.1	3.9 ^{ac}	<u>4.2^a</u>	4.1 ^c	7.63	.0006
Conservatism	2.6	2.1 ^{ac}	2.6 ^{ab}	<u>3.3^{bc}</u>	67.91	.0001
Outgoing & social	4.2	4.1 ^a	<u>4.4^{ab}</u>	4.0 ^b	16.85	.0001
Opinion leadership	3.3	<u>3.5^c</u>	3.4 ^b	3.1 ^{bc}	14.29	.0001
Financial optimism/ exercise prone	3.3	3.4	3.2	3.3	1.84	.1611 (N.S.)
Traditional sex-role oriented	4.2	4.1	<u>4.3^b</u>	4.1 ^b	2.62	.0747

(table continues)

Table 2. (continued)

Factors	Factor <u>M</u>	Age group means			Univariate	
		Teens	Busters	Boomers	<u>F</u>	<u>p</u>
<u>Shopping Orientations</u>						
Price-oriented shopping	3.3	3.3 ^c	<u>3.4^b</u>	3.1 ^{bc}	3.50	.0314
Convenience shopping	3.2	3.2	3.0 ^b	<u>3.4^b</u>	4.85	.0084
Shopping dependent	2.8	2.8 ^{ac}	<u>3.0^{ab}</u>	2.5 ^{bc}	19.05	.0001
Local shopping	2.8	<u>3.1^{ac}</u>	2.6 ^{ab}	2.8 ^{bc}	12.59	.0001
Bra wardrobe-oriented shopping	3.3	<u>3.5^c</u>	3.4 ^b	3.0 ^{bc}	9.21	.0001
Printed information-oriented shopping	2.5	2.5	2.5	2.3	.67	.5107 (N.S.)

Note. A pair of group means with the same superscript indicates a significant difference at the .05 level between the two groups. "(N.S.)" indicates no significant difference among the age groups. Scores ranged from 1 (strongly disagree) to 5 (strongly agree). Low mean values should be interpreted as indicating less of the shopping orientation characteristic while high mean values indicate more of the shopping orientation characteristic. An underlined mean represents the highest score among the age groups.

Table 3.

Chi-square Statistical Analysis for Differences in PatronageBehavior across Three Age Groups

Freq.	% of N	Age group percents			χ^2	p
		Teens	Busters	Boomers		
<u>Mail-order catalogs</u>					2.3	.893
> 6	1.9	3.1	1.6	1.0	(N.S.)	
3-5	1.9	2.1	2.3	1.0		
1-2	21.9	22.9	20.1	23.2		
0	74.3	71.9	76.0	74.8		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		
<u>Intimate-apparel specialty stores</u>					37.8	***
> 6	8.9	15.4	7.0	5.0		
3-5	16.9	18.6	24.0	6.0		
1-2	34.6	40.2	35.7	28.0		
0	39.6	25.8	33.3	61.0		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		
<u>Apparel specialty stores</u>					20.1	.003
> 6	1.5	3.1	0	2.0		
3-5	4.3	5.2	5.5	2.0		
1-2	19.4	30.9	17.2	11.0		
0	74.8	60.8	77.3	85.0		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		

(table continues)

Table 3. (continued)

Freq.	% of <u>N</u>	Age group percents			χ^2	p
		Teens	Busters	Boomers		
<u>Upscale or better department stores</u>					32.2	***
> 6	4.6	8.2	3.9	2.0		
3-5	16.9	25.8	17.1	8.1		
1-2	40.0	44.3	42.6	32.3		
0	38.5	21.7	36.4	57.6		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		
<u>Moderate department stores</u>					5.2	.518
> 6	4.0	1.0	6.2	4.0	(N.S.)	
3-5	18.1	18.6	18.6	17.0		
1-2	37.7	35.0	37.2	41.0		
0	40.2	45.4	38.0	38.0		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		
<u>Discount stores</u>					18.8	.005
> 6	8.0	13.4	6.2	5.0		
3-5	14.7	17.5	20.2	5.0		
1-2	36.5	30.9	33.3	46.0		
0	40.8	38.2	40.3	44.0		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		

Note. $df = 6$. Column "Freq." describes how many times a respondent purchased bras from particular type of stores within the last year. "(N.S.)" indicates no significant difference at the .05 level among the age groups.

*** $p < .001$

Table 4.

Respondents Purchasing Bras from Different Types of Retail Sourceswithin the Last Year

Retail sources	% of <u>N</u>	Age groups		
		% of teens	% of busters	% of boomers
Mail-order catalogs	25.7	28.1	24.0	25.2
Intimate-apparel specialty stores	60.4	74.2	66.7	39.0
Apparel specialty stores	25.2	39.2	22.7	15.0
Upscale or better department stores	61.5	78.3	63.6	42.4
Moderate department stores	59.8	54.6	62.0	62.0
Discount stores	59.2	61.8	59.7	56.0

Table 5.

Chi-square Statistical Analysis for Differences in Perceived
Level of Spiritual and Religious Involvement across Three
Age Groups

	% of <u>N</u>	<u>Age group percents</u>			χ^2	<u>p</u>
		Teens	Busters	Boomers		
<u>Perceived level of spiritual involvement^a</u>					15.8	.003
Low	6.5	8.3	5.4	6.0		
Med.	46.6	56.7	50.4	32.0		
High	46.9	35.0	44.2	62.0		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		
<u>Perceived level of religious involvement^b</u>					13.3	.010
Low	24.8	21.6	27.9	24.0		
Med.	44.8	52.6	48.1	33.0		
High	30.4	25.8	24.0	43.0		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		

Note. ^a Perceived level of spiritual involvement ranged from level 1 to 10. Low represents level 1-3; Med. represents level 4-7; and High represents level 8-10; df = 4.

^b Perceived level of religious involvement ranged from level 1 to 10. Low represents level 1-3; Med. represents level 4-7; High represents level 8-10; df = 4.

Table 6.
Chi-square Statistical Analysis for Differences in Satisfaction with
Five Bra Purchase and Use Issues across Three Age Groups

Satisfaction level	% of N	Age group percents			χ^2	p
		Teens	Busters	Boomers		
<u>Selections</u>					31.1	***
1	7.4	1.0	10.2	10.0		
2	27.9	13.7	32.0	36.0		
3	17.6	27.4	13.3	14.0		
4	41.5	48.4	39.0	38.0		
5	5.6	9.5	5.5	2.0		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		
<u>Colors</u>					12.4	.134
1	2.5	1.1	3.9	2.0	(N.S.)	
2	11.5	6.3	15.6	11.1		
3	12.1	13.7	10.2	13.1		
4	62.7	62.1	59.4	67.7		
5	11.2	16.8	10.9	6.1		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		

(table continues)

Table 6. (continued)

Satisfaction level	% of N	Age group percents			χ^2	p
		Teens	Busters	Boomers		
<u>Comfort</u>					28.1	***
1	2.8	1.1	3.1	4.0		
2	20.8	5.3	25.8	29.3		
3	11.8	16.8	10.1	9.1		
4	56.2	62.1	55.5	51.5		
5	8.4	14.7	5.5	6.1		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		
<u>Styles</u>					31.1	***
1	3.4	0	3.9	6.0		
2	22.6	7.4	28.9	29.0		
3	13.6	17.9	13.3	10.0		
4	53.3	61.0	50.0	50.0		
5	7.1	13.7	3.9	5.0		
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>		

(table continues)

Table 6. (continued)

Satisfaction level	% of <u>N</u>	<u>Age group percents</u>			χ^2	<u>p</u>
		Teens	Busters	Boomers		
<u>Longevity/care</u>					26.3	.001
1	6.8	3.2	12.5	3.0		
2	20.7	13.7	28.9	17.0		
3	15.5	18.9	12.5	16.0		
4	47.7	49.5	39.8	56.0		
5	<u>9.3</u>	<u>14.7</u>	<u>6.3</u>	<u>8.0</u>		
	100%	100%	100%	100%		

Note. df = 8. For each bra purchase and use issue, a satisfaction statement was provided in a positive manner. Responses ranged from 1 (strongly disagree) to 5 (strongly agree). Thus, higher numbers indicate a higher degree of satisfaction while lower numbers represent less satisfaction (greater dissatisfaction). "(N.S.)" indicates no significant difference at the .05 level among groups.

*** p < .001

Table 7.

Profiles of Three Age Groups of Female Bra Consumers

	Age Groups		
	Teens	Busters	Boomers
Benefits sought	Tend to search for bras with fashion look, colors, and panty coordination; desire construction features, comfort, outer appearance, and fit.	Tend to search for bras with fashion look, colors, and panty coordination; desire good support/coverage, construction features, comfort, outer appearance, and fit.	Less likely to focus on fashion and coordination, padding, construction and cup characteristics. Tend to seek for bras with support, comfort, and fit.
Psychographics	Tend to be opinion leaders. Less likely to be conservative and to be satisfied with daily life.	Tend to be satisfied with daily life, to be opinion leaders, and to enjoy being outgoing and social. Likely to be traditional sex-role oriented.	Likely to be conservative. Less likely to enjoy being outgoing and social, to be opinion leaders, and to be traditional sex-role oriented.
Shopping orientations	Enjoy having a bra wardrobe collection. Tend to shop in local stores.	Tend to be price-conscious; favor a bra wardrobe collection; and favor help when buying bras. Less likely to be local bra shoppers.	Tend to be time-conscious shoppers. Less likely to be price-conscious, bra information dependent, and bra wardrobe shoppers.

(table continues)

Table 7. (continued)

	Age Groups		
	Teens	Busters	Boomers
Patronage behavior	Tend to buy bras from intimate-apparel specialty stores, upscale or better department stores.	Not likely to shop for bras from mail-order catalogs and apparel specialty stores.	Tend to shop for bras from moderate department stores or discount stores.
Perceived level of spiritual involvement	Not oriented toward spiritual involvement.	Perceive moderate level of spiritual involvement.	Likely to perceive greater spiritual involvement.
Perceived level of religious involvement	Tend to perceive lower level of religious involvement.	More likely to perceive moderate level of religious involvement.	Tend to perceive high level of religious involvement.
Satisfaction with bra purchase & use issues	Tend to have higher satisfaction levels with bra selection, colors, comfort, styles, and, longevity/care.	Tend to have lower satisfaction levels with selections, longevity/care, and comfort, and be satisfied with colors.	Tend to be dissatisfied with bra selections and comfort, but satisfied with colors and longevity/care.
Overall bra satisfaction level	Likely to be satisfied.	Less likely to be satisfied.	Less likely to be satisfied.

CHAPTER V

SUMMARY AND CONCLUSIONS

Female breast support primarily depends on the skin and Cooper's "ligaments" (Costantakos & Watkins, 1982; Haycock, 1978), which are indeed weak cables that stretch easily and thus permit the breast to sag (Cummins, 1989). With advancing age, most women's breasts become flatter and longer (Haycock, 1978). However, this happens much later in the civilized areas where women wear some breast supporting garments.

According to Haycock (1978), "society has attached to the female breast various sexual connotations [sic] as size and attractiveness" (p. 50). A woman's breasts may be considered attractive because of size, healthy-looking roundness, and firm shape. To increase attractiveness, many women have used bras everyday to avoid sag, to modify the shape of their breasts, or to make breasts appear larger or smaller. Apparently, bras provide various benefits to satisfy current female consumer needs.

The term "bra benefits sought" may be used to refer to any benefits that bra consumers seek. As a woman's breast shape changes through the aging process, a female consumer may use bras for different needs. To earn market share and profits, bra marketers must have an effective method of segmenting consumers by an easily identifiable trait such as age. If age segments of bra consumers have distinct psychographically-oriented traits, marketers can utilize these traits to predict consumer bra preferences, choose target age segments, and satisfy consumer needs.

The overall purpose of the study was to profile female consumers in three different age groups--teens, baby busters, and baby boomers--in terms of bra benefits, psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with five bra purchase and use issues, and overall bra satisfaction level. More specifically, this study attempted to (1) investigate the benefits sought by female bra purchasers; (2) segment the bra market based on age groups: teens (born 1977-1981), baby busters (born 1965-1976), and baby boomers (born 1946-1964); (3) identify psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, and overall bra satisfaction level of each group; and (4) develop a profile of each group in terms of these identified characteristics.

The study involved use of a questionnaire to obtain data. The respondents were asked questions regarding the bra benefits they sought, their shopping orientations, psychographics, patronage behavior, demographics, and satisfaction in relation to five bra purchase and use issues.

The sample included three age groups of females in Oklahoma. Teens (ages 15 to 19) were drawn from a high school in a metropolitan area. Baby busters (ages 20 to 31) were drawn from classes at a large university in a south central state of the U.S. Baby boomers were drawn from civic/community organizations, university staff and faculty members, and a church. In total, 500 questionnaires were distributed. Of those, 326 questionnaires (teens: 97, baby busters: 129, and baby boomers: 100) were usable and included in the data analysis.

Research Questions

The univariate analysis of variance and Least Significant Difference multiple comparison tests were used to determine whether the female age groups differ in terms of bra benefit factors, shopping orientation factors, psychographic factors, and overall satisfaction level index. Factors were identified by principal components factor analysis with varimax rotation. The majority of independent factors (16 of 20) were significantly different ($p \leq .05$) among the three age groups. They included six bra benefit factors, five psychographic factors, and five shopping orientation factors.

Chi-square statistical analysis was applied to examine whether female age groups differed in terms of patronage behavior, perceived level of spiritual and religious involvement, and satisfaction with five bra purchase and use issues. The three age groups were found to differ significantly ($p \leq .05$) in terms of their bra shopping frequency within the last year in intimate-apparel specialty stores, apparel specialty stores, upscale or better department stores, and discount stores. The groups were also significantly different in terms of perceived level of spiritual and religious involvement. Significant differences were identified among age groups for overall bra satisfaction level index and for satisfaction with four of the five bra purchase and use issues.

Discussion

Profiling the Three Age Groups of Female Bra Consumers

The results of this study reveal the age group subsegments of female bra consumers have distinct and different characteristics. The most important bra benefit the

entire sample sought was fit, followed by comfort and outer appearance, support and coverage, construction features, fashion and coordination, bra cup characteristics, padding, and function. This finding indicates that bra intrinsic benefits sought by female consumers are different from those of general garments in which the most frequently examined intrinsic benefit is style, followed by color, design, fabric, and appearance (Eckman et al., 1990). In general, support, comfort, fit, and construction features that a bra provides were very important to all three age groups of female consumers. All groups tended to be satisfied with bra colors they could find in the current market.

Teen group. Teen females tended to favor bras with a fashionable look and colored bras. A bra coordinated with a panty or with the color of outer clothes was also likely to be important to teens. Obviously, they tended to search for bras by appearance and fashion criteria. They were more likely to enjoy having a bra wardrobe collection than other age groups. In addition, though comfort, outer appearance, support, and coverage were important to teens, they appeared to not pay as much attention to such benefits as busters and boomers did when buying bras. Teens preferred to shop for bras from local intimate-apparel specialty stores and upscale or better department stores. This finding supports Shim and Kotsiopulos' findings (1992a, 1993) that highly involved apparel shoppers who place importance on fashion and appearance prefer to shop in specialty stores or department stores. Teens also tended not to be outgoing and social with friends and not to feel as happy and confident in their daily lives as busters. They tended to be philosophically liberal and view themselves as opinion leaders. Teens tended to have

higher satisfaction levels with bra selection, comfort, styles, longevity/care, and overall bra purchase and use experiences than other age groups.

Baby buster group. Buster females tended to pay a similar amount of attention to bra fashionability and bra wardrobe collection as teens did. These findings appeared to support Jenkins and Dickey's findings (1976) that characterized fashion advocates as younger and fashion conscious. The opinion leader tendency of the two younger and more fashion conscious groups also tended to support Shim and Bickle's findings (1994) that symbolic/instrumental users were interested in fashion and were opinion leaders. With a traditional sex-role oriented viewpoint, baby busters tended to depend on another person's (e.g., boyfriend or husband) opinions or preferences when buying bras, enjoy being outgoing and social with friends, and be happy and confident in their daily lives. They were not time-conscious and tended not to be local shoppers when buying bras. This orientation is somewhat similar to that of Lumpkin's (1986) active outshoppers who favor shopping in large cities and have less loyalty toward local retailers. They tended to be price-conscious and favor purchasing bras from all types of retail sources, except mail-order catalogs and apparel specialty stores. In terms of satisfaction levels, they appeared to be less satisfied with bra selections offered in stores, comfort, and styles than teens were; in addition, they were less satisfied with longevity/care (how well bras last through many washings) than both teen and boomer groups.

Baby boomer group. Boomers were less interested in bra padding, bra cup characteristics, bra fashionability/appearance, and bra wardrobe collecting. Even though boomers tended to view bra construction features as important, they appeared to pay less

attention to such benefits, compared to other groups. Not favoring to shop for bras in local stores as much as teens, boomers tended to purchase bras from moderate department stores or discount stores. The characteristics of this group were somewhat similar to Shim and Bickle's (1994) practical/conservative users of clothing, where females were more practicality-, comfort-, and function-oriented than they were fashion-oriented. These practical/conservative clothing users were also independent, but not socially-oriented and did not enjoy shopping. In addition, the consumers in this same group (Shim & Bickle, 1994) were moderate department store shoppers and were older, compared to another group (symbolic/instrumental users of clothing) in the same study.

Being highly religious and spiritual, boomer females were more likely to be conservative, convenience-conscious, and happy and confident with life, not to be traditional sex-role oriented, not to view themselves as opinion leaders, not to engage in being outgoing or participating in social activities such as entertaining friends, not to be dependent on their significant others' help or preferences, and not to search for coverage or padding for modesty when buying bras. Certain findings of this study support previous studies that people with a high degree of religious commitment tend to be older (Wilkes et al., 1986), be more conservative (Barton & Vaughan 1976), satisfied with their lives (Wilkes et al., 1986), and be convenience shoppers (McDaniel & Burnett, 1990). However, other findings of this study conflict with previous research indicating that highly religious people tend to be opinion leaders (Wilkes et al., 1986), be more traditional oriented (Barton & Vaughan, 1976; Wilkes et al., 1986), and be more modesty oriented in dress (Creekmore, 1963) than less religious persons.

Regarding bra satisfaction levels, the boomer group tended to have the lowest satisfaction level with bra selections and comfort of all three groups, and were less satisfied with bra styles, longevity/care and overall bra purchase and use experiences than teens.

Theoretical Perspective

The results of this study imply that bra benefits consumers seek, psychographics, shopping orientations, patronage behavior, perceived level of spiritual and religious involvement, satisfaction with bra purchase and use issues, and overall bra satisfaction level are influenced by the consumer's age. This finding supported the conceptual framework of the study, which proposed age as an influence on psychographically-oriented consumer characteristics (i.e., religious and spiritual involvement and psychographics) and consumer attributes (shopping orientations, bra benefits sought, patronage behavior, and satisfaction levels of consumers). However, the relationships between psychographically-oriented characteristics and the other consumer attributes were not tested. Hence, investigations for the correlations among the components in the conceptual model proposed in this study are recommended for future research.

Implications and Conclusions

The study indicated the bra market can be segmented by age groups which have distinct characteristics. Findings provide bra marketers with information concerning different consumer preferences of each age segment. Based on these findings, marketers

can implement successful strategies to reach targeted age groups. Bra designers can design and manufacturers can produce bras with specific characteristics to appeal to their target age groups based on bra benefits sought. Intimate apparel retailers can choose their target bra purchasers according to patronage behavior tendencies and shopping orientation information.

Teen Group

It is important to note that teens were bra wardrobe-oriented shoppers. Being philosophically liberal, teen females were also more fashion-oriented. This orientation may reflect youth and the desire to have fun, and enjoy being attractive. The orientation may also reflect teens' exploratory values and a tendency to experiment with fashion appearance (Creekmore, 1963). Thus, the orientation toward creating a fashionable bra wardrobe is a natural result. If marketers take action to capture and enhance this interest in teens, a continuation of this shopping orientation may occur as teens age. For example, advertising and labeling that emphasizes the "bra wardrobing" concept could reinforce this shopping orientation. In addition, in-store strategies to educate consumers regarding bras available to serve various needs may be effective. Strategies might include educating sales personnel to help direct consumers' choices and providing interactive programs on the sales floor which consumers could use to learn about various bras available for different needs. Such interactive programs could also be valuable in collecting consumer data for use in addressing shoppers' preferences and needs.

Furthermore, financially supported by parents, teen females favored purchasing bras from intimate-apparel specialty stores and upscale or better department stores. Thus,

in targeting teen females, these types of stores should offer more fashion-oriented bras, various colored bras, and bra/panty sets in order to appeal to and retain customers of this age subsegment. Other types of retail outlets wishing to appeal to teens should adjust their merchandise mix in order to address identified teen preferences.

Baby Buster Group

Baby busters were similar to teens in terms of bra benefits sought and bra wardrobe-oriented shopping and were similar to boomers in terms of satisfaction with some bra purchase and use issues (selection and comfort) and overall satisfaction level. It appears that baby busters may retain some of the orientations of the teen shoppers while beginning to adopt some preferences of older shoppers. In addition, busters were price-conscious and less satisfied with longevity/care that their bras provide. Not surprisingly, this finding regarding price-consciousness may be attributed to the fact that university students usually have economic pressures. In addition, buying low-priced bras may be linked with lower quality products having shorter longevity. To capture buster consumers, retailers should focus on low-price-high-quality (comfort and long durability) and offering a large selection of fashionable bras.

Another special characteristics of busters are that they appeared to be traditional sex-role oriented and depend on a special person's (e.g., boyfriend or husband's) opinions or preferences when shopping for bras. Thus, the preferences of these men influence buster females' bra shopping. Bra designers, manufactures, and retailers may wish to investigate men's preferences regarding specific bra design features.

With mobility, busters tended to favor shopping for bras in other cities. This may be influenced by three factors. First, they enjoy being outgoing. Second, they feel they have more time to enjoy shopping for bras (due to not being time-conscious). Third, this group of the sample was drawn from a location with limited stores carrying bras. Therefore, retailers located in rural areas and smaller towns may wish to offer more selections, styles, and colored bras at reasonable prices to appeal to these consumers.

Baby Boomer Group

With higher perceived levels of spiritual and religious involvement, boomers tended to be more conservative than other age groups. Their conservative viewpoints may be linked with their bra benefits sought which seemed to focus on basic functions. Thus, advertising which targets boomers should highlight basic needs such as comfort, fit, and support. Moreover, boomers were less satisfied with bra selections, comfort, and styles available in the current market, and overall bra satisfaction level, compared to teens. These issues should be the focus of bra designers and manufacturers targeting boomers. Therefore, bra designers and manufacturers should design or produce more styles with strong basic functions for boomers. Retailers should offer more variety in bra selection and styles in stores to appeal to boomer consumers.

Furthermore, boomers appeared to be time-conscious. This characteristics might have influenced boomers to shop for bras through one-stop shopping when acquiring other products. Factors that may have influenced boomer females of the sample to favor shopping for bras in larger stores such as moderate department stores and discount stores include the fact that a moderate department store and a discount store are the primary

local store choices in the town from which the boomer group was drawn. In addition, since 59% of boomers had family incomes of more than \$25,000 and 41% of them had family incomes of less than \$25,000, preferences for department stores and discount stores are logical. Boomers are time-conscious which may be due to children and/or jobs. Therefore, creating a convenient and ease-of-procurement bra shopping environment would be valuable strategies when targeting boomers.

Overall, many females tend to find a bra that meets certain "benefits criteria" and then buy only that style and type of bra to wear with all outerwear. Shifting the consumer paradigms from the "one bra for all occasions" to the "variety of bras to complement different outerwear choices and activities" is an opportunity for marketers to help consumers change the way they shop for bras. It also provides a chance for bra manufacturers and retailers to sell more bras through satisfying diverse consumer needs for intimate apparel that is used for various activities, occasions, and life-styles. The opportunity to measure the bra wardrobe-oriented shopping orientation will provide assistance to the intimate apparel industry.

Limitations and Recommendations

Although the respondents of the study represented relatively diverse groups, the study had bias. The reasons were as follows:

1. The study involved use of a convenience sample.
2. The sample was drawn from one geographic area and did not represent the entire U.S. population.

3. The teen group was drawn from a metropolitan area, whereas the bustle and the boomer groups were drawn from a smaller town where limited retail choices were available. This difference may cause a major influence on patronage behavior findings.

4. The study may include an unbalanced sample, because the respondents' characteristics of the study were not compared to the averages for the U.S. female population.

5. No analysis was conducted on the influences of respondents' characteristics on psychographically-oriented variables. For instance, family size (which was not examined in the study) may impact respondents' disposable income for bra purchase.

The findings are not generalizable to all females of the specified age groups. It is hoped that future research will be conducted using a random sample to help designers, manufacturers, and retailers understand the bra benefits sought which are generalizable to all females of specified groups. The following are the recommendations for further research.

1. More comprehensive "benefits desired" statements should be included in future studies, particularly bra benefits sought by different bra cup size groups.

2. An in-depth study on what influences bra comfort should be conducted in order to aid in improving design features.

3. In-depth studies on the correlations between bra benefits sought, and psychographics, shopping orientations, or satisfaction with various bra purchase and use issues should be initiated.

4. More intensive research on different bra benefits sought in terms of life-styles should be considered.
5. More intensive research on different bra benefits sought in terms of perceived levels of spiritual and religious involvement may be useful.
6. An in-depth study on different bra benefits sought in terms of cultural differences would assist in targeting different ethnic groups and in marketing bras internationally.
7. Investigations regarding why teens, busters, and boomers favor certain types of retail sources for bras would be useful to retailers in determining what may be done to attract specific age groups.
8. Studies on men's preferences for females' bras would be enlightening, especially to marketers targeting the female who is particularly influenced by a significant person's bra preferences.
9. Examination of the role of the fit model and/or consumer test groups in the bra product design and development process would assist manufacturers to link design with "real-world" consumer preferences.

This is the first study to identify certain benefits sought, shopping orientations, and psychographics that are specifically oriented toward the bra, an intensively used and very specialized apparel product. Results show the bra benefit, psychographic, and shopping orientation sections of the questionnaire hold promise for use in future studies involving segmentation of females for investigation of issues related to bra purchase and use.

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APPENDIXES

PERMISSION TO REPRODUCE THIS

APPENDIX A

SOLICITATION LETTERS,
PERMISSION FORM,
SCRIPT, &
QUESTIONNAIRE

SOLICITATION LETTER FOR HIGH SCHOOL PRINCIPAL

Principal's Name
Title
High School Name
City, State Zip

March 19, 1996

Dear Name:

Would you consider offering the opportunity for female students in your school to **voluntarily** participate in a research survey? The project is being conducted by the Department of Design, Housing & Merchandising at Oklahoma State University. The research is related to an unusual topic, female consumers' preferences and needs when buying bras. Although this may sound unusual, the data collected will be quite useful to designers and manufacturers of these apparel products and will finally benefit bra consumers. If you agree to assist us, we assure you that we will make the process as convenient as possible for you. We hope to obtain responses from high school female students who are ages 15-19. Attached to this letter is a permission form which may be used by students younger than 18 years old in obtaining permission from a parent to participate in this survey. If your students participate in the survey, we will provide multiple copies of this permission form for your use.

A questionnaire will be used for the survey. A copy is enclosed for your review. It includes items related to product preferences and benefits, psychographics, shopping orientations, patronage behavior, demographics, and overall satisfaction with bra purchases. The questionnaire has been approved by the Institutional Review Board at OSU. To assure complete confidentiality, students **WILL NOT** be asked to provide their names to the researchers. It takes about 10-15 minutes to complete the questionnaire. Most female students will prefer completing it near the end of a class session after male students have left, so if teachers can spare 10-15 minutes at the end of one class, this would be a perfect opportunity to distribute our survey. **We need responses from at least 100 students.**

We will contact you by telephone within the next week to discuss this survey with you. We are also willing to come to classes at the convenience of your teachers to distribute the questionnaires and collect them. If you have questions or concerns, please contact us by mail or by phone. Your assistance would be greatly appreciated.

Sincerely,

Shiretta Ownbey, Ph.D.
Assistant Professor
Department of Design, Housing
& Merchandising
(405) 744-5035

Woan-Yi Lin
Graduate Student
Department of Design, Housing
& Merchandising
(405) 744-5035

**PERMISSION FORM MAILED WITH FACTORS
HIGH SCHOOL SOLICITATION LETTER**

Permission Form

An educational survey is being conducted by the Department of Design, Housing and Merchandising at Oklahoma State University. The survey involves completion of a questionnaire related to female consumers' purchase and use of bras, a unique apparel product. Results of the survey will be shared with designers and manufacturers of bras in order to improve these products for consumers. Participation in the survey is voluntary and requires 10-15 minutes.

I give my permission for my daughter, _____, to voluntarily participate in a survey being conducted by the Department of Design, Housing and Merchandising at Oklahoma State University. I understand that the survey is confidential and that my daughter will NOT be required to provide her name to the researchers.

Date _____

Signature of Parent _____

NOTICE: A signed permission form is required from all students who are younger than 18 years old.

SOLICITATION LETTER FOR OSU INSTRUCTORS

February 20, 1996

«Title» «FirstName» «LastName»
 «JobTitle»
 «Address1»
 «Address2»
 «City», «State» «PostalCode»

Dear «Title» «LastName»:

Would you consider offering the opportunity for female students in your «Class» class to **voluntarily** participate in a research survey? The research is related to an unusual topic, female consumers' preferences and needs when buying bras. Although this may sound unusual, the data collected will be quite useful to designers and manufacturers of these apparel products, and will ultimately benefit consumers. If you agree to participate, we assure you that we will make the process as convenient as possible for you.

A questionnaire will be used for the survey. A copy is enclosed for your review. It includes items related to product preferences and benefits, psychographics, shopping orientations, patronage behavior, demographics, and overall satisfaction with bra purchases. The questionnaire has been approved by the Institutional Review Board at OSU. To ensure complete confidentiality, students **WILL NOT** be asked to provide their names to the researchers. It takes about 10-15 minutes to complete the questionnaire. Most female students will prefer completing it near the end of a class session after male students have left, so if you have a day when you can spare 10-15 minutes at the end of one class, this would be a perfect opportunity to distribute our survey.

Please return the enclosed card to us through campus mail to indicate your willingness to assist us and to verify the time and days of your class meetings. We will come to your class at your convenience to distribute the questionnaires and collect them. When we receive your positive response, we will call or e:mail you to verify plans.

If you have questions or concerns, please contact us by mail or by phone. Your assistance with this project would be greatly appreciated.

Sincerely,

Woan-Yi Lin
 Graduate Student
 Department of Design, Housing
 & Merchandising
 (405) 744-5035

Shiretta Ownbey, Ph.D.
 Assistant Professor
 Department of Design, Housing
 & Merchandising
 (405) 744-5035

SOLICITATION LETTER FOR DISTRIBUTION CIVIC ORGANIZATION PRESIDENT

February 20, 1996

«Title»«FirstName» «LastName»
«JobTitle»
«Organization»
«Address1»
«City», «State» «PostalCode»

Dear «Title» «LastName»:

Would you consider offering the opportunity for female members of your organization to **voluntarily** participate in a research survey? The project is being conducted by the Department of Design, Housing & Merchandising at Oklahoma State University. The research is related to an unusual topic, female consumers' preferences and needs when buying bras. Although this may sound unusual, the data collected will be quite useful to designers and manufacturers of these apparel products and will finally benefit bra consumers. If you agree to assist us, we assure you that we will make the process as convenient as possible for you.

A questionnaire will be used for the survey. A copy is enclosed for your review. It includes items related to product preferences and benefits, psychographics, shopping orientations, patronage behavior, demographics, and overall satisfaction with bra purchases. The questionnaire has been approved by the Institutional Review Board at OSU. To assure complete confidentiality, participants **WILL NOT** be asked to provide their names to the researchers. It takes about 10-15 minutes to complete the questionnaire. Many female participants will prefer completing it when there are no males present.

Please return the enclosed card to us by mail to indicate your willingness to assist us. We will come to your meeting at your convenience to distribute the questionnaires and collect them. When we receive your positive response, we will contact you to verify plans.

If you have questions or concerns, please contact us by mail or by phone. Your assistance would be greatly appreciated.

Sincerely,

Woan-Yi Lin
Graduate Student
Department of Design, Housing
& Merchandising
(405) 744-5035

Shiretta Ownbey, Ph.D.
Assistant Professor
Department of Design, Housing
& Merchandising
(405) 744-5035

SCRIPT READ BEFORE QUESTIONNAIRE DISTRIBUTION

My name is Woan-Yi Lin. I am a graduate student from the Department of Design, Housing and Merchandising at Oklahoma State University. I am working with Dr. Shiretta Ownbey, a professor at OSU.

We are grateful for the opportunity to distribute our survey to your group members/class today.

Your participation in this survey is voluntary. We will not ask for your name. It is completely confidential. No one can link your answers with your name.

The research is related to an unusual topic, female consumers' preferences and needs when buying bras. Although this may sound unusual, the data collected will be quite useful to designers and manufacturers of these apparel products, and will ultimately benefit consumers.

A questionnaire is being used for this survey.

It takes about 10-15 minutes to complete the questionnaire.

If you participate, it is important that you answer all the items on the questionnaire so the results will be meaningful when we analyze them.

We would be happy to share the results of our study with your group when it is completed.

APR 2004

Consumer Survey on Bra Purchase and Use

**Your name is NOT required
This is a CONFIDENTIAL survey**

Please complete all items on the survey and return
it to the researcher today.
Thank you for your participation!

Dr. Shiretta Ownbey, Assistant Professor
Woan-Yi Lin, graduate student
Department of Design, Housing & Merchandising
Oklahoma State University

Section I. Consumers receive different benefits from different products. This questionnaire is being completed by females ages 15 and older. For each statement related to bras, circle one response to indicate how much you agree or disagree.

		Degree of Agreement				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I search for bras with straps that stay on my shoulders.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2.	It is very important to me that bra cups stay positioned correctly.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.	I buy bras in various colors.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4.	I prefer bras that maintain their original shape and firmness when laundered.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.	I like to wear a bra coordinated with a panty.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6.	I prefer bras that cover my entire breasts for modesty.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7.	I like built-up (wider) straps on my bras.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8.	I like bras which allow cleavage to be visible.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9.	A bra made of lace tends to scratch my skin.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10.	I like to wear bras which minimize my bustline.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11.	I prefer to wear sports bras most of the time.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12.	I like bras with cups that are lace or partially lace.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

	Degree of Agreement				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13. I prefer bras with some padding to allow for modesty and prevent embarrassment.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
14. I like to wear soft-cup bras.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15. I prefer to buy bras with a T-back.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16. It is important that plastic or metal materials on bras (e.g., hooks, strap adjusters) do not irritate my skin...	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17. I pay attention to bra cups that pucker because it makes my outerwear look puckered.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
18. A bra providing a healthy-looking roundness is important to me.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19. I look for bras that don't dig into my breastbone, side, or shoulders, with a back that does not ride up..	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20. I prefer bras with demi-cups (provide partial coverage).....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21. I like to wear push-up padded bras to make my bust appear larger.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22. I carefully coordinate the color of my bras with my clothes.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
23. I like to wear a bra that makes my body look beautiful, sexy, and attractive.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
24. I like a bra that gets softer when it is washed.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
25. I prefer to wear seamless bras.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

	Degree of Agreement				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
26. A bra that restricts breast movement up and down during walking and running is important to me.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
27. I prefer to buy bras that can be machine-washed.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
28. I prefer bras that close in front.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
29. I usually buy neutral-colored bras (e.g., beige, white).....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
30. I prefer bras made of certain fabrics/materials for modesty and to prevent embarrassment.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
31. The comfort of a bra is very important to me.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
32. I usually buy underwire bras.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
33. I like to wear underwire bras.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
34. I like strapless bras so no bra straps show.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
35. A bra that provides strong support to my bustline is very important to me.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Section II. The following items refer to your activities, interests, and opinions. For each statement, circle one response to indicate how much you agree or disagree.

	Degree of Agreement				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. No matter how fast my income goes up, I never seem to get ahead.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

	Degree of Agreement				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2. When men are around, I feel uncomfortable discussing bra purchases.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3. I exercise on a regular basis.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4. I have a pleasant and enjoyable life.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5. My friends or family often come to me for product or brand advice.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6. I feel confident in my daily life.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. Women have as many rights as men.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8. Participating in an active sport makes me feel energetic.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9. I consistently make an effort to be attractive.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10. I spend a lot of time with my friends.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11. I prefer staying home during weekends.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12. I feel embarrassed watching sexual activities on movies or TV when I am with male friends.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13. Taking care of children and housekeeping are women's jobs, not men's.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

	Degree of Agreement				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
14. I like it when men think I am attractive.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15. Entertaining friends is an enjoyable activity.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16. I have a lot of confidence in my ability to succeed..	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17. My income is high enough to satisfy nearly all my important desires.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
18. I usually feel happy in my daily life.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19. I find parties or bars exciting.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20. I often spend my leisure time on movies, swimming, or bowling.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21. I like to advise my friends and family about new fashion trends.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Section III. The following items refer to your opinions related to shopping for bras. For each item, circle one response to indicate how much you agree or disagree.

	Degree of Agreement				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The willingness, friendliness, and politeness of the sales associate is important to me when buying bras.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2. When I shop, I tend to finish as fast as possible.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3. I prefer that a special person (e.g., mother, husband, boyfriend, other) actually helps me select a bra.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

	Degree of Agreement				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4. Shopping for bras is an enjoyable activity.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5. The major criteria I use when purchasing a bra is the price.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6. I feel better if the sales associate helps me in the dressing room when I try on bras.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. Expensive bras are not worth the money because the delicate fabrics don't stand up to wear and washing.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8. I do not like to spend much time shopping for bras.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9. I feel obligated to purchase bras from local stores because I want to support the community.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10. I find myself checking prices on bras when I shop..	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11. Local stores meet my bra shopping needs.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12. I prefer to shop for bras in local stores due to friendly customer-personnel relationships.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13. I usually only buy bras I consider to be good values for their prices.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
14. I learn bra information primarily from mail-order catalogs.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15. I like to try different kinds and styles of bras.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

	Degree of Agreement				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16. If I find a bra that I like is on sale, I often buy several of them at once.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17. If a bra is priced too high, I don't even consider buying it.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
18. I like to have an extensive bra wardrobe collection..	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19. I learn bra information primarily from newspaper and magazine ads.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20. I enjoy exchanging bra information with my friends or family members.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21. Before I buy bras, I think about another person's (e.g., husband, boyfriend, other) preferences.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22. When I shop, finding and buying a bra quickly is important.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
23. I learn bra information primarily from my friends or family members.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
24. I have trouble finding exactly what bras I want in local stores.....	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Section IV. The following items refer to your ideal bra stores. For each item, circle one answer to indicate the frequency that you have bought bras from each different type of store.

1. Within the last year, about how many times have you ordered bras from mail-order catalogs? (Circle one number)

1. 6 OR MORE TIMES
2. 3 - 5 TIMES
3. 1 - 2 TIMES
4. NEVER

2. Within the last year, about how many times have you purchased bras from intimate-apparel specialty stores (e.g., Victoria's Secret)? (Circle one number)
1. 6 OR MORE TIMES
 2. 3 - 5 TIMES
 3. 1 - 2 TIMES
 4. NEVER
3. Within the last year, about how many times have you purchased bras from specialty stores that sell other apparel also (e.g., Banana Republic, Eddie Bauer, Talbots)? (Circle one number)
1. 6 OR MORE TIMES
 2. 3 - 5 TIMES
 3. 1 - 2 TIMES
 4. NEVER
4. Within the last year, about how many times have you purchased bras from upscale or better department stores (e.g., Neiman Marcus, Saks, Macy's, Dillard's)? (Circle one number)
1. 6 OR MORE TIMES
 2. 3 - 5 TIMES
 3. 1 - 2 TIMES
 4. NEVER
5. Within the last year, about how many times have you purchased bras from moderate department stores (e.g., JCPenney, Sears)? (Circle one number)
1. 6 OR MORE TIMES
 2. 3 - 5 TIMES
 3. 1 - 2 TIMES
 4. NEVER
6. Within the last year, about how many times have you purchased bras from discount stores (e.g., Wal-Mart, Target, K-Mart)? (Circle one number)
1. 6 OR MORE TIMES
 2. 3 - 5 TIMES
 3. 1 - 2 TIMES
 4. NEVER

Section V. The following items refer to personal information about you. Please answer these questions about yourself to help us interpret the survey results.

1. In what year were you born? _____
2. What is your bra size? (Give number and cup size -- e.g., 36B) _____

3. What is your weight? _____ lbs What is your height? _____ feet _____ inches

4 To which ethnic group do you belong? (Circle one number)

1. WHITE AMERICAN
2. AFRICAN AMERICAN
3. HISPANIC AMERICAN
4. NATIVE AMERICAN
5. ASIAN AMERICAN
6. OTHER (Specify) _____

5. What is your present marital status? (Circle one number)

1. SINGLE
2. MARRIED
3. DIVORCED
4. SEPARATED
5. WIDOWED

6. What is the highest level of education you have completed? (Circle one number)

1. CURRENT HIGH SCHOOL STUDENT
2. HIGH SCHOOL DIPLOMA
3. SOME COLLEGE
4. BACHELOR'S DEGREE
5. MASTER'S DEGREE
6. DOCTOR'S DEGREE
7. OTHER (Specify) _____

7. What is your religious preference? (Circle one number)

1. CATHOLIC
2. PROTESTANT
3. JEWISH
4. OTHER (Specify) _____
5. NONE

8. On a scale of 1 to 10, how would you describe yourself in relation to how spiritual you are? (Circle one number)

Not Spiritual at All										Very Spiritual
1	2	3	4	5	6	7	8	9	10	

9. On a scale of 1 to 10, how would you describe yourself in relation to how involved you are in religious activities? (Circle one number)

Not Religious at All										Very Religious
1	2	3	4	5	6	7	8	9	10	

10. If you are currently enrolled in a university, in which college is your major? (Circle one number and specify major. If you are not currently enrolled in a university, please go to question 11.)

1. AGRICULTURE/NATURAL SCIENCES (Specify major) _____
2. ARTS AND SCIENCES (Specify major) _____
3. BUSINESS (Specify major) _____
4. EDUCATION (Specify major) _____
5. HUMAN ENVIRONMENTAL SCIENCE (Specify major) _____
6. ENGINEERING (Specify major) _____
7. OTHER (Specify college and major) _____

11. Which of following categories best describes your primary profession? (Circle one number)

1. STUDENT
2. SKILLED CRAFTSMAN
3. TECHNICIAN, SALESPERSON, OFFICE WORKER, etc.
4. MIDDLE MANAGEMENT
5. LESSER CORPORATE OFFICIAL, ENGINEER, etc.
6. DOCTOR, LAWYER, TOP CORPORATE EXECUTIVE, etc.
7. HOMEMAKER
8. OTHER (Specify) _____

12. What is your current personal income annually (including parent's support, personal allowance, student loans, scholarships, salary earnings, pension, government support, and other)? (Circle one number)

1. LESS THAN \$2,000
2. \$2,001 - \$5,000
3. \$5,001 - \$15,000
4. \$15,001 - \$25,000
5. \$25,001 - \$35,000
6. \$35,001 - \$55,000
7. \$55,001 - \$75,000
8. MORE THAN \$75,001

13. What is your current annual household income (including total of all household members' incomes)? (Circle one number)

1. LESS THAN \$5,000
2. \$5,001 - \$15,000
3. \$15,001 - \$25,000
4. \$25,001 - \$35,000
5. \$35,001 - \$55,000
6. \$55,001 - \$75,000
7. MORE THAN \$75,001

APPENDIX B

TABLE

Table 8

Statistical Analysis Procedures Linked with Questionnaire Items

Statistical analysis steps	Questionnaire items
1. Cronbach's alpha coefficients and factor analysis on:	
• bra benefits sought	Section I, items 1-31
• psychographics	Section II, items 1-21
• shopping orientations	Section III, items 1-24
2. Develop overall bra satisfaction level (BSL) index	Section VI, items 1-5
3. Differentiate age groups	Section V, item 1
4. Differences in factors among three age groups	
by ANOVA and LSD tests on:	
• bra benefits sought	Section I, items 1-31
• psychographics	Section II, items 1-21
• shopping orientations	Section III, items 1-24
5. Differences among three age groups by Chi-square tests on:	
• patronage behavior	Section IV, items 1-6
• perceived level of spiritual and religious involvement	Section V, items 2,4,8,9
• satisfaction with five bra purchase and use issues	Section VI, items 1-5
6. Differences among three age groups by ANOVA and LSD tests on:	
• overall bra satisfaction level index	Section VI, items 1-5

2
VITA

Woan-Yi Lin

Candidate for the Degree of
Master of Science

Thesis: PROFILES OF THREE FEMALE AGE GROUP SEGMENTS IN RELATION
TO BRA PURCHASE

Major Field: Design, Housing, & Merchandising

Biographical:

Education: Graduated from Oklahoma State University, Stillwater, Oklahoma, with Bachelor of Science degree in Finance in December 1993. Completed the requirements for the Master of Science degree with a major in Apparel Merchandising at Oklahoma State University in July 1996.

Employment: Worked as Merchandise Assistant for the Apparel Division of Yaohand Department Store, Taoyuan, Taiwan during internship in Summer 1994. Worked as Export Assistant for the Department of Cosmetics Bags of Upper Level Ltd. Co., Taipei, Taiwan from 1988 to 1989. Worked as Import/Export Assistant for Tai Nan Ltd. Co., Taipei, Taiwan from 1987 to 1988.

Extra Curricular Activities: Participated in New York Field Study Tour, 1995 and Career Day at Dallas Apparel Mart, 1995. Participated in the Far East Apparel Exhibition, 1995 and modeled in the Fashion Show of Fashion Design Express sponsored by the Department of Design, Housing & Merchandising, Oklahoma State University, 1994.

Membership: Apparel Merchandising & Design Association, 1994-present.

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 02-22-96

IRB#: HE-96-040

Proposal Title: PROFILES OF THREE FEMALE AGE GROUP SEGMENTS IN
RELATION TO BRA PURCHASE

Principal Investigator(s): Woan-Yi Lin, Shiretta Ownbey

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD
AT NEXT MEETING.

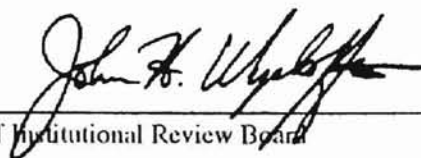
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A
CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD
APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR
APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval
are as follows:

Provisions received and approved.

Signature:



Chair of Institutional Review Board

Date: March 8, 1996